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**Impact from pedagogical courses in relation to conversations about teaching and learning in
local work-contexts in higher education**

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Introduction

To offer pedagogical courses for academic teachers is a common way for institutions to enhance quality in education. For institutional leaders the question of impact is important: Do these courses influence how teaching is done in higher education institutions.

Such impact has been researched at great length over a number of years (Ho, 2000; Ho, Watkins, and Kelly, 2001; Gibbs and Coffey 2004; Condon, Iverson, Manduca, Rutz, and Willet 2016; Meizlish, Wright, Howard, and Kaplan 2018). Literature reviews (Stes, Min-Leliveld, Gijbels, and van Petegem 2010; Chalmers, Stoney, Goody, Goerke, and Gardiner, 2012) and editorials like Saroyan and Trigwell 2015) have led to a conclusion that *pedagogical courses for academic teachers have positive effects*.

However, not all courses deliver the same positive impact. For example, the design of the courses evaluated is often not made explicit in evaluative studies (Naidoo, Haigh, Holmes, Kuiper, O'Steen, Parker and Zeptke 2011; Stes et al. 2010). Leaving it somewhat open for interpretation which design is preferable. Another unresolved thing concerns the mechanism through which the impact is said to take place (Saroyan and Trigwell 2015).

There are other issues that indeed have been shown to play a part:

- Courses should be embedded in teachers' everyday practices (Saroyan and Trigwell 2015; Lamers and Admiraal 2018; Reimann 2018; Trowler 2008; Chalmers et al. 2012).
- Courses should aim for a cultural change locally within disciplinary communities or departments (Ginns, Kitay, and Prosser 2010; Van Schalkwyk et al. 2015; Trowler and Cooper 2003; Trowler 2008; Roxå and Mårtensson 2009; 2015; Roxå Mårtensson and Alveteg 2011; Burton 1998; 2009; Heinrich 2016).
- Courses should scaffold peer review critical dialogue among participants (Roxå and Mårtensson 2009; Roxå, Mårtensson, and Alveteg 2011; Van Waes, Van Bossche, Moolenaar, Stes, and Petegem 2015; Saroyan and Trigwell 2015; Centola 2018).
- Courses need to be of certain length, they need to be spaced out an interleaved. It takes time to impact pedagogical practices (Stes, Clement, and Van Petegem 2007; Stewart 2014; Chalmers and Gardiner 2015; Hanbury, Prosser, and Rickinson 2008; Stewart 2014; Bickerstaff and Cormier 2015; Postareff, Lindblom-Ylänne, and Nevgi 2007).

Even though this list is not comprehensive it still calls for continuous research considering impact from pedagogical courses.

Therefore, the project reported here relates most clearly to the first three bullet points above as we have investigated impact from a pedagogical course on early career teachers, especially how this impact relates to the collegial context where the participants are professionally active as teachers. It also relates to research by van Waes (2015) et al. who showed that pedagogical courses can affect academic teachers' personal networks as well as what they talk about.

It has been suggested (Roxå and Mårtensson 2015) that a university can be described as a patchwork of teaching and learning cultures. Groups of academics, typically from the same disciplinary community, over time develop teaching traditions that evolve into teaching and learning regimes (Trowler 2008). These are tacit assumptions about how to teach and about students, recurrent practices (this is how we usually do this), discursive repertoires on how to talk about teaching and students, and

inherent power structures organising the social life of a group of teachers. These local cultures are often resilient to external pressure.

Therefore it is important to investigate how early career academic teachers who have been participating in a pedagogical course interact with their respective working context as they “come back” from the course.

For analytical support Roxå and Mårtensson (2015) suggest a heuristic model for distinguishing or mapping local contexts. The heuristic consists of two dimensions that address the following questions: ‘do participants in the local context (called microculture) trust each other’ and ‘do they express a shared responsibility for the teaching conducted within the microculture’.

Roxå and Mårtensson (2015) argue that if teaching personnel within a microculture trust each other and also share a sense responsibility for teaching, the condition for informal conversations about teaching and student learning is favourable as compared to if one of the two conditions or both are not fulfilled. Therefore it is interesting to know whether participants describe their respective microculture as permeated by trust and perhaps also with a sense of shared responsibility for teaching. If both these conditions are fulfilled the microculture is of type A (figure 1 below). If only one condition is fulfilled it is of type B or C. If both are lacking, the microculture is of type D.

In microcultures of type A, members trust each other to have constructive intentions not only in teaching but also in conversations about teaching. Furthermore, they are also more or less expected to speak up to or even challenge something said by another member of the microculture, something that is mostly beneficial for informal learning of the entire workgroup. In a microculture of type C, members are not expected to speak up to or even challenge something said by another member.

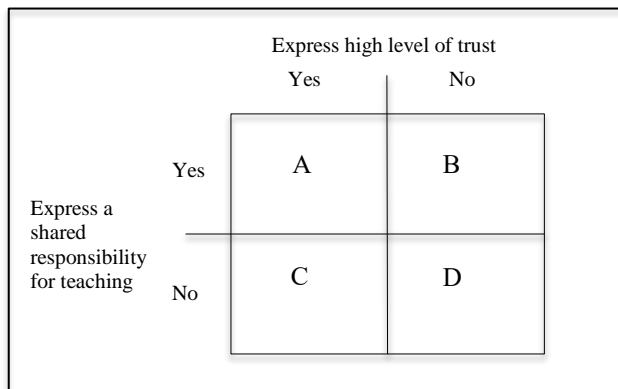


Figure 1. Four ideal types of microcultures in relation to teaching, learning and trust

It is assumed that participants in a pedagogical course belonging to a microculture type A will encounter a different and much more positive response to ideas and innovations brought from the course than would participants belonging to another type of microculture. Colleagues from C would probably listen with interest but then continue to teach their own way. Since members do not share responsibility for teaching, there is no need to really engage in what is said by others. In B, colleagues would be sceptical, perhaps even openly hostile. Since colleagues share responsibility, it means that if one member changes teaching methods this will also affect other members. A younger colleague participating in a pedagogical course would not necessarily be met with interest and encouragement. In C, colleagues would not pay attention. A former participant in pedagogical courses would have the opportunity to change the teaching he or she is responsible for, as long as he or she does not interfere on anyone else’s territory, if so, negative comments would probably follow.

Furthermore, it has been suggested that sincere conversations among trusted colleagues in groups of academic teachers relate to how they define their respective pedagogical reality. It is through these

private significant conversations that conceptions of teaching and learning are being constructed, maintained, or changed (Roxå and Mårtensson 2009). Therefore significant conversations are of specific interest in educational development. A pedagogical course might offer inspiration and open up new ways to think about teaching and learning, but it is during conversations with significant others about specific teaching and learning experiences that reinterpretation of the pedagogical reality may occur. Therefore, while exploring impact from pedagogical courses it is of special interest to explore the relationship between the experience of pedagogical courses and collegial conversations on teaching and learning.

For the purpose of exploring whether pedagogical courses impact conversational patterns within local collegial contexts, the following research questions have guided the investigation:

RQ1: To what degree do participants rate their local working context supportive of pedagogical conversations?

RQ2: With how many individuals do the participants have sincere conversations about teaching and learning and how many of these are found within the local workgroup?

RQ 3: How do these conversations change over time, that is, how are they influenced by pedagogical courses and other educational development interventions?

Research contexts and material

This research originates from data collected at two different higher education institutions.

Lund University Faculty of Engineering (LTH) comprises approximately 9,000 undergraduate and Master's students, 700 PhD students and some 800 academic teaching staff. Two thirds of the entire budget for the Faculty comes from competitive research grants enabling the Faculty to be recognized by the Times Higher Education Rankings among the top 100 institutions globally.

University of Tartu has roughly 7,800 undergraduate students, 3,800 Master's students and 1,200 PhD students. The number of academic staff is approximately 1,40. Tartu University is on the 301–350th place in Times Higher Education rankings 2019 and is the only Estonian university mentioned in the QS World University Rankings belonging to the top 5% of best universities.

Origin of research material

We use three separate materials for this research. Two of these are interviews conducted with participants who took part in pedagogical courses for PhD students at least 6 months prior to the interview. 13 interviews were conducted at University of Tartu. In Lund 14 volunteering participants answered an initial survey and six of these participated in a follow up interview.

The third material was collected at the end of a pedagogical course in Lund in 2003, where 20 former participants in a pedagogical course responded to a survey. All three parts of the entire material focus on conversations with colleagues about teaching and learning in the light of respondents having participated in a pedagogical course. An overview of collected data is presented in table 1.

Table 1, types of material

Material	N	When collected	Type of material	Pedagogical course
A) Lund/LTH	14/6	2017	Survey/Interview	120 h, mandatory for PhD students
B) Tartu	13	2018	Interview	160 h, voluntary for PhD students
C) Lund/LTH	20	2003	Survey	200 h, voluntary for experienced teachers

Material A) Lund/LTH Pedagogical courses at LTH have been offered to academic teachers and PhD-students (whom all teach 20 % of their time) for more than 25 years. First these were offered on a voluntary basis but later, from 2003 they became mandatory. Currently all teachers are mandated 200 hours of pedagogical courses. This training is offered as a set of pedagogical courses, each about 80 – 120 hours long and normally spread over a period of two to three months.

All courses normally focus on a developmental project where participants are expected to develop one of their regular courses for students. The projects (done individually or in groups) are reported as a piece of scholarship of teaching and learning and made public within the faculty. To date a searchable database with about 600 reports contain all accounts written by teachers in LTH for other teachers in LTH about teaching and student learning.

Besides this development project, seminars introducing educational research concepts and perspectives are offered to participants as resources to derive from while reflecting on their own teaching experiences.

The pedagogical course researched for this project is a mandatory course for PhD students, *Introduction to teaching and learning in higher education*. It is offered four times per year with a cohort of 25 participants each time and requires 120 hours of work for participants extended over eight weeks. Since many PhD student at LTH do not have Swedish as their mother tongue the teaching language is altering between Swedish and English. The course comprises of three parts. 1) A group projects where participants chose a topic of their own interest and with relevance for teaching in higher education (typically: how to engage students in lectures, how to encourage students to prepare for labs, or how to encourage functioning group work among students). The project report is peer reviewed and made public to all staff within LTH as a piece of scholarship of teaching and learning. 2) An individual reflection piece where students describe a situation they have been part of and then analyse this situation with the help of concepts and perspectives introduced during the course. 3) In class seminars and discussions (including a peer teaching activity) where material from educational research is being introduced and discussed. This material is centred on concepts like approaches to learning or constructive alignment.

Material B) Tartu The pedagogical course at University of Tartu started in 2005. The course has remained voluntary as the university leadership recognised that perhaps not all doctoral students see their future career at the university working as lecturers. Doctoral students do not have a requirement to teach at the university, they can take part in research projects and receive scholarships or stipends from research grants to supplement their doctoral allowance. The pedagogical course for doctoral students “Learning and teaching in higher education”, 6 ECTS (160 h) was renamed 2018 to “Learning, teaching and supervision”. The course is one semester long and has a blended learning approach. The course is based on the following principles: learning-centeredness, experiential learning and reflection. The course is offered in Estonian and English language.

The course participants meet once a month for two days resulting in a total of 8 face-to-face meetings. Between these meetings, learning takes place in the virtual dimension, participants do independent work in the e-learning environment Moodle. As students often work during their doctoral studies, organising the course as blended learning offers flexibility and allows working and out-of-town doctoral students to participate.

There are four assessments in the course: a syllabus, mini-lesson, workshop and a learning portfolio. To demonstrate their understanding of the concepts such as constructive alignment, principles of assessment and student engagement, participants create a course plan (syllabus) or revise an existing course plan following the learning-centred learning approach, constructive alignment and assessment

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for learning principles. They are also asked to offer peer feedback to each other's course plans, which allows them to demonstrate their skills in giving formative feedback.

Course participants have different backgrounds. As this is an elective course that is offered university-wide, students come from all fields (faculties) – social sciences, humanities, natural sciences, mathematics, IT, and medicine. Guest students from other Estonian universities also participate including, for example, Estonian University of Life Sciences, Estonian Academy of Arts and Tallinn University.

Material C) Lund/LTH Pedagogical courses at LTH exist since 1992. They were initiated with the aid of external money and governmental directives. The particular course from which material C originates was a course for experienced academic teachers in technology and engineering. Its aim was to inspire individual teachers to think differently about teaching and learning. The course was made up of peer-teaching sessions and a developmental project performed and reported in groups. It required 200h of work from the participants and lasted for approximately one semester. It was offered annually from 1994 for 16 to 20 participants in each cohort.

How material was collected

Material A) Lund/LTH The investigation was divided into two stages, one where the volunteers answered a survey about how they rated their local contexts in terms of supportive or not supportive towards pedagogical discussions and one subsequent interview where deeper aspects of these conversations were explored. Of totally 25 participants in the course, which was offered in Swedish, 14 volunteered to the survey (7 males and 7 females). Out of these 14, six volunteered for the interview six months after completion of the course. All these six had been active as teachers since participating in the pedagogical course.

Interviews were conducted as semi structured interviews by two interviewers and lasted for about 30 – 45 minutes. They were recorded and transcribed verbatim (except respondent 1 where due to malfunctioning recording, the material is a written summary of the interview authored by the two interviewers jointly immediately after the interview). All interviewees came from disciplinary areas related to technology and engineering.

During the interview one interviewer took the lead while the other took notes and made some complementary questions at the end of the interview. Immediately after the interview the two interviewers during a joint debrief summarised impressions from the interview and thereby started the analysis with the interview in mind. The transcribed interview as well as the debrief, constitute material B.

Material B) Tartu. Two cohorts who had completed their pedagogical course in 2016 and 2017 were invited to participate in a post course interview at least six months after the end of the course. Both participants who had completed the course in the Estonian language and in English were targeted. Only participants who had teaching duties after the course were invited.

Similarly to the study conducted at Lund University, the data collection was organised in two stages. Course participants were first asked to write answers to open ended questions in the beginning of the course and secondly to elaborate more during an interview.

13 participants volunteered for the interview. Eight were female PhD students and 5 male. The background of the interviewees was diverse: the participants came from the faculty of Social Sciences, as well as Humanities, Medicine, and Science and Technology. The interviews lasted from 30 minutes to 2 hours. Interviews were recorded with the permission of the participants and transcribed verbatim. One interview was recorded only partially due to malfunctioning of the voice recorder. All interviews were conducted in Estonian and were focused on RQ1 – RQ3.

Two interviewers were involved – one taking the lead while the other took notes and asked additional questions during the interview. After the interview, the two interviewers discussed the interview and reflected in the research journal. As a result of these discussions, some interview questions that seemed not to work very well were revised for the next interview.

Material C) Lund/LTH

In 2003, 20 academic teachers responded to a survey after having participated in a course similar to the one discussed above. The course content was similar, a project formed the backbone of the course and the explicit purpose was to offer participants intellectual tools through which they could understand the teaching and learning process better. One major difference between this material and the other two is that this course recruited experienced teachers who had all been teaching for 5 – 15 years.

The survey asked questions related to thinking and talking to colleagues, using or not using concepts and perspectives discussed in the course. It consisted of five questions where respondents indicated whether they agreed or disagreed with a statement (Q1) or whether they would answer a question yes or no (Q2-Q5). They were then invited to comment on each question.

- Q1 The course has given me more words to use while thinking and talking about educational issues.
- Q2 Do you use these words while thinking about your own and others' courses?
- Q3 Do you use these words while talking to colleagues about teaching and/or student learning?
- Q4 Do you hear others use these words while talking about teaching and/or student learning?
- Q5 Is there a difference in choice of words if you have attended the pedagogical course or not?

The three materials, albeit initially appearing disparate offer certain advantages in an exploratory study like this. We gain a temporal perspective, not only because of material A) and C) both originates from LTH, but also with material B). Tartu has been offering pedagogical courses since 2005, it is likely that this institution places itself in between the Lund material A) and C) in regard to an evolving conversation on teaching and learning. This makes it possible not only to understand how three groups of academic teachers participating in a pedagogical course are influenced as individuals and in relation to colleagues, but we can also extract an illustration of how these processes may develop over time. It is likely that participants will to engage in conversations on teaching and learning, and their opportunity to do so changes as the teaching and learning culture wherein they find themselves evolves.

Furthermore, since the material is collected at three different times with slightly different methods but focusing on the same aspects they allow for a variation in results that can offer new insights in a previously under researched area, impact of pedagogical courses on conversations about teaching and learning in higher education.

Results

Result A) Lund/LTH Former participants in the pedagogical course in Lund consider their respective local context as supportive to very supportive of conversations about teaching and learning (see table X below). 13 respondents rate their respective contexts as supportive (average of 4.2 where 5 means very supportive of, and 1 means hostile to pedagogic conversations). Our six respondents being interviewed all report having at least two conversational partners within their subject workgroup.

In table X) below it is shown that out of 14 volunteering for the investigation, 13 answered the initial survey question: "How supportive do you find your working context towards pedagogical conversations?" (Possible answers were: 1- not at all supportive all to 5 – very supportive.) The distribution of 13 answers collected span from 3 to 5, with an average of 4.2.

Six out of 14 participants volunteered for an interview. During the interview all six respondents reported having conversational partners both within their respective subject workgroup, but also in the wider organisational context (Table 2). The total number of conversational partners varied from 2 to 10 (average 6.5), whereas the respondents reported having an average of 4 conversational partners within the subject workgroup.

Table 2. Characteristics of local working contexts in relationship o conversations on teaching and learning and the number of conversational partners for each interview per their subject work group

Respondent	Supportive vs. not supportive 1 – not supportive 5 – very supportive	Participated in interview	Number of conversational partners	Where are these found: a) subject workgroup, b) wider department, c) university, d) elsewhere.
1	n.a.	Yes	8	Subject workgroup (5) Department (3)
2	4			
3	5	Yes	6	Subject workgroup (2) University (1) Elsewhere (3)
4	4			
5	3			
6	4	Yes	10	Subject workgroup (7) Elsewhere (3)
7	3			
8	5			
9	5			
10	4	Yes	2	Subject workgroup (2)
11	5	Yes	7	Subject workgroup (5) Department (2)
12	4			
13	4	Yes	6	Subject workgroup (3) Department (2) Elsewhere (1)
14	4			

According to an analysis after respective interview by the two interviewers jointly, following ideal types of microcultures suggested by Roxå and Mårtensson (2015) and described in Figure 1, the interviewees all but one described working context matching microcultures of type A (Table 3).

Table 3: Type of microculture of the interviewee. Source: the analysis made by the two interviewers based on the interviewees' descriptions

Respondent	1	3	6	10	11	13
Described microculture	C	A	A	A	A	A

During the interview, after having indicated where the respondent found their respective conversational partners, the interviewee were asked to elaborate on one recent significant conversation on teaching and learning together with someone from within the subject workgroup.

In this extract, respondent 13 describes how students this year (2017) failed to understand a specific concept, something her colleagues had concluded from earlier conversations. It became apparent in assignments students had submitted. “There’s definitely one concept that is really hard and one of these hand-ins is about, or, this concept is included in the hand-in. and we noticed that, when the students, eh, had given us the, eh, their hand-ins, and we read them through, they had, they didn’t understand... But the three of us [colleagues] had a conversation and we tried to really, tried to find a very concrete example. And tried to really describe it very well. We wrote it down and we, ye, sent it to each other to try to really find a, an explanation that worked.” (R 13)

In another example, respondent 6 talks about a piece of subject matter that students have a hard time understanding. “Yeh, I mean we, eh, especially now when we have this course, as soon as one of us, one of our eh, the tutors eh, meet, by the coffee machine or anything, we discuss... We just discuss something like, I used to have this course, and they wanted to I, ye... they really had a trouble understanding this, and like, and they sort of understand, because a lot of people get caught up on the same things, and ye... So now, when we have it there, a lot of them...” (R6)

The overall picture described by the six respondents is that teaching and student learning is discussed locally in collegial groups from the same disciplinary community. These discussions are sometimes general but sometimes focusing on very specific disciplinary terms and concepts students struggle with. Furthermore, the interviews reveal that these conversations are frequent, spontaneous, and intensive.

Impact from the pedagogical course

Answering a question on how the course has influenced them, the respondents generally describe the influence as small. It may have influenced thinking a bit but not dramatically. Respondent 13 describes a limited impact but also how the course became meaningful in relation to a specific teaching assignment, recording a video lecture for students. “Eh... I would say I, I’ve, started thinking a bit more about teaching I would say. Especially when recording the video lecture I would say. Eh, because that was a point where I had to really figure out how to, translate everything eh, into being more understandable for the students and so on. So I think there, I used some of the experiences that I got during the course.” (R 13)

Respondent 11, mentions that he, as a result of the pedagogical course, started to reflect on how to give feedback to students. “I came to think about, a little bit, this... to start by offering something positive, before one... he he ... before the critique.” (R11)

The pattern appearing is that the course does not add that much, rather the respondents describe it as inspiring and positive, generally confirming things that have already been said and done within their local contexts. “I think it was more confirming old ideas, but also, ehm... to trigger, trigger the thoughts or..... to start thinking about it, that it, it was not something radically new.” (R3)

Result B) Tartu

As uncovered at University of Tartu, most frequent conversations occur with doctoral students who work in the same office. Fellow doctoral students from the same field but from a different institutions were mentioned often as conversation partners. Respondents say they are easy to meet at various events (courses, summer schools et cetera) or just occasionally, for example in the corridor.

Fellow teachers (or co-teachers) were mentioned, too. These conversations focused on how to design and teach the course together and what kind of learning and teaching concepts to apply when teaching the course.

Conversations with supervisors were described in two ways. Some doctoral students had supervisors who were interested in learning and teaching and talked about it with their doctoral students. Those

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participants described having meaningful conversations with their supervisor. Sometimes participants shared new ideas with the supervisor and gave advice to the supervisor to make some changes in his/her teaching.

“Mostly we talk (with the supervisor) about similar things as he has had to change his subjects recently, he asks for my advice for it. So yes, it has been the other way around – I have not been asking advice from the supervisor but he from me. Because I have a fresh perspective.” (Natural Sciences)

Other participants described their supervisor as not interested in teaching. He or she was described as being so overwhelmed that they had very few conversations even about the dissertation, not to mention teaching and learning. Some participants expressed that the supervisor is such a terrible teacher that it does not make sense to talk about teaching and learning with him/her. Those respondents who did not talk about teaching and learning with their supervisor however expressed their wish to do so.

“The thing with the supervisor it that I absolutely do not like the supervisor’s teaching style at all. Very boring. I do not talk to him much because when he has seen some of the things I do, he obviously likes them, but his own attitude has always been like “Oh, don’t worry. Use these old slides and it’ll be fine!”” (Natural Sciences)

Program leaders were also frequently mentioned – these conversations had mainly practical nature focusing on finding a balance between learning centred or content centred approach to teaching.

It is clear that conversations continued with others who participated in the same pedagogical course. One group organized a Facebook group where discussions about teaching and learning continued. Interviewed doctoral students emphasised how easy it was to discuss teaching and learning with fellow participants in the pedagogical course as they share the same experience from the course and a language (professional terminology) of learning and teaching. They also described conversations with doctoral students from previous groups of pedagogical course.

“Those who have completed the course, they have a clear overview what different interactive methods there are, how to create an effective learning outcome, what are those evaluation methods - when we talk about formative assessment and summative assessment, their proportions, principally those things. That those people, who have not taken the course may not understand the terminology and cannot approach this as systematically. But with them it has always been that... in the beginning you describe, talk, use those terms and then the person understands and thinks together with you. Maybe yes, this systematic approach has always been the key word, but that you know that there is a problem but now you can name it precisely or use those terms. “ (Social Science)

The respondents also described conversations with family members (wife, husband, brother). Some of them worked at the university or were otherwise familiar with university context and had a pedagogical background.

Students were also mentioned as conversation partners. As doctoral students were teaching the course for the first time they valued spontaneous feedback from students just after the seminar or lecture. They discussed tasks and themes with students and made changes in their teaching based on students’ suggestions.

Interviews also revealed that the participants would like to have more conversations about teaching and learning. For example with people from educational field (higher education pedagogy) to continue

after course. They wished to test ideas together with pedagogically competent colleagues in order to get new ideas when they have questions. One respondent wanted to initiate more discussions about teaching in the society – to initiate discussions about university teaching in the media and to convince people how important these issues are.

The content of the conversations

Interviewees stressed that one important theme of their conversations with fellow doctoral students or colleagues were about teaching strategies: what kind of teaching strategies to use to engage students, how to design seminars, what kind of tasks could work for students. They also discuss students' feedback and critical incidents. As the family members of some doctoral students have also pedagogical background or teach at the university, doctoral students share teaching strategies, new teaching methods, test new ideas and ways of explaining complex themes also with their family members. Other themes concerned curriculum design and the importance of student centeredness or constructive alignment.

While co-teaching with a colleague, respondents point out the importance of negotiating teaching and learning concepts before starting co-teaching. In their opinion it was important to share the same teaching philosophy, to have meaningful discussions about course design, learning-centeredness, nature of assessment, et cetera. Respondents stressed that it was easier to share ideas with colleagues who are interested in change, while colleagues' age does not affect the nature of those conversations.

One important issue in conversations with colleagues was student feedback – to find reasons why certain feedback was given and what kind of changes they might plan based on students' feedback.

Teaching is also an emotional process and the study revealed that doctoral students share their emotions and critical incidents with their family members the most. Husband or wife is often the main person to share emotional reactions with – to share success stories, as well as stressful events. Reflections on personal teaching skills often take place with family members, too.

One very exceptional situation was when a doctoral student had to support his colleagues in grief (mourning) after a sudden death of a close colleague. The doctoral student had sufficient professional preparation to guide conversations with emotionally shocked colleagues.

The place where pedagogic discussions take place

Respondents emphasised that conversations start randomly – conversational partners work in the same office or they meet in the corridor. "I'm not going to the next room for the discussion about teaching, when there is somebody present in my room, then we will talk".

Respondents express that they miss a coffee room for informal conversations. One respondent had organised a space by herself for informal meetings, however this did not work. Conversations in the car after a workshop were mentioned – a trip back home created an atmosphere suitable for significant conversations. Other venues mentioned were during evenings at summer school, conversations that initially were about the doctoral thesis but ended with discussions about learning and teaching. Some respondents participated in formal meetings concerning curriculum design where they were expected to discuss learning and teaching issues.

Impact from the pedagogical course

According to the participants, the course influenced the nature of pedagogical conversations and introduced a new and more efficient language to use when thinking or talking about teaching and learning. In some contexts the participants brought new ideas back from the pedagogical course to their department with the intention to share these. It is easier to do so, the respondents claim, after the course since they now have a language to express their thoughts. In addition, it is easier to have

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conversations with people who attended the same pedagogical course – you talk the same language and you share the same pedagogical values.

“Before it was much more obscure, that you do not know how it works or what options you have and then you... this course helped to think about those topics more systematically. And the thoughts became clearer, so it was more understandable.”
(Social Science)

“So yes, this teaching and learning in university course, it gave me meaning – what I want that students would do in organics; it also gave my work, my teaching meaning. I had never thought about it like that.” (Natural Science)

In some cases the respondents had become agents of change in their respective unit, or at least a supporter for the concept of student centeredness in conversations about learning and teaching.

Result C) Lund/LTH

This material is from 2003, in contrast to material A and B. Here, 20 experienced academics answer five specific questions related to whether the course contributed to how they think and talk to colleagues.

Table 4.

Questions	Response (average) n=20
Q1 The course has given me more words to use while thinking and talking about educational issues? (1-dissagree; 5-agree)	4.85
Q2 Do you use these words while thinking about your own and others' courses? (1-never; 5-often)	4.45
Q3 Do you use these words while talking to colleagues about teaching and/or student learning? (1-never; 5-often)	3.85
Q4 Do you hear others use these words while talking about teaching and/or student learning? (1-never; 5-often)	2.6
Q5 Is there a difference in choice of words if they have attended the pedagogical course or not (1-no; 5-yes)	4.35

It is clear from table 4 that the course offered terminology and perspectives useful for the individual teachers while reflecting on educational issues. It is also clear that respondents do not hear others using similar terminology during everyday conversations. There is also a weak indication that those colleagues who have not participated in the course do not use this terminology.

In the survey undertaken in 2003 participants were invited to write open-ended comments to all questions. In general these comments concern the shift in language. The course provides a language, which can be used for analytical purposes while reflecting on teaching and learning. It is also clear that while talking to the colleagues the respondents differentiate between those who have attended the same course and not. In conversations with the former group the respondents use the language introduced in the course, otherwise not. Below are some comments that reiterated (and translated from Swedish)

“In principle I use the concepts and perspectives while talking to those interested in educational matter. Definitely less with those who never heard of deep and surface approach to learning, taxonomies, motivation, and students’ maturation at university.” (R6 – Q3)

“It is much harder to participate in conversations if you have not participated in the course, due to lack in terminology.” (R1 – Q5)

“To reflect not only over pedagogy but also over learning give cause to a change in personality. At the same time, it becomes harder to talk to colleagues about teaching and learning, if they have not participated in the course. They have a different perspective.” (R5 – Q5)

“I think we are very aware of who has participated in this course – it’s like a somewhat secret society emerging.” (R13 – Q5)

“Those who have not participated in the pedagogical course don’t know what you’re talking about when you use terms and perspectives from this course. They have not yet gained a pedagogical perspective on themselves as teachers.” (R18 – Q5)

Discussion

In this section, we address the research questions one by one and continue discussing the temporal aspects of impact from pedagogical courses.

RQ1: To what degree do participants rate their local working context supportive of pedagogical conversations?

It appears a dramatic difference between material A (LTH 2017) and C (LTH 2003). In 2003 the participants from Lund express that they know who has participated in the course and who has not and that they need to adapt to this. In 2017, respondents indicate that conversations about teaching and learning are supported at Lund. In material B (Tartu 2018), some participants appear to find themselves in context where conversations about teaching and learning are welcome, other do not.

RQ2: With how many individuals do the participants have sincere conversations about teaching and learning and how many of these are found within the local workgroup?

Only material A (LTH 2017) provides any information on this. On average participants have 4 conversational partners within the subject workgroup. This can be compared to Roxå and Mårtensson (2009), where respondents from the same context (LTH) reported having on average of 1.9 conversational partners within the same discipline.

RQ 3: How do these conversations change over time, that is, how are they influenced by pedagogical courses and other educational development interventions?

This is a complex question and requires from us to draw on all three materials. Results clearly illustrate different situations as described by the respondents. In material C (Lund 2003), respondents are selective in their choice of a conversational partner. They emphasise the importance of language and that you need this terminology to be able to talk effectively about teaching and learning. They also

indicate that those who can speak the language are in minority, “it like a secret society emerging” (R13).

In material B (Tartu 2018), some participants describe that they have fellow PhD students to talk to and that they can have sincere conversations with their supervisor. They appear to be more expansive with their newly gained knowledge and language expressing ambitions to create spaces for conversations on teaching and learning and to engage in wider debates about the importance of these issues. Other participants express a greater cautiousness with their ambition to discuss teaching and learning. They appear more isolated in terms of having colleagues to talk to.

In material A (LTH 2017) the situation is different. Here conversations appear to be happening already before the respondents became PhD students. They describe the conversations as a natural phenomenon, something that appears to have been institutionalised long time ago.

We understand the three materials we have analysed here as an overall development in relation to conversations about teaching and learning. The metaphor coming to mind is the one of a culture that evolves from an early stage of ancient change, towards an evolving culture where some context has changed while others have not, into a mature state where the change has taken place.

In an early state (material C), participants in a course are inspired, even transformed, but they also form a minority where it is natural to be selective in what language you use. At this stage the pedagogical course is not only inspiring but also affects identities and the participants’ view of themselves in relation to their colleagues. At this stage it is individually rewarding to attend the course but also somewhat dangerous. Thus, the impact from the course is best expressed in individual terms.

In the evolving state (material B) participants describe how the course enables and inspires them to take initiatives, to act as change agents. For some participants this appears as a possible and good thing, while for the others such an ambition would be daunting. Impact from the pedagogical course is dependent on the local microculture to which the participants belong. Thus, the impact from the course can be expressed in terms of the relationship the individual participant has with his or her workgroup or department.

In the mature state (material A) participants describe how the course confirms what they experience already within their respective local context. The perspectives and concepts with the accompanied language used in the course do not carry any drastic novelty. They express no hesitation in using these while talking about teaching and learning with fellow PhD students, supervisors, or senior colleagues. At this state of development, the pedagogical course is no longer transformative for the individual, not even enabling, it appears more like an institutionalised component of a system that is taken for granted.

In sum, the above development can be expressed as follows: in the early state, the impact from attending a pedagogical course is both radical and somewhat risky for a participant. In the mature state, the impact from not having attended the pedagogical course can be radical and also somewhat risky. Whereas in the first case, we can speak about the impact from *having* participated, in the second case impact results from *not having* participated.

The above described metaphor for change at a superficial level appears similar the one proposed by Lewin (1947), where he suggests a three-stage change model: Unfreeze, change, refreeze. The idea is that social contexts can be characterised as having a natural inertia, things are stable, when change appears, this stability becomes unfrozen, the second phase is a phase of confusion and even anxiety, in the third phase things freeze again into a new kind of inertia.

However tempting this model appears, we suggest it to be delusional as it only works while observing change from afar. For academic teachers or PhD students who attempt to find ways to express insights

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from a pedagogical course within social contexts that react in various ways, things are always more complicated.

It is also complicated for educational developers to use this insight that impact from a course varies in relation to the cultural context wherein it exists. Should pedagogical courses therefore be designed in different ways depending on how far the development has gone? Or as is the situation in Tartu, should the pedagogical course look differently for participants who have supportive contexts than for the participants who have not?

We suggest instead that caution is necessary. This research draws on three different materials and suggests a somewhat new way to look at impact from pedagogical courses. But the ideas proposed most likely have to be tested under more coordinated conditions. Having said that, though, we strongly suggest a widening of the impact-from-pedagogical-courses-literature to include a clearer element of relationship with the local contexts from where participants are recruited.

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