

Before You Approve a Six Sigma Implementation

A PQA Whitepaper

1. Executive Summary

Management's commitment and long term follow-through is essential to the success of a Six Sigma implementation. Recently, PQA's experience and recommendations have been supported by in-depth research performed for a doctoral dissertation on Six Sigma by one of PQA's Associates¹. The research found that no matter how well Sr. Management is trained or prepared, fully informed consent for a Six Sigma launch is rarely or never achieved.

Once Sr. Management fully realizes what they have supposedly agreed to, a moment of truth occurs. Sometimes, Six Sigma is formally abandoned by management, or is left to slowly die an orphan. Fortunately, some organizations are able to slowly re-build the trust, commitment, and results achieved, but this takes years, if not decades, to recover.

Based on these results, PQA has proposed an alternative implementation method which avoids these problems. Gradually building the organization's buy-in has significant benefits; as contrasted to a flashy launch and fast start. The logic and results from this innovative and unique approach are discussed in this Whitepaper.

2. Intended Readers

This Whitepaper is intended for all organization who:

- are considering a Six Sigma launch for their organization, or
- those who have already launched but are not fully satisfied with the past results and/or the foreseeable path to the future.

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Dr. John McLellan MBA CMA CQA DBA, "A Study on the Integration of a Six Sigma Continuous Improvement Program and the Management Control System of that Organization", submitted to Southern Cross University in partial fulfilment of the requirements of the degree of Doctor of Business Administration, December 2004. John has been a PQA Associate since 1995.

3. Typical Six Sigma Implementation Methodology

Frequently, there are polished Six Sigma salespersons who carefully manage their contacts, communications, and the environment in which to present a Six Sigma decision point to the prospective client's Sr. Management group. The salespersons are highly motivated to get a "YES", and therefore craft a method that maximizes their probability of achieving this goal.

The best of these salespeople carefully include the downside risks and requirements in a non-obvious and non-alarming way. If necessary later on (ie. when problems occur), these footnotes and sidebar references can be pointed to as evidence that management was "fully informed" about the decision they were being asked to make. Unfortunately, rarely are these important issues fully understood, or discussed. Enthusiasm by Sr. Management is high, but enthusiasm is a poor substitute for commitment. Enthusiasm comes quickly and easily. Commitment takes time to build. While Sr. Management makes a public commitment to Six Sigma, there is an unspoken, gnawing feeling inside. Sr. Management doesn't really know the full extent of their commitment. For these details, they trust their Six Sigma salesperson's smiling face. Sr. Management quickly conferred with a few, carefully selected references provided by the salesperson, then hope this is sufficient due diligence.

These small, but perceptible doubts and incomplete commitments will approach 100%, but won't quite make it. In addition, it's weak, lacks substance, and has no staying power; unable to withstand the slightest breeze without rolling back to lower levels of commitment. Even though it isn't spoken about, most can see or feel the gap. This leads to less trust, a sense of cynicism, and detection of hypocrisy. None of these are good feelings to be associated with the launch of a brand new program or "way of life".

The degree of management commitment that frequently results is shown in **Figure 1**.

The expertise of the salesperson is able to quickly generate enthusiasm, then some commitment, often starting from 0% at Point 1. If lucky, the Six Sigma salesperson will find that management has already started along this path before the salesperson arrives. At Point 2, the sale is closed, as the salesperson believes all necessary ingredients exist. The salesperson's company is the enabler of the management's decision, having carefully pre-qualified the client as having the necessary resources (especially money) to consummate the deal. However, the Six Sigma salesperson and the organization being sold the Six Sigma implementation package have similar, but different needs.

How should Sr. Management get all the employees started on Six Sigma?

Lets take a simple example. Should a dog trainer engage the dog as a willing partner and

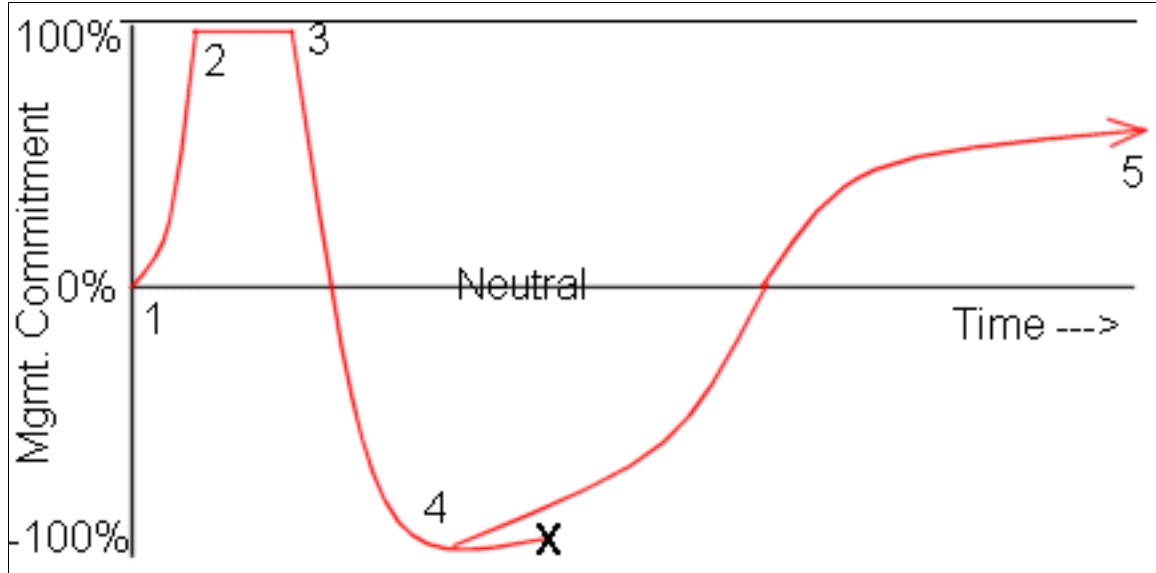


Figure 1 Typical Management Commitment to a Six Sigma Implementation over time

an equal (but different) member of the team? Or is it better to issue edicts from throne to slave, controlled and forced by collar and leash? Too often, the master snaps the leash on the dog's collar, and demands immediate obedience to his commanded whims. Those who get the very best from a trained dog achieve supreme results when the leash and collar are left at home. The dog does it willingly, eagerly, with fun and passion. While employees are very different from dogs, can Sr. Management of organizations learn something from this simple example?

Often, a Black Belt, Master Black Belt, or similar manager of the over-all Six Sigma program is hired or trained. This person is anxious to prove their worth and achieve their assigned goals. The Black Belt often finds that other employees (grass-roots, middle-management, and Sr. Management) assume the Black Belt will do most or all of the work. The Black Belt facilitates, co-ordinates, or does by themselves what is necessary to achieve their assigned goals. If the organization doesn't fully co-operate or transform as quickly as the Black Belt needs or expects, they become frustrated &/or scared. Either pressure is applied to others to pick up the pace, or the Black Belt takes a "hands-on" approach. Either way, little effort is put into the building of new habits by the masses. In the end, the Black Belt often earns their stripes, and uses them in their resumé to pole vault to other opportunities. A significant hole is thereby created in the Six Sigma structure.

Too often, Black Belts have greater opportunities outside the organization of their birth, or become "lifers" in the Black Belt position. PQA has discovered that the best systems

allow for Black Belt to be a natural stage of progression for all managers and supervisors to pass through.

Often unseen by Sr. Management, the Six Sigma consultants or the organization's Black Belt will intervene to ensure the success of the initial projects. These intervention and guiding techniques are lost to the Champions and Sr. Management, leaving an unknown hole if or when the consultant or Black Belt are no longer available.

By Point 3, the consultant's guarantee (if any) has been achieved, and they have fully earned their large fee. The preliminary ROI's have met or exceeded the consultant's promises. The consultant has made it easy for the management to achieve the mandatory goals. However, sustained performance depends upon management's on-going support and commitment. This will require enthusiasm, diligence, maturity, commitment, persistence, sacrifice, strategy, and hard choices. Management has only partially built the necessary self-discipline to implement Six Sigma on their own. It is only now that Sr. Management realize how dependent they were on the outside consultant and a few key employees, such as the Black Belt.

At Point 4, most employees realize the gap between what Sr. Management says vs. what ends up happening. Six Sigma has been attached as an "add-on" to the previous corporate culture. Few remember that the original plan was for Six Sigma to transform corporate culture. Too often, the Six Sigma program is a "walking dead man", unaware that it should have laid down long ago. Instead, it creaks onward under its own inertia until the hypocrisy is exposed, and it comes to an end.

In a few cases, Sr. Management realizes the flagging commitment, and takes affirmative action to re-build the Six Sigma program. This time, there is full informed consent. The rebuilding is slow, but each new piece builds firmly upon the last. Soon inertia is achieved, more and more people re-involve themselves, and the Six Sigma program is re-born. Unfortunately, the rebuilding process will take 2 to 5 years (or longer ?) to regain its former glory and commitment (Point 5). In the interim, there has been chronic cynicism and damaged trust with Sr. Management for extended periods of time. Six Sigma has added to Sr. Management's problems in these key "hearts & minds" factors. The losses and delays associated with these disastrous side effects are intuitively huge, but are unknown and unknowable.

4. **PQA's Recommended Alternative**

Figure 2 shows the level of management commitment that typically occurs through PQA's recommended alternative to the typical Six Sigma implementation method.

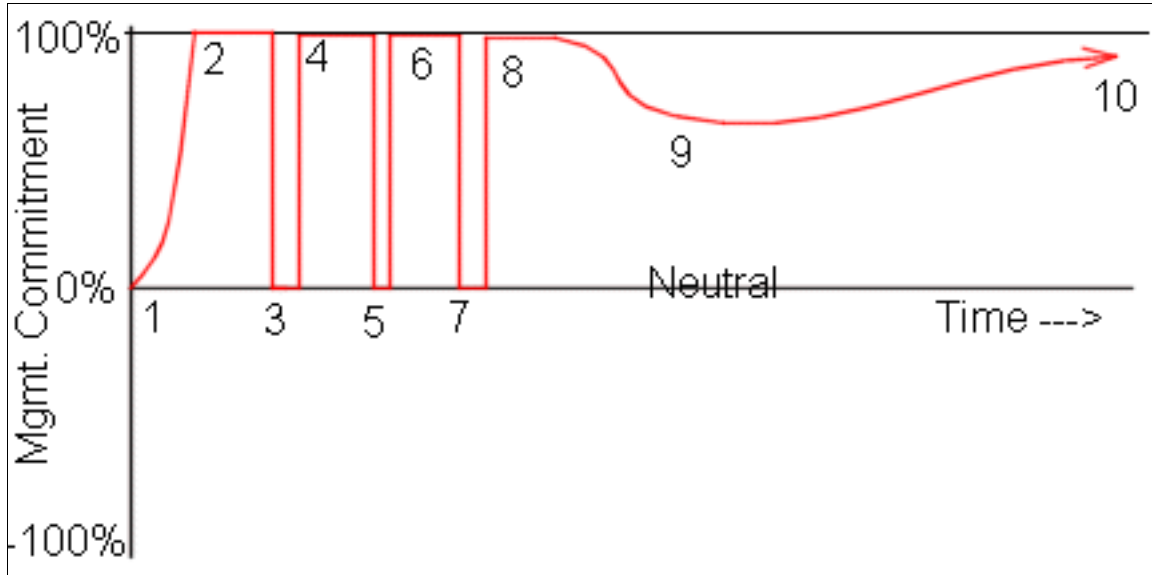


Figure 2 Alternative, recommended implementation methodology for Six Sigma

Referring to **Figure 2** from now on, the curve starts exactly the same (as **Figure 1**) at Point 1, but with a hidden difference. Sr. Management, at Point 2, decides on a defined, limited test period that has a clear start and ending point. The duration of this test, typically 1 to 3 months, is chosen so that there is a guaranteed ability of Sr. Management to continue to the finish of this test under all foreseeable events, both internal and external. During this test period, Sr. Management's commitment is 100%, focused, unconditional, and guaranteed. There is no gap from which cynicism, trust, or hypocrisy can find root.

On completion of the trial project (Point 3), analysis and reflection can occur in a normal environment. No commitment to Six Sigma is demanded, expected, nor offered. A few key questions are asked:

- Did the test demonstrate something unique and worthwhile?
- Were the results impressive?
- Could these impressive results have been achieved by the current systems without resorting to Six Sigma?
- What are the costs, side-effects, risks, & benefits of Six Sigma?
- Is Six Sigma worth the costs, side-effects, & risks?

- Are there methods other than Six Sigma that are faster, cheaper, easier, safer, and could have achieved similar results?
- Did the employees and management both gain from the experience?
- Are there lessons to be learned?
- What's special about our organization, and how we should implement Six Sigma?
- Are all stakeholders willing to try the same or similar experience again for some limited trial?

Management will know when the discussions have had their necessary time. A second test is launched in a similar manner to the first (Point 4). A few individuals already sense the inevitable results from numerous tests. Fast recognition, immediate triage, treatment, and on-going support minimizes the impact and spread of these minor doubts. Commitment during this test implementation is close to 50% across the entire organization, and approaches 100% by the Sr. Management group.

After the second test period (Point 5, while no Six Sigma test is underway), over 60% of the organization is convinced about the value of Six Sigma. They will willingly offer their support to do whatever is necessary to ensure its on-going success. Management hears the words, appreciates the gesture, but wants a greater consensus. They know that the actions and follow-through will be more difficult than the heart-felt, but easily offered words.

A third test is scheduled and implemented (Point 6). Some employees are impatient with the foot-dragging and indecision by Sr. Management. This feeling is known, discussed before hand, and patience is requested so that all or most can convince themselves. At the end of Test #3, the evidence is overwhelming. There are green lights across the board. Between 80% to 95% of the employees are convinced of the value of Six Sigma, and look forward to its permanent implementation.

At Point 7, less than 5% of the employees are openly or secretly opposed to Six Sigma. It has never been made "politically correct" to support Six Sigma. Sr. Management themselves have been the driving force, and simultaneously the "Doubting Thomas". There are open debates on the pros and cons of Six Sigma. Everyone realizes what has to be given up, and what must change if Six Sigma is to be properly implemented. The final decision is made by consensus. There is full, informed consent to the new path that lays before the employees and the organization. The commitment has been tested, tempered, and found to surpass acquiescence, blind trust in Sr. Management, mere enthusiasm, or half-hearted effort at implementation.

With three different groups involved in three different tests, reproducibility of the Six Sigma method has been proven to the satisfaction of most people. It is no longer considered to be “rocket science” to be dreamed about by a chosen few. The Six Sigma methodology is what allows average employees to achieve above-average results. The gifted employees can achieve even more through Six Sigma.

The final decision is made, when the time is right, that Six Sigma will be the foundation for the new corporate culture (Point 8). Some employees previously feared that delay meant re-consideration and possible abandonment. They are now relieved that their fears are unfounded.

For best-in-class Six Sigma implementations, this is when the Management Control Systems (ie. Accounting, KPI's, strategic plans, project management systems, etc.) are permanently modified to focus and co-ordinate individual and departmental efforts; to better plan, measure, recognize, and reward performance congruent with corporate strategies, including Six Sigma.

Doing tests for limited time periods is one thing. It's all together more difficult to make something a life-long habit with no escape. Even though commitment had been almost 95% before the decision, the added difficulty of establishing a ***cultural imperative*** takes its toll. The commitment of all, Sr. Management included, dips away from 100% dogmatic acceptance (Point 9). Fortunately, there is now a significant investment in the continuation with Six Sigma. The program has legs; it has its own inertia. Most people feel a “dyed in the wool” commitment to Six Sigma, but have momentary flashes of doubt and second guessing their group decision. As there is only a few people doubting at any moment in time, they tend to be momentary blips that are supported and resolved through the strength of those who surround them. For the whole organization, the flagging commitment never becomes serious, and is soon resolved as Six Sigma is systematized into the organization, internalized by the people, and fully accepted by all (Point 10).

Research² has found that effective implementation of a new management method requires a level of sophistication that can only be developed over an extended period of time; durations often in excess of the average tenure of the top executive. Witness the Toyota Production System (ie. Lean Manufacturing) that required more than 20 years to perfect. In addition, Toyota contends that new employees take about 20 years to fully adopt the system and internalize it. To guarantee sustained, significant results, Six Sigma must become a ***cultural imperative*** for the entire organization.

² Ibid, page 1

As can be seen, the deviation from 100% commitment in **Figure 2** (PQA recommended method) is significantly better than **Figure 1** (Typical implementation). PQA's recommended method is better in duration, minimum value, total area of the deviation, average value, mean, and mode. Unlike the typical implementation method, it isn't flashy, smug, nor based on bravado. It often results in significantly lower consulting fees, or extends them out over a longer period; to the chagrin of many Six Sigma consultants. It takes a little longer to get going, but is in for the long haul.

An additional benefit with PQA's recommended method as shown in **Figure 2**, there are few organizations that drop-out of the Six Sigma brotherhood (ie. abandon the concept of Six Sigma). With PQA's recommended method, almost all organizations who start, also finish. The risk of failure, from a massive undertaking with no sustained results, is minimized.

For the employees, with PQA's recommended implementation method, there is minimal collateral damage. There is no need to consider casualties as a necessary evil for the good of those who survive the implementation process. In PQA's recommended method, almost everybody makes it through unscathed; strong, united, recognized and appreciated for their contribution to the successful Six Sigma implementation.

For those few employees (representing 0% to 5% of the overall employee population) who continue to be Conscientious Objectors to Six Sigma and the new *cultural imperative*, alternative employment can eventually be suggested or assisted.

All employees who volunteer to engage themselves in the Six Sigma method can honestly say, and will often repeat, that if it had not been for them and their dedicated involvement, the Six Sigma implementation would have been far worse, or possibly failed.

5. Where do we Go from Here ?

For further information on Six Sigma, its benefits, and how your organization can best use this powerful tool, contact Process Quality Associates Inc., or visit our website at <http://www.pqa.net> PQA would be pleased to hold a free, confidential discussion of your specific situation.