

## Is learning-by-doing via E-learning helpful to gain generic process knowledge?

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**Abstract.** Learning generic process knowledge is important to transform organizations from a function- to process-orientation to gain efficiency benefits. It requires a fundamental change of mind by employees as the required knowledge of process-oriented and function-oriented organizations differs substantially. However, a shift of mind is hard to achieve for employees as processes remain abstract or intangible. Empirical results on the learning method are rare, only showing that learning-by-doing is superior. In addition, e-learning is supposed to be promising to be applied, but due to the context dependency leaving the question open how learning-by-doing helps in the given context. Concluding, the hypothesis is that learning-by-doing in an e-learning setting leads to a significant increase of generic process knowledge.

We set up an e-learning program containing tasks based on a learning-by-doing approach. Generic process knowledge is operationalised with the following dimensions: Customer, goals, teams, hierarchy, management, continuous improvement and process design.

The e-learning phase was integrated with a pre-test-post-test design in an academic course on Management (N=80). The results reveal that learning-by-doing via e-learning leads to a significant learning effect of almost 20 per cent. Thus, the hypothesis can be confirmed ( $T(79) = -5.709, p < .001$ ). Overall, the results can be considered as strong taking into account the relatively short time participants spent, the low number of training repetitions and a limited forum exchange. However, the level of 59.6% still leaves some room for improvement such as more explanation or exchange between participants.

**Keywords:** process knowledge, e-learning, learning-by-doing

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