

## **Multi-Perspective Learning in a Real Production Plant Using Experiential Learning in Heterogeneous Groups to Develop System Competencies for Production System Improvements**

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**Abstract :** System competencies play a key role to ensure an effective and efficient improvement of production systems. Thus, there can be observed an increasing demand for developing system competencies in industry as well as in engineering education. System competencies consist of the following two main abilities: Evaluating the current state of a production system and developing a target state. The innovative course 'multi-perspective learning in a real production plant (multi real)' is developed to create a learning setting that supports the development of these system competencies. Therefore, the setting combines two innovative aspects: First, the Learning takes place in heterogeneous groups formed by students as well as professionals and managers from industry. Second, the learning takes place in a real production plant. This paper presents the innovative didactic concept of 'multi real' in detail, which will initially be implemented in October/November 2016 in the industrial engineering, logistics and mechanical master's program at TU Dortmund University.

**Keywords :** experiential learning, heterogeneous groups, improving production systems, system competencies

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