## **Teaching Portfolio**

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# Teaching Philosophy: Problem Based Learning

My teaching approach is based on the idea of "Problem Based Learning (PBL)". A good description of PBL is given by Barbara Duch from the University of Delaware:

Problem-based learning is an instructional method that challenges students to "learn to learn," working cooperatively in groups to seek solutions to real world problems. These problems are used to engage students' curiosity and initiate learning the subject matter. PBL prepares students to think critically and analytically, and to find and use appropriate learning resources.

It is - from the viewpoint of someone originally being grown up in the German university system - a rather different way of interacting with students by having only a small number of lectures in the beginning

of the terms and then facilitating the learning process mainly by project supervision. I think this is an interesting alternative pedagogical schemes which enhances, besides supporting additional skills such as the capability to perform team work and project management, the joy in teaching for both students and teachers.

#### **Semester Co-ordination**

From 2003--2006 I was co-ordinating the first term of the Medialogy education with around 80 students. Semester co-ordination covers tasks such as planning the schedule, requesting teachers, hiring technical assistants for the exercises, introducing students to the study, moderating the execution of the term, moderating three semester group meetings each term where students and teachers discuss the quality of the education and point to possible problems, and selecting student feedback and evaluating the study by sending a report to the study board.

## **Study Program Development**

I was also involved in the design and implementation of the study program of the Medialogy education at Aalborg University. I was also working in a committee that prepared an engineering master education at Aalborg University Copenhagen that aimed at a more technical line complementing the Medialogy education at Aalborg University Copenhagen.

## **Courses Supporting Teaching and Group Management Skills**

I have also been interested in group management and teaching methodology.

I participated in the following courses:

1999 Zeitgemäße Menschenführung (20 hours)

1999-2000 Neurolinguistic Programming, master level (130 hours + 15 hours)

2003-2005 Problem Based Learning (3 x 1 ECTS)
 2012 PhD Supervisor Training Course
 2015 PhD Supervisor Training Course

#### Teaching at SDU

At the University of Southern Denmark (SDU) I initiated the courses 'Digital Image Processing' and 'Computer Vision' which are both 5 ECTS courses running from 2007 until 2013.

From 2010-2017, I was responsible for the course 'Advanced topics in computer vision' as well as a course about biological and artificial cognitive systems. This class is in particular close to my heart since it facilitates the interaction between biological perception and cognition and the engineering of cognitive systems.

In 2015 I started a new course on statistical machine learning which runs every spring term.

I have been also supervising a large number of and bachelor theses during my employment at SDU.