# University Teaching and Learning – Resources

## 1.1 Trends in the development of the Danish universities

#### Humboldt and the research-based university

Kristensen, J.E., K. Elstrøm, J.V. Nielsen, M. Pedersen, B.V. Sørensen & H. Sørensen (2007). *Ideer om et universitet*. Aarhus: Aarhus Universitetsforlag. – In this book, key texts about the foundation and ideas of the university are presented in a Danish translation including both classic and modern texts. Texts written by e.g., Immanuel Kant, Wilhelm von Humboldt, Thomas Huxley, Jürgen Habermas and Michael Gibbons.

#### From elite university to mass university

Hansen, E. (1997). En koral i tidens strøm: RUC 1972-1997. Frederiksberg: Roskilde Universitetsforlag. Nielsen, J.C., N. Jensenius & H.S. Olesen (1997). Utopien der slog rod. Frederiksberg: Roskilde Universitetsforlag. – Two books about RUC's formation and history that each provide an interesting insight into the interplay between student movements and government in rethinking the university from the end of the 1960's until today.

#### New governance structures and management styles

Graversen, E. (ed.) (2009). *Universitetsledelse*. Copenhagen: DJØF Forlag – Anthology about university governance in Denmark, historically and today, with contributions from a number of former rectors and deans etc.

Kristensen, J.E., H. Nørreklit & M. Raffensøe-Møller (eds.) (2001). *University Performance Management – A Silent Managerial Revolution of Danish Universities*. Copenhagen: DJØF Publishing. – Anthology that illuminates the advent of New Public Management in the Danish universities.

#### Competence-based university education

The reference group (2007). Ny dansk kvalifikationsramme for videregående uddannelse. Copenhagen: Referencegruppen om en ny dansk kvalifikationsramme for videregående uddannelser, [Lit: The Reference Group on a new Danish qualification framework for higher education] May 2007.

Niss, M. & T.H. Jensen (2002). Kompetencer og matematiklæring – Ideer og inspiration til udvikling af matematikundervisning i Danmark. Copenhagen: Ministry of Education. – These two texts are significant contributions to the development of competence-orientation of Danish university educations, but with completely different agendas.

# 2.2 University teaching and learning – models and concepts

We would recommend two very good general textbooks to those who want to read more about didactics. Biggs, J. & C. Tang (2011). *Teaching for Quality Learning at University*. UK: Open University Press. – The book is aimed at higher education and is based on constructive alignment. From this starting point, the authors discuss their interpretation of learning and didactics, learning outcomes, teaching planning, as well as exams and assessment. It is written from an Australian-Asian point of departure, but parallels can easily be drawn to Danish conditions. In continuation of this, but on a higher

academic level and including substantially more research, we recommend Prosser, M. & K. Trigwell (1999). *Understanding Learning and Teaching. The Experience in Higher Education*. UK: Open University Press.

If you are looking for a different starting point we recommend Hiim, H. & E. Hippe (2007). *Læring gennem oplevelse, forståelse og handling. En studiebog i didaktik*. Copenhagen: Gyldendal. – This book is aimed at teaching in primary school, but can be read by university teachers. It takes as its starting point a Nordic, human-science interpretation of the didactic triangle called "the didactical relationship model". From this starting point the authors discuss teaching planning and educational development.

## 2.3 Teaching environment

The Danish Centre for Teaching Environments (DCUM) is a knowledge centre on teaching environments in educational institutions, and they have a number of interesting reports (in Danish) available at their website. DCUM also coordinates a network for study environments at universities which you can sign up for. http://dcum.dk/.

The Department of Science Education at the University of Copenhagen has worked with the physical study environment and published a report on this. www.ind.ku.dk/undervisningsmiljo.

To find out more about students' views of what is important for a study environment, you can read the entries (in Danish) from the essay competition for students: Competition about Study Environment – physical frameworks. http://bygningsstyrelsen.dk/publikationer/sammenfatning-af-essay-konkurrence-2007/.

One very inspiring (Danish) publication with many examples is: Campus og studiemiljø. Fysiske rammer til morgendagens universiteter. Copenhagen: The Danish Building & Property Agency, Ministry of Higher Education and Development.

#### 3.1 Who are the students?

Entwistle, N. (2009). Teaching for Understanding at University: Deep Approaches and Distinctive Ways of Thinking. Basingstoke: Palgrave Macmillan. – Noel Entwistle's book on teaching, aimed at helping students understand the content of teaching, is a modern book, compared to, ex. Biggs' and Tang's commonplace book. Its' basis is a contemporary account of what students want from their education. It is particularly suited to teachers who must ensure students a good learning outcome despite the countless reasons they might have for participating in the course. At the same time, this book offers very particular in its suggestions and advice for teachers without simplifying or being superficial (203 pages).

Tinto, V. (1993). Leaving College: Rethinking the causes and cures of student attrition. 2nd edition. Chicago: The University of Chicago Press. – Vincent Tinto offers a thorough and persuading investigation of many of the positions educational research has held in the attempts to understand the conditions surrounding drop-out from university. To this end, he also treats the issue of who the students are and why they engage in learning in a convincing and well-reasoned way – and in a way that is of relevance to many people employed at universities (296 pages).

Ulriksen, L. (2009). The Implied Student. Studies in Higher Education, 34(5): 517-532. – The concept of the implied student was used in this chapter to make claims of a more general character. Lars Ulriksen's article provides a thorough introduction to the concept, and uses it to analyse the Bachelor programme in Natural Sciences at Roskilde University. We recommend the article, because it will be particularly relevant for teachers who want to do further work on articulating the implicit, but important, aspects characteristic of what they teach.

# 3.2 Course descriptions

- In the early 2000's, the Danish Ministry of Education published a number of texts about competence descriptions of university programmes within different fields as well as some interdisciplinary publications. Of these, we highly recommend the report *Competences and Mathematical Learning*: http://milne.ruc.dk/imfufatekster/pdf/485web\_b.pdf
- Gregersen, F. et. al. (2003). Fremtidens danskfag en diskussion af danskfaglighed og et bud på dens fremtid. *Uddannelsesstyrelsens temahæfteserie*, nr. 1. Copenhagen: Ministry of Education.
- Andersen, N.O. et. al. (2003). Fremtidens naturfaglige uddannelser naturfag for alle. *Uddannelsesstyrelsens temahæfteserie*, nr. 7. Ministry of Education.
- Niss, M. and T.H. Jensen (2002). Kompetencer og matematiklæring. *Udannelsesstyrelsens temahæfteserie*, nr. 18. Copenhagen: Ministry of Education.

For a strictly university-level perspective on competence thinking, we recommend:

Marton, F. & J. Bowden (1998). The University of Learning: Beyond Quality and Competence. New York: Kogan Page Ltd.

## 3.3 Session planning

- Bean, John C. (1996). Engaging Ideas. The Professor's Guide to Integrating Writing. Critical Thinking, and Active Learning in the Classroom. San Francisco: Jossey-Bass Publishers. John Bean offers many suggestions of what to include as elements in sessions.
- Bligh, Donald A. (2000). What's the Use of Lectures? San Francisco: Jossey-Bass Higher Education and Adult Education Series. The starting point of this book is that ordinary sessions are only good for disseminating information. Hereafter Bligh uses the rest of the book to suggest specific pedagogical activities etc. to improve the pedagogical potential of sessions. You can skip the first chapters and go straight to the pedagogical suggestions.
- Race, Phil (2007). The Lecturer's Toolkit. A Practical Guide to Assessment Learning and Teaching. 3rd ed. London: Routledge. Practical handbook with concrete advice and instructions.

# 3.4 Course planning

The following references are useful for suggestions and guidance when planning courses.

- Hunt, L. & D. Chalmers (eds.) (2012). *University Teaching in Focus. A Learning-centered approach*. Victoria, Australia: Acer Press. Especially Part 2: Focus on curriculum (p. 92-181) is relevant (but the whole book is a powerful resume of the views of the best educational developers, e.g., Biggs & Tang 2007, Fink 2003, Race 2007, Healey 2005, some of whom contributed to the book).
- Fink, L.D. (2003). Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses. San Francisco: Jossey-Bass. Based on learning objectives, assessment/feedback and learning activities. On his website (http://www.designlearning.org/examples-of-design/examples/), you can find examples of course plans from different disciplines and levels.
- Faculty Metro (undervisermetro.au.dk) is a web resource with a number of good teaching practices for teachers. Contributors are teachers from the Faculty of Arts at Aarhus University.

## 3.5 Instructing written assignments

Faculty Metro (undervisermetro.au.dk) – A web resource with good teaching practices for teachers. Contributors are teachers from the Faculty of Arts at Aarhus University. Many contributions include examples of precise instruction of assignments and activities.

# 4.1 Lecturing

- Race, P. (2007). The lecturer's toolkit. A practical guide to assessment, learning and teaching. 3rd ed. London & New York: Routledge. Race examines handouts, the use of PowerPoint and the structure of lectures, and the book includes a large amount of advice, recommendations and suggestions for practice/action.
- Gibbs, G. (2011). Twenty terrible reasons for lecturing. http://www.brookes.ac.uk/services/ocsld/resources/20reasons.html Gibbs discusses here in depth the pedagogical challenges related to the ritual position of the lecture.
- Edwards, H., B. Smith & G. Webb (ed.) (2001). *Lecturing: Case studies, experience and practice*. London: Kogan Page. This manual provides practical advice on good lecturing techniques and features real-life hints, tips and examples of good and bad practice.

### 4.2 Group work

- Chiriac, E.H. & A. Hempel (eds.) (2005). *Handbok för grupparbete*. Lund: Studentlitteratur. A thorough introduction to group work.
- Hvenegaard, H., H. Jessen & P. Hasle (2003). *Gruppeorganiseret arbejde*. Copenhagen: Frydenlund. brief introduction to group work in teaching and work life.
- Malmquist, E., K.-G. Thorén & H. Troensgård (1962). *Gruppearbejdets metodik*. Copenhagen: Jul. Gjellerup Forlag. A classic that is still relevant today.

# 4.3 Case-based learning

Case-based & Problem-based Teaching & Learning. – Event description, Center for Excellence in Teaching, University of Southern California, http://cet.usc.edu/resources/teaching\_learning/case\_based. html (downloaded 12.5.12).

http://cte.umdnj.edu/active\_learning/active\_case.cfm http://sciencecases.lib.buffalo.edu/cs/collection http://hbsp.harvard.edu/

# 4.5.1 Activities in and between teaching sessions

Bligh, D.A. (2000). What's the Use of Lectures? San Franscisco: Jossey-Bass. The Jossey-Bass Higher and Adult Education Series. – Bligh claims that ordinary session teaching is not particularly well-suited for anything but transmitting information. Bligh then uses the rest of the book to suggest specific pedagogical activities and more to improve the pedagogical potentials of sessions. You may want to skip the first chapters and go straight to the pedagogical directions.

Mortiboys, A. (2010). How to Be an Effective Teacher in Higher Education. Answers to Lecturers' Questions. Maidenhead: Open University Press. – Contains a wealth of briefly described activities.

Faculty Metro (http://www.undervisermetro.au.dk). – Faculty Metro is a web resource for university teachers with the purpose of

- Establishing practice- and knowledge sharing, inspiration, "share-and-steal" in university teaching and learning.
- Developing and documenting learning-oriented teaching practices and student participation in teaching.
- Making students full-time students. See in particular: Activities between sessions and Activities in sessions for a number of suggestions for activities in and between teaching.

The Faculty Metro's contributors are teachers, heads of studies, educational consultants and others working with university teaching and learning. The Faculty Metro contains suggestions, materials, tools, examples, activity descriptions, demonstrations, guides for teachers, instructions for students, videos, literature references.

#### 4.6.1 Feedback

Burke, D. & J. Pieterick (2010). *Giving Students Effective Written Feedback*. Maidenhead: Open University Press. – Very specific and instructive – and based on empirical research.

Faculty Metro – Feedback. – A number of contributions from teachers to teachers – the web resource demonstrates feedback practices that have worked well for teachers, also about the use of the Text Feedback Game.

http://www.enhancingfeedback.ed.ac.uk – Very comprehensive portal of research articles and resources for both teachers and students, only about feedback, collected and maintained by Dai Hounsell, professor of pedagogy and a specialist in feedback.

#### 4.6.2 Clickers

The following texts all touch on the challenges of teaching innovation and the concept of teaching itself. The concepts 'learning' and 'knowledge construction' are central in this respect. Furthermore, the use of IT is discussed, and technology use is discussed in connection with empirical studies of different courses of teaching.

Mathiasen, H. (2012). Time to Rethink Concepts of Knowledge Dissemination and Transfer in the Educational System. *European Review*, 20(2): 153-163.

Mathiasen, H. & L Schrum (2010). New Technologies, Learning Systems and Communication: Reducing Complexity in the Educational System. In: Myint Swe Khine & Issa M. Saleh (eds.), New Science of Learning: Cognition, Computer and Collaboration in Education. New York: Springer Publishing Company.

Mathiasen, H. (2004). Expectations of Technology: When the Intensive Application and IT in Teaching Becomes a Possibility. *Journal of Research on Technology in Education*, 36(3): 273-295.

# 4.7 Discussions and argumentation in teaching

Dysthe, M. (1993). Writing and talking to learn: a theory-based, interpretive study in three classrooms in the USA and Norway/Olga Dysthe. Doctoral dissertation.

Haugsted, M. Th. (2004). *Taletid, mundtlighed, kommunikation og undervisning*. Copenhagen: Alinea. – A book that summarises experience from research and development projects about orality and teaching. On the basis of data, the relationship between teaching in orality and orality in teaching is discussed

and framed, just as relevant theory puts these conditions into perspective.

Haugsted, M. Th. (2009). Læreren som mundtlig vejleder. Mundtlighed, Teori og Praksis p. 224, Kvan 92.

Haugsted, M. Th. (2012). Alt er jo relativt... Om lærernes sproglige relationskompetence. *Sproget i skolen*, Kvan 94. – Both articles describe and discuss the teacher's supervisor role in the field of tension between learning, control and empathy.

Hegelund, S. (2000). *Akademisk argumentation*. Frederiksberg: Samfundslitteratur. – an introduction to the basic elements of argumentation.

Mitchell, J. in Baird, J. & J. Northfield (eds.) (1995). Learning from the PEEL Experience. Aarhus: Klim. – Experiences from a long-running Australian, action-based research project. Here you can find a multitude of practice experience and precepts for actions in teaching in all fields and at all levels of education – including ideas for developing the oral dimension in teaching.

http://studiemetro.au.dk/krav/argumentation – a collection of links and study resources for university students. One link is about argumentation.

# 4.8 E-learning

E-learning is a field in rapid growth, partly because the technological possibilities are constantly changing, partly because more and more teachers recognise the educational potential of ICT.

Apart from the specific examples and references given above, we recommend the Danish journal *Tidss-kriftet Læring og Medier*, which deal with the use of ICT and digital media in learning contexts, especially at universities, and no. 11 of *Danish Journal of Teaching and Learning in Higher Education* (2011), with the theme "IT, learning resources and new teaching environments". For a comprehensive presentation of guidelines for teachers who want to use e-learning in blended learning or fully online teaching, we refer to Goodyear 2001.

See also this book's website samfundslitteratur.dk/utl for links to relevant e-learning examples [in Danish].

# 5.1 Supervision: Process management and communication

- http://researchsuper.cedam.anu.edu.au/
- http://www.uwo.ca/tsc/faculty\_programs/graduate\_supervision.html
- http://researchsuper.cedam.anu.edu.au/stages-candidature/clarifying-expectations
- http://researchsuper.chelt.anu.edu.au/sites/researchsuper.chelt.anu.edu.au/files/expectations\_rating\_o.pdf
- http://www.learning.ox.ac.uk/supervision/supervisor/relationships/
- http://ki.se/content/1/c6/02/Successful%20Supervision%20-%20a %20dialogue%20Facilitator.pdf
- Handal, G. & P. Lauvås (2006). *Forskerveilederen*. Oslo: Cappelen Akademisk Forlag. The most well-written, thorough and up-to-date book covering all aspects of PhD-supervision.
- Rienecker, L., T. Harboe & P. Stray Jørgensen (2005). Vejledning en brugsbog for opgave- og specialevejledere på videregående uddannelser. Frederiksberg: Samfundslitteratur. – A solid and applicable allround book about supervision in all phases of project and thesis work.
- Andersen, H.L. & T.W. Jensen (2007). *Specialevejledning rammer og roller*. Frederiksberg: Samfundslitteratur. Provides insight into thesis supervisors' and students' experiences with and reflections on supervision in the humanities.

### 5.2 Text in supervision – supervising on texts

- Rienecker, L., T. Harboe & P. Stray Jørgensen (2006) Vejledning en brugsbog for opgave- og specialevejledere på videregående uddannelser. Frederiksberg: Samfundslitteratur. The fundamental message of this book is that supervision must be based on students' papers. The book provides supervisors with sound advice and suggestions for addressing specific problems, both in normal supervision and in especially problematic cases.
- Rienecker, L. & P. Stray Jørgensen (with contributions from S. Skov) (2013) The Good Paper A hand-book for writing papers in higher education. Frederiksberg: Samfundslitteratur. A textbook on writing research papers and other academic genres. Many suggestions for activities for the student to use in his or her writing process. The supervisor can refer students to The Good Paper as general textbook, but also to the individual activities.
- Studiemetro.au.dk and undervisermetro.au.dk Both are web resources that address student and teacher respectively. Studiemetro includes advice and supervision for students writing papers. Undervisermetro (Faculty Metro) includes teachers' own suggestions for pedagogical practices, including supervising students' papers. The Undervisermetro includes a page with suggestions for supervisor activities.

### 6.1 Assessment and exams

- The current rules are described in the Ministerial Order on University Examinations (the Examination Order).
- The Qualification Framework is available on the The Ministry of Science, Technology and Innovation website.
- Assessment Standards Knowledge exchange (ASKe). A UK project, which aims to contribute to students' right to a fair and transparent assessment. The purpose of the manifesto is to stimulate a debate about assessment across sectors. It is viewed as a first step towards a necessary change in politics and practice within assessment in higher education.
- The manifesto corresponds to the initiatives of David Boud (2010), Sydney University. The ASKe-group believes that is an urgent necessity that assessment is carried out in a way that acknowledges the diversity and complexity in interconnected subjects and areas. http://www.brookes.ac.uk/aske/Manifesto/and http://www.brookes.ac.uk/aske/documents/OGG%20agenda%20for%20change.pdf.
- Andersen, H.L. & J. Tofteskov (2008). Eksamen og eksamensformer betydning og bedømmelse. Frederiksberg: Samfundslitteratur. This is a Danish textbook on assessing students and preparing and conducting exams. The authors review central concepts and taxonomies about formulating objectives as well as how different quality criteria can be put into play in the assessment of different exam types. Furthermore, it examines the most common exam types, and finally comments on some of the most important themes surrounding the exam, such as grading and plagiarism.
- Dahl, B. E. Lien & Å. Lindberg-Sand (2009). Conformity or Confusion? Changing higher education marking scales as a part of the Bologna Process: The cases of Denmark, Norway and Sweden. *Learning and Teaching: The International Journal of Higher Education in the Social Sciences*, 2 (1): 39-79. This article outlines how Scandinavian countries have sought to implement a new marking scale based on the recommendations of the Bologna Process. The scales, and the philosophies behind them differ, but the resoning behind the Danish scale is thoroughly explained.
- Krogh, L. & A.A. Jensen (2010). Problem-based learning in Higher Education: New approaches to Assessment. In: C. Rust (ed.), *Improving Student Learning: For the Twenty-First Century Learner*. Oxford: Brookes University: 83-95. Contains a study of the handling of group exams in Humanities and Social Sciences at Aalborg University.
- Lauvås, P. & A. Jakobsen (2002). Exit eksamen eller? Former for summativ evaluering i høgre utdanning. 2nd print. Oslo: Cappelen Akademisk Forlag. A fundamental Norwegian textbook about exam research within higher education. The book includes a number of examples of universities all over the world

that have experimented with different exam types. It is based on extensive research and literature reviews.

# 6.2 Teaching evaluation

The University of Oslo has created a "toolbox for student evaluation": http://www.uio.no/studier/om/kvalitet/verktoyskasse/.

The evaluation page from the Department of Science Education at the University of Copenhagen: www.ind.ku.dk/online\_ressourcer/evaluering.

# 7.1 Developing your own teaching

For more inspiration about research methods, the following book is recommended: Cohen, L., M. Lawrence and K. Morrison (eds.) (2011). *Research Methods in Education*. 7th ed. London/New York: Routledge Falmer.

If you want to know more about Scholarship of Teaching and see a good example of how several Australian universities have managed to introduce a number of initiatives, which have systematically improved the quality of their teaching, the *Australian scholarship of teaching project* (1999) is available online and is highly recommended.

## 7.2 Collegial supervision

Andersen, H.L. & L.T. Bager (2011). Kollegial supervision som udviklingsredskab i undervisningskulturer. Aarhus: Aarhus Universitetsforlag. – The book collects experiences of collegial supervision in different educational environments, especially in relation to management. In the book, a number of specific tools are introduced for preparation of and carrying out collegial supervision.

Andersen, H.L. & L. Søndergaard (ed.) (2007). *Kollegial supervision på universitetet*. Aarhus: Aarhus Universitetsforlag. – The book reviews a pilot course of collegial supervision at Aarhus University, and includes chapters on method development, thorough evaluation of the course of supervision, participant's experience-based review and contributions from a number of researchers within learning and dialogue-based supervision.

Handal, G. & P. Lauvås (1990 and 2000). *Vejledning og praksisteori*. Aarhus: Klim. – The book introduces collegial counselling as a variety of collegial supervision, where emphasis is placed on a "pre-dialogue" in advance of observation of the teaching, which is described here in relation to the reflective "Vejledningssløjfe" (Lit.: "supervision loop").

# 7.3 Teaching portfolios

Teaching portfolios are not normally available to outsiders, but you can often borrow colleagues' portfolios.

You can read more about how selected Danish universities view teaching portfolios at the websites of the following universities. As websites often change, we do not provide direct links but suggest you visit the general university link and then search for "teaching portfolio" or something similar:

• Aarhus University: http://www.au.dk

- Aalborg University: http://www.aau.dk/
- University of Copenhagen: http://www.ku.dk

We would especially recommend the following international universities:

- Brown University (USA): http://www.brown.edu
- Stanford University (USA): https://stanford.edu
- Lund University (Sweden): http://www.lth.se

## 7.4 Information search about university teaching and learning

Fallon, H. (2008). Resources on higher education teaching and learning. In: R. Murray (ed.), *The Scholarship of Teaching and Learning in Higher Education*. Maidenhead: Open University Press. – An introduction to Anglo-Saxon materials, relevant journals, portals and databases written by an English information specialist.

# 7.5 The role of the university teacher

- Light, G., Cox, R., & Calkins, S. (2009). Learning and teaching in higher education. The reflective professional. 2. Ed. London: SAGE Publications. A textbook for teachers it provides introduction to and inspiration for the many aspects of university teaching university teachers new and experienced encounter every day. The book focuses in great detail on the academic as a reflective professional, but contains also several chapters on the various genres of teaching in higher education.
- Boyer, E.L. (1990). Scholarship reconsidered. Priorities of the professoriate. San Francisco: Jossey-Bass. A classic. Boyer insists that academia is about teaching too, which was groundbreaking at the time the book was published. Boyer argues that academic staff at universities must be competent within discovery, integration of knowledge, application and teaching and that naturally all four aspects must include continuing education and (not least) be rewarded.
- Mårtensson, K., T. Roxå & T. Olsson (2011). Developing a quality culture through the Scholarship of Teaching and Learning. *Higher Education Research & Development*, 30(1): 51-62. The article focuses on what is needed to ensure that changes in the university take place. The three education developers from Lund University argue that every strategy for developing university teaching is doomed to fail if it does not take into account academic identity and academic freedom. Based on a case from Lund University, they emphasise that documentation of teaching competences, development and perspective are crucial for development and maintaining personal engagement in developing teaching.