

# BUILDING A LEAN CULTURE

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## 1 BACKGROUND AND IDENTIFICATION OF PROBLEM

Lean champions for a large General Contractor had taught superintendents to use the Last Planner® System and were not satisfied by the pace of adoption. They decided to shift focus to teaching the fundamental ideas of Lean, i.e., focusing on respect for people and continuous improvement, value stream thinking, flow, problem-solving, and Lean leadership and management.

## 2 RESEARCH METHODOLOGY

This paper is a case study of work by the first two authors, facilitating and adapting an 8-week online course on Lean Leadership developed by a Lean logistics company. (<https://leancor.com>).

The facilitators created the illustration in Figure 1 to help students understand how they can use the information during and after they completed the course. It shows a constant Plan-Do-Study-Act (PDSA) cycle of learning through the entire lifecycle of their project.

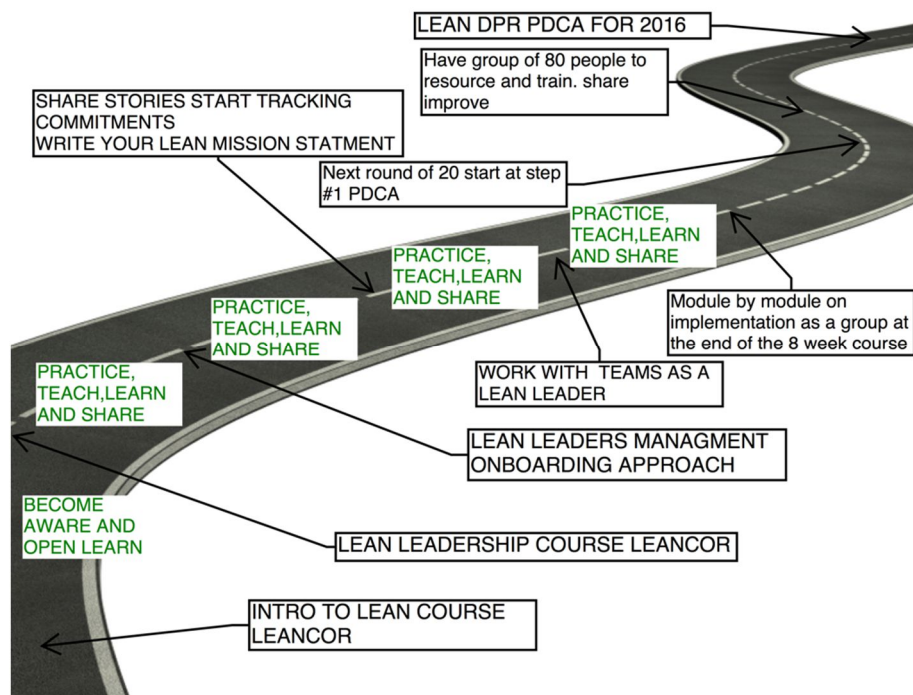


Figure 1: Road map for applying Lean leadership on a project.

Participants evaluated their own capabilities compared to the understanding they gained of the qualities of a Lean leader, and the facilitators produced a radar chart, shown in Figure 2, for each

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student and combined for all students in each course, and overall for the year. This evaluation helped participants identify the areas in which they needed to improve.

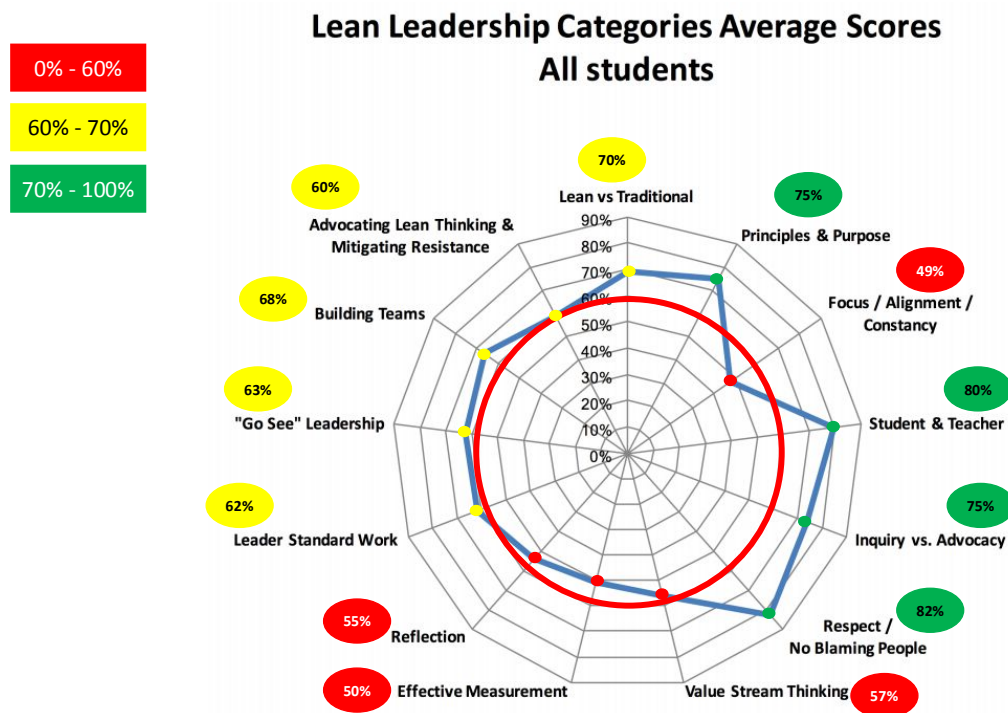


Figure 2: Lean Leadership category average scores for students in the first year.

### 3 RESEARCH FINDINGS

The course facilitators together with the Lean group have drawn several lessons from their experience so far, as follows.

- Training on Lean tools is necessary but training on overarching Lean concepts, principles, and goals is essential.
- Make training interactive and allowing people to be heard reflects respect for people, and are great ways to accelerate learning.
- Consistency and support are required to expose many people to Lean ideas.
- People need a common vocabulary to share knowledge and gain enough confidence to put them into action.
- The PDSA cycle can and should be used to continuously improve Lean education and training.
- Educating employees about Lean principles and leadership may be the most effective means, acting as a bridge, for incorporating Lean thinking into the company's culture of collaboration, individual initiative and accountability.
- Educating teams including design team, owners, and trade partners by taking the course together is also proving to align teams around a shared lean culture.

### 4 SUMMARY

The paper underscores the importance of creating a culture based on solid understanding of the Lean vocabulary, principles, and goals to create a critical mass across projects and the company.

