

## Formal educational training

In 2015 I completed the Lecturer Training Programme at the University of Southern Denmark (SDU). During this programme, I have acquired competences in relation to the planning, management, and evaluation of teaching. Furthermore, I have gained insight into critical analysis and consideration of my own teaching practice. As part of the programme I have participated in several pedagogical courses including 'Interactive lecturing', 'Use student response systems in your teaching', and 'Body language – A grammar to nonverbal communication'. The programme corresponded to 10 ECTS points in total.

## Administrative tasks relating to education

I have initiated the journal club at the Department of Oncology, Odense University Hospital (OUH). The journal club is a weekly event where medical doctors, radiographers, computer scientists, nurses, and physicists meet and share knowledge relevant to the department. In addition to presenting articles, the journal club is also used to present ongoing research projects and disseminate new knowledge from courses and congresses. Furthermore, the journal club is being used to rehearse important presentations on a friendly audience.

## Experience concerning study programs and supervision

In 2014-2015 I gave a series of lectures introducing statistics in medicine at the journal club for colleagues at the department. The lectures reviewed a number of concepts in medical statistics incl. probability, distributions, inference and statistical tests. Between 10 and 30 colleagues attended the lectures.

I am regularly involved in the dissemination of new knowledge and methods related to radiotherapy in the department. As an example I have instructed the treatment staff during the implementation of intracranial stereotactic radiotherapy and stereotactic radiotherapy of liver metastases in the department at OUH. I expect to be very involved in the education of all professions in the department in relation to the MR accelerator.

As a Ph.D. student I was a Teaching Assistant in a class of 'Classical mechanics' at SDU for three consecutive years. During one semester I was teaching both an English and a Danish class.

In the years 2003-2007 I was instructing a series of courses including 'Analytical spectroscopy', 'Nature in motion', and 'Laboratory exercises' at the Department of Physics and Chemistry at SDU.

I have previously been co-supervising two master students at the Department of Physics, Chemistry and Pharmacy at SDU. Both students spend one complete year primarily at our department at OUH, and I was heavily involved in their projects. One of the students was hired as a medical physicist at the department after the completion of his project and he is currently enrolled as a Ph.D. student at SDU.

I am currently the main supervisor of one Ph.D. student in the department and I am co-supervising two others.

## Reflection on own teaching practice

In the following I will describe my reflections on teaching statistics for my colleagues at the Department of Oncology at OUH. As an employee at OUH, I teach because it makes a difference for the patients. I would like to provide medical doctors and other health professionals as well as research colleagues the best conditions for making qualified decisions. It is important that we understand and critically review the scientific studies that underlie the clinical choices we take on behalf of our patients. In addition, those who are involved in clinical studies should be able to produce an optimal study design and choose the right methods for analysing the results. Statistical analysis of clinical data is within my area of interest, and I want to help facilitate my colleagues' path to achieving such skills.

Fortunately, literature in statistics is abundant and the subject has received great attention within health science. Initially, my colleagues should not necessarily be able to develop new statistical theories themselves, but they should have an overview of the most common methods used in medicine, and they should know how to select and use the right procedures. One of my roles as a teacher is selecting the most relevant literature. However, it is often not enough to identify the correct text. One general challenge is that statistics is a fairly heavy mathematical discipline, which healthcare professionals often have a rather strained relationship with. In teaching situations, I therefore only present the most relevant matter in order to reduce the level of abstraction and make the mathematics more edible. I often include examples from clinical research and concretize the theory with examples that are easy to understand but still of clinical relevance. In addition, I find it important to include the experience of the participants and I try to be responsive to their interests.

To present material in lectures does not necessarily mean that the participants of a course learn the subject and attain the needed skills. In addition to paying attention during a lecture, the participant need to work with the subject, both through dialogue and discussions during the lectures, but also by working with the subject independently. To promote dialogue in the lectures, I seek to create a comfortable, safe learning environment. The atmosphere may be cosy and the lectures

should be enjoyable to attend. I try to promote discussions by posting breaks where participants should discuss challenging issues. However, in my mind, the best way for the participants to truly learn the subject and acquire the needed skills is that they work independently with the topic by solving relevant assignments based on the theory that is presented at the lecture. Here, I try to produce realistic assignments that will increase the participants' motivation. The goal of these exercises is to consolidate the participants' professional knowledge through training.