Active Learning Observation Networks
Visualizations, analyses and relations to didactic theory
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Active Learning Observation Networks

Visualizations, analyses and relations to didactic theory

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1. From observation protocols to network maps

Two cameras/classroom set up by teacher

Video recording

Coding scheme

Network transformation

Scheme adapted from COPUS [1]. See handout for example in English

Scheme adapted from [2]. Circles (nodes) represent merged codes per interval.

Network representation

Community detection [3] partitions network (different node colors)

Network map

Circles represent a community

Names based on codes and checked with original data [4]

2. Network maps reveal differences in implemented lesson structure

Transition from group problem-solving to teacher lecture

Black board centered teaching

Student-driven teacher-assisted problem-solving at the computer

Student-driven teacher-assisted problem-solving at the table

Students read from computer and begin discussing

Teacher 1

Student-driven inquiry

Teacher 2

Teacher-driven classroom dialogue

Same lesson

Different context


3. Models for active learning in the sciences (based on Lombardi et al 2021 [5])

Teachers in Denmark do not recognise simplified transmissive models [5], but not all subscribe to inquiry-style active learning. “Directed Learning” may be an alternative.

Selected Literature


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