

# From concept to application: A didactic concept for the «Process Lab»

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This thesis develops a competence-oriented didactic concept for the «Process Lab» designed to teach skills in supply chain management, logistics and process management. By conducting expert interviews and the implementation of a value stream mapping (VSM) workshop at Belém Café Rösterei AG, a first didactic concept was developed and tested.

## Introduction and Objectives

This bachelor's thesis develops a didactic concept for a VSM-workshop that can be implemented in a modular «Process Lab». It also addresses the need for interdisciplinary learning factories by filling the void between theory and application in modern learning environments that integrate logistics, supply chain management and process management. The workshop aims to teach skills from all three subject areas such as the practical application of other lean tools, to analyze and improve processes effectively.

## Research Design

Qualitative data was collected via literature review and expert interviews. Experts from academia and practice were selected via purposive sampling to get best practices and didactic strategies, which were evaluated using MAXQDA. A Design Science Research approach was applied to build and evaluate the concept. In the «Build» phase, a structured value stream mapping (VSM) workshop was designed based on the theoretical foundations and interview data. In the «Evaluate» phase, the concept was tested and validated at Belém Café Rösterei AG. This helped to identify improvements such as time management

and communicating the learning objectives with participants.

## Results

The expert interviews and the VSM-workshop (Figure 1) provided insights into a didactic concept with the key elements such as alternating theory and practice, target group orientation and experience-based learning. The participants achieved key objectives such as recognizing inefficiencies, applying lean methods and systemic thinking by mapping a current state, analyse bottlenecks and design a future state (Figure 2). Reflections and positive feedback confirmed the effectiveness of a practice-oriented, target-specific and methodologically diverse VSM-workshop for teaching skills across the three subject areas.

## Implication and Recommendation

To further develop the concept, it is recommended to refine it iteratively based on participant feedback and didactic evaluation. In future iterations the workshop concept can be applied to continuous improvement or other lean principles like kaizen or 5S. Statistical Process Control could also be explored using this concept. It is recommended to ensure continuous adaptation to evolving didactic, technological, and professional requirements. This learning environment remains sustainable to ensure a high quality of education.



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Figure 1: Workshop Value stream mapping (VSM) at Belém Café Rösterei AG



Figure 2: Future state map (VSM-workshop)