

Lean Enterprise Division

August 2008 Highlights

- 2 A Smarter Way to Sit
- 3 Lean in Life (LiL)
- 5 Face of Lean Profile
- 6 Note From the Editor

Chair's Message

Dear Lean Enterprise Division members,

It is hard to believe, but after serving as program chair and chair-elect, I am writing my first message as chair. I have been in volunteer positions within ASQ for 10 years, but chair of the LED has to rate at the top. I am privileged and honored to be in this position and quite fortunate to have the people we do on our leadership team. It is a great group of dedicated people. We have a lot going on within the division—here are some samples of what is to come.



First, the leadership team met in Milwaukee in early April for a weekend strategic planning session. The session concluded Sunday afternoon with a great amount accomplished. We decided to focus heavily on networking, education and training, improved communications, and continuing with our voice of the customer and body of knowledge teams. The pursuit of a lean certification is still in full swing as well. We also decided to include some new topics in the newsletter. We will debut the “Lean in Life” articles this issue. The results of the session were presented at our annual business meeting during the World Conference on Quality and Improvement in Houston, TX, in May.

We also defined what the Lean Enterprise Division is and who makes it up. Here is the result:

“The Lean Enterprise Division is a global network of professionals helping individuals and organizations apply proven and leading-edge lean principles and practices to achieve dramatic results for your personal and organizational success.”

Speaking of the conference, I would like to thank everyone who visited our booth, took the time to talk with us, and supported our sessions. I especially want to thank all of the great speakers who helped make this conference another success. We plan to be very active at the World Conference in Minneapolis, MN, in 2009, and we will be teaming up again with the Six Sigma Forum for the Lean Six Sigma Conference March 2-3, 2009, in Phoenix, AZ. Please make plans to join us.

I wish you all a very safe, lean summer. “Come lean with us.”

Wayne Paupst

Chair, Lean Enterprise Division
waynepaupst@gmail.com



Lean Enterprise
Division

Lean Enterprise Division Contacts

Wayne J. Paupst, chair
TQS Systems
waynepaupst@gmail.com

Kiami Rogers, chair-elect
Texas Instruments
krogers_asq@verizon.net

Frank K. Murdock, VoC & membership
Kobalt Partners LLC
fkmurdock.kobalt@gmail.com

Robert M. Johnson, past chair
Tyco Fire Suppression & Bldg. Prod.
jobbymjohnson@yahoo.com

Robert W. Damelio, BoK & education
The Bottom Line Group
rwdamelio@gmail.com

David Behling, programs
Velvac, Inc.
dbehling@velvac.com

Tammy Lynn Miller, secretary
Oshkosh Truck Corporation
tammymiller@oshtruck.com

Chad E. Vincent, treasure
Baxter Healthcare
chad_vincent@baxter.com

Wendy Gomez, newsletter editor
Danmer, Inc.
wendy.gomez@danmer.com

Alan Mendleson, discussion board
Resources Global Professionals
asmquality@aol.com

Linda Milanowski, staff liaison
American Society for Quality
lmilanowski@asq.org

A Smarter Way to Sit

Drew Bossen, PT, MBA, Atlas Ergonomics, LLC

Sitting. It sounds simple enough. Yet, despite years of training, training, and more training, the saga goes on. The saga “stars” the seated worker; be it a call center or a manufacturer performing bench-work, we continue to observe workers seated in semi-flexed, rounded postures. As physical therapists we know all too well how these faulty postures take their toll over time. So what is the solution?

Consider the following: In January of 1976, Herman Miller Inc. introduced the first fully-integrated ergonomic chair, the Ergon Chair. Its initial deployment took place across the corporate offices of Texas Instruments in Dallas, TX. Three months into the project, Herman Miller’s development team visited the Dallas facility to assess the outcome of their deployment. To the dismay of the development team, countless employees continued to sit in semi-flexed, rounded postures. The chair had not changed the behavior of the worker. Interviews of users demonstrated a clear disconnect between this highly adjustable chair and the ability to use it.¹

In response to these findings, the development team created what some consider to be the first office ergonomic training program known to corporate America.

Now fast-forward 30 years to today . . . what has changed? The same issues remain within office and manufacturing facilities across the country. The format of our solution has changed somewhat with the advent of technology. We may use the Web or a computer-based training format, but the solution remains one-dimensional: training, training, and more training. In the final analysis we have yet to solve the equation for the end-user.

As the physicist Albert Einstein noted, “The definition of insanity is doing the same thing over and over, expecting a different result.” Hence, the disconnect experienced at Texas Instruments in 1976 continues today.

It is time to consider an alternative approach

I think it is safe to say that training as we traditionally packaged it is not the answer. Regardless of the user group—engineers, Ph.D.s, or entry-level call center trainees—the issues are the same. We need to quit blaming the individual workers for the failure to sit in an upright neutral posture and consider an alternative solution.

Perhaps we could learn from exploring the successes of other professions. Perhaps if we viewed this problem from an engineering or a lean manufacturing perspective, an alternative solution would come forth. For at its essence, lean manufacturing is an improvement method that uses data to identify and eliminate process problems.

Dr. W. Edwards Deming, an American statistician who led the quality movement in Japan (and later in America), spent much of his time trying to convince people that most quality problems are “in the process, not in the person.” For most of his more than 60-year career, he promoted the 85/15 rule, based on his experience that 85 percent of problems were built into the way work was done (and hence under the control of management). He said only 15 percent of the problems were really the fault of individual employees.²



2004: Pictured is a Midwest call center of a major gas and electric utility company. Each office has been equipped with a fully-adjustable Herman Miller Aeron Chair and an electric Steelcase sit/stand workstation.

cont. on p. 3

A Smarter Way to Sit cont. from p. 2

In Deming’s view of the world, the failure of the individual to maintain an upright neutral posture would be considered a quality issue. As with any manufacturing process, the goal is to have the highest level of quality. Or, said in another way, the elimination of defects is the goal.

Consider a change in your perspective. Consider how you might respond differently if upon entering a large call center you observed 60 percent of the population seated in faulty sitting postures. If in that consideration you viewed these faulty sitting postures and their sequela as the ultimate “defect” of the “process of sitting,” perhaps then we could begin to build a viable model to solve for the ongoing disconnect between highly-adjustable ergonomic chairs and the ability to maintain an upright neutral seated posture.

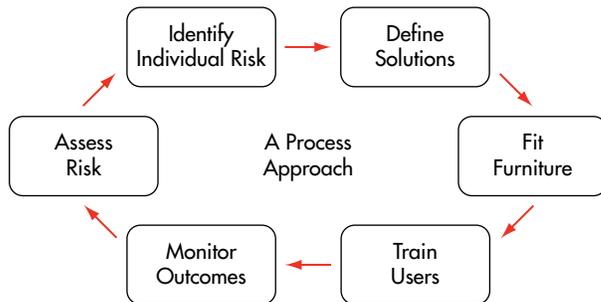
Making improvements that last

When implemented, lean manufacturing techniques can be powerful. One such technique is a problem-solving method known as DMAIC. DMAIC stands for define, measure, analyze, improve, and control. DMAIC is described as a structured, data-based problem-solving process. That means:

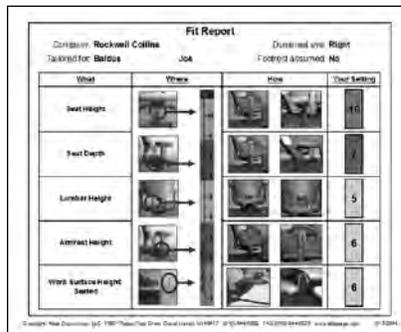
- Doing specific activities in a specific sequence (that’s the “structured” and “process” parts)
- Gathering data in nearly every phase to help you make decisions (the “data-based” part)
- Making sure that the implemented solutions truly eliminate the cause of the problem you are trying to fix.³

A process approach

Our process approach was born out of this methodology; a simple yet comprehensive approach to the challenges of the seated worker. The focus is not on the training of the individual; the focus is on the process of sitting.



- **Step 1: Assess Risk:** Workers are asked to complete an online risk assessment of their work environment, including a survey of their work-related discomfort.
- **Step 2: Measurement of Risk:** The Risk Assessment Tool scores the responses of the workers based on three criteria:
 - Ergonomic risk factors
 - Level of discomfort
 - Prior medical history
- **Step 3: Define Solutions:** Based on the data, trained healthcare providers define solutions for the individual users.
- **Step 4: Fit Furniture:** The chair and workstation are labeled with a patent-pending ground reference labeling system. This creates a consistent reference point for all of the major adjustment features of the chair and workstation. Each user is then “fitted” relative to the reference system. The final deliverable is the Fit Report®, which creates a sustainable blueprint for upright neutral posture.



Lean in Life (LiL)

by Kam Gupta

We are passionate about lean. That’s why we joined LED. I like to call it, “Light Emitting Diodes—shining every step of the way to productivity and profitability.” True success of lean comes to those who are passionately involved in making lean a reality. Let me define true success: It is the implementation of lean beliefs in all aspects of our activities, including work, life, and play. It is very interesting to see that here is a technique we swear by for guaranteed results in our business; and then quickly shun it from other aspects of our lives. That’s where LiL comes in.

LiL is “Lean in Life.” Things that we so successfully apply in our work can also be very successfully applied in our lives. Lean addresses processes. Life is made up of many processes. Some very complex ones, and hence loaded with tons of muda, or waste. This includes the muda of stress, muda of lost time, muda of lost productivity, and so on. I believe we do want to practice what we preach. Choosing not to do so is a different matter.

For example, I am applying lean to my fitness routine. I am finding it extremely effective. I have not received these kinds of results on earlier efforts. Now I know I will be able to apply lean in my home office, and then other places. I do want to warn you that to apply lean on someone else, like your spouse or children, without doing it yourself first, in your area of direct influence, will most likely meet ‘I told you so’ outcomes and could prove to be a self-fulfilling prophecy in finger pointing.

By making LiL a personal mission, each one of us could enhance our ability to live a more fulfilled life, every day. Imagine a life of wonders where you are the boss! The goal of LiL is exactly that; to make you the boss, the driver in the driver’s seat, the rider in the horse’s saddle. Let us bring to light all the great things lean folks are doing on a personal level.

cont. on p. 4

cont. on p. 4

A Smarter Way to Sit cont. from p. 3

- **Step 5: Training:** Yes, we do train, but not in the traditional sense. We focus our training on the use of the Fit Report[®]. It is the tool that addresses the process of sitting.
- **Step 6: Monitor Outcomes:** At months one, three, six, nine, and 12 following implementation we again survey the end-users relative to their level of work-related discomfort. Individuals with continued high levels of work-related discomfort are again paired with trained healthcare providers to assess the situation. The trained providers in turn make further recommendations for change as needed.

Outcomes

We have experienced extraordinary outcomes when utilizing this process approach to sitting. The metrics are routinely monitored and measured across environments to assess the viability and influence of the program.

- Experience of Workplace Discomfort
 - Reduced [Range: 45% to 65%]
- Total Discomfort
 - Reduced [Range: 50% to 80%]
- Maximum Discomfort
 - Reduced [Range: 50% to 70%]
- Productivity Loss
 - Reduced [Range 55% to 80%]

In conclusion

This is truly a story of process improvement. Once you begin to understand the needs of your customers (in this case seated workers), you can then take the next step of figuring out a better way to deliver what they want. Few workers are opposed to sitting in an upright neutral posture; they just don't understand how to get there. The answer lies in providing the worker with a process to serve their needs. By providing them a viable, sustainable tool, we have worked toward the elimination of the "defect"—the faulty sitting posture. As the sitting postures improved, the level of associated work-related discomfort correspondingly decreased. Hence, quality, as a measure of the individual worker and the aggregate organization, has improved.

The process doesn't stop there. We are in the process of correlating work-related discomfort to the attributes of these highly-adjustable ergonomic chairs and workstations. Across large populations we will be able to determine which of these attributes truly deliver on risk reduction for the end-user. Over time we will be able to track this risk reduction against the associated cost of work-related injuries. In addition, the data will be useful in identifying gaps between the needs of users and the current product offerings by manufacturers. In the end, the data will influence the marketplace to deliver a higher level of quality to the end-user.

(Endnotes)

- 1 Sherman Robbins, Development Team of the Herman Miller "Ergon Chair," 1976; Currently Executive Vice President for Product Development - Atlas Ergonomics, LLC
- 2-3 What is Lean Six Sigma?: Mike George, Dave Rowlands, & Bill Kastle; McGraw-Hill, 2004

Lean in Life (cont. from p.3)

It is my joy to take personal responsibility with the blessings of the LED leadership to spearhead this mission. We invite you, the lean professionals and practitioners, to consider lean as an overall living strategy. The objective is to write in every issue something of profound impact relating to LiL that validates the immense power of lean in everyday life. Let's make LiL a BIG thing at LED. Send your comments, thoughts, suggestions, and stories to citkam@gmail.com.



Kam Gupta is a Senior member of ASQ, regional director for Region 12, and an outgoing ASQ board member. He is president of Continuous Improvement Technology, Inc., located in the Chicago area. He is an executive coach/life coach and works in the

area of leadership development using value-based empowerment and energy-driven leadership. Gupta is a Six Sigma Master Black Belt and ASQ CSSBB, CQE, and CQA. He provides lean implementation and training support in manufacturing and service environments. He also provides coaching to Six Sigma and lean champions and leaders in organizational settings. He is an active member of ASQ's Lean Enterprise and Human Development & Leadership divisions.

We are what we repeatedly do. Excellence, then, is not an act, but a habit."

—Aristotle

Save the Dates!

Lean Six Sigma Conference

March 2-3, 2009

Pointe Hilton Tapatio Cliffs Resort
Phoenix, AZ

Learn from proven firsthand applications, technical applications, and best practices during concurrent sessions. The 2009 conference will also feature networking and learning opportunities from sponsors and exhibitors from a variety of markets and levels of experience.

Web site: <http://www.asq.org/conferences/six-sigma/index.html>

World Conference on Quality and Improvement

May 18-20, 2009

Minneapolis Convention Center
Minneapolis, MN

The Culture of Quality:
Serving Customers, Organizations,
and Communities

- Quality Basics
The what and why of quality.
- Customer Service
What your customers want and how to make it happen.
- Driving Quality Throughout the Organization
Make quality an organizational imperative.
- Improved Performance
Optimize your processes and measure success.
- 21st Century Needs/Competencies/Issues
Move forward with teamwork, leadership, competition/globalization, and social responsibility.

Face of Lean Profile

Name:

Tammy Miller

Residence:

Neenah, WI

Education:

Bachelor's degree in electronics engineering technology from DeVry University in Addison, IL

Master's degree in engineering management from Milwaukee School of Engineering, Milwaukee, WI

ASQ Certified Six Sigma Black Belt

PMI Project Management Professional Certification

Current job:

Oshkosh Corporation, supplier development engineer, Oshkosh, WI

Most recent experience with lean:

As a supplier development engineer I have an opportunity to teach and implement the principles of lean in a variety of manufacturing and office settings. My experiences have proved that no matter the industry, the environment, or the current culture, lean can fit your business with proven sustained results.

Favorite lean experience:

Teaching the principles and application of lean to others and watching them learn, struggle, apply, reapply, and finally change the culture of their organization.

Other interests/hobbies:

My husband Keith and I enjoy water activities with our 3-year-old and 1-year-old at our family cottage in Lakewood, WI.

Favorite quote:

"You can't build a reputation on what you're going to do."

—Henry Ford



Leadership Team in Milwaukee



Kiami presenting while in Milwaukee.

Tammy, Chad, and Robert with the plan.





600 N. Plankinton Ave.
 Milwaukee, WI 53201-3005
 t: 414-272-8575
 800-248-1946
 f: 414-272-1734
 www.asq.org

NON-PROFIT
 U.S. Postage
 PAID
 Milwaukee, WI
 Permit No. 5419

Lean Enterprise Division | August 2008 | Volume 7, Issue 1



Note From the Editor

Hello LED members, I hope all of you are well. There are several things I would like to highlight for this newsletter. I'd like to welcome Wayne Paupst as our new division chair and also thank our exiting division chair, Jobby Johnson, for a job well done. As

the years have gone by, the division has not only grown, but continues to improve. Also, a warm welcome to the rest our incoming officers. It is very rewarding to work with such a dedicated team. A new column is also being introduced called "Lean in Life." This column will highlight how lean principles can be applied not only in our business lives, but our personal lives as well. Our featured article illustrates how a physical therapist used lean principles to make an improvement in ergonomics. As always, questions and/or comments are always welcome.

Best regards,

Wendy Gomez

wendy.gomez@danmer.com

More of the Leadership Team in Milwaukee



"Come lean with us."

Back row (left to right): Tammy Miller, Robert Damelio, Wendy Gomez, Chad Vincent, Frank Murdock, Linda Milanowski, Don Smith, Pam Gladwell
 Front row: Kiami Rogers, Wayne Paupst, Bob Johnson, Tony Manos
 Taking the photo: Kam Gupta