Teaching Portfolio

Anders Bruun
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Formal Qualifications

I have completed the University Pedagogy course for Assistant Professors 2013-2014. My Department Supervisor was Associate Professor Bent Thomsen and my pedagogic supervisor was Claus Monrad Spliid.

The final assessment report is attached and below is an excerpt of the concluding remark:

> *"He seems well aware of his own capabilities and weaknesses, which he subsequently addresses and improves upon. Consequently his well-considered hindsight reflections serve as anchors for his ambitious performance in teaching and learning. Anders Bruun has completed the course at a very satisfactory level"* (Pedagogic Evaluation Statement, 2014)*.*

Teaching and Supervision Experience

I have extensive experience in course development, lecturing, coordination and supervision.

Courses

I have designed, developed and taught three full courses on my own. I have also participated in designing, developing and teaching another three courses. Courses span from entry to Ph.D. level.

Undergraduate Courses

2015 –>	*Design and Evaluation of User Interfaces (5 ECTS)* Process and concepts for designing interactive systems 75 students: Bachelor of IT and Informatics
2014 –>	*ID1: Interaction Design and Programming (5 ECTS)* Usability Engineering and web programming 40 students: Interaction Design
2013:	*System Analysis and Design (5 ECTS)* Object oriented software engineering processes 45 students: Bachelor of IT and Informatics
2012 –>	*Basic Programming (5 ECTS)* Client- server based web programming in HTML5, CSS3, PHP5 and MySQL 170 students: Bachelor of IT, Informatics and Global Business Engineering

Graduate Course

2014 –>	*Masters Specialization in Human-Computer Interaction (5 ECTS)* User Experience research in HCI and statistical methods 11 students: Computer Science, Software Engineering and Informatics

Ph.D. Course

2014:	*Empirical Research on Usability Evaluation Methods (2.5 ECTS)* Overview and discussion of usability evaluation research 16 Ph.D. students

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Project Supervision

I have independently supervised 100+ students in a broad range of topics from entry to master level.

2012 –> **Master Thesis Projects (11 students / 5 groups)**
User Experience evaluation, Tabletop Technologies

2009 –> **Graduate Projects (20 students / 3 groups)**
Web and Mobile development

2009 –> **Undergraduate Projects (90 students / 13 groups)**
Software construction, Testing, Networks and Algorithms

Administration

2016 –> **Study board member at Dept. of Computer Science**

2014 –> **BAIT/INF curricula committee member**

2013 –> **Semester coordination (BAIT1+2 / INF 1+2)**

Teaching Method

I follow a teaching method based on **peer learning**. Students learn by explaining topics to one another and they assess and discuss the work of their peers. Throughout all courses I consistently: A) Motivate students by pointing to relevance for practice, B) let them learn by trial and error and C) provide rapid feedback. I follow Phil Race's guidelines to facilitate a peer-learning method (Race, P. *Making Learning Happen*. Sage, London, 2010):

Want/need
Students learn either because they want to or need to. I consistently motivate students by highlighting the relevance of all topics according to practice.

Doing
Students learn by trial and error. I use a 60/40 distribution of exercises and lectures respectively.

Feedback
Quick feedback from the teacher and fellow students. Students are asked to give each other feedback in the groups while working on exercises. I provide feedback on questions within the same day.

Coaching
Students deepen their learning by explaining topics to each other. Before I answer questions I always ask students to explain and discuss their understanding of the problem within the exercise groups and during lectures.

Assessing
Students learn by assessing their own and others' understanding of topics. I always include a dedicated peer-learning workshop where students assess the work of their peers. Assessments are presented and discussed in minor groups.

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Experience with PBL

I have extensive experience in using the PBL method for supervision where I have supervised 21 project groups using PBL. As a former Informatics student, Ph.D. student and Assistant Professor at AAU, I have practiced PBL for more than 10 years.

Teaching Initiatives

There has been a considerable increase in student uptake. This leads to: A) More student diversity in the same class and B) Students in the same class learn in different ways.

For the past three years I have worked intensely on finding a teaching method that supports student diversity and different ways of learning within the same class. Combining classical lecturing with peer-learning in the same class is not trivial. I have found that a 60/40 distribution of classical lecturing and peer-learning works in all my courses. I continuously refine this method to suit students' needs.

Teaching Materials

I develop my own teaching materials to ensure: A) High level of flow in every presentation and B) materials suit the needs of students. I use the following combination of materials in all my courses:

Prezi slideshows (video showing my use of Prezi: https://www.youtube.com/watch?v=9QygRv7ZMFw)
Instructional videos
PowerPoint slideshows

All my teaching is informed by:

Books
Scientific papers
Personal experiences from industry

Quality of Teaching - Student Evaluations

I receive positive feedback on my teaching and teaching materials. This is reflected in minutes from steering committee meetings, semester evaluations and unsolicited feedback from students. Three examples from semester evaluation reports support this (translated from Danish):

"During the semester students have expressed that the course works very well as it is interesting and relevant. The lecturer receives credit for his commitment, teaching and exercises. The students are looking forward to having this lecturer on the next semester where he is also teaching and coordinating" (semester evaluation report, 2012).

"The course worked well throughout the semester and the lecturer was good at handling student diversity" (semester evaluation report, 2013).

"Lectures are top-notch" (semester evaluation report, 2015).

I have also received several unsolicited mails from students that compliment my teaching and materials, e.g.:

"I would just like to tell you that it is great to see how you challenge the classical way in which teachers create their teaching materials. By this I mean the YouTube videos that you have created, which illustrates how the topics are interconnected. I give you much credit for this" (Jonas B. Sørensen, 2014).

"I would like to thank you for a good course. I have learned more about programming there than I did during my three years as a STX student" (Johannes Jeppesen, 2015).

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Continuing Education

I will continue to update my knowledge on new advancements in pedagogy to further develop my teaching and supervision skills. Below is list of workshops in which I have participated:

Internationalization in University Teaching (April 16th 2015)
University Teaching Day (April 22nd 2015)

Personal Style as a Teacher

To me flow is essential. I like to make my presentations flow by preparing each lecture thoroughly and by setting up and testing technical equipment before the lecture starts. This way I avoid unintentional breaks in the flow. During lecturing I am very aware of my audience in terms of facial and bodily expressions, which indicate whether or not they are following me. I also pay much attention to those having questions and return to these when the flow comes to a natural halt.

During lectures I engage students by asking open (and often) provoking questions. I choose questions based on previous experience on topics that students found difficult, but also if I they look troubled.

I explicitly mention the learning goals at the start of each lecture such that students know what there are getting into. Additionally, I like to include simple real-world examples on taught subjects. This helps students relate to the subjects.

I have a good relationship with my students where I try to stand beside them rather than above them. This gives them a feeling of exploring subjects together and that they are not left alone. I also follow an "open door" approach where the students are always welcome to contact me if they have any questions.