



# Quality Connection

Official Newsletter of the Baltimore Section, ASQ  
November / December 2003 Voice Mail: (410) 347-1453

E-mail: [asq0502@yahoo.com](mailto:asq0502@yahoo.com)

Internet: [www.asqbaltimore.org](http://www.asqbaltimore.org)

Scott Fairchild Chair  
410-993-5432 (W) [scott.fairchild@ngc.com](mailto:scott.fairchild@ngc.com)

Sara Parker Vice Chair  
410-436-4737 410-436-3665 (Fax)  
[sara.parker@amedd.army.mil](mailto:sara.parker@amedd.army.mil)

Mike Rothmeier Treasurer  
410-357-5601 (W) 410-357-4946 (Fax)  
[Rothmeier@comcast.net](mailto:Rothmeier@comcast.net)

Kathy Free Secretary  
410-965-5008 [Kathy.Free@ssa.gov](mailto:Kathy.Free@ssa.gov)

Sid Lewis Tutorials  
410-879-0136 [ssjmlewis@email.msn.com](mailto:ssjmlewis@email.msn.com)

Tom Stewart Database / Home Page  
[tstewart3512@yahoo.com](mailto:tstewart3512@yahoo.com)

Lloyd Dixon Education  
410-765-3153 (W) [lloyd.dixon@ngc.com](mailto:lloyd.dixon@ngc.com)

Howard Swartz Examining  
410-628-3278 W [swartzhc@aaicorp.com](mailto:swartzhc@aaicorp.com)

Jo McLaughlin Program  
410-465-9119 [jmclaugh2000@aol.com](mailto:jmclaugh2000@aol.com)

Kevin Gilson Koalaty Kid / NQM  
410-864-2428 [kgilson@sierramilitary.com](mailto:kgilson@sierramilitary.com)

Susan Spurgeon Membership  
410-993-7288 [susan.spurgeon@ngc.com](mailto:susan.spurgeon@ngc.com)

Jim Cooper Newsletter  
410-765-2934 (W) 410-765-0165 (Fax)  
[je.cooper@ngc.com](mailto:je.cooper@ngc.com)

Lauren Fagan Publicity  
410-771-2923 [lauren.fagan@phh.com](mailto:lauren.fagan@phh.com)

Gil Cuffari Past Chair / Nominating  
410-203-2053 [GCuffari@AOL.com](mailto:GCuffari@AOL.com)

Joel Glazer Software Quality  
410-7654567 [joel.glazer@ngc.com](mailto:joel.glazer@ngc.com)

Eric Whichard Placement / Employment  
410-531-4632 [Eric.Whichard@grace.com](mailto:Eric.Whichard@grace.com)

David Little Regional Director  
717-653-3720 717-653-3718 (Fax)  
[dmlittle@tycoelectronics.com](mailto:dmlittle@tycoelectronics.com)

*Support your local Section this year.  
Attend monthly Section meetings..*

## Guest Column

### Hard Times: Can Your Audit Program Survive? Thrive?

Douglas Berg & William Harral

#### Summary:

Times are tough with the global competition and a downturn in economy. Industry is retrenching and managements are under pressure to cut costs, downsize/right size/streamline operations and staffs. The thoughts of many who manage internal or supplier quality audit programs are: .Can this quality audit program survive?. .Can it thrive?., .Is it resume time?.. In fact, a continuum of options exist from extremes of traditional cost cutting and reduction or elimination (regardless of consequences), to enhancing the program and expanding its scope to maximize growth of knowledge while people have time to think. The middle ground is characterized by the degree of risk management of a more comprehensive, inclusive set of costs. The key is to identify the audit program client and get in sync with the client's current needs and expectations, but factor in the company's traditional culture and approach to stress.

#### Get Close to the Client and the Company Culture

Typically each audit program, internal or customer/supplier, has one person or a small group of people that is the audit client. It is important to .engage. the client and to clarify *current* wants, needs and

expectations of the audit program. Also, it is important to assess the company's *traditional* culture, organization stresses, and reactions to stresses and stressful times. Current needs or wants may be contrary to the traditional culture. Resolution may be needed first.

#### One Common Response - .Hunker Down.

A traditional reactive response to hard times is to severely reduce, suspend or cut the resources committed to audit programs. The audit focus is on conformity or compliance and just doing what the controlling requirements document(s) say(s) and no more. Companies may suspend, cancel scheduled internal or supplier audits, or reschedule into the far distant future if there are no external drivers/factors to perform audits. This endangers audit program sustainability. It leads to perceptions that audits are .add-ons., not really necessary, or a cost to be minimized. It may undermine management credibility over time. It is easy to see the .costs., but not the .unseen costs. or opportunities lost. Also, it can be .high risk.. One can counteract with innovative cost reducers, e.g., using executives and managers as auditors, utilizing one's own facilities for training, employing local training providers, accessing web based training, using outside resources for . free audits., sharing audit results of suppliers with other customers, and relying on supplier  
(Continued on Page 2)

**Hard Times: (Continued)**

cost borne certification.

**Middle Ground Response - .Risk Management.**

There is a broad middle ground - characterized by management of .risks. of various kinds. Where companies fit into this broad middle depends on the extent that they adopt certain approaches and strategies for their audit programs. An approach is adjusting audit frequencies and schedules to stress current needs with focus on higher risk or higher cost areas. Companies can also migrate audit focus progressively from compliance to effective implementation, effective implementation to effective processes, and effective processes to continual improvement. Over time, companies can progressively break the habit of basing the conduct of internal & supplier audits on third party certification audits and reduce the emphasis on corrective actions, response/timeliness and tracking, putting more emphasis on process knowledge development, implementation of lessons learned, preventive actions and continual improvement

**Enlightened Response .Enriched and Enhanced Audits**

Some companies see adverse situations as opportunities not to retrench, but to refocus and expand. Others, transitioning through the risk management approach will eventually evolve to this state of enriched, enhanced audits. These audits would focus beyond processes to business effectiveness and improvement. Transitioning along the Risk Management path leads progressively to a .new. audit focus more along the lines of what concerns management - resulting in more .value added. audits. The audits will require management involvement up front, more management involvement in the audits, a greater .enterprise. focus, and a .multidimensional. aspect in terms of scope and audit teams. Examples of additional dimensions are: customer concerns; management issues; business metrics; environmental; health and safety; internal controls; employee development; or business readiness. Various audit experts have pointed to this direction for audits in the future . beyond mere compliance to being more value-added and business focused. Audit reports may include .Wasted \$ Identified.. This has implications for auditors and audit program management in terms of skills and resources, but in the long term should be more rewarding.

**Conclusion**

Hunker down or enhance? Or manage risks between? Hard times require getting in close contact with the audit program client and targeting the internal

or supplier audit program(s) to visibly satisfy current needs and wants, while supporting the company's traditional culture and values.

**References**

Arter, Dennis, *Quality Audits for Improved Performance, 3rd ed.* ASQ Quality Press, 2003.  
Berg, Douglas .Who is the Client?. ASQ Quality Audit Division Conference Proceedings, 1995.  
Harral, William & Douglas Berg, .Getting off the Problem Solving (Re-solving) Treadmill., and .Client Focused Auditing., Automotive Industry Action Group AutoTech Proceedings, 2001.  
Pronovost, Denis, Internal *Quality Auditing*, ASQ Quality Press, 2000.  
Regel, Terry & J.P. Russell, *After the Quality Audit, 2nd ed.*, ASQ Quality Press, 2000.  
Sayle, Allan, Management Audits, also ASQ Quality Audit Division Conference address 1999 published in QAD Vista. ASQ Quality Audit Division Conference Proceedings 1992-2003.  
Arch Web Site www.archassociates.com  
*This paper was presented at the 57<sup>th</sup> AQC in Kansas City, Mo and is reprinted with the permission of the authors.*

**Leadership Is Personal**

Rudolph C. Hirzel,

**Introduction:**

When we talk about leadership, what do we mean? Is it big - the kind of leadership that moves a people or a nation to action? Or is it personal - what we do everyday to help others do their best? Is it the directing of operations or activities or performance? Is leadership the guiding of people on a way? Is organizational leadership the same as management? Or is it apart and separate?

These are interesting if not perplexing questions. And a clear single definition of leadership, although discussed and pondered for centuries, somehow remains beyond our grasp. What we do know is that leaders are identified by what they do. HD&L's goal in defining leadership competencies is to define leadership in terms of the roles leaders have to assume. Based on the primer, *A Meta-Analysis of Current Thinking on Leadership*, written in 2000, the HD&L Division's BOK represents a consensus view of the six roles of leadership. Where the primer represented a summary of the of over 50 authors views on leadership, the BOK represents an updated view of what the Division views as the cornerstone for human development and leadership. Why six competencies and not a single definition? Because no single definition seems to sufficiently capture the intricacies and of what a leader needs to do. And a single competency is insufficient to make a good leader. The

best leaders always seem to exhibit an integration of several roles, actions, and deeds. The six competencies defined by HD&L represent, when viewed together, the roles that leaders must be able to assume to be effective. The seven personal leadership characteristics provide the foundation for leaders taking action.

### Leadership Competencies:

A leadership competency is defined as:

- a cluster of knowledge, skills, and attitudes that can result in excellence in leading regardless of position, industry, or
- geography that can be measured and improved through training and development.

Consistent with the Division's vision and mission, leadership is not defined by where a person works, or the extent of resources they command. Leadership is an ability to provide guidance and assistance for others. As a result, leadership is not restricted to the presidential offices, the manager's meeting room, or the corporate boardroom. Sure leadership can occur in these places as training and guidance is provided to help people focus and accomplish their tasks. But leadership also occurs when an individual stops and helps another individual understand how to better do their job. And it occurs when an individual takes the time to help another person learn a new skill or discover a hidden talent. In addition, leadership cannot be limited to just the work place. All of us can become better leaders in our personal lives and our communities also. Leadership competencies are directed at defining how individuals can become better leaders. Leadership competencies are intended to help us better understand the complexities of leadership excellence so we can improve our leadership abilities.

The six competencies for leadership as defined by the HD&L Body of Knowledge include:

- **Navigator** - creates shared meaning and provides direction towards a vision, mission, goal, or end-result. This competency may entail risk taking and requires constant evaluation of the operating environment to ensure progress in the appropriate direction is achieved.
- **Communicator** . effectively listens and articulates messages to provide shared meaning. This competency involves the creation of an environment that reduces barriers and fosters open, honest, and honorable communication.
- **Mentor** . provides others with a role to guide their actions. This competency requires the

development of personal relationships that help others develop trust, integrity, and ethical decision-making.

- **Learner** . continuously develops personal knowledge, skills, and abilities through formal study, experience, reflection, and recreation.
- **Builder** . shapes processes and structures to allow for the achievement of goals and outcomes. This competency also entails assuming responsibility for ensuring necessary resources are available and the evaluation of processes to ensure effective resource use.
- **Motivator** . influences others to take action in a desirable manner. This competency also includes the evaluation of people's actions to ensure they are performing consistently with the mission, goal, or end-result.

Of course each of these competencies by themselves are insufficient to define what a leader truly does. It is the integration of these competencies, the simultaneous implementation of more than one competency, which provides leadership its complex nature. And it is the personal characteristics that form a basis for this integration.

### Personal Leadership Characteristics

As the HD&L BOK developed the six competencies, it became apparent that there was another aspect of leadership that was not encompassed by what leaders do. This is evidenced by an exploration of the Navigator's role. This role is distinguished by the creation of shared vision for the organization, community or self. The ability to capture vision is certainly an important part of leadership excellence but we often apply moral judgment to the role also. For instance, politicians, especially world leaders, have to be able to envision a future for their countries or communities that will take their followers to a different place. But there are those that are corrupted and those that work for good. As we stated earlier, leaders provide guidance and assistance for others. In pre-World War II Germany, Hitler provided a vision for a better place for Germans. His ability to create a new vision for the German state and then forge a path for the German people to follow certainly falls within the role of a navigator. But some would argue that he does not represent a good example of leadership excellence because his motives were ultimately self-centered and destructive.

So what distinguishes .good. leadership from .bad. leadership? Within the BOK committee it was discovered that a collection of personal characteristics underlie the six roles. These personal leadership characteristics provide the foundation for leaders to

implement, or apply, the competencies described above. The seven personal leadership foundational characteristics are as follows:

- **Accountability** is taking responsibility for the organization, community or self that the leader serves. It means not being afraid to measure performance and not shying away from those times when performance is below par. Accountability serves as the touchstone for obtaining honest informed feedback on how well the leader is implementing the leadership competencies.
- **Courage** comes from the heart. It is the mental or moral strength to venture, persevere and withstand danger, fear or difficulty with a firmness of mind and will. Courage is the characteristic that allows the navigator to venture into the unknown. It is what gives the leader the ability to take a risk, to build new structures and work to build new follower skills, to help someone improve without thought of reward or compensation.
- **Humility** is what gives excellent leaders their ability to mentor, communicate and learn. For if a leader already thinks they know all the answers or believe they lead from a superior position, how can they work in the best interest of those around them. Humility is what defines the best leaders - those that understand that they are merely servants of those that follow them.
- **Integrity** is an ability to discern what is right from what is wrong and the ability to commit to the path that is believed to be the right one. Although we can reflect on the thought that sometimes a fine line may exist between right and wrong, good and bad, it is the conviction of an individual to a better future and the communication of that future to others that causes that individual to rise to a position of leadership.
- **Creativity** is the ability to see possibilities, horizons, and futures that don't exist yet. It is the constant search for new solutions to old problems and the ability to apply these solutions to help people create shared vision, learn new tasks, and understand the importance of taking a new path.
- **Perseverance** is sticking to a task or purpose, no matter how hard or troublesome. It is the ability to continue on a path even when the road gets rough and resistance is high. A leader needs to have perseverance to overcome

obstacles when building the structures to achieve a goal and especially for helping to motivate people to follow those structures once built.

- **Well Being** defines a leader's ability to stay healthy both in work and in play. Through a healthy example and a willingness to continue learning, the excellent leader demonstrates to their followers the importance of always being ready to implement leadership competencies when called upon.

The seven personal characteristics, like the six leadership competencies, are integrated and work in conjunction with each other. The above summaries represent just a brief glimpse of how the characteristics can impact each individual's ability to become an effective leader. For those that attend this session, there will be ample opportunity to explore the connections between these seven characteristics and their relationship to leadership at a work, community and personal level.

*Rudolph Hirzel is the General Manager of IdeaWorks, specializing in process improvement, organizational assessment, and quality tools training. He has an Engineering Degree from the University of Michigan and over 25 years experience in both the private and public sectors. He writes a regular article for the Quality Vista entitled, "Rudy's Toolbox" and holds certifications from ASQ as a Quality Manager, Quality Engineer, and Quality Auditor. Rudy is a past chair of the ASQ Human Development and Leadership Division and has delivered workshops and seminars across the country on topics such as systems auditing, high performance teams, process mapping, creative problem solving, and leadership. This paper was presented at the 57<sup>th</sup> AQC in Kansas City, MO and is reprinted here with the author's permission.*

### **Breakfast Meetings - An Overview**

By Beth Reigel

Our vision for the breakfast meetings is brain-food on the go for a busy world. Practical overviews for busy managers who can walk away from the session with a list of resources, an idea to incorporate and contacts to pursue for counsel. (We would then be a resource to all levels of our membership, which is part of our mission.) Our members will not have to sacrifice dinner with their families, night school, other volunteer activities or their kids soccer game to stay up-to-speed professionally. We are attempting to rotate around the Beltway so that we can get to the maximum number of people.

September's meeting was the first Breakfast meeting, after the concept had been talked about on the board for many, many years (or, rather, I had bugged

you-all for many, many years! :-)) As we suspected, there is a real need and a large part of the Baltimore audience we have been missing due to only offering dinner meetings. How do I know? In addition to our growing attendance, I have probably 10-15 emails each month commenting on how folks appreciate the opportunity, how they love the idea and when are we coming to their area? It offers much more flexibility in our ever increasingly busy world. I have made a very real attempt to dialogue via email with attendees and offer to FAX meeting notes to those with last minute cancellations.

September's topic was Needs Assessment - although the email traffic on the idea was huge, this was also the morning that Isabel came ashore, and we had 9 folks show for the meeting. It's a new idea, and I am not dismayed by the apparent slow start.

October's topic was on Software - we doubled our attendance from September between the 2 sessions even though the format, timing and price was different than what we committed to in our advance publicity about breakfast meetings - however it was an incredible offering and price break from the conference and definitely the right thing to do. (Kudos to **Jo McLaughlin** for the arrangements on this one!)

November's topic was Lean Mfg (presentation included in this Newsletter) and a tour of the VulcanHart facility. We tripled our attendance from the September meeting, and folks seemed to really enjoy the tour and the chance to ask questions in a hands-on environment. VulcanHart was a super host, and left us very encouraged about the focus of practical, real-world applications.

December we did not schedule anything due to the holiday schedule - it's just too much.

January is Supplier Partnerships at the State Highway Administration in Hanover MD.

February is tentative - I am going for Quantifying the Voice of the Customer, scheduled for the north side of Baltimore. March will most likely be Six-Sigma for Managers and will be held in Columbia. I am attempting to confirm now. April is open but will be on the north side somewhere, I am thinking maybe something on constraint management.

May or June - tentative - in final arrangements now in Frederick. This is to address the huge number of folks from Frederick, NW DC and further west that desperately want us to do something they can attend - the topic will be getting the benefit of Continuous Improvement from ISO - why do you do what you do - a real life success story from Ftizgerald Auto Malls who went into ISO for all the RIGHT reasons - and

saved tons of money also - they are almost evangelistic in their fervor about ISO and how to benefit your business from it - we may also get a tour of the business - we shall see.

My biggest challenge (other than putting everything together) is making sure we are on-time and crisp with our presentations. I do want to respect other people's time - to that end, I am attempting to standardize.

1. Developing an email template
2. Developing a presentation guideline to give speakers
3. Making sure all emcees understand & respect our attendees need to manage their time & get back to the office.

#### ***Why Become A Certified Mechanical Inspector?***

- *“Information is not knowledge. Let’s not confuse the two.”* - - - **W. Edwards Deming**

Success as an Inspector in today’s environment depends on the Inspector’s ability to use a variety of measuring instruments and techniques, utilization of automated inspection equipment and programs, such as CMM’s, Vision Systems etc. while establishing, developing, and performing quality control, quality assurance, auditing, and inspection and test methodology and practices. The Inspector must also possess the ability to define, plan, organize and make decisions using information acquired through these measurements and experience. To enhance their business value, Inspectors must develop the critical metrological technical knowledge, interpersonal skills and understanding of measuring tools and techniques needed in today's evolving business environment.

The business case for ongoing training and certification for inspectors is compelling. The value of industry certification for inspection has never been higher than it is today for both the Inspector and their Employer. Certification can improve the company's bottom line and enhance business processes due to increased efficiency and repeatability of the measurement system.

The exam is focused on the knowledge and skills required to perform inspection by using measurement instruments and systems. The four key areas of the exam are:

1. **Technical Mathematics**
2. **Metrology**
3. **Inspection and Test**
4. **Quality Assurance**

with a focus on process management, problem solving, and quality improvement.

As Deming said, information is not knowledge. As inspectors we acquire information and generate a mountain of data. But only the kind of knowledge you can gain from preparing for the Certified Mechanical Inspector Exam can ensure you have the skill to use the proper measurement techniques and instruments to inspect / test product in order to make one's organization successful.

If you enjoy the prestige that comes from being the best in your field, then you'll appreciate the professional advantages derived from becoming a Certified Mechanical Inspector.

***Enhance your professional image.  
Increase your value to your organization.  
Affirm your commitment to excellence.  
Advance your career.  
Get Certified***

To learn more, go to [www.asq.org](http://www.asq.org) and read about how to prepare and apply for the exam. You will also find information about the exam on the Inspection Division web: [www.asqinspection.org](http://www.asqinspection.org)

### ***Lean Systems***

By Mike Rothmeier

*(Reprinted with permission from the November 20, 2003 Champions Breakfast presentation. For those that missed this meeting, the following summarizes the presentation. If there are any questions, feel free to contact Mike by phone or e-mail.)*

The simplest definition I have heard for "Lean" is that Lean Systems involve the ability to make **exactly** what the **customer** wants as they **order** it.

### **Benefits, Tangible and Intangible of Lean Systems:**

#### **Tangible**

- Lead Time Reduction
- Productivity Increase
- Work In Process Reduction
- Quality Improvement
- Space Utilization

#### **Intangible**

- Improved Teamwork
- Simpler Scheduling
- Greater Flexibility
- Market Responsiveness
- Increased Sales

### **Time and Production Cost Relationship**

*"The longer an article is in the process of manufacture, and the more it is moved about, the greater its ultimate cost."* **Henry Ford** - 1926.

### **Lean Thinking**

- A Continuous Improvement Approach focused on **eliminating waste** in the entire operation.
- Breaking the status quo by making a series of small immediate changes using conventional wisdom (common sense)
- Involvement of stakeholders in the process
- Measuring the results of the changes

Waste is defined as " anything more than the absolute minimum resources of material, equipment and personnel required to add value for the customer.

### **Value added vs. Non-value added Tasks**

**Value added** transforms, raw materials, components and information into sellable items.

**Non-value added** consumes resources but does not contribute directly to the value of sellable items. *These tasks should be eliminated, integrated or simplified.*

During the processing of any sellable item, there is value added time and there is total elapsed time. The Value Added Ratio calculation represents the amount of Value Added Time divided by the total elapsed time the sellable is in process. The closer this ratio is to 1.00 or 100%, the leaner the entire operation.

### **Eight Production Process Wastes**

- Overproduction of Large Batches
- Extra transportation
- Excess inventory
- Employees waiting
- Non-value added processing
- Excess motion
- Defects and rework
- Underutilized brainpower

### **Eight Service Industry Wastes**

- Errors in documentation
- Transport of documents
- Doing unnecessary work not requested
- Waiting for the next process step
- Process of getting approvals
- Unnecessary motions
- Backlog in work queues
- Underutilized employees

### **The Lean Toolbox**

#### **5 S's Campaign**

- Sort
- Set in order
- Shine
- Standardize
- Sustain

With an organized workplace:

- Defects are reduced
- Safety is improved

- Workers are more efficient
- Maintenance is improved
- Cleanup time is minimized

One of the goals should be to reduce setup time.

**Remember:** During setup, nothing is being produced! Therefore, setup time is always considered non-value added time. Setups need to be eliminated, integrated or simplified in order to lean-out any process.

### "Pull" Production vs. "Push"

Push is schedule based and schedule driven. Pull is based on actual consumption by the customer (internal or external). Advantages of a Pull System include:

- Faster response to the customer
- Easier scheduling, inventory and control
- Reduced effort, space, cost and investment

But, it is a *very* different way of doing seeing things for most processes.

**Total Productive Maintenance (TPM)** - is a systematic approach to eliminating *unscheduled* downtime. It enlists the intelligence of the operators and provides a structure for any company to:

- Chart and analyze equipment issues
- Identify root causes of problems
- Implement permanent corrections.

**Overall Equipment Effectiveness (OEE)** - is the primary measurement used during TPM implementations. It incorporates the following measurements.

#### **Downtime**

- Breakdowns
- Adjustments
- Changeovers

#### **Speed**

- Stoppages
- Slowdowns

#### **Defects**

- Process Defects
- Reduced Yields

As a part of a total lean system, a Poka Yoke system should be incorporated. Poka Yoke is Japanese for "mistake proofing." It incorporates techniques to carry out 100% inspection. If abnormalities occur, it forces immediate feedback and corrective action and does not allow any other alternative. It involves two basic correction functions: *control methods*, which halt operations, and *warning methods*, which call attention to abnormalities.

The process should be designed so that it is impossible to make an error. Also, it removes the need to correct any error. In a mistake-proofed system, the

systems signals the user than an error has been made. The user, then, can quickly correct the problem. This stops defects from reaching the customer.

A Poka Yoke system does not replace a quality system; it should be used to supplement a quality system. It helps avoid the critical wastes of *rework* in downstream operations and *defects* from reaching the customer.

Our traditional functional facility layouts for our processes tends to have:

- Interrupted product flow
- Unbalanced operations
- Large batches
- Longer time to complete
- Complex material handling

### Goals of a Lean System

- Reduce non-value added activities
- Reduce lead time
- Reduce inventory, especially work in progress
- Increase throughput
- Reduce batches sizes
- Improve overall productivity

### Keys to Success

- Keep things simple
- Focus on your process
- Look for all types of waste
- Break old habits
- Work through mistakes
- When problems occur, be flexible
- Keep improving – *everyday*

### Share the mutual benefits:

In order to successfully implement Leaner Systems, management and key stakeholders must take steps to ensure that the involved personnel clearly understand the advantages of these improvements. Care should be taken to be very clear about what these advantages are. Remember: people will do just about anything you ask them to do, as long as they clearly understand why they should do it. Some of the key benefits of Lean Systems include:

#### **Decreasing**

- Inventory and batch sizes
- Labor costs and overtime
- Capital investments

#### **Increasing**

- Customer response
- Productivity
- Flexibility
- Quality



If you have any questions at all, feel free to catch me at the next dinner meeting. I look forward to discuss the continual improvement opportunities for the applications of Lean Systems.

*Mike Rothmeier is the Principle in Simple Solutions Consulting and is currently serving as the Treasurer of the Baltimore Section. He may be reached at 410-935-1011 or at [Rothmeier@comcast.net](mailto:Rothmeier@comcast.net).*

### ***Building The High-Tech Team***

By Harrison Snow

Are high-tech or scientific teams different from other teams? They have smart people who seek a challenge, want to make a contribution, are outspoken, enjoy collegiality and working with the latest technology. They value autonomy and their independence. They take pride in their profession. All positive, even desirable, attributes. But getting those high-tech professionals all headed in the same direction can be like herding wildcats.

These professionals identify more with what they do than the organization they do it for. Working late on a hot project is part of life but a staff meeting at 8 am might not be such a high priority. They know what they know and expect to be heard, recognized and appreciated for it. Listening is not a highly valued skill. And there are plenty of other opportunities out there so don't take the work they do for granted.

If you followed the Redskins last session you know that a team full of high-priced stars is not automatically going to deliver high performance. When everyone is sure his or her way is the best way the possibility of synergy goes south. Technical professionals are trained in linear problem solving. And they love to solve problems. It is just that people issues - those dealing with communication, teamwork and the processes that cross different functional areas - do not respond to formalistic thinking. When the technical and interpersonal are intertwined the solutions are not in a textbook. Yet those are the problems that often lead to project failures or poor system performance.

Many teams in the high-tech or scientific world can't solve their systemic problems because they can't talk about them. The interpersonal obscures the technical. Different perspectives are not heard or understood. Yet how the different parts of a system impact each other cannot be ignored. When people find a way to define and attack the problem, instead of each other or another part of the organization, progress is made.

A recent study on problem solving was conducted at the Harvard University's Graduate School of Education. They found that people are better at the

back-end of solving a problem than the front-end of discovering and defining it. Given the rate of change and the level of uncertainty many organizations are faced with, the fires that get fought are those easily understood. Who has time to figure what is really going and do something strategic about it?

Dealing with nonlinear problems does not mean we have to throw out the principle of cause and effect. There are things the team can do or actions it can take that will help it achieve better results. Here are some ideas:

***Develop a Team Charter:*** The charter defines the goals of the team, the different roles team members will play, and the processes or procedures that will help them get their work done.

***Define Mutual Needs and Expectation:*** What does the boss need and expect from his or her direct reports? What do team members need and expect from their boss or from each other that will help them be successful? People often make the mistake that their needs and expectations are obvious to those they work or live with. Don't assume. Ask.

***Clarify Priorities and Direction:*** The team members need to know what is really important. What is the big picture? How does our work impact the rest of the organization and its future?

***Seek and Give Feedback:*** We are all customers to each other. How are we doing as a team in meeting customer (internal or external) expectations? Between team members the question is: How are we doing in meeting each other's expectations?

***Conduct Team Problem Solving:*** Use the Plus/Delta model. Ask the team as a group: What are we doing that is working (pluses)? What should we do differently (deltas)? Brainstorm different approaches, assign responsibilities or make new agreements, and follow up on them at the next team meeting.

### **Follow Up on the Follow On**

It is easy to generate a list of do's and don'ts. The harder part is practicing them. Action followed by reflection as a team is a potent way to build individual skills and their collective application in a group setting. We get better results when we define what success is and what we are going to do to get there. When an individual or a group experiences success they always want more. People want to be (and to be seen as) winners who belong to a winning team.

### **It's Not Always About Money**

In today's tight job market money may be more of a factor in leaving but it is still not the only one. People leave for more opportunity, challenge and/or a



better relationship with their boss. Most people have the need to be seen as more than a nametag or a job function. Like any relationship, personal or professional, the better it is the harder it is to leave. To build that relationship take the time to get to know the people on your team. It only takes a minute to find how out how someone's kids are doing or what the weekend was like.

*Harrison Snow is the principal of Teambuilding Associates, Inc. He is an accomplished consultant and writer. He can be reached through the website [www.teambuildingassociates.com](http://www.teambuildingassociates.com).*

### ***Science Fair Awardee Receives Additional Recognition***

At the 2003 Baltimore Science Fair, our Section awarded First Place in the Middle School Division to **Allison Stuppy** of Columbia, a student at Wilde Lake Middle School at the time. An article in the September 23<sup>rd</sup> edition of the Columbia Flyer reported that Allison "was recently named a semifinalist in the 2003 Discovery Channel Young Scientist Challenge" for her project, "***The Effect of Location on Seasonal Affective Disorder***".

Allison, now a freshman at Atholton High School, wrote our Section, "Thank you for awarding me the American Society for Quality, Baltimore Section, award for First Place in the 2003 Baltimore Science Fair! Your award means a lot to me. After months of working on my project, and learning a great deal in the process, I was grateful that my oral and written presentation stood out in your review. Organizing and analyzing my data was very interesting and informative to me. I wanted to share my research so that my results would benefit others too. Who knew statistics could be so useful?!"

"I really appreciate not only the award, but also all the feedback you gave me about my project. On behalf of my school (Wilde Lake Middle School), my teacher, **Mrs. Charlotte Harris**, the other students, and myself, I also wanted to thank you for your time and interest in attending our science fair.

"Thank you also for the U.S. Savings Bond (\$100). It was an unexpected, but greatly appreciated recognition."

We do not always hear back about what our recognition and feedback to a student means to them and to their future work. It was very nice to hear from Allison. The 2004 Baltimore Science Fair is coming up on March 20. If you would like to contribute your time to recognizing students for their achievements in statistical thinking and teamwork, please contact **Kevin Gilson**, Science Fair Committee Chair, to volunteer for

the Saturday morning judging event. Kevin can be reached at [kgilson@sierramilitary.com](mailto:kgilson@sierramilitary.com) or 410-864-2428.

### ***Joel Glazer - New ASQ Fellow***

The Board of Directors of ASQ, meeting in session in November, 2003 in Milwaukee, have advanced **Joel Glazer** to the membership grade of Fellow.

From the central Asian Republic of Kazakhstan, though post WWII Europe's Displaced Persons camps and Israel, Joel came to USA at the age of 17. He earned a BS in Aerospace Engineering from the University of Maryland, and received two MS degrees from The Johns Hopkins University in Management Sciences and Computer Sciences. His affiliation with ASQ began in 1987 when he was instrumental in establishing what became the ASQ Software Division, later joining ASQ itself in 1990. Joel assumed leadership roles as early as 1991 when he became a member of the Baltimore Section Executive Board, and has risen to participate in the Software Division's council. So far, he has earned four certifications: Quality Audit, Quality Management, Software Quality Engineer and Reliability Engineer. His broad experience includes working for Martin Marietta, Fairchild Hiller, Computer Sciences Corp., and E.G.G. on tasks ranging from aircraft design, rocket and space probes design, space travel, orbital dynamics and earthquake predictions. In 1976 he joined Westinghouse - Baltimore Division, now Northrop Grumman ES, and is currently a Fellow Engineer in the Software Quality Engineering group. Since 1985 he has been at the core of the location's Software Quality group. As a software quality engineer, Mr. Glazer participated in establishing national and international software standards and represented the company on several national committees.

He has two married children, Hillel Glazer-Principal of Entinex, Inc. in Silver Spring MD, and Dr. Sharon Glazer - professor of Industrial Organizational Psychology at San Jose State, CA. He and his wife, Rachel, live in Baltimore Maryland.

His Fellow citation, presented during the Annual Quality Congress in Toronto in May 2004 will state:

*"For outstanding contributions and support of ASQ, Baltimore Section and the Software Quality Division, with particular recognition of efforts to found and mentor the Division, for continuing support as officer and advisor to Baltimore Section, for expertise and willingness to train and mentor in the emerging field of Software Quality.*

We all join in congratulating Joel on this national recognition of his total quality performance.

## *The Human Side of Quality*

By Grace L. Duffy

### **Summary:**

Quality is more than a set of tools and processes. It is a holistic way of life. Quality is a journey we all must take in our search for improvement and results. This paper addresses the human facets of quality and considers how each of us can use our own talents to maximize effectiveness.

### **Introduction:**

I came to the “traditional” arena of quality relatively late in my career. I guess whoever the powers-that-be are saved the best for last.

As Chair of the ASQ Quality Management Division, I am often asked where I see the future of quality. Are we going away? Will quality, as we know it today disappear? How can we revitalize our numbers?

I have answered those questions in several different ways. One of the major ways is to look at the Human Side of Quality. Quality is nothing without you in this room. Quality exists through our perception, definition and humanity.

### **The Human Side of Quality**

So where does our humanity come from? I can tell you a little about mine as a way of example. Each of us brings different skills and characteristics to the game.

Mine started as standard Middle America and got progressively more interesting. I am a degreed Archaeologist with an MBA who spent 20 years with IBM before even discovering the existence of the American Society for Quality.

After retiring from IBM as a Senior Manager, I joined the faculty of Trident Technical College in Charleston, SC, to develop and manage their Quality Certificate program. This was a real career change, since quality has never been in my job title.

I had been involved in process design and improvement since 1980 when I developed the early problem, change, recovery and service level management processes for IBM. We just never called it quality. Just as I was retiring, I helped design and deliver a 3-day quality training program for IBM’s top 1200 international executives. Although it was significant, I saw this assignment as just one of my many corporate technical education management functions.

Building the Trident Technical College Quality Certificate was a true epiphany for me. I discovered immediately that everything I had done for the last 20+

years revolved around the quality of something. It was fun to translate those experiences into supporting material for our 6-course quality certificate. It was easy to relate to the works of Deming, Juran and Crosby as simply very perceptive businessmen, and as I became more involved in ASQ, I learned to use the language of quality.

Bottom line is:

Quality is ALL about being human.

Each of you can tie your life experiences to the disciplines of quality just as I have.

So where is quality now and where is it going? Quality is all around us. Quality is a partner on whatever journey we choose to take. You and I decide where quality goes in the future.

I have kept close to a book published in 1990 by Ken Blanchard, Don and Eunice Carew entitled “*The One Minute Manager Builds High Performance Teams.*” A major portion of this work centers on a model of group involvement called:

- P**urpose
- E**mpowerment
- R**elationships and communication
- F**lexibility
- O**ptimal performance
- R**ecognition and appreciation
- M**orale

Each piece of this model grounds me in the Human Side of Quality. Let me explain.

**Purpose** is the vision. Where do we want to go? What do you want to be and why do you exist? This is more than being born, moving around for nine or so decades and then dying. This is the value that each of us brings to the game of life. Man was not meant to be alone. Studies show that unless we interact with others, we die. We constantly analyze, compare, act and learn.

**Empowerment** is the identification of self. Here is a more focused value. Purpose is nothing without application; just as planning is nothing without execution. Once we decide what we wish to be personally, we grab the reins and choose a direction for our efforts. The environment in which we find ourselves greatly influences our direction, but does not completely control our development. We empower ourselves for results as much as others provide external empowerment for us.

**Relationships and communication** provide the leverage through which we magnify our individual efforts. This synergy affects both the human and

technological dimension. I interface with other people as often or more than I interface with a computer, a machine, the environment, or the conceptual plane. Relationships provide the inspiration that generates growth. The inputs and outputs we process make us connect ideas, test assumptions and create new images for future growth. Quality cannot exist in a vacuum. It must be perceived, experienced, maintained and, hopefully, improved.

**Flexibility** is an outcome of successfully experiencing relationships and communication. If we remain stable and refuse to change, we are either passed by or run over and destroyed. Something that moves WILL cause friction. Murphy's Law will always create some level of conflict and conflict is a good thing. Conflict allows us to see change or, at least, opportunity for change. Quality is the characteristic against which we compare the current or future state and by which we grow. Technology alone does not grow in a focused way. Machines by themselves don't learn. Humans know how to say "oops" and regroup for another try. This evolution led to humanity and is now a partner with humanity in the journey of continual improvement. Humanity allows us to fail, recognize the options and move to another level of performance.

**Optimal Performance** is the goal. Optimal performance occurs when all players are working at their best, whether we are human, machine, or environment. The Quality disciplines have identified numerous bodies of knowledge like CQE, QM, QA, QT, MI, 6 Sigma, QIA, etc. that give us tools for problem solving and effective decision making. Quality is a moving target. We hope that target is moving in a positive direction and that our humanity allows us to continually bridge the gap between what is and what can be. We in ASQ are dedicated to defining ever more accurate processes for continuous improvement in ever-broader areas of business and community. This is as it should be.

**Recognition and appreciation** are the fuel that feeds our perpetual motion. Most of us know when we are doing a good job. Maslow makes sense when he talked about the hierarchy of needs. As we meet our safety and security needs, we begin to reach out to others for further growth and identity. We stop looking in the mirror and start focusing on what else is out there. We start by feeling good about ourselves and progress to feeling good about our interactions with others.

**Morale** is the connective tissue that keeps us all going. This is the symbiosis of community. Machines can and do make connections in a nanosecond. It is the

human connection that makes the technology valuable. Spirit is a human thing. Spirit has different definitions, but it centers on humanity. Machines may have personalities, they may throw tantrums or they may be our friends, but the spirit and morale of the group doesn't come across in digital, it comes across in who you are and what you do.

So what does all this mean? What does it mean to be human? How does this relate to quality? I have my own opinion, of course. I like to use the symbolism of Gene Roddenberry, creator and original producer of the Star Trek series of television and movie fame. Each generation of the Star Trek series has highlighted a character that personifies the "journey to humanity." It is interesting that each of these characters has been all but superhuman in some technological characteristic. Just as in quality, all the tools in our toolbox aren't enough to get the job done. We need that final spark of humanity to bring it all together. Spock, the Vulcan science officer in Kirk's original 1960's series sought compassion, intuition and faith. Data, the android of Star Trek, The Next Generation, ached for emotion, humor and love. 7 of 9, the reclaimed Borg unit in Voyager, labored to regain individuality and respect for others. Finally, the "prequel" Enterprise introduces us to T'Pol, the beautiful Vulcan first officer who is challenged by the need for flexibility and an open mind.

## Conclusion

Quality, too, has been on a journey of progression, growth and change. Quality Inspectors of the guilds, trade and scientific revolution gave way to Quality Control during WWII and the 1950's. Quality Assurance came next as we better understood the cost of poor quality and SPC's reduction of variation. The 1970's and '80's saw the behavioral side of quality with TQM and Quality Circles as we incorporated the concepts of quality beyond the production area into the front office and the total value chain. The 1990's saw the proliferation of quality and improvement models just as QFD, 6 Sigma, Lean Enterprise, CRM, and Supply Chain Management. Baldrige and ISO assessment and improvement models give us either more structure or more flexibility depending on your perspective.

Where is quality going? Anywhere you want it to go. Quality is who we choose to be. Quality is a standard that must grow, must continue to be refined. If we stop the forward motion, we lose. If we depend on our tools and our technology we will start sliding backward. Just like Star Trek, the answer is "out there somewhere."

### ***Problem-Solving Success Tip***

Jeanne Sawyer, Ph.D.

**Look for sponsors and solution owners rather than problem owners.** Everyone participating in the situation owns the problem, like it or not—and nobody likes it. However, if one person is designated as the problem owner, that gives everyone else involved implicit permission to step away and essentially pretend that they don't have an ownership role in the problem. In other words, appointing a problem owner gets in the way of solving a problem.

A much better term for what is usually expected of the "problem owner" is "sponsor." A sponsor is the person who champions the problem-solving project by assuring awareness of the importance of the project, allocating resources, removing obstacles, etc. The words are important. Having a sponsor gets support for the problem-solving project without removing (or appearing to remove) responsibility for solving it.

Another difficulty with the term "problem owner" is that it has a blame connotation. A typical corollary to discussing who owns the problem is discussing whose fault it is. This is totally counterproductive to solving the problem. People get angry, and these discussions often deteriorate into finger-pointing rather than focusing on the root causes of the problem and what can be done to address them. "Solution owners" are people who are in a position to do something constructive about eliminating root causes of the problem. Helping with a solution is much more fun than being blamed for a problem, so you're more likely to get the response you need.

The terms you use are important. Avoid the not-my-problem trap by getting sponsors. Avoid the finger-pointing trap by finding solution owners.

Jeanne Sawyer is an author, consultant, trainer and coach who helps her clients solve expensive, chronic problems,

such as those that cause operational disruptions and cause customers to take their business elsewhere. These tips are excerpted from her book, *When Stuff Happens: A Practical Guide to Solving Problems Permanently*. Find out about it, and get more free information on problem solving at her web site: [www.sawyerpartnership.com](http://www.sawyerpartnership.com).

### ***Human Side of Quality (Continued from page 11)***

Just like ASQ, we exist and succeed because we choose to. I hope each of you will accept accountability for some small piece of this success. We won't do it alone. We will do it together.

### **References**

Blanchard, Kenneth, Carew, Donald, Parisi-Carew, Eunice, *The One Minute Manager Builds High Performance Teams*, 1990, Morrow, New York

### ***ASQ - Baltimore Section 0502***

***THE VISION: To be the Baltimore Metropolitan Area recognized resource on issues related to Quality.***

***OUR MISSION: To create value for our members and others by providing opportunities for development and resources for managing quality in the community.***

### **Certification Exam Schedule**

<b>Examination</b>	<b>Application Date</b>	<b>Exam Date</b>
CQE/CQA/ CSQE/CQIA/ CCT	April 9, 2004	June 5, 2004
CQT/CRE/CMI/ SSBB/HACCP/ Biomedical/ Quality Mgr.	August 20, 2004	October 16, 2004



**American Society for Quality  
Baltimore Section - 0502  
2716 Baldwin Mill Road  
Baldwin, MD 21013-9140**

Nonprofit  
Organization  
U.S. Postal Permit  
Cockeysville, MD 21030  
Permit No. 5419