



AALBORG UNIVERSITY
DENMARK

Study Board of Communication and Digital Media
Fall 2015

Semester description

7th semester Human Centered Informatics

Semester details

School: School of Communication, Art and Technology (CAT)

Study board: Studyboard of Communication and Digital Media

Study regulation:

http://www.fak.hum.aau.dk/digitalAssets/107/107906_ma_human_centred_informatics_2015_hum_aau.dk.pdf

Semester framework theme

Semester theme: *Analysis of ICT in Practice*

The semester consists of three modules and an elective course:

User Practice, User Analysis and Pilot Studies (project module, 15 ECTS)

ICT based Data Collection and Analysis (course module, 5 ECTS)

Professional inquiry (course module 5 ECTS)

Elective course (course module, 5 ECTS)

The overall purpose of studying Human Centered Informatics is to learn how to understand and inform the design of well-reflected and useful ICT solutions in various contexts. The master's programme particularly emphasizes the importance of understanding what the use or introduction of ICT means to practice, as it always entails changes in organizational practices - changes which give cause to rethink, reformulate, or remediate practices in a given context. The domains relevant for this area of study are many, but the focus is on the use of ICT in practices relating to work, learning, and knowledge sharing processes within both public and private sectors.

The scope of the project work this semester is Analysis of ICT in Practice. The aim of the course, readings, and project activities within this framework is that you gain such a degree of theoretical, analytical and methodical knowledge and skills that you can complete a semester project and exam within the subject of User Practice, User Analysis and Pilot Studies (curriculum §9). You are free to choose your empirical case and methodological approach within this framework, but the central challenge of this semester's project work is to show that you can question, evaluate and argue for your empirical and methodological choices, analytical approaches, and conclusions.

Some of you may be new to problem based project (the Aalborg PBL model). You can read more about it and watch videos about this pedagogical model [here](#). In the course Professional Inquiry this model will be introduced and practised in more depth, and there will be an additional lecture on PBL at the beginning of the project work.

Semester coordinator and secretarial assistance

Coordinating teacher: Anne-Mette Albrechtslund (ama@hum.aau.dk)

Secretariat assistance provider: Pia Knudsen (piak@hum.aau.dk)

<p>Module description: User Practice, User Analysis and Pilot Studies (15 ECTS)</p>
<p>Location 7th semester <i>Study board</i> Communication and Digital Media</p>
<p>Module coordinator: Ann Bygholm Teachers Ann Bygholm, Helle Wentzer, Anne-Mette Albrechtslund, Thomas Ryberg</p>
<p>Type and language Project module English</p>
<p>Objectives Through the module, students will acquire knowledge, skills and competences in relation to the areas of user analysis and pilot studies with particular emphasis on user analysis and pilot studies in relation to the development of ICT for supporting work, knowledge and learning processes.</p> <p>The module will introduce students to user analysis, user-system interaction and pilot studies within the fields of ICT innovation, design and development, which are areas of core competence within the field of informatics. This includes acquisition and application of knowledge on digital practice, organisational culture, digital culture and cognitive, conative and emotive aspects of the undertaking of user analyses and pilot studies with a view to qualifying operational processes and organisational change.</p> <p>The module comprises teaching within the following areas:</p> <ul style="list-style-type: none"> • user practice, user analysis and pilot studies – theory of science and theory • data collection and analysis methods • user practice, user analysis and pilot studies in specific domains <p>Academic supervision will be offered in connection with the problem oriented project work.</p> <p><u>Objectives as stated in the curriculum:</u></p> <p>In this module students will acquire:</p> <p>Knowledge of</p> <ul style="list-style-type: none"> • theory of science, theory and methods as regards the understanding of human practice and more specifically user practice in relation to technology use at the highest international level • digital culture and practice, cultural and social phenomena related to ICT use • cognitive, conative and emotive aspects of ICT use • the structuring of user analyses and pilot studies directed towards various domains and processes within work life, learning and knowledge sharing. <p>Skills in</p> <ul style="list-style-type: none"> • assessing strategies and methods for user analyses and pilot studies on the basis of the needs of the study and knowledge of the disciplinary theories and methods. • choosing suitable strategies and methods for user analyses and pilot studies directed towards various domains • data collection and analysis as regards user analysis and pilot studies • communicating user analyses and pilot studies to peers and others. <p>Competences in:</p> <ul style="list-style-type: none"> • taking an analytical, reflective and critical approach to the preconditions for user analyses and pilot studies • taking an analytical, reflective and critical approach to user analyses and pilot studies

- engaging in disciplinary and interdisciplinary collaboration on user analyses and pilot studies, with a professional approach
- identifying own learning needs and structuring own learning in relation to the subject area of user analysis for pilot studies.

Required literature

The textbook for the course is:

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. SAGE Publications.

(Available in AAU bookstore).

Additional literature appears from the description of the individual course sessions.

In-depth text reading

In general, students are expected to closely read the course literature as preparation for each class. The reading guide (see below) consists of a set of questions that you should use when reading texts.

For articles via "AUB link" you need to be logged in through AUB and for others to access/be on AAUs network or VPN.

Reading guide

- What is the overall purpose of the text?
- Describe the approach presented in the text:
 - Which theoretical framework or concepts are introduced?
 - Which empirical choices have been made?
 - Which method(s) are used?
 - How are they presented?
 - What are the arguments for this approach?
- Describe the main points of the analysis: What are they? How are these documented in the text? What are the arguments for the conclusions of the analysis?

Do you have any other questions or criticisms after reading the text?

Recommended general literature (apart from the obligatory course literature):

Rogers, Y., Sharp, H., & Preece, J. (2007). *Interaction Design: Beyond Human Computer Interaction*. (accessible online through Aalborg University Library and at the university bookstore (Strandgade))

Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative research. *Qualitative inquiry*(10), 837-851. (in the folder Course materials)

Klein, H. K., & Myers, M. D. (1999). A set of principles for conducting and evaluating interpretive field studies in information systems. (in the folder)

Dourish, P. (2004). *Where the action is: the foundations of embodied interaction*. The MIT Press.

Orlikowski, W. J., & Iacono, C. S. (2006). Desperately Seeking the 'IT' in IT Research: A Call to Theorizing the IT Artifact (pp. 19-42). Chichester, UK: John Wiley & Sons Ltd. (Available in the course materials folder)

Academic content and basis

Cf. semester description

Module activities (course plan)

1. The theory of practice (Anne-Mette Albrechtslund & Ann Bygholm)

This class introduces the overall theoretical perspectives on the concept of practice within the humanity and social sciences, and discusses why a practice-based approach is valuable in relation to ICT innovation, design and development. Furthermore, it situates the programme Human Centered Informatics within these traditions.

Literature:

Reckwitz, A. (2002). Toward a Theory of Social Practices: A development in culturalist theorizing. *European journal of social theory*, 5(2), 243-263. (Available in the course materials folder)

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. SAGE Publications: Chapter 1 (p. 1-19)

Hirschheim, R., & Klein, H. K. (1989). Four paradigms of information systems development. *Commun. ACM*,

32(10), 1199–1216. doi:10.1145/67933.67937.

Chapter 3 'Social Computing' in Dourish, P. (2004). *Where the action is: the foundations of embodied interaction*. The MIT Press. (Available in the course materials folder)

Chapter 1: 'Introduction - situated design' in. Greenbaum, J., & Kyng, M. (1991). *Design at Work*. New Jersey: Lawrence Erlbaum. (Available in the course materials folder)

2. Understanding User Practice /Appropriation of Technology (Ann Bygholm)

In this class we start the examination of practice theory and the understanding of the concept of appropriation as explained in the textbook and the chosen articles. Apart from reading the texts the student will in turn take responsibility for making summaries of the discussions.

Literature:

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. SAGE Publications: chapter 2 (p21-42)

Orlikowski, W. (2000). Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. *Organization Science*, Vol. 11, no.4 (Jul-Aug), p 404-428.

3. Understanding User Practice /Appropriation of Technology (Ann Bygholm)

Continuing our examination of Practice Theory and appropriation of technology.

Literature:

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. SAGE Publications: Chapter 3 (p 43—62).

Silvia Lindtner, Ken Anderson and Paul Dourish: Cultural appropriation: Information technologies as sites of transnational Imagination. CSCW 2012, February 11-15, 2012, Seattle, Washington USA

4. Understanding User Practice /Appropriation of Technology (Ann Bygholm)

Continuing our examination of Practice Theory and appropriation of technology.

Literature:

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. SAGE Publications: chapter 4 (p 63-79)

Quinones, P. (2014). Cultivating Practice & Shepherding Technology use: Supporting Appropriation Among Unanticipated users. CSCW14, Baltimore, Maryland, USA

5 Understanding User Practice /Appropriation of Technology (Ann Bygholm)

Continuing our examination of Practice Theory and appropriation of technology.

Literature:

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. SAGE Publications: chapter 5 (p 81-96)

Dourish, P. (2003). The appropriation of Interactive Technologies: Some lessons from placeless documents. In *Computer Supported Cooperative Work* 12: 465-490.

6 Understanding User Practice /Appropriation of Technology (Ann Bygholm)

Continuing our examination of Practice Theory and appropriation of technology.

Literature:

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. SAGE Publications: chapter 6 (p 97-117)

Salovaara, A. (2008). Inventing new uses for tools: A cognitive foundation for studies on appropriation. *Human Technology* vol. 4 (2), 209-228

7 Understanding User Practice /Appropriation of Technology (Ann Bygholm)

Continuing our examination of Practice Theory and appropriation of technology.

Literature:

Shove, E., Pantzar, M., & Watson, M. (2012). *The Dynamics of Social Practice: Everyday Life and how it Changes*. SAGE Publications: chapter 7 +8 (p 119- 164)

Ellen Balka & Ina Wagner: Making Things Work: Dimensions of Configurability as Appropriation Work. CSVW06, November 4-8, 2006, Banff, Alberta, Canada

8 ICT practices from every day life: Health (Helle Wentzer)

This and the next sessions present challenges from technology appropriation in health care practices. Health is omnipresent in human activities, as well as technologies permeate and mediate medical solutions, whether they are conceived therapeutic, or as tools for (re-) organizing the complex sources of medical knowledge, and patterns of collaboration. But how are these complexities and interdependencies of ict in health care practices to be studied and analyzed? Theories, empirical studies and models of analysis are presented.

Literature:

Wentzer , H., Böttger, U., Boye, N. Unintended Transformations of Clinical Relations with a Computerized Physician Order Entry System. *International Journal of Medical Informatics*. 2007;76:456–S461 (AUB link)

Wentzer , H, Bygholm A. Attending Unintended Transformations of Health Care Infrastructures *International Journal of Integrated Care*, 14 November 2007 - ISSN 1568-4156

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2092400/>

The first session is about health care infrastructure, and the intentions and the unintended consequences of implementing electronic communication tools for storing patients' data, and for making intra- and interorganizational collaboration more safe and efficient. The empirical case is the implementation of electronic patient records.

9 ICT practices form every day life: Health (Helle Wentzer)

The second session on ICT in health care is about user involvement in creating coherences in patient care path from telemedicine.

Danish literature (non mandatory)

Wentzer , H (2013), Opfølgende hjemmebesøg med video - Et telemedicinsk eksperiment til innovation af tværsektorielt samarbejde. KORA, http://www.kora.dk/media/173140/projekt3446_beskyttet.pdf

Ballegaard, SAA, Thorsen, MK, Bro, LL. Wentzer , HS (2012) Hjemmeteknologi til patienter med KOL.

Patient, professionelle og organisatoriske perspektiver. KORA,

http://dsi.dk/udgivelser/?mode=product&id=360&type=book_whole&project_id=3331

Wentzer, H. (2015). Koordinering af teamsamarbejde i opfølgende hjemme-besøg med video – et eksperiment til innovation af tvær-sektorielle patientforløb. *Sammenhænge i sundhedskommunikation*. Aalborg Universitetsforlag, 2015, side 83-130

10 ICT practices from every day life: Internet Cultures and Social Media (Anne-Mette Albrechtslund)

This session focuses on the everyday use of social media, i.e. social network sites/services and online communities, and introduces theoretical and methodological perspectives on studying and understanding the practice of using social media.

We discuss key theories of social media and the Internet and consider these from a practice theory perspective, particularly focusing on mediated communities and the complex interplay between offline and online contexts.

Literature:

Goodings, L. (2011). The Dilemma of Closeness and Distance: A Discursive Analysis of Wall Posting in MySpace. *Forum Qualitative Sozialforschung / Forum: Qualitative Social Research*, 12(3). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/1576>

Orgad, S. (2009). How Can Researchers Make Sense of the Issues Involved in Collecting and Interpreting Online and Offline Data? *Internet Inquiry: Conversations About Method* (eds. Baym, N. & Markham, A.).

Sage.

<p>Will be scheduled around the time of group formation (29th September): (Re) Visiting the principles and practices of problem based learning (Thomas Ryberg)</p>
<p>Examination (Examination 2) An external oral examination in: “User Practice, User Analysis and Pilot Studies”. The examination is a conversation between the student(s) and the examiner and external examiner based on a project report produced individually or in a group. The project report/written work will be considered the shared responsibility of the group. Students will be examined and assessed on the basis of the entire project report, and one combined grade will be awarded each student for the project report and the oral performance. Literature foundation: 1500 standard pages supervisor approved, self-selected literature related to the project. The project report: the total number of pages must be no less than 15 pages and no more than 20 pages per student in a project group, and 30 pages if written individually. Duration of examination: 20 minutes per student and 10 minutes per group for assessment and announcement of result, although no longer than a total of two hours. 30 minutes in total for individual examinations.</p> <p>Evaluation: Grading according to the 7-point scale. At oral group examinations, the examination must be conducted in such a way that individual assessment of each individual student’s performance is ensured.</p> <p>Credits: 15 ECTS.</p> <p>The project report and the conversation must demonstrate that the student fulfils the objectives for the module stated above.</p> <p>In the evaluation of the examination performance, the grade 12 will only be awarded to students who give an excellent performance and demonstrate that they have fulfilled the above objectives exhaustively or with only few insignificant omissions.</p> <p>Any re-examinations will be held on the basis of the revised project report.</p>

Module description

<p>ICT based Data Collection and Analysis (5 ECTS)</p>
<p>Location 7th semester Study board Communication and Digital Media</p>
<p>Module coordinator Mette Skov Teachers: Mette Skov, Birger Larsen, Jacob Davidsen m.fl.</p>
<p>Type and language Project module English</p>
<p>Objectives The module will introduce students to ICT based data collection and analysis offering a number of opportunities to obtain vast amounts of data on the use of for example Web based ICT solutions with relative ease. These opportunities call for fundamental consideration of options and problems, including ethical concerns on the significance of the potentially extensive mappings of individual user behaviour. During the course of the module, students will engage in ICT based data collection and analysis for the support of ICT user analyses and pilot projects.</p> <p>The module comprises courses and exercises within the following areas:</p>

- theory and method within ICT based data collection and analysis
- tools for ICT based data collection and analysis

Objectives:

In this module students will acquire:

Knowledge of:

- theories and methods at the highest international level as regards qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- ICT systems for data collection and analysis in relation to user analyses and pilot studies
- principles, including ethical principles, for managing ICT systems for data collection and analysis in relation to user analyses and pilot studies.

Skills in:

- assessing and selecting a method for qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- selecting, configuring and adapting ICT systems for qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- communicating methods for ICT based data collection and analysis to peers and laymen
- communicating results on ICT based data collection and analysis to peers and laymen.

Competences in:

- taking an analytical, reflective and critical approach to qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- engaging in interdisciplinary collaboration on ICT based data collection and analysis in relation to user analyses and pilot studies
- identifying own learning needs and structuring own learning in relation to the subject area of ICT based data collection and analysis in relation to user analyses and pilot studies.

Academic content and basis

Course plan:

1. Introduction to ICT based data collection and analysis (Lecturer: Mette Skov)

The first lecture will introduce to (new) ICT based forms of data in HCI such as big data, log data, sensor data etc. Further, we will discuss how to plan a research design.

Literature:

Boyd, D., & Crawford, K. (2012). Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. *Information, communication & society*, 15(5), 662-679.

Bryman, A. (2012). *Social research methods*. Oxford University Press. (Selected chapters)

Page, S. (2007). Unobtrusive methods. In: Lewis-Beck, Bryman & Liao (Ed.s), *Encyclopedia of Social Science Research Methods*. Sage. Pp. 1164-1167.

Preece, J., Sharp, H., & Rogers, Y. (2015). *Interaction Design-beyond human-computer interaction*. John Wiley & Sons. (Selected chapters)

2. Studying user interaction with tracking technology (Lecturer: Mette Skov)

In this lecture we will look at how user tracking technology (e.g., RFID technology) can be used to study user movement and user interaction with ICT in physical locations. The lecture will focus on how cultural heritage

institutions can enhance the visitor experience by using RFID technologies.

Literature:

Zhu, X., Mukhopadhyay, S. K., & Kurata, H. (2012). A review of RFID technology and its managerial applications in different industries. *Journal of Engineering and Technology Management*, 29(1), 152-167.
More literature to be added.

3. Ethics from a legal perspective (Lecturer: Peter Øhrstrøm).

Literature to be added later.

4. Video-based interaction analysis: method, theory and practice (Lecturer: Jacob Davidsen)

In this lecture, I firstly introduce a brief historical outline of the use of video for studying interaction, secondly, we discuss how video based interaction analysis can be used for studying and (re)designing practices, and thirdly we discuss how interaction can be represented in transcripts.

Literature:

Laurier, E. (2014). The Graphic Transcript: Poaching Comic Book Grammar for Inscribing the Visual, Spatial and Temporal Aspects of Action. *Geography Compass*, 8(4), 235–248. <http://doi.org/10.1111/gec3.12123>
Plowman, L., & Stephen, C. (2008). The big picture? Video and the representation of interaction. *British Educational Research Journal*, 34(4), 541.
Derry, S., Pea, R., Barron, B., Engle, R., Erickson, F., Goldman, R., ... Sherin, B. (2010). Conducting Video Research in the Learning Sciences: Guidance on Selection, Analysis, Technology, and Ethics. *Journal of the Learning Sciences*, 19(1), 3–53. <http://doi.org/10.1080/10508400903452884>

5. Evaluation of attention (Lecturer: Birger Larsen)

In this lecture we reflect on what tracking of the gaze of users and consumers can tell us about their attention on communication products and system interfaces. This includes an account of the human vision, perception and cognition and research in eyetracking. Different types of eyetracking apparatus is discussed which forms the basis for the following hands-on workshop.

Literature

Webb, N., & Renshaw, T. (2008). Eyetracking in HCI. In P. Cains & A. L. Cox (Eds.), *Research methods for human-computer interaction* (pp. 35-69). Cambridge, UK: Cambridge University Press.

6. Data collection field trip

All students participate in a one-day field trip. The aim of the field trip is to engage students in ICT based data collection and gain hands-on experience with two selected methods: eye-tracking and the use of video for studying interaction. The collected empirical data will be used as point of departure in the following workshops.

7. Video-based interaction analysis: method, theory and practice (Lecturer: Jacob Davidsen)

In this workshop, we work with different software tools for transcribing and analysing. The students will be working with their collected data. Bring your laptops for this workshop – please install ELAN on beforehand (<https://tla.mpi.nl/tools/tla-tools/elan/download/>)

8. Eye-tracking: data collection and analysis (Lecturer: Birger Larsen)

Hands-on eye-tracking workshop where we will experiment with the Eye Tribe Tracker.

9. Presentation and discussion of field trip data and analysis (Lecturer: Mette Skov)

The last session will focus on student presentations and discussion of methodological issues related to the collection and analysis of data collected at the field trip. We will discuss different approaches to research design and ethical considerations.

Literature: same as first lecture.

Additional readings (non-compulsory):

Bryman, A. (2012). *Social research methods*. Oxford University Press. (Chapters 26 and 27).

Scope and expectations

The module equals 5 ECTS points corresponding to a student workload of app. 137,5 working hours.

<p>Participants 7th semester IA students</p>
<p>Examination (Examination 3) An internal written examination in English in “ICT Based Data Collection and Analysis”. The examination is a seven-day take-home assignment on a set topic. On the basis of the module, students will respond to one or a number of questions and assignments within the subject area of the module. The assignment paper must not exceed ten pages, and it must be prepared individually.</p> <p>Evaluation: Grading according to the 7-point scale.</p> <p>The study elements on which the examination is based is equivalent to 5 ECTS.</p> <p>In the evaluation of the examination performance, the grade 12 will only be awarded to students who give an excellent performance and demonstrate that they have fulfilled the above objectives exhaustively or with only few insignificant omissions.</p>

Module description

<p>Module: Professional Inquiry (5 ECTS)</p>
<p>Location 7th semester HCI Study board Communication and Digital Media</p>
<p>Module coordinator: Heilyn Camacho Teachers: Ellen Christiansen ech@hum.aau.dk and Heilyn Camacho hcamacho@hum.aau.dk</p>
<p>Type and language Study module English</p>
<p>Objectives The module comprises the development and phrasing of empirical inquiry for the purpose of enabling students to formulate research questions and scientific problems within the field of informatics. This will form the basis of the problem based project work and inquiries to be carried out during the course of the human centered informatics study programme.</p> <p><u>Objectives:</u></p> <p>In this module students will acquire:</p> <p>Knowledge of:</p> <ul style="list-style-type: none"> • the connections and differences between empirical inquiry and research questions based on informatics • the connection between research questions and the theory of science in the organisation of scientific research • theory of science within the field of informatics <p>Skills in:</p> <ul style="list-style-type: none"> • describing empirical inquiry • translating empirical inquiry into a scientific research question within the field of informatics • combining a scientific research question with the theoretical basis of its investigation. <p>Competences in:</p> <ul style="list-style-type: none"> • preparing scientific research based on personal enquiry • taking a reflective approach to the basis of scientific inquiry

- engaging in disciplinary collaboration on scientific problem formulation

Methodology

The Human Centered Informatics master study has as its overall objective to educate graduates, who are capable of adapting and developing ICT solutions to end user practice and organisational context. Call it “contextual design” or “participatory design”, in any case critical inquiry into a given context, and critical reflection upon own ideas is important. This *Professional Inquiry* course will teach students how to become professional inquirers. Two points are worth emphasizing: professional inquiry is a craft, learned through practicing, and it is very much a collective, collaborative act of going back and forth over arguments, in acts of listening and questioning. Students do not become a professional inquirer by following this course, but they can learn *how to* become one. Each session deals with one of the constituents of professional inquiry, the knowledge is “accumulative,” the themes are linked, and students can not skip participating actively. Also it is the teachers aim to developed a culture among students that literature must be read before class, and assignments must be carefully prepared.

Scope and expectations

The module equals 5 ECTS points corresponding to a student workload of app. 137,5 working hours.

What it takes:

Reading in preparation the course literature, and showing up to the seven sessions scheduled, and uploading the seminar assignments in Moodle

Participants

Students from 7th Semester HCI

Module activities (course sessions etc.)

Main activities:

- Reflective Journal: Students should write between 1 and 2 pages per week about the theme of the week (online space where to upload their writings.)
- Reading for learning: Students will be introduced to a set of mandatory readings and a set of questions for each session. All students must read the literature and answer the questions. In a number of sessions, one student/group will be in charge of chairing a professional Inquiry discussion about a selected paper.
- Writing a paper: after the 6th session, each student is required to write a 5 page academic article demonstration skills as a professional inquirer. Each student gets written feedback from one of the teachers.
- Skilled professional inquiry performance. This activity focuses on performance and feedback. Students will receive a description of a job ad emphasizing professional inquiry skills, and they have to prepare for a 10 minutes job interview in front of the class.

Course sessions

Session 1

Topic: What is a problem in the context of the pedagogic method of problem based learning (PBL) and in professional inquiry

Date and time: September 8th, from 9-12

Agenda

- Presentation, practicalities and round table discussion of the experiences of a former student from abroad
- Lecture about the PBL way of learning in relation to critical academic thinking and design
- Paper-presentation in a model way of professional inquiry

Literature:

Kjersdam, F., & Enemark, Stig. (1994). *The Aalborg experiment : Project innovation in university education*. Aalborg: The faculty of technology and science, Aalborg University & Aalborg University Press. From page 13-17. It is available in AUB.

Davidson, M. The culture of Critical Thinking. The University of Nottingham:

<http://www.nottingham.ac.uk/pesl/internationalisation/docs/Internationalisation-Culture-of-critical-thinking.pdf>

Session 2

Topic 2: Epistemology and ontology in professional inquiry

Date and time: September 15th, from 9-12

Agenda

Lecture: Concepts of ontology and epistemology: what are epistemological and what are ontological statements, basic theory of knowledge.

Students Chairing Discussion. Topic: "From Technical Rationality to Reflection in Action"

Roundtable discussion: How far have you come towards reaching the course goals?

Literature

Schön, D. (1983). *The Reflective Practitioner : How professionals think in action* (New ed.). Aldershot: Arena. Chapter 2: From Technical Rationality to Reflection in Action.

Dirckinck-Holmfeld, L., Hodgson, Vivien, McConnell, David, & SpringerLink. (2012). *Exploring the Theory, Pedagogy and Practice of Networked Learning* (Elektronisk udgave ed.). New York, NY: Springer Science Business Media, LLC. Chapter 17: The Theory, Practice and Pedagogy of Networked Learning

Nonaka, I., & Takeuchi, Hirotaka. (1995). *The knowledge-creating company : How Japanese companies create the dynamics of innovation*. New York: Oxford University Press. Chapter 2: Knowledge and management.

Session 3

Topic: The right method for professional inquiry into problems

Date and time: September 22th, from 9-12

Agenda

- Students Chairing Discussion. Topic: Ten Steps for Conceptualizing and Conducting Qualitative Research Studies
- Lecture: Selecting methods for professional inquiry
- Roundtable discussion: Analysis of research questions, methods and results of three selected papers from the module course

Literature:

Chenai, R. (2011) Ten Steps for Conceptualizing and Conducting Qualitative Research Studies in a Pragmatically Curious Manner. *The Qualitative Report* Volume 16 Number 6 November 2011

Mackenzie, N, & Knipe, S. (2006). Research Dilemmas: Paradigms, Methods and Methodology. *Issues in Educational Research*, 16(2), 193-205.

Session 4

Topic: Tools and methods to support the professional inquiry process

Date and time: October 1st, from 9-12 Heilyn

Agenda

- Students Chairing Discussion. Topic: *Breakthrough Problem Solving with Action Learning*
- Lecture: Action learning as a methodology for professional inquiry
- Hands on: Tools to support professional inquiry: Zotero, Invivo, Survey Monkey/SurveyXact

Literature

Yeo, R and Marquard, M. (2010) Problems as Building Blocks for Organizational Learning: A Roadmap for Experiential Inquiry. *Group & Organization Management* 2010 35: 243 (online in AUB). From page 11-26
Marquardt, M. Breakthrough Problem Solving with Action Learning : Concepts and Cases. Stanford Business Books. From Page 30-60 (online in AUB)

Session 5

Topic: writing about your problem

Date and time: October 5th, from 9-12

Agenda

- Students Chairing Discussion. Topic: "So What...? paper"
- Lecture: Lecture How to get published in academia? How do I discuss theory?
- Roundtable discussion: Papers review

Literature

Selwyn, N. (2013). 'So What?' ... a question that every journal article needs to answer. *Learning, Media and Technology*

Johanson, L. (2007). Sitting in Your Reader's Chair: Attending to Your Academic Sensemakers. *Journal of Management Inquiry*, 16(3), 290-294.

Session 6

Topic: Fact checking and fact presentation: How are they going to believe you – the difference between academics and industry.

Date and time: October 8th, from 12:30 – 15:30

Agenda

- Students Chairing Discussion. Topic: Communicating findings
- Lecture: Data and method validation
- Roundtable discussion: How to communicate results of professional inquiry in academia and in industry

Session 7

Topic: Performing a job interview

Date and time: October 19th, from 10-12

Agenda

- Job interviews with an audience and feedback

Course evaluation

Examination (Examination 1)

An internal written examination in English in "**Professional Inquiry**"

The examination is a seven-day take-home assignment on a set topic. Evaluation: pass/fail.

The assignment paper must demonstrate that the student fulfils the objectives for the module stated above.

Alternatively, the examination may be completed by satisfactory and active participation in the module, i.e. a minimum of 80% attendance and completion of set tasks.