

Institutionen för pedagogik, kommunikation och lärande

Kunskaper som byggde folkhemmet

En fallstudie av förutsättningar för lärande vid
teknikskiften inom processindustrin

av

Anna-Carin Ramsten

AKADEMISK AVHANDLING

som med tillstånd av utbildningsvetenskapliga fakulteten vid
Göteborgs universitet för vinnande av doktorsexamen i Pedagogik
framläggs till offentlig granskning

Onsdagen den 9 april, klockan 13.15
Sal CE4, Pedagogen Hus C

Fakultetsopponent: Professor Kenneth Abrahamsson, Luleå Universitet



GÖTEBORGS UNIVERSITET
ACTA UNIVERSITATIS GOTHOBURGENSIS

Abstract

Title: Kunskafer som byggde folkhemmet – En fallstudie av förutsättningar för lärande vid teknikskiften inom processindustrin

Author: Anna-Carin Ramsten

Language: Swedish with an English summary

ISBN: 978-91-7346-781-0 (tryckt)

ISBN: 978-91-7346-782-7 (pdf)

ISSN: 0436-1121

Keywords: Workplace learning, communities of practice, boundary objects, boundary practices, learning and cultural tools, categorization, standardization

Housing plays a central role in human life and is a major societal concern. The knowledge, techniques and craftsmanship in the construction industry are constantly developing. New materials are invented, new production methods emerge and new building norms and standards are introduced as the society's expectations on quality and safety of housing increase.

This work studies how the process flow and work situation in one segment of the construction industry were affected by the rapid development in the postwar era. The case study concerns a process industry where light concrete elements were produced for housing. The purpose is to study how knowledge and learning conditions change as new technologies are developed and introduced into the working processes. What skills are, and will be, central to work given the different available technologies? What kind of learning is emerging when a new technology is introduced?

The empirical work is based on a field study with participant observations, interviews, video documentation and archival studies. The field work consists of two authentic commissionings of an I&C-system and one intensive on-site study of the work. The study is based on socio-cultural and situated perspectives on learning with an interest in the interaction between people and technology, and in boundary work between communities of practice.

The results show that the production of light concrete elements can be described in three technology generations: 1) mechanical appliances (1942), 2) semi-mechanical control panel (1966), and 3) a digital I&C system (1996). During these three generations, the conditions for learning the work and craftsmanship changed. The increasing computerization has transformed the work and made it more text-based. The founder obtains a functional position of power in the factory and the work is characterized by teamwork. Through digitization, the work becomes simultaneously both more abstract and more physical. One aspect of technological development is the emergence of new concepts, and standards built into the tools that contribute to the work processes becoming more and more text-based and integrated. Manuals and other texts can be seen as reifications of the collective knowledge developed through systematic quality work for many years in the business, but also in the entire construction sector. The commissioning of an I&C system meant limited opportunities for learning because no forum for mutual exchange of knowledge between the different practices was established.