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SELLING QUALITY TO YOUR ORGANIZATION

By Neil Potter and Mary Sakry

Introduction

Have you ever had problems selling a quality program internally? If so, this article is intended to give you some ideas (or reminders) to help your cause.

Quality programs come and go with the seasons, and more often than not, are usually viewed as additional non-value-added work. In short, quality and process improvement programs are usually not sold in a way to help manage the business. Typically, project team members hear about the program, see a lot of activity (e.g., meetings, committees, white papers and training classes), and then all the attention dies down. The group then gets back to the "real work" - until the next time.

Why does this cycle occur? First, there is always the underlying rush to deliver a product (the real work) combined with the knowledge that it has always been good enough without the "quality stuff." Second, quality and process improvement programs are not treated as essential activities to accomplish the real work, even when operating without these practices leads to unnecessary risk, defects and chaos. The quality program is sold and communicated as, "Be Agile/CMMI/ISO, it is good for you," or, "If you have time, do these things," or, "These are the practices we expect, but if you don't do them, no problem."

Quality practices are only adopted long-term when more benefit is gained from performing them than the effort expended. The gain might be a reduction in project cost, cycle time or quality problems. For example, the quality practice of regression-testing a product that already works in the field might appear too costly and non-essential. However, when compared with the financial risk of allowing a serious defect to be released and then repaired later, it becomes obvious that appropriate regression testing is more cost-effective than grinding sales to a halt due to an undetected severe defect reaching the end users.



"And I say you can afford it!"

We only have time for real work, not quality processes

The decision to allocate time to perform a quality practice boils down to whether the practice is seen as essential in helping a team achieve its project goal.

When someone declares that there is no time for a quality practice, an appropriate response is, "No time compared to what?" The team only has to save that amount of time anywhere down the line and the event has paid for itself. For example, spending two hours clarifying a requirement is beneficial if it saves at least two hours of rework later. Similarly, spending two hours assessing project risks and deciding to prevent a few of them can save more than two hours later in the project.

How to sell processes as essential

A process or quality practice is sold as essential by matching it with the goals and challenges a team faces. Goals include future product releases, quality improvement targets and operational performance levels. Challenges include over-commitment, maintaining buggy software, difficulty in establishing customer requirements and managing external dependencies.

The selling steps are:

- Show the team members the direct link between the issues they face and the solution provided by the quality practices.
- Pick a quality practice that is small relative to the size of the project.
- Demonstrate the benefit of the practice.
- Push them over the edge or agree to delay.
- Establish oversight to maintain the gains.

Below, we describe examples of the five steps.

Show the team members the direct link between the issues they face and the solution provided by the quality practices.

This first step motivates the team members to try the practice. If they don't see the tie between their real work and the practice, the practice will not be performed.

One company was adamant that the practices in published quality frameworks were non-essential and did not fit their business model. Their business model stated that any requested system modification was to be implemented and deployed in 3 months or less. Speed was of the essence and each change request was unique. Having proven in the '90s that Total Quality Management was ineffective, they knew that similar quality frameworks were equally inappropriate.

When we asked the question, "What practices do you need to achieve your business model?" the response was:

- Train people in the technical skills needed to work on the changes in the time allocated.
- Develop plans that contain all the necessary tasks to complete a turnaround successfully.
- Inspect the source code to find defects prior to the limited testing phase.
- Perform configuration management to prevent errors due to handling multiple changed files.

As we proceeded to refine the list, the team realized that it had captured the topic areas common to almost all known quality standards and improvement models written over the last 20 years, including sections of the one it rejected wholesale back in the '90s.

In this example, direct ties were made from the issues faced by the team, and the new set of practices being deployed in the organization.

Pick a quality practice that is small relative to the size of the project.

Making the solution small relative to the size of the project allows the team members to feel like they can squeeze it into their schedule. This will motivate them to allocate time to do it. For example, if the practice is 1-5 percent of the project's schedule then it becomes affordable. If the team members are working on a requirements document for four weeks, allocating one day (5 percent) for a requirements peer review, or less than a day to set requirements priorities, might be considered reasonably priced.

Offering solutions in small pieces over time, adapted to their needs, helps the team see the improvements as pragmatic, rather than overwhelming and unnecessary.

Demonstrate the benefit of the practice.

Talking about a quality practice will only cause a few people to try it. Demonstrating the practice, or showing an example, will move more people to action. For example, a hardware team we worked with had been signed up for our inspection (peer reviews) class against their will. They had been given no clear explanation of why they were required to attend, and believed that they already had an adequate peer review process for their design documents. No amount of argument from the instructor convinced them of the value of inspection. A demonstration was needed.

One of the students in the class submitted a "complete" circuit board design for the class exercise. Five class students marked up the document individually and then as a team agreed upon the final list of defects. They

Talking about a quality practice will only cause a few people to try it.

found three critical defects, 15 major defects and a few minor defects. The defects were also found five times faster¹ compared to the group's usual peer review method.

If the benefit of the new practice you are trying to deploy is not yet proven, either try the practice on your own work and determine the benefit, or find an early adopter that is willing to try something new to solve a problem. Early adopters, by nature, are willing to experiment and as long as they are fixing a real problem or mitigating a risk, they will be happy to collaborate with you in this early phase.

The demonstration must go well otherwise there is little reason for any team to adopt the practice. If the

person demonstrating this practice does not show a level of proficiency, or the process is cumbersome and includes redundant steps, then the likelihood of adoption is low.

Push them over the edge or agree to delay.

Occasionally you will work with a group that acts like sheep; that is, they will not adopt a new practice until



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another team takes the first step. Someone needs to say, "Let's do it now," or "Let's do it Tuesday 2:00 PM," to start the ball rolling. That someone might be you.

When we conduct workshops on engineering and management topics, we typically teach in blocks of two hours and then conduct a two-hour exercise to put what the students learned into action. When the workshop covers more topics than can be practiced during our visit, we select topic samples and have the students perform a timeboxed version. For example, the teams write a few pages of requirements using a new format, or estimate one part of an upcoming project.

After your demonstration or example, the team may be unresponsive. Either they don't want it, don't want it now, or don't want the version you have to offer. At this point determine specifically what they are concerned with and plan to address those concerns. Forcing them into adoption is not really adoption²

Establish oversight to maintain the gains.

Humans don't stick to every promise they make. Reasons include, the difficulty of breaking old habits, keeping with a game plan when schedules are tight, and believing that they are immune to consequences when essential steps are skipped. This lack of attention can be greatly assisted by improving management oversight of the practices being adopted. Typical approaches are periodic project reviews and process checks to keep the practice visible over time.

In all the cases where we have seen processes

adopted long-term, the senior managers of the group have been involved on a monthly basis, reviewing new practices and the results achieved. For example, if the project team is required to develop estimates, assess risks, use a design template or analyze test defects, the manager attending the monthly program review asks to see these data. In the discussion, the manager makes sure that practices are not performed perfunctorily and he or she uses the results to oversee the program. The level of review by a manager is certainly less detailed than a process audit, but is none-the-less a pragmatic check for sound process adoption.

When project teams fail to perform the expected practices they should be provided assistance and training, or the process should be fixed so that it can be used. If the practices are still not used after a reasonable time, additional attention should be given to the project until they perform them. After this point, any lack of adoption becomes an individual performance problem that is addressed similarly to other human resource issues.

When organizations adopt quality programs correctly, management maintains high-expectations and does not let anyone off the hook. Managers also understand the full purpose of the practices being performed and communicate daily how they help the business. Processes that are found to be ineffective are improved.

Summary

Implementing quality programs can be difficult and frustrating. The most common problem is that quality practices are treated as tasks unrelated to the real work of the organization. This separation can lead to the quality program being perceived by engineers and



managers as academic. This perception results in quality being treated as "extra work".

Visibility needs to be maintained so that management can see what is, and what is not being done. Without visibility and attention, a quality program can become burdensome, die, or allow old quality problems to resurface.

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