Improve with Agile: The Pivot to Virtual Delivery of Lean Six Sigma Yellow Belt Training

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During the COVID-19 pandemic, the world and our organizations have adapted and innovated in order to continue to deliver value to clients. This innovation likely touches many processes we use to deliver goods and services while striving to ensure the safety of our employees and customers. Learning and Development functions responded with innovation and agility to meet this need. In this article, we would like to share with you what we did with the delivery of the Lean Six Sigma (LSS) Yellow Belt (YB) training and certification program at UL LLC in light of remote working (Work from Home or WHF).

Since 2018, we experimented with reaching the remote learners in our global organization. We started with a flipped classroom model for the LSS YB course at UL LLC. The flipped classroom consisted of lecture material that was curated and housed on a Microsoft SharePoint site. Each cohort of learners was given access to the online materials two weeks prior to the scheduled in-person portion of the course. The expectation was that the learner came prepared to participate in the class by having viewed the curated materials ahead of time. The day of in-person classroom time was devoted to two objectives. The first objective was to engage the learners in discussion about the concepts introduced in the curated materials. The second objective was the practical application of fact-based problem solving using a single Define Measure Analyze Improve Control (DMAIC) iteration supported by basic quality tools to eliminate defects in a typical classroom process simulation. This process simulation was referred to as a capstone activity, or classroom project, and its purpose was to enable the practical application of process improvement at the point-of-work. We had success with this program. The business liked the flipped classroom delivery method because it reduced the time in the classroom from two days to one day, it concentrated the need-to-know content and made that content available for future reference, and it enabled the practical application of skill.

In January 2020, the finance function within the organization set out to train and certify 100% of its 300 employees at the LSS YB level of practice. Within UL University, we developed a schedule, enrolled the students and began to deliver the classes. We delivered several classes in the beginning of the year using the hybrid delivery model; we were intentional to record more video of the classroom capstone activity. Then, COVID-19 hit. It took a few days for the organization to understand and respond to the emerging situation. Until the business response was made clear, it was business as usual. During the delivery of an instructor-led YB class, Azizeh Constantinescu, Lean Six Sigma Master Black Belt at UL, had the idea to record video footage of the classroom capstone activity. The students in this cohort were agreeable to the idea and many took out their cell phones and began to record video footage of the work content at each station in the capstone exercise. In addition, the artifacts of the capstone exercise were retained and later used. The students sent the video footage to Azizeh and we used these artifacts to redesign the practical application portion of our LSS YB course.

Once the WFH response was established in our organization, we canceled ILC courses. Within one month, Newton Moore, UL University Regional Director, and Azizeh Constantinescu reengineered the in-person portion of the YB class to be delivered 100% remotely while still engaging the learners in active and social learning. We approached this challenge with the spirit of agile innovation. Here is what we did to develop a minimum viable product (MVP) of the virtual class:

- We used Microsoft (MS) Teams as our virtual classroom and meeting platform. Each learner received an invitation to the Main Room (MR) and to a Breakout Room. Initially, the class met in the MR. Then, for team activities it broke out into the breakout rooms. Then, the students returned to the MR for debrief and discussion. The instructor could interact with each breakout room using the chat feature and also by simply joining the discussion.

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- The chat feature and notes feature were used to enable learner engagement and sharing within and between breakout rooms.

- We used the Microsoft Whiteboard app along with the touch pad and pen for the open discussion about the content. This technology helped create a virtual "flip chart" feel and visual discussion for the class.

- We used the video footage of the capstone exercise to set up our virtual activities. Instead of running the classroom process themselves, the students watched the video footage in their breakout rooms and then discussed the waste in the process that they could see, then they captured their thoughts using the chat or notes feature in MS Teams. This content could easily be retrieved in the main room for sharing across working groups.

  We used photos of the capstone artifacts from the ILC course as "book ends" for our virtual capstone activities. We had photos of both the "before" and "after" improvements that were used in the beginning to evaluate baseline quality performance and again at the end to evaluate whether or not improvement tactics put in place made a difference.

- The rest of the capstone activities remained the same.

- We used Microsoft Forms to collect experiential feedback from each cohort. This feedback was used to make minor adjustments to the minimum viable product of the virtual class.

Since April 2020, we delivered nine cohorts of the virtual LSS YB course and are experimenting with expanding the class size between now and the end of the year. With the spirit of agile innovation and experimentation, we are on target for enabling the business to meet its goal of having 100% of its employees certified at the LSS YB level of practice in 2020.

Azizeh Elias Constantinescu is a certified Lean Six Sigma Master Black Belt. For the past 14 years, Azizeh has supported UL LLC on its LEAN Transformation and acts as a change agent within the enterprise.

Newton Moore is UL Director for Digital Learning Innovation. At UL, Newton explores robotic process automation, dynamic work design and other work/leaning improvements.