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Training of occupational health and safety professionals in design thinking

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THE WORK IN CONTEXT

There is a need for making occupational health and safety management more agile and involving relevant stakeholders early on in the problem-solving process. We propose the design thinking (DT) approach as a candidate for this endeavour. DT may be defined by the double diamond model pointing to a non-linear problem-solving process iterating through divergent and convergent phases. The first diamond is focussed on exploring and defining the problem to be solved. In the second diamond many ideas for solutions are developed and tested, and in the end the best solution is chosen. In this study we investigate if occupational health and safety professionals can learn a DT approach with the help of a training program. It was our assumption that the ‘designerly’ way of problem framing and solving were well suited for complex workplace problems. Hence, we designed an interactive research project in which six experienced professionals from three organisations completed a DT training program. The ultimate goal of the project was to develop guidelines and tools that can support occupational health and safety professionals in applying the DT approach. The six participants in the training program were four internal professionals in companies and two professionals in an occupational health service consultancy. After a full-day workshop in which we introduced the DT approach and tools, the participants were instructed to plan and facilitate a DT problem-solving process in their own company or within a customer company. The company cases included two focusing on a psychosocial workplace challenge and two focusing on a musculoskeletal challenge. The first two cases were both within municipality services, and the others were in a pharmaceutical company and a mail distribution centre.

KEYWORDS

Design thinking, training, learning-by-doing

A brief outline of the work carried out

The training program included three main activities:

- 1) A full-day training workshop and a handbook introducing the design thinking (DT) approach and tools.
- 2) The professionals applying the approach and tools in a case in their own organisation.
- 3) Two reflection workshops in which the professionals shared and evaluated experiences.

In the training workshop, the researchers introduced the ‘design sprint’ as a key feature of DT and a way to involve relevant stakeholders in the problem solving. A design sprint was defined as a very compact version of going through the phases in the double diamond model. A major part of the workshop was organised as a design sprint in which the participants worked with a company case applying relevant tools. The main task for the participant hereafter was to plan and facilitate three design sprints of three to four hours in their own company in order to solve a psychosocial or musculoskeletal problem.

We evaluated the professionals' learning by help of a recurrent questionnaire, observing them in action applying DT tools, and analysing their feedback in the reflection workshops.

Findings/solutions (the outcome)

For all six occupational health and safety professionals the training workshop induced a very steep learning curve on the DT approach and tools. When applying the approach and tools on their own case we observed an appropriation process in which the professionals to various degrees adapted DT into the practice of occupational health and safety. The preliminary results indicated that design sprints are more easily applied to musculoskeletal problems than to psychosocial ones.

The first design sprint in the companies typically focused on exploring and defining the problem to be solved – the first diamond. However, in observing the two first sprints we learned that gaining a shared and clear understanding of the problem was not easily achieved. Some of the methods for generating ideas for solutions were applied before the problem had been sufficiently explored and defined. This observation led us to the conclusion that we need to change future training workshops and handbook materials. More guidelines are needed on which tools should be applied in what diamond and in what sequence. Also, tools for jointly exploring and elucidating the current work practices in a workshop is needed.

Impact

Occupational health and safety professionals may learn the DT approach through a relatively short training workshop, followed by a learning-by-doing phase on a real-world problem and a DT handbook tailored to the occupational health and safety area.