

New Kid on the Block

How can the new Agile Sigma¹ process improvement methodology help my business?

The need....

When it comes to selecting the “right” business process improvement methodology, many CEOs, CIOs, and COOs are faced with a wide array of options available including Six Sigma, Lean, Lean Six Sigma, and ISO9000. The selection process then typically focuses on evaluating business drivers and deciding on an improvement methodology that closely matches their needs to improve business process performance and meet changing customer needs.






That’s where the challenge typically occurs for many executives who are trying to find the methodology that consistently delivers significant impacts for customers and business operations – *while also* doing so nimbly, innovatively, and with agility. In other words, business executives today need a business process improvement methodology that enables significant, sustainable, and customer-centric process improvement results – quickly and cost-effectively.

Business executives today are feeling the “need for speed” to remain competitive going forward.

The current “block”....

To find the “right” methodology, the evaluation of available options typically includes the widely utilized approaches listed in Table 1 below, including pure and hybrid methods that have evolved over time. Specific attributes for each methodology are also listed, for comparison of the various approaches.

Table 1. – List of Widely-Used Business Process Improvement Methodologies and Their Attributes

Methodology	Customer-Centric	Data-Driven	Team-Based	Statistics-Based	Financial Accountability	Sustainable Results	Delivery Speed	Cost to Implement	Benefits
Six Sigma	✓	✓	✓	✓	✓	✓		\$\$\$	\$\$\$
Lean	✓	✓	✓					\$	\$
Lean Six Sigma	✓	✓	✓	✓	✓	✓		\$\$	\$\$
Total Quality Mgmt (TQM)	✓	✓	✓			✓		\$\$	\$\$
ISO9000	✓	✓						\$\$\$	\$\$

While Six Sigma programs have consistently delivered significant, sustainable, and financially accountable results – the methodology is known for being “too slow” and “too stodgy” and relatively expensive to implement and grow. Further, Six Sigma improvement projects are typically designed to be “one and done” – i.e., to deliver a singular improvement in the process performance (Sigma) level. Six Sigma projects then use controls to maintain and sustain that gain for at least a year – which by definition leaves process optimization opportunities on the table.

¹ - Agile Sigma and The Agile Sigma Methodology – © 2017 Timothy T. Gaffney

In contrast to Six Sigma, Lean principles and techniques have been employed in a variety of business process improvement programs, predominantly in Manufacturing to deliver rapid improvements with little investment. However, lack of sustainability and financial accountability have been criticisms leveled at the Lean approach.

Lean Six Sigma is a hybrid approach that evolved as an option to utilize the synergies between the pure Six Sigma approach of reducing process variation and defects with the Lean principles of improving flow and eliminating wastes (“muda”) to improve process performance.

The history....

Having worked as a Six Sigma Black Belt and as an Agile Scrum Master in a Fortune 50 company during the last decade, the synergies between these two approaches to deliver more value together became apparent. Six Sigma provides significant and sustainable results, but takes too long (typically). On the other hand, Agile is fast and effective, using an iterative Scrum-based improvement approach leveraging team and tribal knowledge to meet users’ needs.

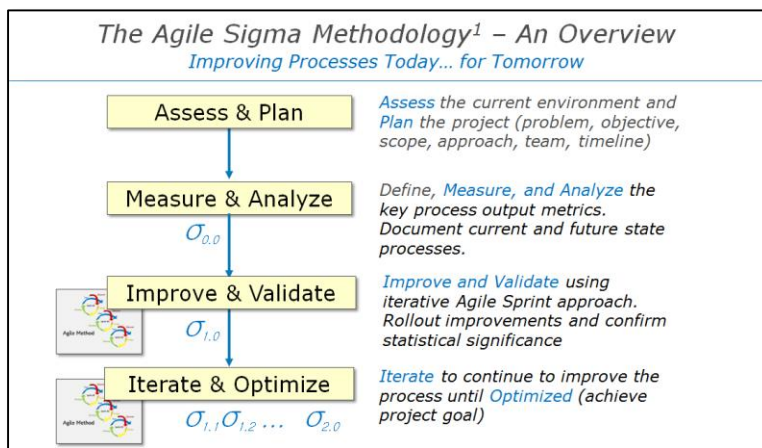
So to benefit from that synergy, we’ve combined the best of Six Sigma and Agile into a single methodology we refer to as “Agile Sigma¹.” Development of the new methodology began in 2016, and Agile Sigma¹ is now ready to be rolled out for use by any type of business to improve their processes significantly and quickly to deliver increased value for their customers.

The new kid...

Agile Sigma¹ is a new business process improvement methodology that integrates the “best” of both Six Sigma and Agile development methods to provide a new approach that can enable business to deliver improved processes more quickly and effectively.

The new Agile Sigma¹ approach is a four phase adaptation of the standard five phase Six Sigma DMAIC methodology (Define, Measure, Analyze, Improve, and Control) - to provide a streamlined process for more efficient execution and results.

Figure 1. – The Agile Sigma¹ Methodology Overview

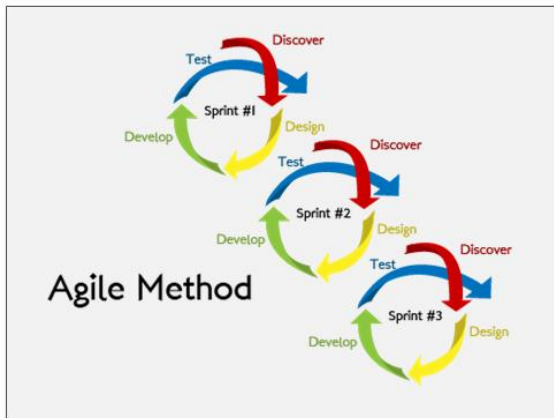


The four phases of the Agile Sigma¹ Methodology as shown in Figure 1 are:

- Phase 1.0: Assess & Plan
- Phase 2.0: Measure & Analyze
- Phase 3.0: Improve & Validate
- Phase 4.0: Iterate & Optimize

Agile Sigma¹ also preserves and includes the most effective attributes of the Six Sigma DMAIC approach, including customer-centric process and metrics analysis, statistical analysis-based decision making, financial accountability, and sustainability of results.

¹ - Agile Sigma and The Agile Sigma Methodology – © 2017 Timothy T. Gaffney

Figure 2. – The Standard Agile Method

The Agile Sigma¹ method also integrates the Scrum Team approach, Sprint cycle, and iterative process improvement techniques of the standard Agile development method, as shown in Figure 2 – to deliver significantly improved processes more rapidly. Agile Sigma¹ uniquely applies the iterative Sprint cycle concepts in the Six Sigma project approach, to initially achieve and validate an improved process Sigma level as the first level of improvement (i.e., moving from a baseline of $\sigma_{0.0}$ (baseline) to $\sigma_{1.0}$ (new improved process performance level)) – before transitioning to the final project phase.

After the initial improvement, when most Six Sigma projects would be going for closure, the Agile Sigma¹ team then continues to improve and validate the process iteratively via

additional Sprints to deliver optimized process performance before closing the project and sustaining the results and financial benefits for 12 months.

The key differences....

Streamlined Process... to deliver projects effectively and quickly

The Agile Sigma¹ methodology streamlines the standard DMAIC (Define, Measure, Analyze, Improve, and Control) approach for process improvement by combining, replacing, and refining activities – while also identifying activities that could be accomplished concurrently. In Agile Sigma¹, iterative team-centric processes are used to improve and validate processes prior to statistical testing – in contrast, on Six Sigma DMAIC projects, large amounts of time and effort are expended by the team to identify, prioritize, collect, analyze, and “package” possible process inputs that *may* affect the outputs significantly.

Iterative Processes that Leverage Team Expertise and Knowledge... for a quicker path to improvements

Agile Sigma¹ uses iterative processes for multiple Sprint cycles to deliver improved process performance. Within each Sprint cycle, there are iterative Scrum-Validation team cycles to enable identifying and utilizing key contributing factors to improve and then test and validate the improvements. The Scrum and Validation Teams utilize their expertise and knowledge via this iterative cycle to improve the process to meet the Sprint objectives prior to statistical testing and analysis.

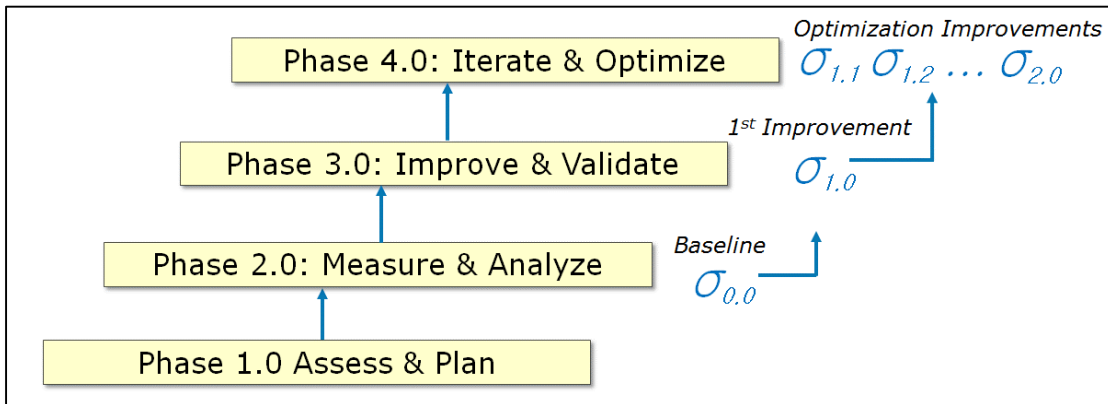
In Agile Sigma¹, through use of this iterative Scrum-Validation Team cycle, nested within an iterative Sprint cycle, the teams hone in on and “tune” the improvements that really make a difference to the users and customers of the process prior to statistical testing and rollout when significance is demonstrated.

Optimizes Processes... iterate until optimized - not just “one and done” improvements

Once the improvements have been rolled out in a Six Sigma project, the results are maintained and sustained for 12 months to achieve the financial benefits projected based on the initial improvements. One and done. No further improvements are typically implemented once in the “Control” phase.

In contrast, on an Agile Sigma¹ project, once the *initial* improvements have been rolled-out, then the Scrum and Validation Teams continue to Iterate and Optimize the process (in the final project phase), to achieve ever-higher Process Sigma performance levels (e.g., $\sigma_{1.1}$, $\sigma_{1.2}$, $\sigma_{2.0}$, etc.) – iteratively and incrementally to achieve project goals (see Figure 3 below).

Figure 3. The Iterative Achievement of Optimized Process Performance (as measured by process Sigma Level)



The new block...

With the introduction of the new Agile Sigma¹ Methodology as an option available to business executives, there is now an alternative that provides all the benefits of Six Sigma, with the rapid delivery of benefits attributes of the Agile development method. Agile Sigma¹ now offers business executives and managers a superior option that:



- **Delivers results quickly** – by improving processes iteratively – satisfying the “need for speed”
- **Enables data-driven decision making based on statistics** – so you know you’re making “good” decisions
- **Delights your customers** – because the methodology, metrics, and tools are all customer-centric
- **Provides financial accountability** – so you know you’re getting the actual benefits on the books
- **Utilizes the existing team knowledge and expertise** – to deliver improvements that matter more quickly

The current process improvement options available, as listed in Table 1, has been updated in Table 2 below to include Agile Sigma¹ – the “new kid on the block” – as a new contender to be considered.

Table 2. – Updated List of Business Process Improvement Methodologies and Their Attributes

Methodology	Customer-Centric	Data-Driven	Team-Based	Statistics-Based	Financial Accountability	Sustainable Results	Delivery Speed	Cost to Implement	Benefits
Agile Sigma ¹	✓	✓	✓	✓	✓	✓		\$\$\$	\$\$\$
Six Sigma	✓	✓	✓	✓	✓	✓		\$\$\$	\$\$\$
Lean	✓	✓	✓					\$	\$
Lean Six Sigma	✓	✓	✓	✓	✓	✓		\$\$	\$\$

¹ - Agile Sigma and The Agile Sigma Methodology – © 2017 Timothy T. Gaffney

Methodology	Customer-Centric	Data-Driven	Team-Based	Statistics-Based	Financial Accountability	Sustainable Results	Delivery Speed	Cost to Implement	Benefits
Total Quality Mgmt (TQM)	✓	✓	✓			✓		\$\$	\$\$
ISO9000	✓	✓						\$\$\$	\$\$

The next steps....

The first Agile Sigma¹ training class will be offered via Harper College’s Continuing Education Program is a half-day instructor-led class, entitled “**Agile Sigma¹ Overview.**” It is designed for:

Business executives and managers interested in developing a basic understanding of the new Agile Sigma¹ methodology, and for how this new method – that combines the best features of Six Sigma with the rapid, effective results delivered via the Agile approach – can be employed to improve business process performance.

If you’re interested in learning more or registering for the **Agile Sigma¹ Overview** class, please visit <http://goforward.harpercollege.edu/ce/registration/index.php>.