Tools for Active Teaching & Learning Online

Kjær, Christopher; Christensen, Inger-Marie F.; Hansen, Pernille Stenkil

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Tools for Active Teaching & Learning Online

Centre for Teaching and Learning
University of Southern Denmark

Christopher Kjær - ckjaer@sdu.dk | Inger-Marie F. Christensen - imc@sdu.dk | Pernille Stenkil Hansen - pha@sdu.dk

Between classes

Help students get an early start on their exam paper and learn from each other

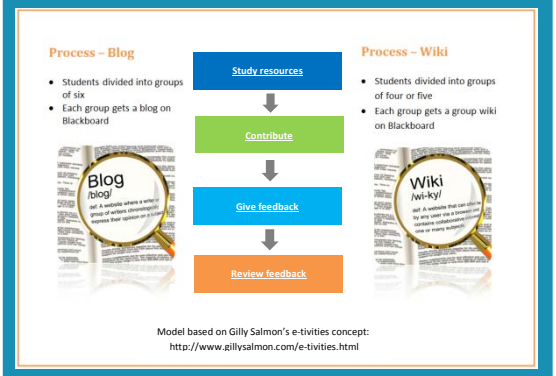
Teacher: Dion Rüsselbæk Hansen, Faculty of Humanities
Course on Profession Theory at the Master Programme in Education. 40 students. 10-page written exam paper.

Challenge:
Students get started too late!
Do not benefit fully from individual supervision on exam paper.

Solution:
Multi-stage assignment with peer feedback using Blackboard's blog tool.

Purpose: Students should be able to
- present topic, theory, methodology and empirical data
- give and receive helpful feedback
- act upon feedback
- inspire and learn from each other

Evaluation:
Teacher studies feedback and supervision begins at a higher level than before the blog activity was introduced. Students' questions and the dialogue with the teacher is more qualified and informed.



Model based on Gilly Salmon's e-tivities concept:
http://www.gillysalmon.com/e-tivities.html

Help students reflect on their learning and experiences during an internship

Teacher: Mette Elmose Andersen, Faculty of Health Sciences
Internship on the Psychology Programme. 98 students.

Challenge: How can students' learning during internships be supported?

Solution: Students' joint construction of an internship handbook using Blackboard's wiki tool

Purpose: Students should be able to
- reflect on experiences made during their internship
- formulate and share experiences made
- give peer feedback
- negotiate meaning with fellow students
- engage in joint knowledge construction

Evaluation: The wiki activity was helpful because it gave students the opportunity to reflect on their learning process from the start of the internship and until they completed it.

They reflected on their point of departure and their level of knowledge, skills and competences as they ended the internship. They identified the important steps in the process; components that supported their learning journey and challenges they met on the way.

During classes

Engage students in active learning in the lecture hall by using student response systems (SRS)

Teacher: Ole Graumann, Faculty of Health Sciences
Course on Radiology. 80 students.

Challenge: How to engage students in active learning in the lecture hall – from passive reception to active learning.

Solution: Using www.polleverywhere.com and the pedagogical method Think-Pair-Share.

Process: Presentation of theory (5-10 min.) →Presentation of case and poll (2-3 min.) →Individual thinking (2-3 min.) → Peer discussion of case and poll (2 min.) → Students answer the poll → Depending on the answer the teacher reviews topic or moves to new topic.

Purpose: Students should be able to
- analyse and interpret x-rays
- propose and discuss diagnoses
- use subject vocabulary

Motivation:
- Engaging activities
- Variety in teaching methods
- Live results and feedback

Evaluation:
All students are engaged in active learning, when using anonymous SRS compared to traditional show of hands. Students engage in critical thinking and reflection.

Enhance students' writing skills using Padlet - a free virtual wall

Teacher: Anders Klitmøller, Faculty of Humanities
Course on Philosophy of Science. 30 students.

Challenge: How to capture the insights and knowledge from verbal in-class discussions and convert these to a written format thereby establishing a clearer link between class activities and written assignments.

Solution: Convert knowledge from oral peer-to-peer discussion into a written format using www.padlet.com

Process: Teacher poses a question on the Padlet wall → Students discuss in pairs → Students write their answers on the Padlet wall → Teacher uses the answers to initiate discussion on both form and content → Teacher compiles answers in a written report which is made available to students on Blackboard.

Purpose: Students should be able to
- transfer knowledge from oral discussions to a written format
- improve writing skills

Motivation: Interact with the teacher and fellow students and get more nuanced feedback on written assignments.

Evaluation: Padlet walls are a good way of sharing knowledge and discussing written proficiency.

Flipped Learning

Why flipped learning?

Teacher: Henrik Midtiby, Faculty of Engineering.
Course: Introduction to Mathematics & physics. 30 students.

Challenge: Students have difficulties understanding basic mathematics and physics and get low grades.

Purpose: Students should be able to solve basic math and physics assignments.

Motivation:
- Watching videos at home frees up time for problem solving in class where the teacher is present.
- The teacher has more time to help students working in groups.

Evaluation: Students get a better understanding and higher grades.
Average grade in 2013 = 4.4
Average grade in 2014 = 7.0

Before classes

- Students watch videos **before class** covering introduction to math and physics, exam papers, theory, guides and SDS math.
- Students **watch videos** whenever they like and as many times they want.

Scan the barcode and watch one of Henrik's videos:

Bloom's Revised Taxonomy

Higher Order Thinking Skills

Lover Order Thinking Skills

Anderson, L. W. and Krathwohl, D. R., et al (Eds..) (2001). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Boston: Allyn & Bacon.

During classes

- Students work with math and physics assignments in groups which allows the teacher to help, facilitate and guide more students in problem solving.
- Students engage in peer instruction when working in groups.