

From paper to digital work plans

how the transition to digital work plans influence teaching in primary classrooms

Research Question and Aims

The overall research question in my study is:

How will the transition to digital work plans influence teaching in primary classrooms?

The aim of this study is to investigate how the teachers utilize new opportunities through the digital tool regarding teaching and organizing learning activities, and how this impact on the use of work plans in general. My study also aims to enlighten the impact introduction of new digital work plans has on the relation between individual and collaborative learning activities.

The Significance of the Research

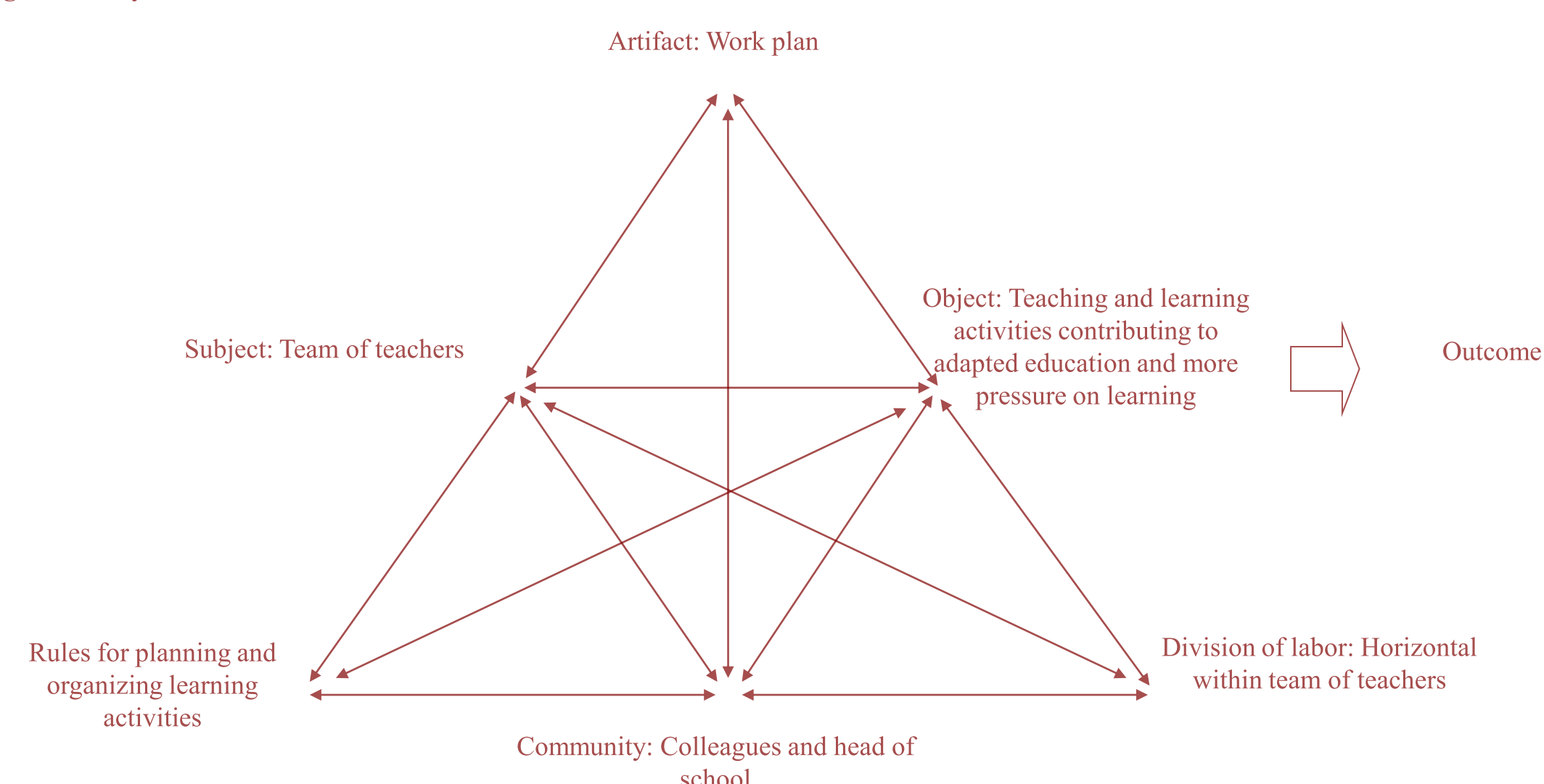
During the 1990s the use of work plans for pupils in Norway has expanded tremendously and can be seen as one of the most important reasons for the extreme degree of individual and private working methods among pupils in today's classrooms (Klette, 2003; Klette and Lie, 2006; Klette and Lie et al, 2008). Recent research has revealed that the goal of fulfilling adapted education through the use of work plans in schools endanger problematic consequences as individual privatized forms of learning and low pressure on learning (e.g. Klette, 2007; Bergem, 2009).

Theory and methods

Drawing on a sociocultural perspective, I plan to use Activity theory stemming from Leontjev (1978), inspired by Vygotsky (1978), later elaborated by several, especially Engeström (1987, 1999) as a theoretical framework and tool in the process of analysis. Activity theory combines different levels of analysis and include several relations between actors and tool in order to describe processes of change within an activity system, e.g. an institution (Rasmussen & Ludvigsen, 2009). Activity theory is expected to be helpful both in keeping the direction of analysis in this study and revealing prospective chances in the teachers practice.

A proposed framework for the analysis, drawing on Engeströms model, is here illustrated in figure 1.

Figur 1. Analytical framework



A combinatory use of Activity theory and Actor Network Theory (Law & Hassard, 1999) is explored in order to enrich the understanding of the relation between the use of digital tools and human interaction.

The study is planned conducted as a single case study where Redmount primary school (here made anonymous) represents the case. They have used text- and paper based work plans for the pupils for over 10 years and they are now introducing the use of digital work plans.

As Yin (2003) points out, a rationale for a single case study is when the case represents a unique case. Redmount primary school is to be considered as a unique case through having a long history using ICT as an educational tool and being among quite few introducing digital work plans for the pupils.

The work to be done

In order to shed light on the overarching research question of this study, I plan to combine three different methods of data collection:

- 1) focus group interview with a team of teachers
- 2) observation of learning activities
- 3) document/artifact analysis of work plans

A time series analysis will strengthen the possible tracking of changes (Yin, 2003). The collection of data is planned done as a series of five collections during a year time. In between the series of data collections, I will be able to follow development of the digital work plans by logging on the digital tool as a fictive teacher and as a fictive pupil.

Schedule

The schedule shows a rough plan for implementation:

Semester 1 (Autumn 2009)	Contract agreement – Redmount Primary School Prepare collection of data (practical planning and make interview guide) Approval through Norwegian Social Science Data Services (NSD) Collection of data. Focus group interview, observation and collect work plans. Focus: today's use of work plans
Semester 2	Analysis. Focus: today's use of work plans Describe today's use of work plans Collection of data. Focus group interview, observation and collect work plans. Focus: change/stability Analysis. Focus: change/stability Theory studies
Semester 3	Collection of data. Focus group interview, observation and collect work plans. Focus: change/stability throughout the year Analysis. Focus: change/stability throughout the year Theory studies Writing process
Semester 4	Analysis. Focus: change/stability throughout the year Theory studies Writing process
Semester 5	Theory studies Writing process
Semester 6	Finish article #1 (empirical focus)
Semester 7	Finish article #2 (empirical and theoretical focus)
Semester 8	Finish article #3 (methodological focus) and cape

References

- Bergem, Ole Kristian (2009). *Individuelle versus kollektive arbeidsformer. En drøfting av aktuelle utfordringer i matematikkundervisningen i grunnskolen*. PhD-avhandling. Institutt for lærerutdanning og skoleutvikling, Universitetet i Oslo.
- Engeström, Yrjö (1987). *Learning by Expanding: An Activity-Theoretical Approach to Developmental Research*. Orienta-Konsultit Oy, Helsinki.
- Engeström, Yrjö (1999). *Activity theory and individual and social transformation*. I: Engeström, Y., Miettinen, R. & Punamäki, R.-L. (1999): Perspectives on Activity Theory. UK: Cambridge University Press.
- Klette, Kirsti & Lie, Svein (2006). *Sentrale funn. Foreløpige resultater fra PISA+ prosjektet*. Oslo: Det utdanningsvitenskapelige fakultet, Universitetet i Oslo, 2006.
- Klette, Kirsti (2003). *Klasserommets praksisformer etter Reform 97*. Oslo: Pedagogisk forskningsinstitutt, Universitetet i Oslo, 2003.
- Klette, Kirsti (2007). *Bruk av arbeidsplaner i skolen – et hovedverktøy for å realisere tilpasset opplæring?* Norsk pedagogisk tidsskrift, 2007, nr 04, s. 344-358.
- Klette, Kirsti, Svein, Lie et al (2008). *PISA+ Lærings- og undervisningsstrategier i skolen*. Sluttrapport KUL-programmet, Norges forskningsråd.
- Law, John and Hassard, John (1999). *Actor Network Theory and after*. Oxford: Blackwell.
- Leontjev, Alexei Nikolaevich (1987). *Activity, Consciousness, and Personality*. Prentice Hall, New Jersey.
- Rasmussen, Ingvill og Ludvigsen, Sten (2009). *The Hedgehog and the Fox: A Discussion of the Approaches to the Analysis of ICT Reforms in Teacher Education of Larry Cuban and Yrjö Engeström*. Mind, Culture, and Activity, 16: 83-104, 2009. University of California.
- Vygotsky, Lev Semenovich (1987). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press, Cambridge, MA.
- Yin, Robert K. (2003). *Case study research : design and methods*. Thousand Oaks, Calif. : Sage

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