Mäki, Tarja
tarja.maki@helsinki.fi

Kerosuo, Hannele
hannele.kerosuo@helsinki.fi

Center for Research on Activity, Development and Learning CRADLE
University of Helsinki
Siltavuorenpenger 3 A
00014 University of Helsinki, Finland

ABSTRACT

Shadowing of the site managers’ daily work and uses of BIM in construction site management

This study is a part of a wide ethnographic study, lasting several years, concerning construction site management and using building information modeling (BIM) in Finland. The central data has been collected by shadowing six construction site managers during their working days in different constructions sites, interviewing the site managers, and also by observing the site meetings and design meetings of two construction projects for two years. The aim of this paper is to reflect the researcher’s role in the research process: negotiating the access to the field, collecting data and analyzing and disseminating the results to the practitioners.

Ethnographic study on the activity in Finnish construction industry represents a new approach. Implementing BIM in construction site management will change the work of site managers and challenge the current collaboration practices among the project partners. Therefore, it is important to apply ethnographical approach to study the current challenges and to develop the future working practices. In the beginning of the study, the qualitative research based on shadowing data raised some critical questions amongst the construction companies. Yet still, shadowing the site personnel in their natural work situations is useful for discovering the actual uses and collaboration in their daily work. The shadowing as a research method follows the insight of the tradition of ethnography of design engineering; interviews and surveys are insufficient to uncover problems or challenges or the emerging innovative uses of tools (Buchiarelli, 1988; Miettinen et al., 2012).

The ethnographic methodology of the study draws on applied ethnography (Chambers 2000) and the ethnographic methodologies of development and change in cultural-historical activity theory (Engeström, 2000). According to applied ethnography, cultures are often described as “a durable repository understood as an unstable and mutable process by which people actively strive to derive meaning from their continually changing relationships and circumstances” (Chambers, 2000, p. 856).
Not being able to be everywhere at once requires the ethnographer to make choices about which action to follow and where (Marshall & Bresnen 2013). The choices made have consequences on the conceptualization of the research site in ethnographies of project work “to one that is rather mobile and transient” (ibid., p. 113). A step-wise research strategy and technique, in which a long-term field presence is replaced by brief ethnographic visits to solve particular research problems posed by an ongoing research project was applied in this study (Chambers, 2000, p. 863).

Due to a notable challenge the immersion of an ethnographer into the activity that s/he is studying, step-wise ethnographies are often applied in contexts familiar to the researcher. At-home ethnography refers to a study “in which a researcher describes a cultural setting to which s/he has a ‘natural access’ and in which s/he is an active participant, more or less in equal terms as other participants” (Alvesson, 2009, p. 157). An ethnographer doing at-home ethnography needs to gain an etic or objective relation to it. Therefore, a careful documentation and interpretation of the observation is needed, and the analysis does not require the inclusion of the personal meaning or strongly subjective aspects of the research experience (Alvesson, 2009, p. 160). A researcher can also use structured observation if the focus is on certain types of behaviour (Czarniawska, 2007, p. 25).


Czarniawska, B. (2007) Shadowing and Other Techniques for Doing Fieldwork in Modern Societies


