

29. September 2008: Roger Säljö, Unni Wathne, Odd Tore Kaufman, Trine Engeland and Maria Luiza Cestari (University of Göteborg and University of Agder)

The study of multiplication in classrooms: Theoretical, methodological and pedagogical perspectives.

Multiplication is a fundamental operation in the construction of mathematical knowledge. It is introduced in primary school after addition and subtraction, provoking many learning challenges for children as well as for teachers. The aim of this seminar is to present studies related to multiplication from three different perspectives:

1. *Children's approach to analogies and combinatory reasoning. A longitudinal study of playing together in small groups* by Unni Wathne (doctoral thesis to be presented in 2008).

2. *How do pupils learn to multiply? A sociocultural approach to appropriation in the classroom.* Earlier studies about multiplication will be presented, particularly those related to solution procedures, semantic types and intuitive models, by Odd Tore Kaufman (doctoral thesis to be presented in 2009).

3. *Pupils' strategies to solve multiplication in the 5th. Grade - Lesson Study for teachers. A case study.* This study presents two different but related topics: the identification of strategies used in multiplication of numbers with two digits by a number with one or two digits, and the introduction of a "Lesson Study" to teachers focusing on multiplication. Trine Engeland (master's thesis presented in 2007)*

The presentations will be illustrated with examples from the classroom.

In the second part of the seminar, a discussion focusing on relevant aspects from presentations will take place, including pedagogical ideas and propositions to be implemented in mathematics lessons.

* Available at the library (UiA): Engeland, T. (2007) Elevers strategier for å løse multiplikasjon i 5. trinn – Lesson Study for lærere. En case studie.