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## **What is Lean Six Sigma? Explained for Ordinary People**

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The Great Discovery is the 4<sup>th</sup> Generation of Six Sigma and was developed by Mikel Harry, the co-creator of Six Sigma, so ordinary people could take advantage of the Proven Path to success that has been used by 82 of the Fortune 100 companies.

Only 5% of a Six Sigma company's employees are typically provided high level training in Six Sigma. Six Sigma Black Belts are identified from the pool of the company's best employees and receive 160 hours of additional training and are required to show success in the form of projects. The typical Black Belt has a college degree and a high level of mathematical understanding.

The Great Discovery is for the other 95% of the company's employees and more importantly designed for use in one's personal life. Mikel Harry and a highly qualified team of Six Sigma Master Black Belts studied the many business cases lead by Mikel over the last 25 years and discovered that all successful cases had elements that did not exist in failed cases. The critical elements of success were then reduced into a simple process that anybody can understand – this is The Great Discovery.

While there is no need to understand “classic” Six Sigma in order to use The Great Discovery, the curious or those that desire more background may want a basic understanding of Six Sigma. This article will attempt to provide that basic understanding; but, will steer away from the math of Six Sigma and focus on the concepts.

ISixSigma.com is a terrific resource for Lean Six Sigma. I would recommend this section on their website “New to Lean Six Sigma” ([http://www.isixsigma.com/index.php?option=com\\_content&view=article&id=201&Itemid=27](http://www.isixsigma.com/index.php?option=com_content&view=article&id=201&Itemid=27)) for those wanting more detailed information. Another important resource on Six Sigma is Mikel Harry and Richard Schroeder's bestselling book *Six Sigma – The Breakthrough Management Strategy Revolutionizing The World's Top Corporations*.

There are four generations of Six Sigma and it is now more than 25 years old. When you are discussing Six Sigma with somebody that has heard the term, worked in a company that has used Six Sigma, or maybe was even been trained in Six Sigma, it is important to listen closely to their perspective as it is likely to reflect the evolution in which they associate Six Sigma. Many individuals do not understand the evolution of Six Sigma and may be stuck in or know Six Sigma only from one of its earlier evolutions.

- Generation I is associated with Motorola in the 1980's. During this period Motorola manufactured radio's, TV's, beepers (for the young this is what we had before cell phones), and other electronic devices. Have you ever bought an electronic product and taken it home to find out it didn't work? This was the issue facing Motorola. During this generation Six Sigma was a **Quality Improvement Program** with the goal of reducing defects. Generation I of Six Sigma is said to **focus on the Customer**.
- Generation II is associated with General Electric in the 1990's. During this period, Mikel Harry was brought in by Jack Welch, CEO of GE at the time and one of the world's most famous CEO's. It was recognized that improving quality would also improve profit. People that were trained during this period often view Six Sigma as a **Cost Improvement Program** as the focus shifted to economics – cost reduction, cash generation, and return on investment. Generation II of Six Sigma is said to **focus on the Provider**.
- Generation III is associated with DuPont in the 2000's. During this period Mikel Harry worked with Don Linsenmann. They realized they needed to focus on the future and incorporate strategic thinking. It was recognized that an organization must **focus on both the Customer and the Provider** in order to be successful. If the company had a satisfied customer and unsatisfied stockholders, they would not be successful. If the company had satisfied stockholders and unsatisfied customers, they would not be successful. It was recognized that the balance of satisfying both the customer and the stockholders was typically stated in the strategic plan and the decision was made to drive Six Sigma from the strategic plan. This evolved Six Sigma to a **Business Management System**.

As you can see, people could have different opinions about “What is Six Sigma” depending on when they first learned about Six Sigma and how much they have evolved with the process.

- Generation IV – The Great Discovery evolved as the result of a conversation Mikel Harry had with an executive about Six Sigma. The executive said to Mikel, “The limitation with Six Sigma is that it is only implementable by about 5% of our employees. If we could just learn how you think, the other 95% of our employees could benefit from it.” This generation of Six Sigma **focuses on human achievement** and breaks Six Sigma down to its rudiment philosophy – called the **Proven Path**. It was developed so that the “other 95%” – ordinary people – could implement it in their personal lives. This generation of Six Sigma moves Six Sigma from the company's boardroom to the ordinary individual's dining room table. The application of the rudiments of Six Sigma as described in The Great Discovery is only limited by the human imagination.

Six Sigma provides a roadmap for success – a disciplined process for improvement – and forces us to think differently about how to get work done. The basic roadmap is:

- Define what we want to accomplish
- Study and Analyze the current situation
- Understand the cause and effect between things necessary to create the changes and improvements desired.
- Put something in place to ensure we stay at the new level we have achieved.

This methodology is summarized as DMAIC (duh-may-ic) – Define, Measure, Analyze, Improve, Control in classic Six Sigma. Mikel Harry developed this concept based upon work with his co-creator Bill Smith, and his knowledge from other quality gurus and great thinkers such as Walter Shewhart, Joseph Juran, Edward Deming, Dorian Shannin, Peter Drucker, and others. Mikel does not attempt to hide the fact that Six Sigma uses the foundational work by these great leaders as the basis of Six Sigma. However, it is

through Mikel's original work on logic filters that the best thoughts and tools of these great leaders were molded into a single system that came to be Six Sigma.

The Great Discovery further simplifies this thinking and provides a proven roadmap to success that can be used by ordinary people to accomplish personal dreams, work dreams, joint dreams with others, or to solve virtually any issue that is causing dissatisfaction.

One of the fundamental rudiments of Six Sigma is "Breakthrough" thinking. The concept of Breakthrough was discussed in articles that can be found on the PDF Gallery on my business website: <http://www.bopisolutions.com/PDFgallery.htm>:

- Personal Breakthrough: Applying proven managerial techniques to your personal life, Part I
- Breakthrough versus Control: Applying proven managerial techniques to your personal life Part II

Juran says, "*Breakthrough means change, a dynamic, decisive movement to new higher levels of performance.*" This is contrasted with tweaking the system. I'm not an economist so I can't provide the answers. But let's look at today's loss of jobs and economic situation. I think most of realize that things are not going to turn around anytime soon unless some of our leaders have the courage to "change the way we are doing business" – have a breakthrough strategy as opposed to tinkering with this particular policy or that. Breakthrough is proactive thinking by looking at the future with the goal of having big change. Most have heard about the concept of continuous improvement. We all hope to improve continuously; however, our competitors are also continuously improving. Continuous improvement is not enough. We have to have breakthrough – significant improvement – if we are going to move away from the competition. In our personal lives this means we have to have breakthrough thinking in order to get out of our rut, and accomplish things we have only fanaticized about.

Another rudiment of Six Sigma is "measurement." How are you going to really know you improved if you don't know where you are or don't have a way of measuring improvement? In the "classic" Six Sigma model, this is often a very difficult step, as objectives and goals are often stated ambiguously and are unable to be measured. For example, many companies have a statement such as "We value our employees." in their mission statement; but, have no means of measuring employee satisfaction. So how would they know if they are accomplishing this goal or not? Often one of the biggest challenges of the Lean Six Sigma Black Belt, is to get the team to determine a unit of measurement; refine the scope of work; and develop a baseline. Would you want your airline pilot taking off knowing only that they are only going west, but without a specific destination, and having no instruments for navigation? In one's personal life, we need to learn how to baseline our current situation; uncover the core values (measurements) – those things that have worth, utility, or importance to us; and align those values with our dreams.

You have probably heard of people focusing on the symptom rather than the problem. This is a common problem in both business and in our personal life. While most people have heard this statement, they don't think it applies to them, when in fact most people actually try to solve problems or achieve goals by focusing on the symptom. Six Sigma has a rudiment identified as  $Y = f(X)$ . Oh my, not a mathematical equation! We don't have to worry about the math. This simply means that our desired success as related to any problem or desired improvement is not accomplished by focusing on the problem or improvement – focusing on the Y; but, rather by focusing on those things that contribute to the problem or improvement – focusing on the X's. If we improve the causes – the things that contribute to the problem or improvement, we will improve the symptom – the thing we want to solve or improve.

A sales manager might call his team together for a meeting due to a concern with the company's sales with respect to a competitor. A focus on the Y approach would be to make his sales team aware that their competitor was outselling them and to emphasize the need for higher sales. I'm sure most of you have been in similar meetings. This type of focus is not one of leadership and often loses impact when repeated over and over. What if the sales manager instead said, our competitor currently has 20% more annual sales than our company and we know they have had increasing annual sales of 10% per year? We want to be the leader in this market in the next three years. This provides a Breakthrough goal, a baseline of the current situation, and a focus on the future. If the sales manager continued the meeting with, "What are the critical issues that will allow us to accomplish this goal?" The sales manager would have diverted the thinking from focusing on the Y to focusing on the X's. The sales manager is showing leadership and trying to inspire divergent thinking on the causes of the problem. These causes might mean better design, improved packaging, better distribution, better quality, better trained sales people, etc, etc. If they improve the causes (X's) they will also improve sales (Y).

In our personal life, we too have a tendency to focus on the symptom rather than the problem and rarely take the time to truly understand our current state or to align our values with our dreams which represent the future. The Great Discovery does not tell you what to think but instead shows you how to change your way of thinking utilizing the Proven Path to success.

Leverage. I will soon be writing an article on Leverage and the Pareto Principle – known as the 80/20 rule. Utilizing leverage is an important rudiment of Six Sigma. Lean Six Sigma Black Belts use tools to separate the "vital few" from the "trivial many." As we learn to think big and solicit divergent thinking, we may have lots of causes that may impact our symptom. However, some of these causes may have a much bigger impact on our goal than others. The 80/20 rule says that we can have 80% improvement by focusing on the top 20% of the causes (vital few) and that the remaining 80% of the causes (trivial many) will only create an additional 20% improvement. Likewise, it will only take 20% of our effort to solve the vital few with the remaining 80% of our effort required if we decide to pursue the trivial many. Six Sigma and The Great Discovery teaches us how to use the concept of leverage to our advantage by focusing on the things that have the biggest impact.

There are several sub-concepts under the rudiment of leverage. I'm sure most have heard the phrase "you can't see the forest for the trees." Normally an issue to which we apply Six Sigma thinking is a complex or difficult issue. If not, we would "just do it" or "just fix it." Common sense techniques likely have failed and we need a better way of thinking to have improvement or greater satisfaction. As we think about the problem, there are a variety of paths on how we might improve the situation. We don't want to be turned off or overwhelmed by all of these alternative thoughts; in fact, we want to seek divergent opinions about the root causes. We will use convergent methods to reduce our divergent thinking to those ideas that have the most leverage (vital few). These convergent methods allow us to clear the trees to the point that we can see the whole forest. In simple terms, we will learn how to reduce the clutter, so we can focus on the big picture and those things that give us the most leverage.

On the path to uncovering those tasks that provide leverage and later as we start to improve each of the vital few items, we will gain knowledge about the overall issue. This increase knowledge will provide us motivation to reflect and maybe even refocus on or restate the symptom. It may be that what we thought was the symptom, is actually a faux symptom. By focusing on the vital few we will identify that we are going down a wrong path far sooner than if we were get distracted by trying to solve every little issue associated with our goal.

As we begin to correct the vital few and the clutter goes away, it is likely that some of the trivial many (the minor causes) will actually fix themselves in the process or just become "just do it" – something that really isn't an issue.

In application, our divergent team may not agree on everything but they may be able to agree on 20% of the items that are likely to have 80% of the impact. Why do we want to set around a table arguing about perfection when we can agree to 80% improvement? We need to learn to compromise and pursue those things we know can move us forward. This movement can lead to more agreement in the future instead of stalemate. In our personal lives, we tend to get distracted by little details that are unimportant in the big picture, instead of focusing on the important details that can propel us forward. The Great Discovery shows us how to change our thinking so that we focus on those items that will leverage us toward our goal.

As stated previously, problems that we can't just fix are usually complex. "You can't eat a whole elephant at one sitting; but, you can eat an elephant one bite at a time." Six Sigma has a large number of tools that can reduce significant causes into small implementable bites. The Great Discovery shows you how to break problems down into implementable steps that will lead to accomplishment of your objective.

Lean was originally known as the Toyota Production System because Toyota adopted and refined many of the principles taught by Juran and Deming. Many of these concepts are rooted in concepts developed during World War II by the U.S. and published in "Training Within Industry" (TWI). Some of the primary principles of Lean are elimination of waste, mistake proofing, and standardization of repeatable tasks.

Leveraging divergent thinking and focus on the vital few items is elimination of waste. We are wasting our time and energy if we are focusing on those things that are not going to have a vital impact.

As we attempt to solve problems, we often think every problem is unique. As an engineer, I designed custom work platforms for the aircraft industry. Each work platform was uniquely different. However, 80% of the steps required to produce the work platform were not unique. Once I recognized this, I was able to streamline the repeating parts of the process, which gave me more time to focus on the 20% of the steps that were unique. In our personal lives, if we were to evaluate our menu, we would find that 80% of the food we buy repeats from week to week. However, when we shop, we go either to the grocery store and pick things from the shelf based upon what we think we need or have made a list from which to shop and check items off the list as we shop. We usually shop for these items at the same store and the store rarely rearranges its shelves. What if we identified the 80% of the items we purchase repeatedly; organized the list so that it was in the same order as the path we walk in the store; checked our inventory at home before leaving, x'ing out those things we don't need. This might take us longer the first time; but, would save us a substantial amount of time in future weeks shopping and would likely even save us money by avoiding spontaneous purchases.

You might run into people who have had a negative experience with Six Sigma or people who think Six Sigma is just another fad. If Six Sigma is a fad, it has been a 25 year fad. After reading this article, hopefully you can see that the underlying rudiments should never lead to a negative experience. This can only happen if we do not understand or follow the process. One of the reasons negative feelings exist is because Six Sigma has become a profession rather than a philosophy. As a profession, some practitioners are applying Six Sigma in places where they should be "just doing it." Some practitioners are deploying Six Sigma to improve one area without thinking how it might impact other areas. We must consider this in our personal lives. If there is a simple change that will move us toward greater satisfaction, "Just Do It." We also don't want to pursue an objective in our personal lives without considering the impact on others important to us. In some cases, the Six Sigma practitioners simply never understood the philosophy from the beginning. They went through the training, learned the tools, and apply them under the same framework or way of thinking they have always used. This is not a failure of Six Sigma; but,

rather a failure of being open to a new way of thinking. Using new tools and an old way of thinking is not going to create success.

If I was responsible for deploying Six Sigma in a company today, I would require all Six Sigma candidates to go through The Great Discovery, before formal “Belt” training. The Great Discovery has simplified the Six Sigma concept to its basic rudiments so that anybody can understand them. If you can understand The Great Discovery, you will have leveraged your thinking. Does this mean you will be able to solve every problem 100% on your own? Not necessarily. What it does mean is that you will be able to move yourself substantially toward your dream and will have enough knowledge to know when you need to seek help and support to lead you to the rest of your goal.