



*Experts in Process Excellence, Partners in Education*

## CASE STUDY | REMOTE GREEN BELT ROUND UP

### MAXIMIZING THE BENEFITS OF EMPLOYEE TRAINING

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**HOW ONE FACILITATOR USED THE DEL-SIM GAME TO ENSURE HIS GREEN BELT PARTICIPANTS HAD THE PRACTICAL SKILLS THEY NEEDED.**

#### SETTING THE STAGE:

A training facilitator provided over 40-hours of remote Green Belt training for his client's employees. The participants had participated in online training sessions covering SIPOC, Pareto, VSM and other typical Lean Six Sigma Green Belt tools. The trainer and his client were concerned that they did not have a clear picture of the practical skills that had been learned, due to the one way nature of webinars, lack of face to face interaction with individual participants or an observable group exercises. The facilitator approached Pi-Sims about the use of Del-Sim to assess the training's effectiveness, improve student's technique utilization skills, and facilitate group interaction.

In this case, Pi-Sims agreed to provide not only access to the Del-Sim simulation, but also technical facilitation. This solution provided a convenient and "safe play" for the training facilitator as he did not have to learn the simulation features. Pi-Sims proposed to dedicate a 4-hour time slot to play 2-3 rounds of the game.

#### GETTING STARTED:

Before the workshop, Pi-Sims prepared slides with exercises to be used between the rounds, working off our experience and the content of the client's training. Pi-Sims then sent each participant an email with a link to the simulation and a video explanation a few days prior to the workshop. Pi-Sims kicked off the workshop using Zoom for communications and ran the first round of the simulation (20 minutes).

As always, during the first round, participants felt the pain of a broken process. They were nervous about their performance and often frustrated, which is exactly what is to be expected from first time users of the simulation, reflecting the real world Six-Sigma. The Pi-Sims' facilitator assisted the participants who were struggling in their role, looking over their shoulder and offering a bit of direction, using Zoom and access to their screens.

After the first round, Pi-Sims divided the participants into 3 groups of 5 people each using rooms in Zoom. Each group was given an assignment. Group 1 was asked to present a Business Case, Group 2 a Pareto and Group 3 a SIPOC, all within 45 minutes.

After the assignments were completed, each was presented back to the whole group. The group then needed to agree on 3 changes to be

made to the simulation game. These were then presented back to the training facilitator as a toll gate review. Changes needed to be based on the data the simulation generated and structured process improvement.

### ANALYZING THE ROUNDS:

A Pareto based on missing revenue after the first round was created (Fig. 1). This group was trained on using Minitab SW for data analysis, so they used the tool. The Pi-Sims' facilitator helped

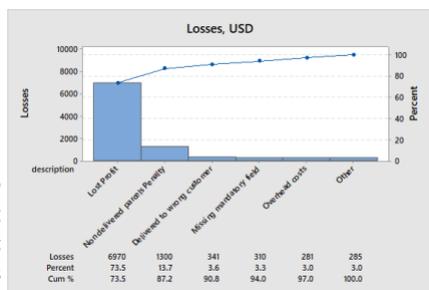


Fig. 1, Pareto analyzing lost profits

Minitab, if needed. As you can see, the major problem was Lost Profits (missing revenue) and penalties for non-delivered parcels. Both are results of lack of flow through the process.

Using their allowance of 3 changes, the team decided to do some resource re-allocations, as well as removing some internal logistics and adjusting the current roles.

In the second round, the team immediately saw a better flow within the process and the loss in the first round (-\$720) was reduced to a small loss (-\$68). After the 2<sup>nd</sup> round, the facilitator gave further directions. One group was asked to make a VSM, the second concentrated on

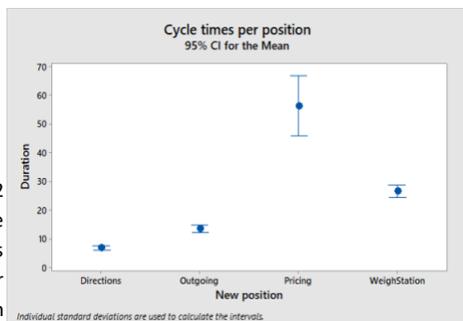


Fig. 2 Cycle Times Per Position

process was still not balanced, Pricing cycle time

was much higher than the others (Fig. 2). The initial decision to have 4 people doing pricing and 4 people doing Weigh Station was wrong.

Once they discovered huge variation of Pricing Cycle times, they decided to look at times

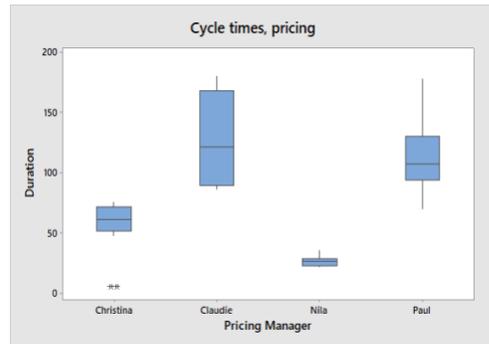


Fig. 3, Box Plot per Pricing Manager

per Pricing Manager. They used a Boxplot for that, supported by their facilitator (Fig. 3). This graph clearly indicated that Nila was the fastest. But what was the quality of her input?

The 3<sup>rd</sup> team looked at data entry errors using Pareto analysis again (Fig. 4). We can see that Claudia, who was the slowest, had the lowest number of defects, but Nila was the second best



Fig. 4, Pareto analyzing Data

### FINAL SIMULATION OUTCOME:

Before the third round, Nila's techniques were used as best practice and everyone in Pricing was trained on them. In addition, as result of VSM analysis, some of data entry fields were defined as Non-Value Add and were removed. Resources were re-allocated, having 6 people doing Pricing, 2 people doing Weighing and 1 person for Directions and Outgoing. The team then went on to Round 3. In the third round, the team was able to achieve a profit result (\$ 292.00)!! This was a fantastic accomplishment.

## **THE FEEDBACK:**

Trainer (Client):

“I observed much better communication. They finally linked theory and practical application. I was visiting different Zoom rooms during their brainstorming sessions and dynamics were fantastic. Next time I will go through Train the Trainer sessions with Pi-Sims and do facilitation myself. Still, it was great that you guys took care of all technical things this time, on such a short notice.”

Students:

“It is sooo much more fun to learn and apply these difficult techniques to a process and see immediate results!”

“We feel like winners. We know that there is still much more room for further improvements, if we had time, next round would be even more profitable”

“We did it in just one workshop. It would be great to play the game alongside with the training. These 40 hours would have been much more fun.”

***Class reviews noted how much they enjoyed the simulation and gave a 4.6 out of 5 for the entire training.***

***Process Excellence Learning was the main goal here and it was achieved. The highlights were that the team had some bonding, which included strong communication and lots of laughter. The trainer was visibly relieved that after previous sessions the participants demonstrated improved skills there was more teamwork, interaction, energy & learning in this session.***