Learning studies in Sweden

U Runesson

What is a Learning study?
- Similar to lesson study but grounded in a theoretical framework
- Focus on the object of learning: What is critical for learning?
- Variation theory as a guiding principle for planning and evaluation
- Student understanding the point of departure
- Systematic planning, evaluation and feedback

Model:
Lesson study

Theory:
Variation theory

Student learning
The object of learning

Learning study first phase
- Combining research and school developmental work (Funded by The Swedish Research Council, Committee for Educational Science) 2003-2005.
- Primary, lower secondary (mathematics, Swedish & English) Higher education (economics)
- Researching critical aspects for learning

Learning on three levels
- Learners
- Teachers
- Researchers e.g. Runesson (in press); Kullberg, & Runesson, (2006); Kulberg, (2007); Holmqvist (Ed.) (2006)

Carefully examining student understanding before and after the lesson
- Detecting differences in learning outcomes and relating to differences in the lessons
- Identifying critical aspects for learning
Are there numbers between .97 and .98?
Critical aspects for learning (Kullberg, 2004)

Simultaneous
discernment of:

Different
representations of
rational numbers
97% 97/100
0.97

Part-whole relation

Learning study second phase

• i) Development and testing research results
• ii) Teacher driven school development

Learning study second phase
Development and testing research results

• Can lessons be replicated/reproduced?
• Are results from Learning studies sustainable?
• What is a lesson? How could a lesson be described and communicated?

Lesson design

• Critical aspects
• Pattern of variation and invariance

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<tr>
<th>Teachers/ Design</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
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Learning study second phase
Teacher driven school development

• Courses in Learning study at two universities
• Swedish national department of school development supporting Learning/lesson studies in mathematics
• Planned: an Internet based network, national conference

Thank you!

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