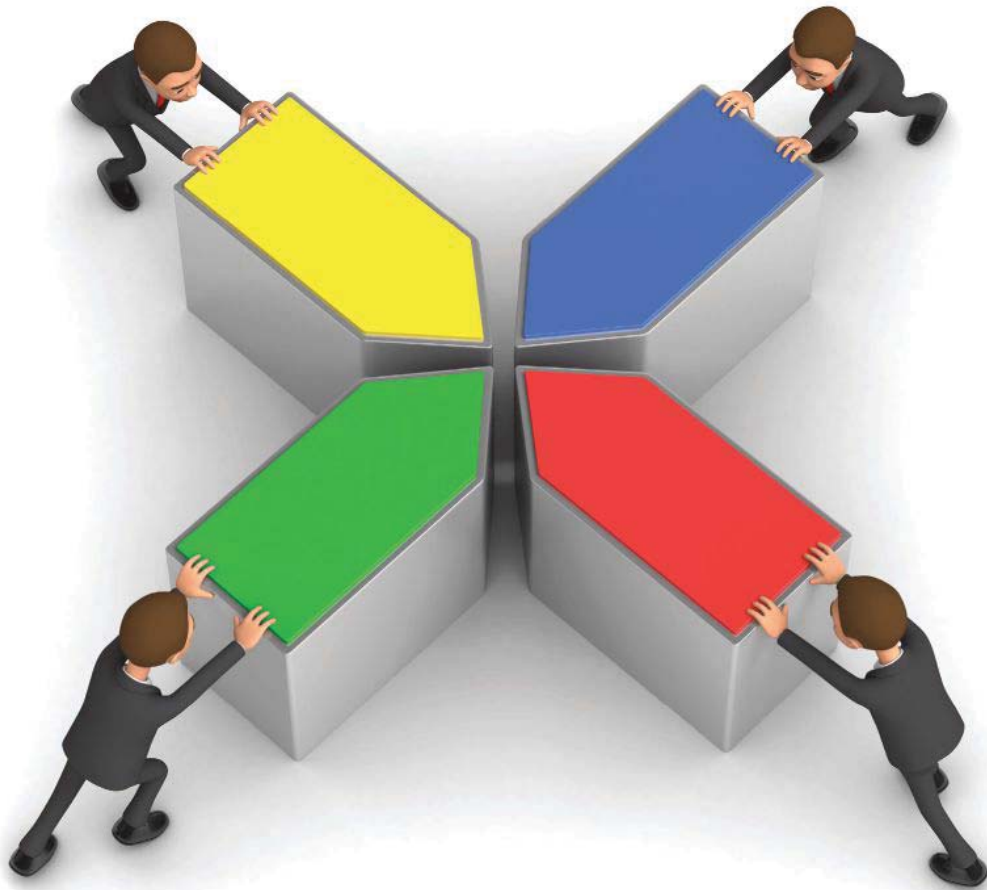


Model Learning

Lean, Six Sigma, and ADDIE can be a match made in training heaven—the first two maximize value by eliminating waste and minimizing variability, while the other provides a blueprint for the development of training. **BY MARGERY WEINSTEIN**



Trainers want to create new programs in the most efficient, cost-effective way, but at the same time, they don't want to sacrifice quality and learner and stakeholder satisfaction. Some learning consultants and training professionals are achieving success with a new approach that combines the best of three models: Lean and Six Sigma and Analyze-Design-Develop-Implement-Evaluate (ADDIE).

UNDERSTANDING AND APPLYING

“Lean and Six Sigma are best thought of as two separate concepts,” says Joseph Tota, associate principle with consulting firm Caveo Learning. “Lean is about maximizing value by minimizing waste. So Lean principles help remove waste in business process. Waste may include rework, overproduction, under-using resources, unnecessary motion, waiting, transportation, over-processing, or excess inventory.”

Six Sigma, he notes, is about “improving the quality of process outputs by identifying and removing the causes of defects (errors) and minimizing variability. ADDIE is a methodology for the development of training products. Both Lean and Six Sigma principles can be applied to the ADDIE methodology to either minimize waste or remove the cause of defects (errors).”

Convenience store company Wawa’s corporate university, Wawa University, has taken characteristics of these models to improve its training development, says Stefanie Sharpless, manager of Wawa University. “Wawa University constantly looks for ways to design and deliver quality learning opportunities for our associates more efficiently and effectively through continual process improvement,” says Sharpless. “One of our main objectives is to make sure we are being good stewards of our company resources, which includes our associates’ time. Solid, simple process allows us to ensure that Wawa University associates, our business partners, and learners are spending their time throughout our process in the most value-added activities possible. This is done by both focusing on the most essential pieces of our process and eliminating unnecessary steps.”

Working with Caveo, Sharpless says Wawa has developed a simplified learning and development process with tools easily accessible to its employees. She says Wawa University’s offerings for employees and business partners are now more efficient and effective. The principles of Lean, Six Sigma, and ADDIE have enabled Wawa University to provide employees with clear job expectations and accountabilities for performance and tools and standards for step-by-step execution. Wawa business partners now have a clear definition of their role and time commitment prior to a training project kickoff, and they have a consistent experience when working with multiple project managers and instructional designers. “Our learners get the benefits of a consistently developed curriculum that is cohesively designed, instead of a curriculum that feels like many business partners and designers independently developed it. This allows our in-store trainers to more easily oversee the associate’s learning experience and our associates to have a standard learning model to follow,” she says. “This has a positive impact on time to proficiency and retention, among other metrics. For all of the stakeholders, our process allows each associate to get more efficient with every project. Also,

every project serves as a learning opportunity to enhance the way we work for future projects.”

DEFINE THE CHALLENGE AND RELATED PROCESSES

To get started using elements of Lean, Six Sigma, and ADDIE, Tota says an organization will need to define the problem it is trying to address. Then, the organization needs to define all the processes related to that challenge. “Problems may be under-utilization of resources, lack of metrics for their programs, poor quality of learning programs, or lack of process. We recommend that L&D organizations have defined processes, roles, and standard operating procedures for the first step of merging Lean, Six Sigma, and ADDIE,” says Tota. “Basically, the organization needs to define each process from the initiation of a business need to the maintenance of content after implementation.”

Sharpless says Wawa finds methodology from Lean, Six Sigma, and ADDIE helpful in ensuring the Learning & Development department is able to keep up with the changing needs of the company. “As our company grows and changes, it is important that our department proactively adjusts how we work,” she says. “To better prepare us for the future and leverage industry best practices to challenge our current state, we partnered with Caveo to do

QUICK TIPS

- Lean is about maximizing value by minimizing waste in business process. Six Sigma is about improving the quality of process outputs by identifying and removing the causes of defects (errors) and minimizing variability. ADDIE is a methodology for the development of training. Both Lean and Six Sigma principles can be applied to the ADDIE methodology to either minimize waste or remove the cause of defects (errors).
- A Lean/Six Sigma program can be developed through the use of the ADDIE model and launched in an effort to standardize and streamline business processes across functional groups and regions, or to automate and accelerate key processes to reduce costs, among other uses.
- The models could be combined to address a change in how employees do their jobs such as a new technology being implemented or an organizational change that is occurring.
- The principles also can be used to provide employees with clear job expectations and accountabilities for performance and tools and standards for step-by-step execution.
- When implementing new ways of designing and rolling out training such as Lean/Six Sigma and ADDIE, obtain executive buy-in to ensure organization-wide acceptance of new work processes.
- Communicate up front the business need and tie it into the strategic plan to your team and stakeholders.
- Consider including the entire L&D team and key stakeholders in the development of the process. This ensures buy-in and clarity from the start.

Model Learning

a full assessment of our department and the organization from a learning lens.”

An example of leveraging Lean and Six Sigma principles with ADDIE is documenting and following the review

“Basically, the organization needs to define each process from the initiation of a business need to the maintenance of content after implementation.” —Joseph Tota, Associate Principle, Caveo Learning

process that occurs during the development phase of ADDIE. “Training products that are reviewed by subject matter experts (SMEs) must be handed back and forth between the instructional designer and SME,” says Tota.

Caveo recommends that the following six conditions be defined and adhered to during the process:

- 1. Role Definition:** Clear roles as to who does what in the process must be defined.
- 2. Process:** A documented process must be established and followed by all roles.
- 3. Metrics:** Measurable points in the process must be reported to build efficiencies.
- 4. Expectations:** Expectations must be set with key roles to ensure throughput.
- 5. Quality:** Quality checks and standards must be applied throughout the process.
- 6. Approvals:** Stakeholder approvals must occur to minimize rework.

“We find the first step of rigorously documenting roles and processes and changing behaviors to follow [the new roles and processes] is typically the hardest part. Organizations that are most successful have leaders who sponsor and champion process improvement efforts,” says Tota.

Indeed, at Wawa, having business leaders buy into the re-vamping of processes is essential when using methodologies such as Lean, Six Sigma, and ADDIE. “Depending on where an organization is with process methodology in general, L&D organizations could have challenges implementing process methodology. Some L&D professionals or business partners may feel that process inhibits creativity or takes more time,” says Sharpless. “For us, it was essential to communicate up front the business need and tie it into the strategic plan to our team and stakeholders. Additionally, we included the entire L&D team and key stakeholders in the development of the process. This ensures buy-in and clarity from the start. Finally, a good change management and support plan with simple tools is essential for success.”

OPTIMIZING MODELS TO IMPROVE PERFORMANCE

“ADDIE, Lean, and Six Sigma are all methodologies or frameworks that are designed to provide a systematic way to effectively improve performance,” says Kristin Hall, Training manager at contract research organization PPD. “Lean and Six Sigma are focused on improving performance through efficiency and eliminating waste, while ADDIE is focused on improving performance by providing effective instruction.”

Adds Hall’s colleague, Maria Pament, manager of Process Improvement at PPD, “historically, similarities have been cited and examined across the three methodologies.” She explains that

a Lean/Six Sigma program can be developed through the use of the ADDIE model and launched in an effort to:

- Standardize and streamline business processes across functional groups and regions
- Automate and accelerate key processes to reduce costs
- Redesign processes to deliver compelling customer experiences
- Provide greater visibility into performance of critical processes
- Reduce time required to adapt processes without sacrificing quality
- Establish a process-driven culture that embraces change

Hall says the models could be combined to address a change in how employees do their jobs (i.e., a new technology being implemented or an organization change that is occurring). From a traditional project management perspective, she explains, you may build in time for training development, but the trainers cannot develop the training without knowing what has changed in the functional role of the end-user or the functional team. This often means the system has to be implemented or the organizational change has to occur before the trainer can determine the content of the training. “By implementing Lean/Six Sigma from the beginning, you will define and document the optimized operational processes. Those process maps can be more quickly and effectively analyzed by the instructional designer and more quickly be developed into a training solution,” Hall says.

Using this kind of development methodology not only boosts employee performance but increases efficiency. “It not only saves time for the learners in not taking training that doesn’t affect them, but also can save time for the training development team down the road in analyzing evaluation and impact data and performing routine training updates,” Hall says. “These savings ultimately feed back into your ROI. So all three models are intertwined throughout the lifecycle of the organizational change.” 