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This page will capture permanently any original Quality-related publication created by a member of Section 0711. All members are encouraged to consider our website as the resource location for papers, articles, essays or research reports that have not been published elsewhere. These pages will be complimentary to our "Quality Classics" section. Over time Inland Empire Section members will be increasingly contributing to the globally available resources for quality professionals.

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How To Manage a Six Sigma Corporate Culture

The Inland Empire (California) American Society for Quality (ASQ) Section 0711 sponsored a "Six Sigma Workshop" on 10 April 2001 at Bourns, Inc. in Riverside, California. Forty-one quality professionals attended. The Keynote Speaker was Mr. Hosain Bahari, GE Electrical Service Manager in Singapore. His subject was "Six Sigma Management Issues." The workshop included four other Six Sigma presentations: 1) Phyllis Jones, "Six Sigma Implementation at Bourns;" 2) Paul Gratzinger, "Six Sigma Case Study;" 3) John Noguera, "Six Sigma vs TQM: What's Different? What's the Same?;" and 4) Sally Ulman, "Selecting the Right Six Sigma Candidate."

After all those presentations, with associated discussions, I conducted an Ideas Unlimited® Group Survey Method data gathering session. For 12 minutes all participants wrote responses to the target:

**SIX SIGMA:
HOW TO CREATE THE NECESSARY CORPORATE CULTURE**

- * What decisions and actions would your company need to take?
- * Write the obstacles and problems you would face
- * One subject, or idea, per data page, many pages until mental slowdown.

A total of 311 responses were gathered. This article abstracts and reduces the qualitative data gathered. It provides readers with the editor's succinct view of the most important ideas, recommendations and problems linked to fourteen classified subjects the data created on "HOW TO MANAGE A SIX SIGMA CORPORATE CULTURE." It provides a checklist for any organization leadership to review when considering the adoption of Six Sigma.

1. **LEADERSHIP COMMITMENT.** Decide that Six Sigma fits your business. Identify your champions and authority structure. It must be company-wide and mandatory. Understand the macro benefit-cost and the complexity of Six Sigma. Get full leadership consensus and support on "Why Change?" Leadership commitment is the most critical variable. Dedicate and focus to a long-term change. Don't start without it. Publicize the decision to go ahead and do it. Your decision-making system will need review and probably revision.
2. **PLANNING & PREPARATION.** The senior and executive staff should perform detailed planning of the whole program before implementation. Clarify company strategy and stretch goals. Develop a vision for success. Identify ways that management can demonstrate genuine buy-in. Do a Six sigma needs assessment. Have a clear definition of what it will be for your company and how the implementation plan will look. The plan needs to include ways to deal with those who oppose it and block training or projects. All employees need to be shown potential gains, benefits and profitability... but also the challenges. Don't hide decisions. Give real reasons and justification. Strategic plans and corporate policies need to reflect the Six Sigma dedication. Six Sigma champions and leaders should have top salaries. Identify, quantify and prioritize issues and initial projects. Budget training costs. Hire qualified consultants. Recognize the time variable things may get worse before they get better as the program begins. Organize management, documentation and controls. Decide who gets belt training first. Design a retention plan for those who get certified or you will lose expertise after they are trained. Include processes, measurement methods and the full range of where in the company Six Sigma can, and will be, used. Prepare an implementation plan.
3. **SIX SIGMA IMPLEMENTATION.** The overall goal of Six Sigma is to increase productivity and profitability by reducing performance variation in processes and products. Implementation requires continual focus on creating incentives to effect positive results. Communications among organization leaders, managers and employees increases dramatically. Those chosen for training work with leadership to select initial projects that have high probability of showing productivity gains (i.e. "Doing more with less"). Hi-performance teamwork is a must. Success in simple, low-expense "Doable Projects" breeds more successes and sustains the incentives to continue when problems and barriers emerge (see following section). Aligning Six Sigma projects with key priorities of the company insures relevance. Carefully choose Six Sigma tools to match project needs.

Increasing research into customer needs and satisfaction is inherent. Outside consultants in a variety of disciplines will broaden minds and help create growth projects and goals. Some of those will be incremental improvements and some will be major breakthrough potentials. Measurement, documentation and analysis of data become standard follow-up processes once implementation has begun. Chart project projections, then performance. Maintain continuous feedback to upper management to sustain confidence, support and to receive guidance. Implement Six Sigma gradually and incrementally to avoid high initial costs for small benefits. Celebrate experimentation ... even if some experiments fail.

Through this avoid conflicting directions by establishing discipline in job responsibility, process monitoring, and creative ways to be continually communicating with all stakeholders.

4. **IDEAS SOURCES.** Capture ideas from all sources ... internally and externally. Listen to those with ideas. Encourage "Out of box ideas" from all employees. Allow people to implement their own ideas through empowerment strategies. Linus Pauling said: "The way to get a good idea is to have lots of them."
5. **HUMAN RELATIONS.** Involve everyone. Profit sharing is the best strategy for keeping people's interest and involvement. As the organization grows in quality and wealth, everyone should gain. Pick your best people who have strong interest in Six Sigma. If people see no benefits getting participation will be tough. Expectations must be clear. For the jobs of those selected for Black Belt training you will need transition plans. Don't separate Black Belts from others. Empowerment and increased responsibilities generate buy-in. Keep management and employees involved. Project/Program Champions and Sponsors are your facilitators. As buy-in increases there will be an increased perception of equity by employees which will increase retention. But, the downside is that Six Sigma produces new stresses and challenges that not everyone wants to accept. You need re-course action plans for both management and who cannot support Six Sigma.

Create a reward, recognition and opportunities system linked to Six Sigma. People need to see their new efforts helping themselves as well as the company. And rewarding positive behavior leads to more positive results. Include family members and recreation options to go along with the change process.

6. **COMMUNICATIONS.** History shows that the two most difficult areas in business and management are decision-making systems and communications. Implementing Six Sigma impacts both of these areas. The hardest change for management is to create open and redundant communications on decisions, actions and salaries. Share the good, the difficult, the challenges and the failures. Failure often creates more long lasting learning than successes. Trust throughout the organization will increase to the degree you can achieve open and honest communications. "Nay sayers" need to be heard, not criticized. They may have captured an important omission or oversight. Use every communication means from coffee breaks, to e-mail, to personal data systems, teleconferencing, newsletters, town-square meetings, visual aids, bulletins, posters and public media communication of success stories. GE is a model here. When a company is geographically, or globally, dispersed the communications problems are larger and need more attention, but act as advertising and promotional tools as well as internal corporate understanding tools.

The overall benefit of your Six Sigma communications program will be the common language for Six Sigma operations that you create. Six Sigma, even more than older Quality Management programs, makes a permanent long-range culture change in the organization. That change, if done right, is a value-added one that produces growth in return-on-investments, quality of products and services, and benefits to employees and to customers. Customer buy-in and support become critical bonuses.

7. **TRAINING AND TEAMWORK.** Create an environment where training can flourish. Teach concepts, tools and successful case studies to get buy-in from top management, middle management and employees. Have both in-house training and funding for outside education. Training must be well defined and communicated to all employees. Train capable individuals as candidates to lead the Six Sigma transition. Bring in experienced trainers. Dedicate every available resource to teaching everyone the soft skills necessary to inculcate change based in Six Sigma. Train black belts or masters from within as a first priority... hire from outside if necessary. Provide tuition reimbursement for outside self-development quality and Six Sigma courses and programs. Let trained employees give classes. Use trainers with other-than-English language skills if relevant for your work force. Create training schedules well in advance.

Self-directed work groups and teams are basic to Six Sigma. Create a corporate cross-functional Six Sigma Leadership Team. Encourage open dialogue among team members. Try to make teamwork painless and effective. Establish extracurricular activities to help teams form. Have teams review and evaluate possible obstacles and problems.

8. **TOOLS.** The primary purpose for tools is the creation of raw data on which analysis, calculation, and measurement can produce quantitative and qualitative evidence of performance improvement directly linked to Six Sigma. We need to document how variance reduction reduces the Cost of Poor Quality (COPQ). Teach statistical analysis on a basic level. Create roadmaps and flow charts to track Six Sigma progress. Pareto charts, flow charts, design of experiments, simulation scenarios, and idea-generating tools are basic. Benchmarking how other companies and organizations are improving with Six Sigma is essential. Continually search for those companies and their methods. Learn from other corporate successes and failures to prevent your costly mistakes.
9. **FUNDING AND BUDGETS.** Allocate needed funds and resources for training, equipment and Six Sigma research and projects. There should be budget line items for training, consulting, travel, software, hardware, measurement, documentation, and planning time. Create a macro Financial Management system to track the overall costs and benefits of your Six Sigma program. If you cannot show overall benefits after the initial transition and training period it will be very difficult to maintain leadership commitment for Six Sigma.
10. **BARRIERS AND PITFALLS.** Don't leap into Six Sigma without an in-depth study of how implementation difficulties might produce failure in your company. Our 10 April 2001 workshop participants identified host of potential barriers and problems that could be pitfalls for your company. Corporate culture change, even when poor quality is known, is actually the exception more than the norm.

Insufficient leadership commitment should wave red flags. Without company-wide training and implementation failure will be built-in from the outset. Even if leadership is fully committed there can be middle-management and employees that submarine projects and programs due to their own lack of buy-in. Company size makes a difference. Small companies may not be able to afford the up-front expenses and time for Six Sigma training. There could be a bias toward half-measures which do not produce the profits and productivity of effective Six Sigma projects. History and location are two other factors that can produce barriers. Past bad experiences with new management schemes may have soured leadership on change of any kind without certainty of success. Older tenured employees or union workers may resist any new major change because of too many past expectations resulting in no measurable benefits.

Increased data collection and analysis requirements of Six Sigma may produce unacceptable burdens with limited staff that are already in overload. Some companies have only one major customer that may not be interested in Six Sigma. Some leadership may believe that *"We don't need it to grow our business."* Companies still exist that, for whatever reason, have no strong interest in performance. Some employees will fear that increased productivity will lead to company personnel lay-offs. There may be Six Sigma enthusiastic division leadership that cannot convince a large corporation leadership to seriously study potential gains. Other companies may be constrained by the fear of changing from closed to more open and transparent operations. And still others may be lead by micro-managers who aren't ready to change their old style of top-down control of all operations.

Then there are a large number of difficult barriers that can emerge once a Six Sigma program is begun. Training, data collection, documentation and analysis may prove to be a much bigger obstacle than foreseen. Finding, selecting and training qualified people for Six Sigma may not easily materialize. There may not be enough resources or time to go through the costly transition period while production schedules remain and revenues stay constant or decline. Customers and clients may not really care about your internal change problems and their satisfaction may drop. Competitors, who are not adopting Six Sigma, may be gaining on you. Employees may be overloaded before Six Sigma produces tangible rewards for them, may lose pride in their work and personnel turnover may increase. Supervisors may be resistant to employee empowerment. Their may be difficulty in measuring return on investment due to the time delay between investment for Six Sigma start-up and returns.

It just might be too hard, at this time, to accomplish all those guidelines in #1 through #8 above, to achieve Six Sigma.

11. **PROGRESS EVIDENCE.** So what evidence does leadership need to be convinced that creating a Six Sigma culture was the right thing to do? Have mandatory and regular meetings to discuss the progress of your Six Sigma program. Insure your metrics are providing accurate bottom-line figures on productivity and profits. Constantly monitor progress. Make sure you are measuring both quality of products and services and financial management results. Are you moving from fire-fighting to fire-prevention? Can you actually show cost savings? Are revenues climbing? Are your people reporting positive results and is their motivation remaining high? Is customer satisfaction and retention climbing? Are you getting better than you were last year; and better than your competitors?

If you are getting predominantly positive evidence, your Six Sigma corporate culture is on track.

End " *HOW TO MANAGE A SIX SIGMA CORPORATE CULTURE* "

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