

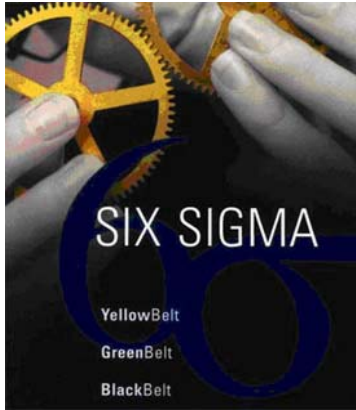
The Front Line

Yellow Belts Play Crucial Role in
Sustaining Six Sigma Efforts



Operational Excellence as a
Competitive Strategy





The Front Line

Yellow Belts Play a Crucial Role in Sustaining Six Sigma Efforts

A Six Sigma deployment is most successful when workers throughout the organization are properly trained and prepared to address process issues from a root cause perspective. While Black Belts can serve an organization by tackling broad-based cross-functional projects and systemic issues, front line workers that live in the process are crucial to sustaining Six Sigma efforts indefinitely.

The Role of Yellow Belts

“— individual contributors who are most often the actual process owners and certainly those most affected by process changes — is a significant factor in realizing step improvements and obtaining lasting change. It's a common problem faced by companies when first embracing Six Sigma: after a successful first wave of Black Belt projects generates the anticipated solutions that can lead to significant cost savings, the effectiveness of Six Sigma initiatives is truly challenged. To achieve the gains, the improvements have to be institutionalized, and the streamlined processes have to be prevented from slipping back into *old behavior*.”

Several Issues are at Play ...

Inaugural Six Sigma projects are often rolled out with much fanfare and substantial commitment by senior management. These first projects cannot fail, WILL not fail. So every effort goes into the DMAIC process, into process mapping, detailed analysis and an enthusiastic team effort to isolate a problem, find a solution, and implement change. But once the squeak in the wheel has been oiled, people stop paying attention to it.

What remains is a group of line workers wondering what the heck just happened to them.

The vocabulary used by all those supercharged Black Belts from the first projects was confusing and intimidating. There is push-back against the “solution” bestowed upon the work group — mostly due to the “not invented here” syndrome. And everyone may have discovered that it is not as easy to collect and track accurate data over the long haul as it seemed to be during crunch time.

Instinctively, company leaders will respond to this turn of events by using costly and/or scarce resources to fix the problems. Black Belts will tend to stay involved in a project after their work is done, sometimes long after the project is complete. Analysis paralysis lengthens cycle times, and the net result is a new series of redesigns and changes imposed upon the front line workers.

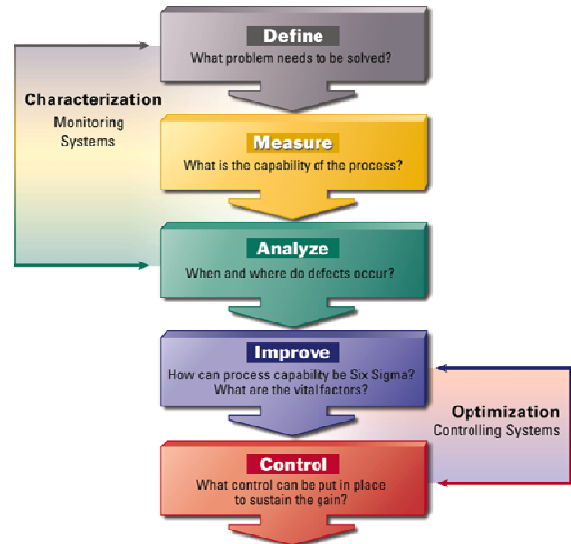
Black Belts are a reasonably scarce resource within an organization. They are, by design, problem finders and solvers. Ultimately, however, their role is to move across the organization, applying their advanced skills to as many unique problems as can be identified and to work with as many different functional groups as possible. They are not intended to stay within a work group and sustain Six Sigma

improvements made to a specific process as an on-going way of life.

Sustainable Performance

Over the past several years, Six Sigma Qualtec has determined that the key to sustainable performance improvement practices rests on process management and a group of tactically trained Yellow Belts, or front line workers who are the process owners and others most affected by Six Sigma-based improvements on an on-going basis. While the term “Yellow Belt” may not be used as universally as Black Belt or Green Belt, the skills, practiced by a broad population within an organization, are nonetheless critical components to a robust quality management system.

The Yellow Belt is often thought of as a team member, data collector, or an “assistant to the Black Belt” In reality, a Yellow Belt's role should be much deeper than that. Yellow Belts practice a Process Management approach (control and manage processes using metrics and data) and solve problems using basic quality tools. Beyond that, the power of Yellow Belts rests in their numbers and demographics. Yellow Belts are directly linked to daily, often critical, processes. They can come from any level of the organization, though the first Yellow Belt waves often come from the operator, line support, and front-line supervisor levels. Not only does this create an initial grass-roots understanding and support that is critical to Six Sigma projects, but the Yellow Belts' Process Management skills create the foundation for an effective deployment and its self-sufficiency. Consequently, Yellow Belt training must cover as large a population as possible – or at least practical – in an organization.



By introducing the majority of individual contributors to the concepts of Six Sigma and Process Management, an organization is making a direct connection between the DMAIC process and the workers who must perform the specific activities. Further, this approach empowers front-line workers to take significant ownership of their immediate environment while supporting the long-range strategic goals of the organization. Ultimately, a grass roots level of accountability is established for identifying and correcting problems on an on-going basis - the foundation for obtaining breakthrough levels of performance.

Yellow Belt training and preparation depends on the way in which they will be expected to operate. If, as noted above, a wave of Yellow Belts is being positioned to assist Black Belts on specific projects, they have little need for the more advanced skills such as project selection or detailed analysis - often left to properly trained Black Belts and Champions. However, if the Yellow Belts are expected to sustain on-going Six Sigma efforts long after the Black Belt has roared through with the first project, a more complete set of tools is required.

A fully self-actualized Yellow Belt team must have a fundamental background in:

- *Process Mapping*
- *Measurement Tools*
- *Analysis Tools*
- *Process Control Methods*

By virtue of its position in DMAIC, Process Mapping is a vital tool for the Yellow Belt. This is the starting point from which a work team will begin to create an articulate, well-defined model of their current environment. Little success can be achieved without this important first step.

As an example, SSQ is currently working with a large professional services company that has embraced the concept of Yellow Belt teams identifying, measuring, analyzing and managing processes in their direct control. One group in particular, a Planning and Design (P&D) team, has begun Process Mapping on a number of their activities, something they had never done before. Once this group actually saw their processes mapped out, they immediately understood the power of this tool. If nothing else, their first learning experience was the considerable difference between the “needs” and the “wants” of customers and how these affected the P&D's workflow. The group quickly spotted several areas in which re-work was almost built into their processes, virtually assuring cost and schedule overruns.

The next phase, Measurement, is a direct result of proper Process Mapping, and requires another specific set of tools. Yellow Belts must have proficiency in developing XY matrices, and Pareto charts, which allows them to isolate and track individual inputs from the mapped processes.

The P&D Team

The company's P&D team is in the middle of its Measurement activity, and already has spotted major areas of concern. Scrutiny of the Change Order process, for example, has given the group an immediate awareness of the power of measurement. A large project can include hundreds and hundreds of change orders, and each change order can be very expensive to implement. Because the Change Order process had never been consciously tracked, there was little hard data to work with, but the team is now getting a much clearer understanding of the costs associated with unnecessary or improperly administered changes.

As the P&D team moves into Analysis mode, they will benefit from their ability to use Failure Mode Effects Analysis (FMEA) as a means to isolate specific inputs and their effect on outputs. And from this work, the team will be able to create a problem statement that will allow them to experiment with the variables most likely to affect their work output. Already, the group has its “suspicions” of what is wrong with the process, and they are eagerly working through the project towards implementation.

Process Controls will be apparent to the P&D group as well, once the probable solutions become evident. Just as they obtained significant insight into their processes simply by beginning to measure them, the group will discover the correct mix of internal and external players who should be involved in the revision of their Change Order Process – clarifying requirements, spelling out responsibilities and reducing unnecessary re-work. Once a group of workers is given the proper tools, there is no end to their potential to monitor and change the way they do their own jobs, day in and day out. They live with their processes and are ultimately responsible for their own performance; therefore these individuals are uniquely positioned to manage those processes.

Yellow Belts at Work

When deployed properly, Yellow Belts can also make a significant contribution to identifying potential Black Belt and Green Belt projects, and in many companies are looked upon as a key source for “new project inventory.” As Yellow Belts map key work processes and identify and measure data streams, they gain insight into potential projects for the organization. And, since the foundation – data, metrics, process – has been developed, the following waves of projects will be completed more quickly and more efficiently.

When utilized effectively, Yellow Belts are the people who own processes and both understand and actively practice process management and control in the statistical sense. Ideally, of course, this should be just about everyone in an organization; the key to sustainability and ongoing success is to systematically train work groups in the fundamentals of Six Sigma so they are reasonably prepared to operate in a Process Management environment. Properly trained Yellow Belts are in the ideal position to recognize the gaps between targeted and actual performance; they are the ones doing the work in the first place.

If necessary, a Yellow Belt team should be able to call upon a Black Belt for help on larger issues, or in cases where they believe there are systemic issues at play. The Yellow Belt is most certainly in the right place to eliminate “fires” and voice a need for Six Sigma project work. The development of an organization full of properly trained Yellow Belts makes a substantial contribution towards that business' ultimate success with Six Sigma.

Keep this key objective of Six Sigma in mind: to get the organization to practice planned, continuous improvement as a habit. What better way to accomplish this goal than to provide front line works with the means, the opportunity and the motivation to integrate Six Sigma into their daily work.



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