

# Session 1D – Paper

Dag 1: 12.50-13.40 Lokale: 107 ODEON

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## Equipping knowledge workers with competences to succeed in Industry 4.0: a study of blended learning for employees of manufacturing firms

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### Program text

Blended learning is effective but, courses must be carefully designed and implemented well. Our learners were satisfied with the format yet struggled to complete all activities and relate it to I4.0.

### Abstract

As the Industry 4.0 paradigm unfolds firms need to equip their employees with the new competences and mindset required to succeed in the new reality. Online learning plays a growing role in corporate training (Schweizer, 2004), not least due to the cost benefit (Skrtic, Horvatincic, & Tisma, 2012), and flexibility ensuring timely and consistent training of employees sharing different work shifts or being located in different areas (Chuo, Liu, & Tsai, 2015). Despite the advantages of online learning, many initiatives fail due to distractions to study (Seraphim, 2010), procrastination (Montmerie, Edwards, & Thorn, 2016) and other reasons.

We study a blended learning course offered by a private education company to 14 knowledge workers employed by five different manufacturing firms headquartered in Denmark. The purpose is to understand how to effectively design and implement blended learning in an organizational setting. Our case study utilizes a pre-survey, observation, document analysis, and an individual semi-structured interview with the learners after the training. The course included a kick-off session on Skype, online modules provided by the education company's LMS, and two physical workshops at one of the participating manufacturing firms. The learners' mean age was 38 years and they all had a university degree.

We find that the learners were generally satisfied with the blended learning format. A number of learners could not complete the e-learning in due time and participate in both workshops. Some were bothered by technical aspects on the LMS, and most of the learners struggled to see the connection between the course content and Industry 4.0. We nonetheless conclude that blended learning is an excellent method to train employees working at different firms. However, courses must be carefully designed and implemented well.

### Authors

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### Literature

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