

Seminar 2 - instructions

Read the following texts:

- Gilbert J. (2010). The role of visual representations in the learning and teaching of science: An introduction. *Asia-Pacific Forum on Science Learning and Teaching*, 11(1)
- Brown, A. L., Collins, A., & Duguid (1989). Situated cognition and the culture of learning. *Educational Researcher*. 18 (1989), 32-42.
- Bjørndahl, J. S., Fusaroli, R., Østergaard S., & Tylén, K. (2014). Thinking together with material representations: Joint epistemic actions in creative problem solving. *Cognitive Semiotics*, 7(1), 103-123.

Before the seminar you are required to write a short reflection (of no more than 1 A4) that you bring to the seminar.

Think about the desktop walkthroughs you have been doing in the groups in relation to each paper. For instance,

Discuss based on each participant's preparations in relation to the texts.

Submission

After the seminar, answer the following questions and submit as a PDF on no more than 2 pages. Reference all the texts in a meaningful way.

- What did your desktop walkthrough represent and what could you learn from that?
- What changes could you have done to improve or increase your learning?
- In what ways can cognition and learning be described as situated?
- Compare your desktop representation(s) to representations in the texts. How can they be described as similar or dissimilar?

Optional part

For higher grades (VG/ 4,5), read also:

- Self, J. A., & Goldsmith, G. (2018). Sketch Representation and Design as Generative Transformation. In P. E. Vermaas, & S. Vial (Eds.), *Advancements in the Philosophy of Design* (pp. 201-218). Springer International Publishing.

And write an additional page by making connections between the examples introduced by Self & Goldsmidt (2018) and the three other texts that you read before the seminar. Pay special attention to the examples used and how they are related.