Inka Koskela (PhD student)
Department of Sociology and Social Psychology
33014 University of Tampere
tel. +358-3-3551 7020
email: inka.koskela@uta.fi

"Do you see what I see?"- When an expert meets a novice

Information and communication technology has dramatically changed our daily lives both in work and in leisure time. Development of the technology has not only affected communication and knowledge interchange in societies, but it has also had influence on work conditions. Technology augmented work environments require cooperation and multimodal interaction of the members participating in the work processes and practices. In my presentation I will look closely how professional competencies needed in the expertise based work is both learned and taught in technology mediated learning environment. Especially I am interested in collaborative, interactive and multimodal actions of expert and a novice in a context of air traffic controller training.

In the context of technologically advanced learning environment verbalized, visualized and embodied (inter)actions and practices form crucial part of pedagogical activity. Learners do not only interact with teacher or with the material being investigated, but they also interact continuously with the physical and material environment that surrounds them. Learners as interactants actively use their hands and bodies and aspects of the material environment while displaying their understandings (Koschmann and LeBaron 2002). On the other hand, both trainees and the trainers design and manage their conduct and actions in such a way that they are able to monitor and observe each others' actions. While demonstrating work related operations for training purposes participants perform their actions in such a way that it is recipient designed, visible and accountable for both parties (see Mondada 2003). With the help of the visual practices such as coding and highlighting of material environment and constructing representational objects of it (see Goodwin 1994) trainers are able to show to trainees what is relevant to the work they are performing. The learner is expected not only to see what is visible to the speaker - in learning settings more often the teacher - but also see in the same way as a speaker (Koschmann, LeBaron, Goodwin & Feltovich 2001).

In my presentation I will show some preliminary observations of video recorded data of simulated training exercises recorded in 3-dimensional aerodrome control simulator. I will analyze some typical modes of pedagogical interaction and embodied pedagogical practices such as *pointing* and *seeing together*. The presentation is based on my doctoral thesis *Interactive Learning and Training Practices and Multimodal Actions in Air Traffic Controller Training.* The research concerns the interactional management of learning and training practices and the multimodal nature of the pedagogical encounters in technology-mediated learning environments. The theoretical basis of the study is ethnomethodology and conversation analysis in conjunction with the emerging fields of workplace studies and computer supported co-operative work (CSCW).

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