

## Teaching Portfolio

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## Formal educational training

2023: Lecturer Training Program (Universitets pædagogikum) including;

- Course: Evaluation and empirical data collection
- Course: Feedback, peer feedback, and rubrics
- Course: Students as Learners
- Course: Research Based Teaching

## Administrative tasks related to education

Setting up Itslearning for course activities

Setting up Eduflow for peer feedback processes

## Experience with teaching, supervision and examination

Teaching:

2023-present BMB838: Introduction to next generation DNA sequencing technology – methods and applications (5 ETCS). 3 double lectures (including student presentation activity), peer-review activity (2x1.5h), assessment of final assignment.

2023-present. Module B3: Molecular Medicine (13 ECTS). Lectures, exams, grading. 3 double-lectures (out of 23) each semester.

Supervision:

1 postdoc, 1 PhD student, and undergraduate students.

## Methods, materials and tools

Courses:

The teaching for medicine students (>200 students) involves delivering lectures derived from well-established 'textbook' examples. To promote an active learning environment, I have implemented small assignments into the lectures that involve brief discussions with a neighbor followed by in-class discussions of the assignment.

In the other course I am teaching (BMB838 with approx. 25 students), I practice a high degree of student-centered learning and here have the possibility to engage much more actively with the students. I use interactive learning tools such as PollEverywhere in my presentation slides and generally encourage questions and discussions during the lectures. I have further implemented student presentations with (peer-)feedback activities to promote a dynamic learning environment and promote critical thinking. Finally, I have organized a peer feedback activity combining the online learning platform, Eduflow, and in-class group discussions, to enhance the students learning outcomes and performance in their final written course assessment.

Supervision:

I support a flat hierarchy and 'open-door' policy to ensure a tolerant and supportive communication between researchers at all levels. I am available for an open discussion of the projects on a day-to-day basis with students and postdocs but am careful not to micromanage their projects. I further encourage collaborations, both between members of my groups, but also with members in our research unit as well as external collaborators. To facilitate this, I organize weekly group meetings as well as encourage my students to actively participate in meetings and seminars hosted by our research unit.

## Educational development and applied research into teaching at university, including educational awards

In my developmental project, I focused on improving students' performance for a final written assessment in an elective master course titled "BMB838: Introduction to next generation DNA sequencing technology." Here, a sequential peer feedback process was implemented and managed through the online Eduflow platform giving the students a chance to review their peers' work in two rounds. The online peer review process was followed by 2x1.5h in-class group discussions with me as a moderator giving the students the opportunity to work with the revisions. I used online surveys and conducted small group interviews to assess how students perceived the effectiveness and value of peer feedback, as

well as their comfort levels during the process.

The project revealed that students recognized the benefits of peer feedback and they considered it worth the time investment. It further showed that the collaborative nature of the process positively impacted their motivation and engagement, and that the use of online platforms, such as Eduflow, facilitated the peer feedback process. However, it was also true that the quality and relevance of the feedback significantly influenced students' perception of its value ('too much of a good thing'-scenario). From the study it was further evident that students' perception of the peer-feedback varied dependent on their level of comfort, which again was tightly linked to both their initial motivation and their view on the importance of the peer-feedback.

## **Reflections on your own teaching practice and future development including student evaluations**

I have a good understanding of how a lecture can be structured and how elements of active learning can be integrated into the teaching. This involves the use of interactive learning tools, such as PollEverywhere and Eduflow. During the coming years, I will continue to use e-learning platforms to manage courses, share knowledge, create interactive in-class activities, and make peer-feedback processes to foster a dynamic learning environment.

I have further obtained a good understanding of how students can be motivated and engaged in teaching, and what it takes in terms of preparation for this to succeed. In the future, I will use a 'problem formulation approach' to identify specific teaching challenges faced in the teaching process thereby being able to develop strategies to address them effectively with the aim of enhancing the learning outcomes for the students. This further will allow me to design student-centered activities that promote collaboration and enhance reflection and help me refine and enhance instructional strategies to provide better courses for the students.

For student evaluations, I place value on a blend of oral and written assessments, complemented by multiple-choice questions (MCQs). I believe that oral assessments, such as students presentations, play a pivotal role in training students' communication skills. While it can be challenging in larger classes, it does not necessarily need to be part of the final graded examination. Instead, it can take the form of presentations to peers and instructors in smaller class settings, as implemented in the course BMB838. Written assessments aid students in cultivating critical thinking and writing skills and reports and/or essays are means that I will prioritize for student evaluations. For individual assessments, MCQs are a logistically efficient choice for larger classes, though they may not comprehensively address all aspects of a course's learning objectives.