English summaries

Jonathan Lilliedahl, Daniel Sundberg and Ninni Wahlström: Theory-based evaluation in response to the issues of education reforms in the early 2000s

The current surge of interest in evidence based policy has re-actualised issues of research, policy and pedagogic practice. Research are expected to support the development of systematically substantiated reforms as well as evidence-based practices. At the same time, criticism has been brought against dominant evaluation models. The question is whether they really respond to an increasingly complex landscape of governance, and the varying conditions and variations that characterize today's schools? This article examines the potential of a theory-based evaluation model in order to systematically and empirically investigate education reforms. This approach provides the ability to include analysis of how transnational, national and local discourses converge and diverge in relation to each other, to take different kinds of contexts into consideration, and how these contexts affect the recontextualisation of pedagogic discourse. In order to further develop the approach of a theory-based evaluation, the authors point to recent steps within mixed methods research in relation to the design of, and findings in an empirical case study of the Swedish curriculum reform, *Curriculum for the compulsory school, preschool class and the recreation centre, Lgr 11*. Based on policy analyses, four hypotheses are presented: (i) the hypothesis of reform; (ii) the hypothesis of teachers' professional practice; (iii) the hypothesis of teaching repertoires; (iv) and the hypothesis of assessment practices. Each of these hypotheses has been followed up by questionnaire responses and interviews. The sequential explanatory design in this study relates critically transnational policy arenas to national education reforms and pedagogic practice in order to test the weight of the empirical evidence obtained. On the grounds of conclusion, there are reasons to revive and further develop the tradition of theory-based evaluations. Therefore, the article put forward theoretical and methodological proposals for the continued direction.

Annika Karlsson, Pia Nygård Larsson and Anders Jakobsson: Multilingualism as a resource in the science classroom

This study has two main aims. The first is to study and analyze authentic student conversations in a natural science teaching context in which second language learners are able to use both their first and second languages. The second is to examine whether switching between languages could be a resource for the students' learning in the subject and, if so, in what ways. An underlying aim concerns how code-switching can help students to bridge the differences between everyday modes of language and more scientific modes.

The analysis focused on 28 typical and representative code-switching situations between Swedish and Arabic, which arose in authentic science instruction situations. Transcription was performed together with an Arabic-speaking language teacher. The functions of the selected code-switching situations were analyzed based on a study of Appel and Muysken. However, quantifying and categorizing code-switching situations based on their functions proved problematic. The analysis revealed the functional complexity of code-switching, whereby one code-switch often serves several different functions simultaneously; this is also consistent with previous research. Instead, our analysis focused on the students' linguistic movement between and within different discourses in the natural science learning. We used two main discourses: the students' everyday practical experience of the world, and the natural science subject-specific discourse that students encounter in the school science instruction context. We also used discourses related to students' social and cultural backgrounds. To describe students' ability to move between discourses, we use the term *discursive mobility*.

The study was conducted with students at a multicultural school, where all of the students are multilingual, located on the outskirts of a large Swedish town. During data collection, the natural science subject was "photosynthesis, combustion, and ecological relationships." In an attempt to create a language development instruction, the teacher used a genre pedagogical approach. The study followed 11 science education lessons using three video cameras and two voice recorders, and the collected material comprises to a total of 28.5 hours of student conferences and teaching sequences. Student texts and instructional materials were also collected.

The analysis showed that most of the 28 different code-switching situations were used in order to increase the understanding of the natural science subject matters. The analysis also indicates that concretizing and relating the subject matters to everyday events helps the students understand abstract concepts, and is therefore a resource in the learning process. This is usually done by using both languages and often in code-switching between languages. In

other words, the switching between first- and second language facilitates the use of the available languages, and helps increase students' communicative spectrum which is supported in previous research. Code-switching occurs within *linguistic loops* between discourses, which are an important condition to describe and develop new knowledge in the field. The students' everyday experiences are often expressed using their first language, which means that the linguistic loops constitute a movement both between national languages and different discourses or use of language (modes of expression). On a more general level, it appears as though the students' ability to use all their linguistic resources expands their *discursive mobility*. Linking the natural science subject content with the students' own experience enables code-switching, which, in turn, enables the students to contextualize subject matter as a precondition for deeper understanding.

We can see important implications in relation to the results of the study. For example, the fact that some newly arrived students had started their schooling, and developed a basic knowledge of science, in their home country offered the opportunity to continue the development of knowledge in a language that makes this possible. We will therefor assert a flexible and multilingual education, where multilingualism and code-switching is perceived as a resource to support such development. Creating an expanded continuity between previous education, language development in both languages, and subject-specific teaching, leads to improved achievement for these students. Our study suggests that teaching situations that allow and encourage switching between languages and different modes of expressions can be an important tool in this development.

Åse Hansson and Jan-Eric Gustafsson: Pedagogical segregation: Teacher competence in the Swedish compulsory school from an equity perspective

This article describes changes since the mid-1990s of allocation of teacher competence across schools in the Swedish compulsory school. Both student-teacher ratio and formal teacher competence are discussed. The basis for the analyses is the Teacher Register in which annually collected data that describes Swedish teacher's background, education, and position is available. The results show that the student-teacher ratio increased during the period and that it is highest in schools where student composition is characterized by a high proportion of students entitled to mother tongue education. However, in parallel with this development there has been a marked weakening of formal teacher competence.

In schools where the student-teacher ratio has increased the most, i.e. schools with a high proportion of students entitled to mother tongue education, teachers have the lowest formal competence level. The term 'pedagogical segregation' is introduced to describe this phenomenon. However, the differences between municipal and private schools remain relatively constant. The results of this study thus show that teacher competence is not allocated to schools according to students' needs. This affects the possibilities to achieve educational equity, and may be expected to influence students' academic achievements negatively.

The lowest level of formal teacher competence is observed in private schools, where also the competence gap between schools with different social compositions is higher than in public schools. Since the mid-1990s, however, the biggest decline in formal teacher competence has been observed in the municipal schools. The increase in the proportion of unauthorized teachers in municipal schools occurred during a period when also the number of students increased. When the number of students later fell, the proportion of unauthorized teachers was not reduced at the same rate. This can partly be explained by the increase in teacher-student ratio during this period. Teachers' competencies are generally of great importance to students' academic achievements, particularly in schools where many students are in great need of supportive teaching. The high proportion of unauthorized teachers in private schools along with the growing proportion in municipal schools is therefore a major concern.

The private schools have compared with the municipal schools a higher proportion of pupils entitled to mother tongue education, and a large proportion of these students choose school with confessional and linguistic/ethnic profiles, where also the teachers have the lowest formal level of competence. A growing proportion of students entitled to mother tongue education thus meet learning environments with special orientations of the education, and lack of opportunities for meetings between students with foreign and Swedish background.

Further studies of teacher competence are needed, both in terms of increased differentiation of the meaning of the concept, and the effects on various outcome variables. Different aspects of pedagogical segregation also need to be studied for different school subjects.

Elisabet Langmann and Niclas Månsson: Seeing Oneself: Questioning Norm Critical Pedagogy

In this article we take a closer look at a Swedish pedagogical initiative named "norm-critical pedagogy". The Swedish school system has a relatively long history of working with issues regarding equality, discrimination, and social justice. Since 2006 working for social justice and equal treatment for all children and student has been reinforced by a set of new laws governing educational institutions in Sweden. Despite this fact, recent studies indicate that many teachers and pre-school teachers are at loss when it comes to how one works to emancipate students and prevent discrimination and marginalization in the classroom. One of the main issues at hand is the inability to criticize social norms as they are expressed and reinforced in society. Instead problems of discrimination and marginalization are often located in individuals, such as in the "bullying" child or the "intolerant" student. As a response to this "norm blindness", norm-critical pedagogy has been promoted within the school political discourse in Sweden as an alternative and more "effective" strategy for meeting the demands of the Swedish school curricula and the new anti-discrimination laws. Drawing mainly on critical and post-structural theory, the overall aim of norm-critical initiatives is to make both children, students, and teachers aware of the norms governing society, and how this critical awareness can be used educationally to counteract the "othering" of already marginalized individuals and groups. The aim of the article is to examine he theoretical foundation of norm-critical pedagogy as well as some of its ethical implications. By questioning the consequences of norm-critical pedagogy rather than its emancipatory objective, the article unfolds in three parts. In the first part we highlight how norm-critical pedagogy is constructed as a "better" or more "effective" alternative within the school political discourse in relation to both anti-bullying programs and to what is broadly called a pedagogy of tolerance. In the second part we examine the theoretical foundations of norm-critical pedagogy in light of post-structuralist conceptions of the subject and in light of a critique of modern education. By way of conclusion, we discuss how norm-critical pedagogy seems to have difficulties to face what Zygmund Bauman calls the "other" of modern education – the stranger. According to Bauman, the social construction of the stranger is part of the modern as well as the postmodern project, since the stranger is the waste product of any attempt to construct or reconstruct social order. Hence, we argue that in order to take the ethical and emancipatory potential that may lie in an anti-discriminatory education seriously, norm-critical pedagogy needs to fully address the consequences of a post-structuralist unpredictable subject in change. It also need so face the strangers it produces. Methodologically

the paper is to be understood as a theoretically driven argument about norm-critical pedagogy, rather than an application of a specific theoretical position within the field of social justice and anti-discriminatory education. Thus, the critical perspective offered in this paper contributes to a discussion about norm-critical pedagogy in the context of the present school political discourse in Sweden.

Anne-Li Lindgren and Wilhelmina van Vulpen: Aesthetic transformations: Following a rabbit's path from an art center, through a preschool and on to the art center's studio

In this paper we conduct an analysis of the visits of two preschool groups to an exhibition at an art center. The visit was composed of three parts; first a cultural worker presented the exhibition in the art center, then the groups returned to preschool where they used photos from the visit to reflect on it and to prepare for the last part, which consisted of a session in the art center's studio to create art of their own. The exhibits, created by the Finnish artist Anu Tuominen, were mainly constructed using recycled materials and furniture collected into constellations, with such titles as (our translations): "Real circles of color with sunflowers" (Figure 1), "To fix a neckpiece" (Figure 2), or "To keep oranges and carrots" (Figure 2). When the groups visited the studio they brought their own recycled materials to be used in their own artwork, as well as using materials provided by the studio. Our analysis is based on an ethnographic study in which one student followed the groups between the different events, making notes, taking photographs and using an audio recording device. All adults had given their written consent to participate in the study, including the children's parents, as well as the children themselves (verbal consent).

When we analyzed the material, our first reflection was that the children had very little space to move freely within the exhibition, or to make their own explorations. It so happened that one child tried to break loose from the group, and was given a friendly caution to stay in the group (which they did). The visit was then controlled by the culture worker, preschool teachers and the art institution itself. There was little indication of any influence from ideas suggesting that children's own choices of how to move are a form of expression or to create a space in which children can present an exhibition, or that touch can open up alternative interpretations in relation to verbally communicated understandings. We then explored other ways to understand what was going on during the visits (i.e. the whole process), and became inspired by research influenced by Gilles Deleuze (1925–1995) and Felix Guattari (1930–1992),

which aims to understand art and pedagogy in new ways by including the material and the relational in any analysis. During the reflection process we realized that we were witnessing two different understandings of aesthetics; on the one hand aesthetics as fine art and an expression of genres, the beautiful and sublime, and on the other hand aesthetics as material relations, movements and space–material explorations. In the analysis, we explore how both these ways of understanding "aesthetics" are set in motion, and we show how both understandings are relevant and produce different interpretations of the art studio visit as a process in which agency is produced in complex ways by both human and non-human agents. We argue that it is important to highlight both understandings of aesthetics in order to understand the complexity of the event taking place.

In the analysis, we focus on material details highlighted by children during the visit. More specifically, we follow and engage with a girl's "discovery" of a plastic rabbit (Figure 3), and how this rabbit becomes a material agent in the whole event; how the girl, the rabbit and different adults activate and create each other in a process of "becoming with" human and non-human agents, as well as in relation to aesthetics as art and aesthetics as material-relationality. We suggest that the plastic rabbit (Figure 3), introduced by a girl child early in the art visit process, transforms into the shape of a painted rabbit (Figure 4) at the end of the process, when the group of children produce their own artwork in the studio. In between these two differing, yet coherent, realizations, the rabbit was made an agent in the preschool via photographs and a girl's sensory (touch) engagement with the photos. In addition to analyzing the agency of the rabbit and how it co-produced actions with humans and other materials, we show how it moves between the different (institutional) spaces (including the university via us researchers) and thus also becomes an agent taking part in producing these locations.