

# Chapter 8

## Training Graduated Students in an Industrial Context of a Retail Company

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### **ABSTRACT**

*Graduate students are a source of knowledge to companies. Their youth, readiness to show recently acquired abilities, and high levels of motivation to “change the world” are appreciated by human resources hiring teams to complete their purpose: to identify talent that can enhance business areas accomplishing relevant goals. However, “competences” do not always come along with the “full package” of a recent graduate. This chapter describes how a Portuguese retail company developed and implemented a Lean School to (1) upskill internal knowledge, skills, and behaviors about Lean in the existing work force and to (2) prepare the newcomers to use Lean in such a good way as if they had been part of the company for years. The authors will also describe some of the active learning methods used in the Lean School programs and report the evolution on some performance indicators like number of students in attendance and satisfaction levels.*

### **INTRODUCTION**

One of the most perishable assets for a company is knowledge. Continuous innovation pushes the state-of-the-art knowledge boundary in all fields of work. Innovation will never cease; therefore, companies need to constantly groom new knowledge in people; in other words, companies need to continuously develop competences in the collaborators.

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DOI: 10.4018/978-1-7998-8816-1.ch008

hiring teams to complete their purpose: to identify talent that can enhance business areas accomplishing relevant goals. However, “competences” not always come along with the “full package” of a recent graduate. In a recent paper of Alves AC et al. (2021), the integration of interdisciplinary content in an engineering course raised the students competences. This key milestone demonstrated the benefit of an active learning approach, rather than of a traditional siloed one. Indeed, active learning methods can generate more prepared professionals, as concluded in the article of Fernandes (2014). In this study, students and professors both recognized that a PBL-Project Based Learning approach generated more content retention by connecting theoretical knowledge with practical application and strengthened teamwork and problem-solving skills also perceived as very useful for ease the access to professional life. Since the active learning approach is not yet standardized in Universities, companies need to fill this gap as discussed by several authors (Alves et al., 2012; Alves et al., 2017; Flumerfelt et al. 2016).

The Lean word was used for the first time in an article written by John F. Krafcik “Triumph Of The Lean Production System”, Krafcik (1988), to translate to the Occident the spirit of Toyota’s way of work, or the TPS – Toyota Production System. Later, in the book “The Machine That Changed the world”, Womack et al. (1990), James Womack compared automotive industry’s performance and the term Lean became part of the occidental management jargon. Furthermore, in a subsequent book, “Lean Thinking: Banish Waste and Create Wealth in Your Corporation”, Womack & Jones (1996), the authors define the five principles of the Lean philosophy: (i) Define Value: what a customer is willing to pay for a certain product or service. On the contrary, the non-value activities are called waste, and must be eliminated; (ii) Value Stream: is the set of processes in place to deliver the value customers want to receive. Making the Value Stream visual is key to understand possible break points and constraints that affect value delivery to customers; (iii) Flow: means that all activities must be delivered with no interruptions. Events cutting the flow are considered waste and, therefore, must be eliminated; (iv) Pull-Production: activate the production when required by the customer, avoiding inventory with all costs related and (v) Pursuit of Perfection: means that the company is always looking for improving performance upon deviations or improvement opportunities: Continuous Improvement.

Lean Production, started to be applied to production areas, but rapidly jumped the shop floor boundaries to all kind of areas within a company and to all type of businesses and not for profit organizations. Whenever there are people and processes, there is room for improvement or, room for Lean, whatever the type: Lean Office, Lean Services, Lean Startup, Lean Six Sigma, Lean Education and so on, as explained in the book “Lean Education: An Overview of Current Issues”, Alves et al. (2017).

In the searching activity to find training programs to comply to a legally imposed minimum of training hours, a Portuguese retail company stepped in a Lean consultancy firm that challenged not only to deliver the necessary number of training hours, but also to use them as a way to increase productivity and global performance level. This chapter describes how the Portuguese retail company developed and implemented a Lean School to (i) upskill internal knowledge, skills and behaviors about Lean in the existing work force and to (ii) prepare the newcomers to use Lean in such a good way as if they had been part of the company for years. The authors will also describe some of the active learning methods used in the Lean School programs and report the evolution on some performance indicators like the number of student’s attendance and satisfaction levels.

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