

# Abstracts

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# Presentations

# Teaching and learning regimes as an educational challenge and opportunity

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Implicit assumptions, approaches, rules and practices in teaching i.e. teaching and learning regimes (TLRs) are produced and reproduced (cf. Trowler & Cooper 2002) in the closest teaching environment, traditionally within a discipline. However, multidisciplinary programs implies that teachers from different disciplines and with different taken for granted assumptions, approaches and rules are involved. It may contribute to reflection and educational development. However, different TLRs can cause friction, conflict and competition. The aim of this paper is to increase the understanding of the implications of TLRs in education. The paper identifies different TLRs at the Faculty of Social Science, presents the different assumptions and practices between the TLRs, and discusses the challenges and opportunities the different TLRs implies for education.

The paper is based on text analysis of 28 pedagogical portfolios written by Excellent Teaching Practitioners representing the majority of the departments and disciplines at the Faculty of Social Science. Although most excellent teachers can be said to share a kind of constructionist view, there are considerable differences between the teachers. Identified differences includes the understanding of the aim and role of the teacher, the relation teacher-student as well as actual practice. Three ideal types representing different TLRs are formed and we call them the Facilitator, the Therapist and the Scientist.

The Facilitator is focused on facilitating learning by providing order, structure and a favorable environment. The goal is to foster the student to citizens in a democracy. The Therapist emphasizes that the role of the teacher is to contribute to the students' personal development while the Scientist's goal is to teach knowledge (what) and how knowledge is produced (why). The different understanding of the goal and role of the teacher results in different ways of understanding the learning process, the teacher-student relation and results in quite different preferences and ways of organizing and performing the teaching and learning activities.

Based on the portfolio texts, it is clear that teachers at some departments have similar approach to learning, so-called communities of practice (Wenger 2000). In this paper we discuss potential conflicts between TLRs from a teacher as well as the student perspective. However, from the analysis it is obvious that the different TLRs can enrich each other as all of them hosts tensions and contradictions. The potential is discussed and a set of questions intended to use to create awareness about TLRs and its consequences among teaching staff is presented.

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# How students choose methods in writing of thesis - tactical avoidance of statistics.

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In the field of research in statistical education and teaching there is a debate concerning students' attitudes to statistics and quantitative methods. There seems to be a concern and fear that student don't see the point in statistic or find courses hard to read with a successful outcome. Most students in the field of social science choose qualitative method but a majority of the topics would be an excellent case of quantitative collecting and statistical analysis. On the other hand, according to both literature and my own experience as lecturer, there is the odious nature of teaching statistics as students hate the field and are looked upon as something painful but necessary (Hulsizer and Woolf 2009). It might be the same tendency over all in the academia but an acceptable presumption is that it's particular experienced in multidisciplinary educations, as student not intentional opted the programme or courses because of statistics. Other argues that it's very important to motivate students during the introduction to raise students awareness of data in everyday life in the age of information as statistics is presented in our daily lives and is involved in every aspect of the scientific method (Rumsey 2002). Condrón et al. claims that there is an anxiety among students who attending multidisciplinary social statistics course (Condrón et al. 2018). In this paper, I will discuss student's attitudes toward the use of quantitative methods in bachelor thesis.

The paper is based on a material collected at the department of service management and service studies at Lund University, consisted of six interviews with eight students writing on examination thesis.

The case shows that the students understands the use of statistics in their future carrier development to. They also seems to be very motivated and there's even signs of over estimating the value of statistics. The interviewed students' didn't think of statistics as something that evokes anxiety. No one of the interviewed students mention any links between methods and "work in real life". Compared with the result from other research there is differences, some result are linked and other much the same. The most important result from this study is the tacit recommendation from supervisors to use qualitative methods in thesis writing.

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# Classroom as a contested space”. An analysis of a collaboration towards a reflexive pedagogical practice

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During 2018 and 2019 a group of students from interdisciplinary Social Studies of Gender Master Programme together with a teacher has been meeting in a reading group to discuss issues of teaching and learning in gender studies courses. During these meetings, among other things, we developed a workshop entitled “Classroom as a contested space” that we have carried out both for students and for teachers on several occasions.

In May 2018, we organized a day-long conference titled 'Anti-Racism and Diversity in University' during which we held the workshop for the first time. In September 2018, we carried out the workshop with first-year students of the Masters of Social Studies of Gender. In October 2018, a modified version of the workshop was carried out in the Marxist Feminist Conference. In March 2019, a more interactive version of the workshop that used theatre of the oppressed as methodology, was carried out by students for teachers of the Gender Studies Department.

In this paper we present the idea of the workshop. We describe the tool, its goals, scenario and possible variants. Based on an analysis of our experiences with carrying out the workshop on different occasions, in different settings and with participants coming from different disciplinary and pedagogical traditions, we discuss the potential and the limits of this kind of tool in creating a reflexive pedagogical space. We also critically explore the very experience of working in the group composed by a teacher and students and together developing this pedagogical tool.

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# Student-oriented, supervisor-led, or externally-driven – balancing the supervision a modern doctorate

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Doctoral education in the technical fields has several distinct features, such as, the research is often project-based, interdisciplinary, dependent on external funding, and affiliated with an industry. In other words, the epitome of a “modern doctorate” (Fillery-Travis, 2017; Lee, 2018). While literature on doctoral supervision in general is abundant (see e.g. Gatfield, 2005; Gurr, 2001; Ives & Rowley, 2005; Kobayashi, Grout, & Rump, 2015; Lee, 2008, 2012; Lindén, 2005; Lindén, Ohlin, & Brodin, 2013), supervision specifically in the technical fields has received less discussion. Haksever & Manisali (2002) study discrepancies between the expected and received supervision in an engineering field in the UK, and conclude that effective communication is critical. Grevholm, Persson, & Wall (2005) present a supervision model developed and used in Luleå University of Technology. Smit (2010) discusses the access to research community in engineering sciences, and sees it affected by the requirement of independence and power relations. Finally, two Danish studies focus on supervision practices in the context of international PhD students in engineering (Bøgelund & Graaff, 2015; Kolmos, Kofoed, & Du, 2008).

This study attempts to fill the research gap with empirical evidence, focusing on factors influencing supervision style specifically in the technical fields. The study employs a qualitative research approach, and utilizes semi-structured interviews. Altogether 24 interviews were conducted during spring 2019 at institutions linked to Lund University. As the ambition was to capture the perspectives of both supervisors and students, the informants comprised 13 supervisors and 11 doctoral candidates. Interviews focused on communication practices, and the supervisory relationship. The interview protocol was followed loosely to allow important issues to emerge from an open discussion.

The study identifies several influencing factors, that may be roughly divided into three categories. Factors identified in the *Student* category comprise the personal characteristics and maturity of the doctoral student. Similarly, factors in the *Supervisor* category include the personality and professional experience of the supervisor, but also the dynamics between main and co-supervisor(s). Interestingly, communication practices, which may be either very formal (scheduled meetings with minutes) or informal (ad-hoc discussions) do not necessarily reflect the relationship of the student and supervisor. Rather, the practices are often affected by *External* factors, such as institutional or departmental policies (statutory planning meetings, open door policy), or the project-based nature of the research work (project timeline).

Based on the findings, this study presents three doctoral supervision approaches, the student-oriented, the supervisor-led, and the externally-driven. Most interviewed supervisors maintain that their supervision is always adapted to the individual student, emphasizing the student-centered approach. However, the

supervisors' own preferences regarding e.g. communication practices play a significant role. Moreover, external issues, such as top-down policies, limit the possibilities of adaptation. In conclusion, doctoral supervision is most often a mix of the different approaches. The results of this study allow supervisors to reflect on their own supervision style, presenting a selection of potential approaches to supervision. The three approaches and their underlying factors may be particularly useful for researchers at the beginning or their supervising careers, or to be used as examples in higher pedagogy training.

***Keywords:** doctoral supervision, modern doctorate, supervisor development, supervision pedagogy, research education*

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# Involving real-world stakeholders in course group projects: Opportunities and challenges

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To prepare engineering students for work in the industry it is important that they are enabled to gain experience during their studies. Also, the application of theoretical knowledge and practical skills taught within a course can have a positive effect on knowledge retention among students. Course group projects provide an option for teachers to facilitate such application in a simulated environment. However, simulating realistic settings while maintaining student motivation can be a challenge. We have explored how to improve the level of realism and thereby the learning outcomes in course group projects by introducing startup companies as real-world stakeholders to the projects in a requirements engineering course. The course is given to 4- and 5-year students with interdisciplinary engineering backgrounds.

We used a design science approach to develop and improve the project assignment and process. In a project, a startup company provides a product idea to a student group who then explores how the idea could be realized as a product by identifying and interacting with real customers and stakeholders to the startup company.

We found that students appreciate working with real projects and to get an opportunity to apply what they learn in the real-world, as well as the contacts and insights they get from the entrepreneurs at the startup. Since each project is unique, the students have to contextualize techniques from the course in order to apply them to the real-world setting. The students are also exposed to commonly occurring industrial challenges such as managing frequent changes, communication issues etc., as the projects may evolve in unforeseen directions.

From the startup companies' perspective, the students' work contributes new market insights and knowledge about the customers' needs - knowledge which can help the startup companies as they are still exploring their business model and are limited in resources.

The involvement of real-world stakeholders also poses challenges in teaching. Teachers need to work actively to coach the stakeholders before and throughout the course in order to set and align expectations with course goals. Projects need to be carefully prepared in regards to their scope and technical depth as well as the availability of data sources, in our case customers and stakeholders to the startup companies. Teachers must be prepared to intervene as circumstances may change due to the real-world nature of the projects and risks faced by real-world stakeholders.

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# Exploring the potential of learning portfolios to achieve interdisciplinary learning outcomes

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## Abstract

Researchers of interdisciplinary education have identified core principles of interdisciplinary learning: disciplinary grounding, integration, communication and translation, critical awareness, and teamwork<sup>1–3</sup>. Realising these principles presents challenges for interdisciplinary course and programme design<sup>1</sup>. In this contribution, we explore the potential for learning portfolios to strengthen and deepen interdisciplinary learning and help achieve core learning outcomes.

Learning portfolios can take different forms<sup>9</sup>, but generally involve aspects of critical reflection and cataloguing of “artefacts”, such as assignments<sup>4,10</sup>. Emphasising meta-reflection and integration of knowledge is also essential for interdisciplinary learning, but many times this “linking” is left to the students and not explicitly directed or recognised<sup>8</sup>. Learning portfolios have potential to address this challenge as they can facilitate integration and communication of knowledge from different perspectives/disciplines and critical reflection<sup>5–7</sup>.

This contribution will introduce the theoretical potential and background of learning portfolios (including e-portfolios) from literature and practice. It will also take as a case the practical experience of designing and implementing a learning portfolio in a course in the interdisciplinary Master’s degree programme at the International Institute for Industrial Environmental Economics. This fundamental course introduces students to systems thinking to conceptualise sustainability aspects (which underpins EMP curriculum as a whole). In addition, the course has learning outcomes that correlate with the five principles of interdisciplinary learning. Conceptualising complex sustainability challenges requires both integration of disciplinary knowledge and critical reflection, while assessments in the course also emphasise integration, teamwork and communication.

The design of the learning portfolio initially focussed on enhancing reflection (i.e. reflection on the process of learning and integrating different concepts and perspectives) as well as collection of artefacts (i.e. examples demonstrating development of skills and knowledge)<sup>4,11</sup>. Through interviews with students, course feedback, and teacher reflections, we assess the potential of learning portfolios to contribute towards interdisciplinary learning outcomes and reflect on the challenges of designing and implementing them in practice. We also examine possible trade-offs in implementing learning portfolios as opposed to existing or alternative approaches. The insights gained through the first experience implementing portfolios the course-level is also informing its potential introduction on the programme level.

The combination of theoretical exploration and practical experience in this contribution is intended give useful insights for other teachers and course designers wanting to enhance integration of knowledge, communication of learning, and critical reflection as part of complex and/or interdisciplinary topics.

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# A university climate curriculum based on synthesis science

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Students today live in a world already changed by climate change. Climate literacy is a prerequisite for meaningful participation in modern society (Levine and Kline 2017), and is an explicit goal for many modern democracies (Wynes and Nicholas, 2019). The world's preeminent scientific authority on climate change, the Intergovernmental Panel on Climate Change (IPCC), produces synthesis reports that comprehensively document the evidence for the latest understanding of climate change causes, impacts, and potential solutions. Their reports serve as the basis for policy decisions. However, there is currently no teaching curriculum based on IPCC data to serve as an empirical foundation of such literacy.

Here I present a framework for teaching a comprehensive university course (bachelors' or master's level) on climate change that is aligned with IPCC synthesis findings (available at <http://www.kimnicholas.com/climate-change-curriculum.html>) and assess how many of its core elements are addressed by courses offered at top international universities.

To develop the framework, I identified six core topics derived from scientific literature and syntheses, as well as research on effective climate communication (see Wynes and Nicholas 2019 for more discussion). The six core topics were given the short labels: (1) It's climate, (2) It's warming, (3) It's us, (4) We're sure, (5) It's bad, and (6) We can fix it. Two independent researchers then coded the entire text and graphics of the latest IPCC Synthesis Report- Summary for Policymakers using qualitative analysis software to align IPCC findings with this framework.

Based on analysis of syllabi available online or provided by course instructors from seventy university courses, we found that the majority (56%) covered only one of the six core topics; only one course (at Harvard University) covered all six topics. Within the core topics, the most commonly taught (by 60% of courses) was "It's climate," focusing on the functioning of the natural climate system such as the physical mechanism of the greenhouse effect. Less than 20% included climate change impacts ("It's bad"), and less than a third focused on climate change policy and solutions ("We can fix it").

I conclude that there is an urgent need for a comprehensive, research-based climate change course in higher education, which at present is largely unmet. Our curriculum can improve teaching experiences through increased efficiency in course preparation, linking teaching and research, and in sharing best teaching practices with participating colleagues, as well as help ensure that the resources devoted to scientific synthesis efforts are translated to broader benefits for society.

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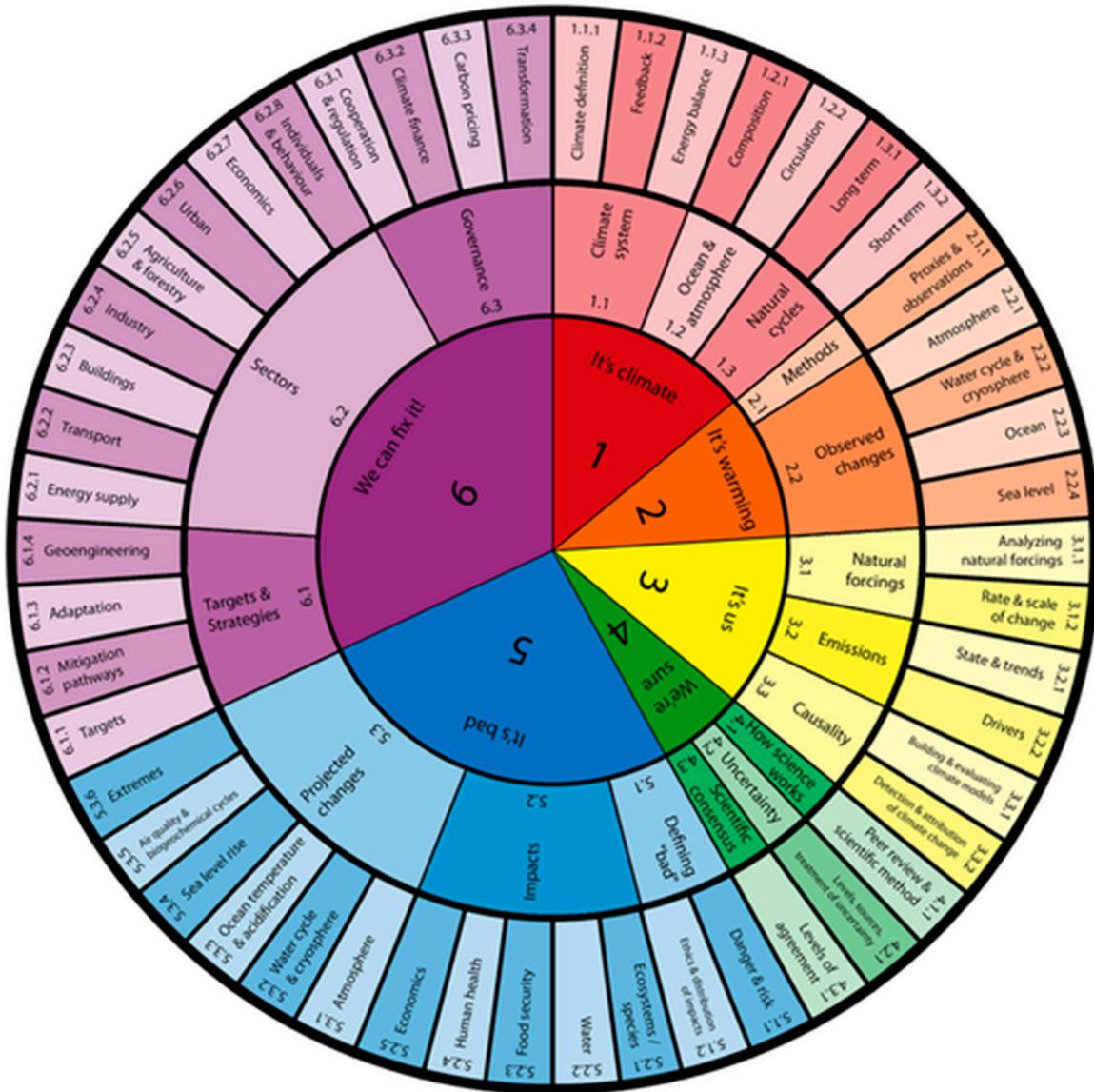


Figure 1.

Visual representation of climate change curriculum based on IPCC synthesis science. More information available at <http://www.kimnicholas.com/climate-change-curriculum.html>

# The progression plan – a tool for monitoring and facilitating students' learning progress

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Higher education not only aims at developing students' content knowledge. According to the national requirements, students shall also demonstrate generic competencies, such as the ability to communicate their subject, make informed assessments and ethical considerations, and reflect on their own learning [1]. The fulfilment of these requirements is thus crucial since insufficient achievements could jeopardise a university's right to examine students at a particular level. A review of generic competencies in higher education, however, identified some main challenges in the development and implementation of these competencies in the curriculum [2]. In conclusion, the paper highlights the significance of a systematic approach, and argues for the need of institutional and curriculum support, including: recognition of the importance of generic competencies; curriculum considerations and alignments; and professional development provided to academic staff. Accordingly, the Faculty of Science has developed a so-called progression plan for the purpose of supporting teaching and learning towards the curriculum outcomes.

The progression plan, for instance at the bachelor level, specifies a number of outcomes in three intermediate steps for each of the overarching outcomes. From the intermediate outcomes, learning outcomes, teaching and learning activities, and assessment are further detailed in the syllabi within each major. The progression plan, hence, contributes to assuring that the students – systematically and progressively – are given the opportunity to develop knowledge and skills according to the overall outcomes. As such, the progression plan gives an overview of the curriculum – how generic competencies are integrated in the content courses and how expectations of the students are gradually increased. This way, the progression plan makes clear the connection between outcomes at the course and curriculum levels. In addition, it provides a basis for reflection and discussion regarding individual students' learning and progress.

In science education, students' advancement of subject specific and generic competencies altogether offer prospect for the development of scientific literacy, which can be regarded as the ultimate learning goal. Scientific literacy comprises knowing science as “a way of thinking, finding, organising and using information to make decisions” [3]. This description aligns with the notions of scientific literacy that focus on the needs of students as future citizens who will engage with science at a personal and a societal level [4, 5].

This conference presentation will describe the process of developing a curriculum progression plan, and further discuss how it can be used for facilitating teaching and learning, and goal achievement in higher education.

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# Understanding cis-normativity in higher education classrooms

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Swedish universities are bound by the antidiscrimination act to promote equal learning opportunities for all, irrespective of gender identity and expression. It is thus worrying that The Swedish Federation of LGBTQIA+ Student Organization reports that everyday communication and administrative frameworks based on gender binary assumptions are central problems for students (Lundin, Strömberg, & Araya, 2015). Similar tendencies have been identified in the governmental report "Transpersoner i Sverige: Förslag för stärkt ställning och bättre levnadsvillkor" (SOU 2017:92: Westerlund, Akleye, & Larsson, 2017).

This presentation offers theoretical insights, as well as hands on advice and examples from classroom situations and educational dilemmas that we hope could function as an introductory guide and thinking tool in relation to how we as university teachers can be part of making education more accessible to transgender-, nonbinary- and intersex students.

Cisnormativity as a theoretical concept comes from the latin word *cis*, which means "on the same side", and is a way of explicating the widely spread power structure that sorts all bodies (both human and more than human) into terms of (for example) either *normal / desirable / healthy / real / cis and abnormal / inappropriate / pathological / imagined / trans/intersex* (Enke, 2013; Nord, Bremer, & Alm, 2016). It also refers to the generally presumed idea that a person's body, birth assigned sex, legal sex, gender identity, gender pronouns, personal names, gender expressions, reproduction, and kinship always point in the same direction - unequivocally coded as masculine or feminine - in a straight line under a whole life cycle.

How do these cis-norms inform and interact with our work in the classroom in different ways depending disciplinary context? How can we engage with situations when cis-norms become tangible during teaching? Drawing on international research in the fields of trans and intersex education studies, as well our own teaching experience and different research backgrounds within trans studies, we want to open up a conversation about the pedagogical and intellectual possibilities awareness of cis-norms in our classrooms can bring (Nicolazzo, 2017).

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# Gender Studies for Law Students – Legal Studies for Gender Students. Pedagogical Experiences of two-way Interdisciplinary Teaching

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The role of law in up-holding gendered power relations, and the question of how gender is reflected in the legal system, are two central and related issues subject to research and debate within law schools and gender studies departments. Both critical legal scholarship and positive law (cf annex to the higher education ordinance [1992:1434], United Nations Convention on the Elimination of All Forms of Discrimination against Women, 1981) suggest that lawyers are in need of knowledge of the gendered nature of law and the to some extent legal regulation of gender. Gender scholars approach the legal system as an important field and have utilised analysis of the law as a means for developing theory (cf Kimberlé Crenshaw and intersectionality as discussed in Selberg & Wegerstad 2011).

Despite the fact that the interplay between law and gender is increasingly recognized, not many university courses exist on this topic in Sweden. Lund University is somewhat of an exception to this state of affairs: The Gender Studies Department has for many years given a semester-long mandatory course in gender and law, and the Faculty of Law has for many years offered an elective half-semester course on law and gender. These courses invite gender students to study and understand the law, and law students to study gender relations and their role in the legal system. Each category of undergraduate student is, respectively, challenged from 'outside'; either from legal studies or from gender studies (cf Tuori 2002 on the dichotomy in-/outside of law). The preconceptions, assumptions and theoretical positions generally held (in terms of ontology and epistemology; for legal studies see Sandgren 2009, for gender studies see Gunnarsson et al 2018) of the respective student body are brought to class and form the back-drop of teaching and learning, providing both challenges and assets for the teacher to engage with.

This presentation describes and analyses the respective course and the, from a Swedish national perspective, quite unique set of courses on law and gender. The focus of the presentation is on drawing conclusions from these courses and what they can teach us about interdisciplinary pedagogy in relation to the legal field. Differences and similarities on part of the respective student category are unpacked and analysed. The ways in which the two groups of students with different disciplinary backgrounds encounter a new form of knowledge provide possibilities of a deepened understanding of interdisciplinary teaching.

The presenters have for many years simultaneously taught in both of the above-mentioned courses at LU.

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# How interdisciplinary is interdisciplinary sustainability education?

-searching for interdisciplinary skills in Master's thesis courses

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Interdisciplinary skills are increasingly demanded in order to address current societal challenges, and there is an associated call for university education to equip future employers with these skills (Aktas Can, 2015; Feng, 2012; van Rijnsoever & Hessels, 2011). Sustainability education is a prominent example in this regard (DeZure, 2017).

Interdisciplinarity harbours many pedagogical challenges and opportunities. There is, however, insufficient understanding of how skills related to interdisciplinarity are materialised in sustainability education (Feng, 2012, p. 31). This paper addresses this research gap by specifically studying interdisciplinary thesis courses in sustainability education. The thesis is traditionally viewed as the capstone project to demonstrate knowledge and skills acquired throughout a programme, and the thesis course is therefore particularly relevant for studying learning from a programme as a whole. Based on the perspective of constructive alignment, it is further argued that programme syllabi, as well as course syllabi and assessment criteria all should align and reflect interdisciplinary skills for students to actually acquire them (Biggs, 1996; Elmgren & Henriksson, 2014).

With the aim of identifying the extent and nature of interdisciplinary skills as articulated in course documents, we analyse the programme syllabi, course syllabi and assessment criteria of interdisciplinary Master's programmes in Sweden within the field of sustainability. The data material is analysed through a computer-aided qualitative content analysis in Nvivo. The analysis is guided by previous research on interdisciplinary pedagogy, such as Boix Mansilla et al.'s (2009) criteria for the assessment of interdisciplinary writing. Based on the results, we discuss potential improvements to course syllabi and assessment criteria and suggest ways of articulating interdisciplinary skills.

Preliminary findings, based on the intended learning outcomes, suggest that there is limited explicit addressing of interdisciplinary skills in the thesis courses of the supposedly interdisciplinary sustainability programmes. Rather, the student is seen, in many of the programmes, to learn a specific field of study, i.e. sustainability studies, similar to a traditional discipline. A common trait, on the other hand, is a focus on societal relevance. In order to cater to student and employer expectations, and to ensure that the thesis and its supervision reflects the overall programme philosophy, there might be a need to revise the learning outcomes with a critical eye in relation to interdisciplinarity.

**Keywords:** interdisciplinarity, sustainability education, Master's thesis, constructive alignment, assessment criteria

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# Case discussion in social work education: a link between psychological theory and social work practice

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Social work's knowledge base draws upon other disciplines, one of which is psychology. Psychological knowledge, traditionally incorporated into social work curriculums, includes such topics as stress and trauma, human development, neuroscientific bases of human behavior, mental health and disability as well as communication, relationships and the psychology of groups and societies. One challenge in teaching psychology for social work students is to choose and present psychological theories and research in a way that shows clearly the relevance of psychological knowledge to the discipline of social work. In other words, social work students need to understand why they learn psychology and how they can use this knowledge in their professional thinking and practice. An obstacle in this endeavor is the limited space that psychology has in most social work curriculums. The psychological knowledge to be put into practice in work with vulnerable groups is learned in a relatively brief period of time, and the leap from theory to practice needs to be done by students who may be encountering psychosocial knowledge for the very first time.

We discuss one way of helping students understand the relevance of psychological knowledge for their future profession – namely, case discussions. When analyzed with the help of psychological concepts, cases from social work practice illustrate applicability of these concepts to situations occurring in everyday social work. We consider several ways in which case discussions can be incorporated in teaching psychology for social work students and discuss both their potentials and limitations.

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# The interbeing of law and economics: Building bridges, not walls – interdisciplinary scholarship and dialectic pedagogy

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Modern man is faced with multiple technological, economic and societal challenges, putting pressure both on his physical and cognitive capacities. Proliferation and sophistication of scientific knowledge exert similar pressure on contemporaneous researchers, leading to more specialization across and within disciplines. Yet scholarly precision need not come at the price of disciplinary isolation. A recent example of successful revolution in legal scholarship with its increasing embrace of economic science is evidenced in the “law & economics” movement. This new interdisciplinary research field brings together legal theory and economic reasoning in both theoretical and applied ways and challenges the idea of law as an autonomous practice. Using economic concepts, methods and analysis, “law & economics” attempts to provide a fresh understanding of the law’s objectives and its (un)intended consequences. It also provides a framework for predicting future (human or organizational) behavior and suggesting improvements in the legal system. Economic analysis of legal phenomena operates at many different levels: i) substantive rules; ii) legal institutions, iii) dispute resolution. While “law & economics” applies to all areas of law, economic notions and analysis are most salient in economic or commercial law. Market interactions, trade relationships and business practices necessitate resort to economics to analyse, comprehend and design legal solutions. Latest developments in economics (game theory, public choice theory, behavioral economics) are also incorporated in forming economic approaches to legal questions. This increased dialogue between law and economics is a promising and exciting way to connect the law with reality beyond rhetoric. With law being a tool of social engineering, this is a necessary and welcome development that not only defies the push towards specialization but also marries sophisticated with holistic research approaches and opens the way for resilient and informed public policies.

This scientific cross-pollination serves a deeper educational function: it demolishes the myth of self-contained legal science, ignites students’ eagerness to learn and look beyond the surface of established disciplinary wisdom and engages students in discovering the latent operation of the “law in context” by exposing the hidden value judgments it incorporates. Introducing dynamic interdisciplinary dialogue in higher education pedagogy also teaches fundamental values such as curiosity, respect, democracy, resilience, community and connectedness in the place of authority, narrow-mindedness, fixed thinking, self-importance and dissociation. The individual and group benefits of such enriched and connected legal scholarship transcend the classroom and pave the way for the productive orientation and effective education of future citizens as active members and co-creators of society.

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# Making of a Community of Learning at the Times of Solitude

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Higher Education in the European context has been transformed radically since 1990s, partly in line with global political and economic trends. In the Swedish context these trends also manifested itself, among other things, in how teaching is practiced and valued. The managerial and paradigmatic shift altered the balance between teaching and research in the favour of the latter. This happened while monetary resources assigned to teaching at the universities proportionally diminished at the national level. Mentioned professional and monetary degrading resulted in reduction of contact-hours for university students -particularly for students of social sciences and humanities in Sweden, misrecognition of teaching skills at the institutional level, and treatment of teaching as a burden among academic staff. These radical changes accompanied with, and partially legitimized by, a novel teaching and learning philosophy which effectively criticized old-school lecture-based teaching built on unidimensional knowledge transfer. It promoted instead self-learning and championed interactive teaching. However, according to various reports, students spend less and less time for learning, which is coming closer to the state of threatening the overall teaching and learning quality in the higher education in Sweden.

In this paper, I analyse the teaching and learning practices in a course that I am responsible for at the bachelor level, in the background of abovementioned paradigm shift. Specifically, I discuss two teaching forms introduced and experimented in the course, discussion seminars and workshops, which aimed to improve the quality of the course learning outcome, encourage overall engagement of students, social learning, and skill transfer. Discussions focused on applying course literature on to empirical cases, and workshops included topics such as grading a paper, analysing a text, and writing an essay. While doing this, I refer to a theoretical literature develop around the concept of “social practices”, in particular “communities of practices”. Within this literature the social and cultural aspects of learning is accentuated, and the significance of embodied learning by doing together is highlighted. I position the practice-based epistemological and pedagogical perspective as an alternative to the established dichotomy of traditional lecture-based teaching versus self-learning.

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# Why would I even need statistics? A systematic literature review of statistics anxiety among students.

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Statistics and quantitative research methods have become standard staples disciplines in nearly all educational programs that offer a degree of bachelor or master of science. While being a part of official requirements in a broad range of faculties and carrying a number of teaching techniques that have shown efficiency in the education practices, statistics have not gained broad popularity among students. Moreover, educators at different levels have expressed concerns regarding low efficiency of traditional teaching techniques when it comes to statistics courses. At the same time universities have been lacking statistics and quantitative research methods teachers, with Lund University not being an exception.

In an attempt to support educators and to tackle relatively low performance on statistics courses among students, the academia has provided a several decades long support in form of reports, scientific investigations, teaching techniques analysis and theoretical models. Despite continuous development of teaching techniques and contributions from several decades of statistics anxiety research, statistics have been shown to be one of the strongest anxiety generators among the courses offered to students at different education levels (Chew & Dillon, 2013) with over 70 percent of the students experiencing at least some form of statistics anxiety (Onwuegbuzie, 2003).

The steady academic interest in the phenomenon of statistics anxiety and humble results of educators on nourishing “statistics confidence” among students have led to a somewhat paradoxical state of statistics-based courses. The systematic literature review procedure (Tranfield, Denyer, & Smart, 2003) is adopted to analyze 66 academic items to map. The purpose in this study is (1) to provide an overview and a holistic understanding of the complex concept of statistics anxiety among student, (2) to synthesize an inventory of applicable teaching techniques and tools that can support educators that teach statistics and statistics-based courses, and (3) to identify streams for future research.

The study’s findings feature analysis of chronological distribution of the studies dedicated to the investigation of statics anxiety among students, analysis of the publication types and their sources, analysis of geographic and academic field distribution of the research items and analysis of the scientific methods used in the studies identified. Furthermore, the content analysis yielded knowledge on the main and up-to-date theories and frameworks regarding the studied matter, and allowed to generate a summary of the known sources of the statistical anxiety among students and the teaching techniques to tackle them.

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# Improving the quality of healthcare through interdisciplinary education - a collaboration between Medicine and Gender Studies

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While Gender studies has sometimes been placed in opposition to biomedicine and medical practices in public debate, there is increasing scholarly recognition of the relevance of social factors and relationships for biological and medical phenomena and for the quality and equity of healthcare practices (Chin et al., 2016; Meloni, Cromby, Fitzgerald, & Lloyd, 2018; SKL, 2014). In Sweden and internationally, medical schools have identified the need to integrate approaches from social science and humanities in their curricula (Lagro-Janssen, 2012; Miller et al., 2013; Polianski, 2012; Viberg, 2010). This emerging interdisciplinarity in higher education, wherein different scientific traditions are bridged, has inspired new forms of collaborations and educational efforts.

In this presentation, researchers from the Medical Faculty and the Faculty of Social Sciences at Lund University will present experiences of developing and teaching a course in gender studies aimed at healthcare practitioners. The 7,5 credit course *Det jämlika vårdmötet* has attracted a large number of students working in different positions within the Swedish healthcare system. The course builds on gender research as well as research in public health, social epidemiology and organization studies, thus bridging theoretical traditions, methodological approaches and research themes for the purpose of encouraging students to reflect on their professional practices in new ways. The focus of this presentation is what the course can teach us about interdisciplinary collaborations and their potential for reaching new groups of students with new and challenging questions and approaches in the interest of quality assurance in public service.

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## Prepared seminars

# Prepared 55 Minutes Seminar: Teaching masters students how to learn on an interdisciplinary programme

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The masters programme of the department of service management and service studies has a total of 160 students from every continent. The programme blesses our teachers and researchers with new perspectives every year. However, it has also implied big pedagogical challenges. The aim of this seminar is to describe one particular challenge and share we have dealt with it, in order to discuss with and learn from colleagues who may deal with similar situations. A few years ago between five and 20 percent of the students were utterly unable to display critical thinking and research-based analysis. They struggled through retakes of exams and could never write a thesis that passed. The initial reaction was to blame the students and the teaching in other parts of the world, until two years ago when we decided to take on the challenge to teach them the desired skills ourselves. How do you teach students who have set ideas from different disciplines and different countries about how to learn and express knowledge, new skills?

We decided to ask the students what skills they had, explain what skills they would need at a university in Northern Europe and then let them practice before the first courses began. In order to find out about their skills, we did not go in to differences between disciplines but instead introduced the concept of teaching and learning regimes. The concept is defined as “/.../ a constellation of rules, assumptions, practices and relationships related to teaching and learning issues in higher education.” in Trowler & Cooper (2002:224). The aim was to look past disciplines and rather to provide the students with a vocabulary that made self-reflection regarding their own learning practices easier. We modified the concept to describe and conceptualize their experiences rather than those of teachers. We then helped the students to relate to the regimes of their previous studies.

In the next step we described our regime to the students as aimed at a deep approach like the one described as an approach to reading in Marton and Säljö (1976) and developed into an approach on learning in Marton and Booth (1997). Every examining activity on the programme was described with particular focus on how to use a deep approach in order to study for the exam. For an entire week we practiced these examining activities. The results that we will share at the seminar were very positive according the students' reflection texts, course evaluation and not the least, the throughput of the programme. Reading material for seminar: 1000-2000 word summary of an article under production by the seminar keepers

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# From knowing the canon to developing skills: Engaging the decoding the disciplines paradigm

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The purpose of this prepared seminar is to foster an interdisciplinary dialogue among practitioners in canon heavy disciplines; that is disciplines traditionally preoccupied with what students should *know* (contents, concepts etc.) – rather than what they should be able to *do*. We will present findings from a pilot study on student learning in a course designed according to the principles in the “decoding the discipline paradigm” (Pace 2017) and the “uncoverage model” (Calder 2006). By inviting an external commentator to discuss our work we seek to engage larger discussions within the Scholarship of Teaching and Learning (SoTL).

Many of the subjects taught in higher education are content heavy, and many also have a more or less formal canon of which contents to include in undergraduate courses. We sometimes get the feeling that most of the first year of study in our primary discipline (history) is spent on rote memorization of content, rather than developing disciplinary skills. Hence, discussions on teaching and learning in history typically revolve around what to add in terms of periods, regions, and perspectives. Successful challenges to the status quo result in adding to the canon, thereby cementing traditional teaching methods (Sipress & Voelker 2011).

In contrast to this, we believe that pedagogical discussions should start with what we want the students to be able to *do*. Influenced by international SoTL-research, we have over the last few semesters redesigned and taught a five week thematic course on the second term of the historical candidate programme. The course in question, “The Welfare State”, has shifted its primary learning objective from knowing about the topic towards the development of a particular skill: the ability to pose a relevant historical question to a source material. That is, a skill which the students need to master at the next stage of their education: the writing of a shorter independent thesis.

The proponents of the decoding the disciplines paradigm argue that this approach is generally applicable to all forms of learning in higher education. They stress that the actual decoding process is often best carried out by scholars rooted in another discipline. Moreover, the paradigm has indeed aroused much attention from all across the disciplinary spectrum (Miller-Young & Boman 2017). Hence, with this seminar we hope to pave the way for new interdisciplinary collaborations and undertakings in the quest to facilitate student learning.

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# The Role of Educators in Supporting Students Metacognition of Interdisciplinary Learning

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In higher education, there is growing attention placed on inter- and transdisciplinary education, particularly in the area of sustainability. In light of the numerous and complex global sustainability challenges we face, inter- and transdisciplinary knowledge is crucial for integrating and bridging disciplines to provide solutions that extend beyond limited disciplinary boundaries (Brown et al. 2010; Dale and Newman 2005; Steiner and Posch 2006). Among the missions of the university is to train future leaders and professionals to address these challenges; despite this, interdisciplinary education is often taken for granted in Western society (Feng, 2012, p.31, 33).

Therefore, we suggest there is a need to articulate the benefits of interdisciplinary education: to support teachers in designing interdisciplinary learning activities, to empower teachers and students to discuss the value of interdisciplinarity, and to support students' abilities to express these benefits to future employers. To do so, we intend to prepare a seminar to discuss the merits of interdisciplinarity, particularly in sustainability education, and how educators in higher education may support students' integration of interdisciplinary knowledge and metacognition of interdisciplinary learning.

The preparatory materials for the prepared seminar will be a podcast episode, hosted and produced by Sofie Sandin and Steven Curtis at the International Institute for Industrial Environmental Economics (IIIEE) at Lund University. The podcast episode will be a part of the existing podcast series called Advancing Sustainable Solutions and will be released on 23 September 2019.

In the episode, we intend to present evidence of the merits of interdisciplinary education. Then, we will exemplify such education by discussing the Environmental Management and Policy Master's Programme at the IIIEE. We intend to interview the Director of Studies Beatrice Kogg. Furthermore, we seek to empanel a select group of students to discuss their reflections on interdisciplinary education. The panel will include current students as well as recent graduates of the programme. With this discussion, we seek to illuminate students' perception of interdisciplinary education and problematize areas for discussion to be taken up in the prepared seminar (e.g. students' perception of skills, student competitiveness in the workplace, guidance from educators). In addition, we will promote the Lund University Teaching and Learning Conference 2019. And, with participants' permission, we may seek to record the prepared seminar as a bonus episode of the podcast to present the outcomes of the seminar.

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# Teaching and learning for critical thinking within interdisciplinary fields

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Critical thinking is an important aim of higher education, and it is a skill particularly important in interdisciplinary fields. I am proposing a seminar where, based on an initial text and some central discussion questions, we can discuss our experiences with teaching and learning in an interdisciplinary manner. The experience from sustainability-related teaching shows that addressing interdisciplinary challenges requires reflection about one's own educational background as well as about the complexities of the problems at hand. In a classroom with students from different disciplinary backgrounds, critical reflection about the limitations of the perspective one has been trained in is necessary. Likewise, complex societal challenges require insights regarding the multiplicity of variables involved as well as knowledge of the different methodologies and theories addressing these variables. Sustainability is only one of many interdisciplinary challenges where these issues come up in teaching and learning, and the seminar is open to anyone interested in teaching in interdisciplinary fields. The pedagogical questions I would like to raise are: How can we foster critical thinking in the classroom? Which methodologies exist, and how apt are they for this challenge? What are the opportunities created by teaching and learning in interdisciplinary settings? What are the specific challenges? And – what defines critical thinking? The aim of the seminar is to create a basis for improving teaching and learning for critical thinking at LU.

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## Short presentations in PechaKucha style

# Safety first! – Implemented patient safety education including interprofessional aspects of healthcare

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Medical errors are a significant global public health concern [1]. The topics of healthcare quality improvement have brought patient safety issues successively to the fore. In Sweden, a structured systematic work on patient safety issues in healthcare has evolved during the past two decades [2]. New patient safety laws were introduced [3, 4] and a systematic approach of the human error theory [5] has been fostered in the patient safety domain [2]. In contrast to the individual approach, the systematic approach explains other factors behind the error - besides the actions of individuals [5].

The WHO's Patient Safety Curriculum Guide for Medical Schools emphasises the importance of implementing patient safety in medical education as a basis for long-term patient-safe healthcare construction [1]. However, implementation attempts have faced both conceptual and operational challenges [6-8]. What is the appropriate content of patient safety education? How to bring abstract concepts and theory in practice and make them concrete and comprehensible? In which way can unpractised students reflect on this subject during preclinical terms? When to start such education and how to achieve learning progression?

General risk management and team-work skills are rarely incorporated into traditional medical education [1]. Instead, patient safety education is commonly focused on a specific task or practical skill. A macro perspective including knowledge about organisation and communication, as well as a broader perspective of common errors, is thus often insufficient or missing.

In order to illuminate both perspectives and integrate comprehensive patient safety related skills into medical education [9], Lund University introduced patient safety as a separate subject within the topic of Professional Development. Different pedagogical methods were tested and evaluated until a final method was accepted. Patient safety education is now incorporated into both preclinical and clinical courses. The model includes seminars about authentic cases regarding serious medical errors. The cases are analysed stepwise and discussed in a team until a working hypothesis has been reached. Students' critical thinking is stimulated while practising identification of medical errors, formulation of incident reports and perspective-taking of different healthcare professions and disciplines. These skills are crucial for their future interprofessional work.

Patient safety education at Lund University represents a method that could inspire other medical schools in the field. The model overbridges a gap between abstract theoretical knowledge and everyday practice in healthcare [6]. It reveals organisational, collaborative and interprofessional issues to understand the causes of medical errors [10].

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# Positivistic, irrelevant, or true? Challenges in teaching quantitative research methods

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## Abstract

In this paper, I discuss different challenges that course leaders face when preparing and planning an introductory course in quantitative research methods for students across the social sciences. On the basis of a literature review and observations from own teaching, I suggest that there are three types of challenges in teaching quantitative methods.

The first challenge refers to transferring knowledge between teachers and students, a challenge that is deduced from the different images that students and teachers have of the subject (DeCesare 2007). Quantitative research methods are surrounded by a range of different myths across the social sciences, which influence the teaching and learning process. Teachers typically believe that quantitative methods are tougher to grasp by student and that they fail to make teaching material relevant to students. Students of social science often perceive quantitative methods as difficult (Mulinari, 1999). The conflicting images of the topic, held by teachers and students, obstruct teaching and are difficult to control.

The second challenge is external and concerns students' different understandings of and skills in statistics when entering higher education (Condrón, Becker & Bzhetaj, 2018).

The third challenge involves teachers' varying approaches to statistics. While some teachers adopt a critical standpoint claiming that statistics are irrelevant, positivistic and do not provide a complete picture of a social phenomena, others claim that they are the only scientific methods.

In conclusion, I argue that a successful course in quantitative methods seamlessly needs to bridge conflicting images between students and teachers, as well as discrepancies in approaches among teaching colleagues. Failing to bridge conflicting images may result in misdiagnosing student anxiety creating a syllabus that aims to reduce anxiety even if it is not experienced as a problem (cf. DeCesare, 2007). Moreover, I propose a shift in thinking in how quantitative research methods are taught from the methods as such to learning how to build scientific knowledge in a reliable and valid way.

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## Round table discussions

# Research seminars as engaging learning environments – the case of the Urban Creativity Seminar

## Urban Creativity Lund

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This is an abstract for a 55-minute roundtable discussion about experiences with student engagement in research seminars.

From the beginning of October 2018 to the end of May 2019, we worked as a research theme at the Pufendorf Institute for Advanced Studies at Lund University.

A key part of our theme's activities was the Urban Creativity Seminar. During the eight months of our research theme, we held a total of 25 seminars, of which 20 were open to the public. An important aspect of the Urban Creativity Seminar was the interest we were able to build up for our theme in people from outside the group of core theme members. Over the course of the theme, and especially since January 2019, we experienced consistent interest from external participants in the seminars. These participants included researchers, people from outside the academic world and – notably – students from different master's programmes at Lund University (particularly the programmes in Global Studies at Social Sciences, and Visual Culture at Humanities and Theology).

We were particularly pleased with the interest from the latter group since students are an essential part of the academic ecosystem. Affording students the opportunity to engage actively in advanced research seminars can be seen as a form of learning by doing, where students get to engage in activities that are at the core of academic life and with cutting-edge research that often has not yet made it to publication.

What we are proposing here is a roundtable discussion about the potential(s) of research seminars as sites for student learning. The discussion will be initiated by members of Urban Creativity Lund research network as well as some of the students who have attended past Urban Creativity Seminars. We believe it will be interesting to discuss in this open setting focused on pedagogy a number of issues, including the following:

- Why do students choose to regularly spend their free time attending research seminars?
- What do students get out of research seminars (and how does that differ from regular course seminars)?
- What can be done to maintain/improve research seminars so that they appeal both to researchers and students?
- How common is it to include students in research seminars (higher seminars)?
- What benefits and challenges have been encountered when using research seminars as learning environments for students?

Complete conference programme found at  
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