21 Common Six Sigma Problems

(and What To Do About Them)

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Finally, the answers you've been looking for.

Six Sigma deployments don't always run smoothly, so I compiled a list of 21 frequently encountered situations. You've likely come across at least one but may not have known how best to handle it – until now.

1. **My organization started its Six Sigma deployment five years ago, and now we're having difficulty finding projects, especially projects of value.** It appears as if projects in this Six Sigma deployment are being sought out by the Six Sigma steering committee, even though the process owners have no true urgency for project initiation and completion. It would be better to have a deployment system where process owners solicit help that leads to the execution of Six Sigma projects, which help their business-aligned performance metrics.

2. **Our program stalled after our Six Sigma deployment executive left.** A dictatorship can be great if the dictator truly understands what is needed and addresses those needs without bureaucracy. Even if this utopia were to exist, major chaos would probably result after the dictator's departure.

   Organizations need a Six Sigma deployment that is not solely dependent on one executive's drive. They need to create a system where the process owner asks for the creation of Six Sigma projects to improve their performance metrics, which are aligned with business needs. This should happen no matter which executive is in place.

3. **A Black Belt (BB) or Master Black Belt (MBB) certification would look good on my résumé. What's the easiest way to get one?** Organizations should focus on having the best people learn how to wisely apply Six Sigma and lean techniques to improve performance measures and better meet customer needs. A deployment that focuses on belt titles for the masses rather than results does not accomplish this.

4. **In our Six Sigma deployment, managers are measured by the number of employees trained and their validated financial savings.** With this strategy, people in all functions seek out the least painful training and the easiest projects that will provide them Six Sigma project credit. Minimal, if any, attention is given to targeting improvement efforts that impact the primary business success constraints.

5. **Our organization will be doing lean, then Six Sigma.** Lean and Six Sigma tool usage should depend on the business and its associated metric improvement needs. A deployment rollout should address both tool sets simultaneously with a high level operational metric system that pulls for the right tool at the right time.

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6. **Our organization will have Six Sigma trainees complete an easy classroom project in which they can use the tools. Later they can apply the methods to projects that are more important to the business.** This type of statement says training is the primary focus of the Six Sigma deployment. Instead, the organization should focus on executing projects that improve the overall enterprise metrics.

7. **Jack Welch did it wrong at General Electric (GE). He should have leaned out all business units instead of selling the business units he did not want to deal with.** Lean is a very powerful tool; however, not all businesses are profitable or aligned with the organization's mission. In a Six Sigma deployment, data should help a business decide where it can best focus its efforts and resources, even if that means it has to sell certain business units.

8. **Our organization is going to do 5S (sort, straighten, shine, standardize and sustain) first and then move on to Six Sigma.** An organization could have a clean and efficient process to make something no one buys. Instead, it needs to create a system in which the best lean or Six Sigma tools are used to improve business metrics and synthesize voice of the customer inputs to targeted actions. Tools such as 5S need to be applied within a Six Sigma deployment, when they are most applicable.

9. **Our company is going to conduct a pilot project to see if Six Sigma works before considering a deployment.** This sounds like a great starting point; however, a pilot project can fail for a number of reasons, including nondedicated resource people who don't have the time to work on a project that is not important to the process owner.

   The success or failure of a specific project is not a good test of whether Six Sigma works. Wisely applied Six Sigma with lean works if activities are aligned to business operational metrics needs. The real question is, what can be done to ensure an organization maximizes its benefits from the concepts of Six Sigma?

10. **Our team was told a successful Six Sigma deployment must have the CEO's buy-in.** Not all CEOs have the personality and drive Jack Welch did when he kicked off Six Sigma at GE. Also, some CEOs may have had a poor introduction to Six Sigma and need to be shown how the wise application of Six Sigma and lean tools can directly address their business needs. Executive buy-in is no excuse for not advocating a wise deployment of Six Sigma with lean and effective performance measures. Advocacy selling may be the first step toward jump starting a deployment.

11. **Our Six Sigma project benefits are measured in hard savings, and we're having a difficult time determining the cost benefits for design for Six Sigma projects and those that address voice of the customer needs.** Six Sigma deployments that focus only on hard savings can lead to the wrong activities. This

organization needs metrics and a deployment system that pulls for the creation of the right activity at the right time.

12. **Our organization is trying to follow a define, measure, analyze, improve, control (DMAIC) roadmap for just-do-it situations.** An organization's culture and metrics should lead to the right tool selection at the right time to improve overall enterprise metrics needs. Not all improvements need be in the form of a formalized DMAIC project. A *wisely created* Six Sigma deployment system addresses this systematic business improvement need.

13. **Everyone knows which easy to implement change needs to be made, but our Six Sigma coach says we still need to apply regression analysis and design of experiments to the project.** In a wisely created Six Sigma deployment system, it is okay to immediately implement agree-to, low-hanging fruit changes that are thought beneficial to the overall system. High-level control charts can assess whether implemented changes have altered key process output variable levels, while statistical tests can address significance levels. When a significant change is demonstrated, overall comparisons can then be made to the project's overall expectations.

    It is important to avoid analysis paralysis. There is nothing wrong with implementing just-do-it projects and monitoring the success of the implementation.

14. **Our organization is going to hire new BBs and MBBs rather than train people who are already part of the organization.** This is a compelling strategy; however, finding someone who has the right skill set and can fit into a company's culture is easier said than done. It is more preferable to develop those within an organization who have the right BB or MBB personality profile, have already established internal relationships for getting things done and possess the wisdom of organizational understanding.

15. **We are in the process of selecting a Six Sigma provider.** Selecting the best Six Sigma provider for an organization can be confusing. Sales pitches that sound good may not always lead to the best selection. It is important to understand the provider's basic strategy and project execution roadmap before deciding who to go with. Also, organizations need to ensure the Six Sigma organization practices what it preaches.

16. **I want to earn my Green Belt, BB or MBB certification by taking an e-learning class.** Building a skill set to answer predefined questions is not difficult. The hard part is defining the right problems to solve. These techniques are learned through classroom and coaching sessions where much of the dialogue centers on specific, real-life issues.

17. **I am going to attend a local Six Sigma class to save money.** It is more important to pick the Six Sigma deployment strategy and training that best fulfills an organization's needs.

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18. **Our team is going to start deployment in manufacturing and then move to transactional processes.** This strategy can lead to the suboptimization of processes. The first thing an organization should do is assess the big picture and identify any constraints. The initial projects should focus on these constraints, no matter where they come from. For example, if an organization's main constraint is sales, then the first projects should focus on that.

19. **Our organization is going to save money by developing its own Six Sigma course material, where all examples will be tailored to our company. We will also save money by using newly trained BBs and MBBs to conduct these sessions.** Organizations can easily be penny wise and pound foolish when it comes to Six Sigma training material development. It takes years of continual improvements to develop effective Six Sigma material and an associated roadmap.

    Internal BB and MBB resources should initially focus on the creation of an infrastructure that pulls for the creation and completion of projects. Having internal BBs and MBBs conduct initial training detracts from this focus. In course material, it is important for students to learn how to bridge examples to their situations. With this knowledge, they will later be able to understand how to apply articles written about other industries to their situations.

20. **Our team is having difficulty determining which tool to use when.** Tool selection is important but can be confusing to novices. It is important to have and use Six Sigma project execution roadmaps combined with effective coaching. This will help a team choose the right tool for the situation at hand.

21. **In our Six Sigma training, our team was instructed to describe the process capability for all projects using metrics such as sigma quality level, C_p, C_{pk}, P_p and P_{pk}. These metrics are not used in our day-to-day process work.** The terminology used in the execution of projects should use day-to-day metric descriptions that everyone, from the line operators to the CEO, understands. Any confusing and misleading Six Sigma metrics should be avoided.[1]

Peter Senge[2] writes that learning disabilities are tragic in children but fatal in organizations. Because of them, few corporations live even half as long as a person – most die before they reach the age of 40. "Learning organizations" defy these odds and overcome learning disabilities to understand threats and recognize new opportunities. If we choose to break a complex system into many elements, the optimization of each element does not typically lead to total system optimization; e.g., optimizing purchasing costs by choosing cheaper parts can impact manufacturing costs through an increase in defect rates. Organizations need to create a Six Sigma system that avoids optimizing subsystems at the expense of the overall system. With systems thinking we do not lose sight of the big picture. Wise

Six Sigma deployments offer a roadmap for changing data into knowledge that leads to new opportunities. Through a wise Six Sigma deployment, organizations can become a learning organization!

REFERENCES

1. Breyfogle F. W. (2003), *Implementing Six Sigma*, 2nd edition, Wiley, Hoboken, NJ.

2. Senge P. M. (1990), *The Fifth Discipline: The Art and Practice of the Learning Organization*, Doubleday/Current, New York.

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