Category	Lean Six Sigma Improvement Project
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Lessons Learnt Guidelines

The *control* phase of any Lean Six Sigma improvement project and the *validate* phase of a Design for Six Sigma (Dfss) project are closing stages that every project team member and sponsor eagerly look forward to. These final phases mark the end of a usually long project lifecycle marked by many ups and downs. Furthermore, these phases mark the time when the improved or designed process is transferred to process owners—the business unit personnel that will operate the improved or new process and sustain achieved or established gains.

These final phases—*control* and *validate*—are also the time when the project black belt manager or green belt leader document the lessons learnt throughout the improvement endeavor. However, many projects go through completion and closure without proper documentation of this important (lessons learnt) step.

First, the rationale — why do you document lessons learnt? The primary reason is so that future improvement project teams would benefit from the knowledge of today's lessons learnt. Through this knowledge, tomorrow's teams can avoid costly time, energy, and perhaps resources that would otherwise be expended dealing with avoidable issues that others overcame. Also, this knowledge may provide immediate ideas for resolving similar problems that future teams may encounter or this knowledge may provide great insight that future teams may capitalize upon. Lastly, this cumulative knowledge—of lessons learnt—can offer a repository base from which critical improvement project performance metrics could be derived. What type of metrics? Two such metrics are:

- ♦ count of recurring lessons learnt (quantitative)
- ♦ variation in recurring lessons learnt (qualitative)

These two metrics can help a continuous improvement program black belt or master black belt diagnose and improve, or maintain, DMAIC or DMADV project performance.

Based on this rationale, how then can a black belt or green belt ensure that lessons learnt are properly, consistently, and effectively documented? The following simple guidelines should help. These suggested guidelines should be considered in

tandem with any existing organizational continuous improvement program guidelines.

i. Document any lessons learnt at the end of each phase of the DMAIC or DMADV roadmap. Perform this right before each tollgate review. Do not wait until the final phase since the final phase may not occur until many months after project start-up.

ii. During each pre-tollgate lessons learnt documentation, review prior documentation as you prepare current documentation.

iii. Use a well established set of criteria to determine what events constitute lessons learnt. Such a criteria should include:
- Significant impact to the project proposed timeline
- Impact to the project goal statement or goal outcome
- Significant impact to the project scope
- Significant impact to the project budget
- Demonstration of innovation

iv. Document lessons learnt consistently by using a simple common documentation template. The template should capture these basic project elements:
- Type of lesson (Resource, Tool Usage, Data, Timeline, Scope, Financial, Training, Other) – a basic category grouping.
- Roadmap footprint – the DMAIC or DMADV phase when the event originally started and subsequent phases that were impacted.
- Nature of the event – a description of the event and the challenge posed by the event or the benefit gained from the event.
- Impact level (Low, Moderate, High) – an indicator of the negative or positive effect of the event on the project based on relative impact to the project timeline, project goal, project scope, or project financials.
- Noted lesson – a description of the method and manner in which the challenge posed by the event was overcome; or the manner in which the benefit afforded by the event was realized.

v. Combine all documented lessons learnt into a central project repository.

An example of a lessons learnt documentation, as described above follows:

> **Type of Lesson**: Data
> **Roadmap Footprint**: Measure
> **Nature of Event**: The primary data source identified for data collection proved to be unusable due to data reliability issues. This setback will negatively impact the project timeline.
> **Impact Level**: High
> **Noted Lesson**: This setback prompted the development of an alternative data collection plan which resulted in one month's delay to the project. A prior assessment of the data requirements for this project was possible, but deemed unnecessary earlier on; in hindsight, a prior assessment would have been a wiser course.

With proper adoption of these simple guidelines, a continuous improvement program can benefit greatly from lessons learnt by each project team, today and over the long term.

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