



UiO : **Department of Education**
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Learning by Use of Digital Environments

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The aim of the project:

- to trace and analyze students' learning process when digital means are used in Science and English

From the socio-cultural perspective the aim of the project is:

- To investigate students' learning process when they apply digital means as artifacts
- To explore the role of the teacher in the learning process when digital means are used.

Two case studies form the empirical bases of this project:

- Case study 1 focuses on the investigation of the process of learning of 15-16 year old students when using digital means in Science Viten.no
- Case study 2 investigates the process of essay writing in English using computer based supporting tool (Essay Critique) in the Upper Secondary School in Norway

Guiding research questions:

For Science case:

1. What characterizes students' conceptual learning processes in computer-supported inquiry setting?
2. How do we identify the role of the teacher in the technology driven inquiry based learning process?

For English case:

3. How does the Essay Critique tool become a structuring resource in the students' essay writing process?



Socio-cultural framework:

- Digital means as *artifacts*
- *Situated learning* in an authentic context of social endeavor
- *Zone of proximal development*
- *Scaffolding* of the learning process
- *Institutional settings*
- *Conceptual understanding*
- *Scientific concepts vs everyday concepts*

How are the following concepts explained in the socio-cultural theory?

- Artifacts
- Situated Learning
- Zone of Proximal Development
- Scaffolding
- Institutional Settings
- Conceptual understanding
- Scientific concepts vs everyday concepts
- Apprenticeship

Thank you! 😊

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