

HÖGSKOLAN VÄST

Expansive design for teachers

An activity theoretical approach to design and work integrated learning

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Abstract

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This thesis explores how Participatory Design (PD) and Cultural Historical Activity Theory (CHAT) can be combined and used as a theoretical framework and methodology in a professional development activity for teachers. A shift in the way we view teachers, from implementors to designers who actively construct, invent, and develop the practice of schooling also calls for changes in teacher education and professional development activities. The study presented here explores teachers' work and learning during a professional development activity conducted as a participatory design project between two K-12 schools in Sweden and the USA, using media production to create an international collaboration on Ocean Literacy. The work draws on central notions and practices based on the Scandinavian School of Participatory Design and the Change Laboratory methodology (CL) based on the theoretical framework of expansive learning. The thesis is comprised of three articles answering research questions about what challenges and strategies develop in a design process as a situated professional development approach and how we can understand learning as part of and expanding beyond a design process using activity theoretical tools.

The first article presents a description of challenges and strategies developed by teachers in the first iteration of the design process and the results of using an activity theoretical model for collaborative analysis of the process. The second article analyses a CL intervention in the second iteration of the design process, adopted after the results of the first iteration. The analytical focus here was placed on empirical manifestations of the epistemological principles of the theoretical framework of expansive learning. The third article explores the occurrences and cyclicity of the learning actions postulated by the theoretical framework in the same intervention through a detailed analysis of the participants' discourse in the process. The thesis comes to a conclusion with a tentative formulation of design principles based on findings from the studies.

The results point to how innovative educational design can have consequences for teachers' work with conflicting needs, tensions, and contradictions at the systemic level of the activity. PD processes in educational settings require tools and concepts to capture this complexity and create sustainable solutions. In this study, activity theoretical models served as a collaborative tool for teachers to analyse and change their practice and to describe and explain work integrated learning in the design process. The work highlighted the need for teachers' expertise in design as well as the important role of media literacy in the use of new technology. Their active and practical engagement in the materials, based upon the tradition of PD, must be understood as an important part of the development of agency and volition, and findings suggest that the combination of PD and CL methodologies can serve as a vehicle for expansive learning and new innovative learning designs in educational settings. This approach was conceptualized as expansive design.