

Abstract

This thesis contributes to our current understanding of collaborative learning at work, and to how information technology can be designed to support collaborative learning. The support of learning at work has been investigated in three phases: through experiments, through evaluations of ways for organizing learning, and through ethnographic studies. In the experiments, mobile and networked technology was used to construct prototypes, which supported scenario-based role-playing. These prototypes were employed in workshops to explore the support of learning in mobile and distributed work. The evaluations of ways of organizing collaborative learning in such work, introduced the idea of synchronization points. In the final phase we conducted studies of learning as it took place in the everyday work of sales persons and police officers.

The results from the three phases suggest that our prior conceptions of learning at work need to be revised. Concepts and models based on learning, as a result of teaching at school, provide little help when trying to understand and design for collaborative learning at work. Instead, *talking about work* is introduced as a concept that provides new directions for the design of IT-support for learning as well as the organization of new learning activities.

Talking about work is here conceptualized in terms of triggers for talking, types of talk, and functions of talking. If learning is understood as situated in communities of practice, then talking about work depends upon, and deals with, tools and artifacts applied in practice, the stories of the practice, the concepts used, as well as the discourses and styles, i.e. what can be summarized as the repertoire of the practice. Three things trigger discussions on practice: the introduction of *new tools*, the involvement of *new persons*, and *events* that are understood as new and unusual to the community. In practice, there are established forms for talking concerning certain accepted topics. These *types* of talking provide both reasons for talking as well as a structure for the discussions, making it possible for colleagues to effortlessly and without much negotiation engage in *planning*, *recapitulating*, *telling stories*, *describing*, and *peer-reviewing*. When practitioners talk about work, this serves several different functions related to the practice. From the studies, three such functions could be identified: *restoring*, *reinforcing*, and *spreading* practice.

Keywords: *workplace learning, collaborative learning, information technology, mobile technology, prototyping, field studies, talking about work*

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