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# Multidisciplinary peer-mentoring groups facilitating change?

A critical educational praxis perspective

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## ABSTRACT

This article discusses the potential of multidisciplinary peer-mentoring groups to facilitate individual and institutional change. To do this, we view peer mentoring as a form of *critical education praxis* (Mahon et al. 2019), the purpose of which is to create a space for reflexive thinking and asking critical questions. The data were collected by interviewing all thirteen participants – doctoral students and more established scholars – of a multidisciplinary peer-mentoring pilot project. The results show a variety of both individual changes and desired changes within the university, which were brought into view as a result of the sharing of experiences, views and ideas in an open, confidential, multidisciplinary space. Based on these results, we argue that multidisciplinary peer mentoring has a high potential to offer an excellent space for collaborative, critical dialogue, which could ultimately facilitate change among individual academics, but also potentially more widely within higher education institutions.

## KEYWORDS

academic work, doctoral education, educational praxis, multidisciplinary, peer learning, peer mentoring

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The pressure that contemporary academics experience is enormous, as academic work is increasingly governed by the ideals of managerialism – the growing competition for funding and measuring by numbers (Deem and Brehony 2005; Kallio et al. 2016). The increasing demands, along with societal and economic pressure, are not least experienced by doctoral students at the beginning of their academic careers. To smooth the path towards completing a doctorate, universities have invested heavily in doctoral supervision. As David Boud and Alison Lee (2005) assert, however, this is not sufficient:





to respond to the numerous policy pressures on doctoral education, a new discourse and focus on pedagogy is needed. For this, Boud and Lee have suggested the frame of *peer learning*. This is accomplished by pedagogy being reconceptualised as something that is ‘distributed’ or ‘horizontal’, rather than ‘vertical’, in terms of responsibilities, agency, and the research environment. Specifically, by ‘distributed’ learning Boud and Lee (2005) refer to an earlier notion presented by Mary Lea and Kathy Nicoll (2002), according to which learners have access to opportunities that do not necessarily require a supervisor’s involvement. Instead, different learning and development activities expand to encompass the entire research environment and support beyond the department. As a pedagogical discourse, ‘peer learning’ involves learning with and from peers (students, co-workers, other researchers, and collaborators either within or outside the university). Moreover, peer learning entails the idea of reciprocity – it is a two-way rather than a one-way process (Boud and Lee 2005).

‘Distributed’ responsibilities and ‘peer learning’ can include participating in different types of mentoring activities, which many universities offer to support both their students and staff (Bristol et al. 2014). Mentoring has been seen to be highly beneficial, not just for doctoral students but for all academics (Henrich and Attebury 2010; Paglis et al. 2006; Thomas et al. 2015), as well as for universities as institutions (Bozionelos et al. 2011; Noonan et al. 2007; Schmidt and Faber 2016). Moreover, mentoring can facilitate institutional change (Angelique et al. 2002; Gibson 2006; Thomas et al. 2015; Tran 2014). In one example, as a ‘collective voice’, the mentoring participants managed to influence department heads in order to gain additional funding (Angelique et al. 2002). In the study by Nicole Thomas et al. (2015), peer mentoring of women faculty served as a way for them to shape the institutional culture; to develop existing policies and practices towards being more supportive of female faculty.

In this article, we examine the change that *multidisciplinary* peer mentoring can potentially bring about. Although it has been found that multidisciplinary peer mentoring (in pairs or small groups) can offer powerful support for new academics by capitalising on the individual knowledge and diversity of the participants (Kensington-Miller 2017), different types of changes have not been exhaustively discussed in the previous literature (for an exception, see related works by Walker 2001; Willett 2013). Our research questions are as follows:



1. What types of individual changes result from participating in multidisciplinary peer-mentoring groups?
2. What types of institutional changes regarding academic work do the participants think should take place?
3. What are the main contributors to the participants' experiences and perceptions regarding change?

To answer these questions, we viewed peer mentoring through the lens of *critical educational praxis*, 'a kind of social-justice oriented educational practice/praxis, with a focus on asking critical questions and creating conditions for positive change' (Mahon et al. 2019: 464). Kathleen Mahon et al. argue that if universities want to fulfil one of their most important functions, *civic purpose*, they need to foster praxis. This, the authors argue, can only be done if higher education institutions offer space for critical educational praxis to happen. For creating conditions for such space, multidisciplinary peer-mentoring groups seem to be a promising practice.

## The role of mentoring in higher education

Within the higher education context, mentoring is a contested space: it is understood differently depending on institutional as well as geographic traditions (Bristol et al. 2014). In fact, there is no widely accepted definition of mentoring (Crisp and Cruz 2009; Miller 2002). Mentoring has been used by some researchers to describe a set of specific activities (such as providing advice) conducted by a mentor, while others have defined mentoring in relation to a specific concept or process (Crisp and Cruz 2009): for example, Andy Roberts (2000) lists mentoring as being a supportive relationship, a helping process, a teaching-learning process, a reflective process, a career-development process, or a formalised process, as well as being a role that is either constructed by or for a mentor. However, some agreement on the features of mentoring exists (Crisp and Cruz 2009; Jacobi 1991): mentoring relationships focus on the growth and accomplishments of an individual (Ehrich et al. 2004); mentoring experiences might include different forms of support related to career development, psychological support and role modelling (Brown et al. 1999; Davidson and Foster-Johnson 2001); and mentoring relationships are personal, as well as reciprocal (Davidson and Foster-Johnson 2001), although the benefits are often different for mentors and mentees in the mutual interaction. According to Monika Govekar-Okoliš



(2018), the essence of mentoring is the recognition and development of an individual's potential: the mentors help the mentees to acquire insight and to understand their own experiences.

According to a definition by Jane Andrews and Robin Clark (2011: 24), peer mentoring is 'reciprocal peer support and learning ... [whereby] ... peer mentors help newer students settle into, and succeed at, university'. Furthermore, Andrews and Clark state that peer mentoring can be used to help students at the start of their studies, when they are not quite yet part of the community. However, after a transitional period, peer mentoring might also help students navigate the challenges they face with any aspect of academic life. Definitions such as this, however, entail the idea that the mentee, whether the mentor's peer or not, is 'a novice' who needs guiding into their new role (Darwin and Palmer 2009). The newer conceptualisations of mentoring, by contrast, are more flexible: mentoring partnerships transcend space and/or geographical locations or groupings based on career stage, gender or race. They also challenge the linear flow of knowledge from experienced to inexperienced (Bristol et al. 2014).

Flexible mentoring partnerships are also more responsive to the particularities of mentoring, thus answering the needs of both the professional and personal lives of the participants. Mentoring is reciprocal, dynamic and dyadic, and it extends within the borders of departments or institutions and is not constrained by time (Bristol et al. 2014; Govekar-Okoliš 2018; van Eck Peluchette and Jeanquart 2000). In this article, we use the definition of 'peer' provided by Boud and Lee (2005), according to which peerness does not have to mean that there are no differences between peers. In other words, doctoral students and more advanced scholars can be peers, as long as the relationship entails the idea of sharing and learning from each other. In the context of doctoral education, for example, doctoral students enjoy quite a special role: on the one hand, they are 'students' who are 'studying' to become professional researchers. On the other hand, they are also part of the research groups, and sometimes also university faculty or staff, giving them the same privileges and responsibilities.

Several studies have shown the benefits of mentoring for both individuals and institutions. The benefits have been found to be significant especially for specific groups, such as doctoral students (Curtin et al. 2016; Knight et al. 2018; Noonan et al 2007; Paglis et al. 2006), women faculty (Gibson 2006), women in STEM fields (Thomas et al. 2015), or women of colour (Tran 2014). Additionally, there are studies which extend beyond individual benefits and

address the effect of mentoring on an institutional level. For example, mentoring has been reported to increase faculty motivation (Bozionelos et al. 2011) and performance (Noonan et al. 2007), reduce faculty attrition (Baranik et al. 2010; Stockard et al. 2010), strengthen the research environment, establish good relations between different generations of researchers, improve the work environment, and increase awareness about existing cultural, organisational and gender structures, thus offering a chance to develop the organisation as whole (Schmidt and Faber 2016).

Most importantly, as some studies have shown, mentoring can function as a catalyst for institutional change (e.g. Angelique et al. 2002; Darwin 2000; Gibson 2006; Tran 2014). Natalie Tran (2014), who has studied the effects of mentoring on the career success of women of colour, discovered that mentoring for leaders not only helps them to achieve their personal career goals but also mobilises structural and organisational change, as the leaders improve their entire work environment based on their own experiences. In other words, mentoring can be used as a way to overcome existing obstacles within institutions but also as a tool to initiate institutional change. In addition, Thomas et al. (2015), who studied mentoring of women in STEM fields, concluded that peer mentoring bears great potential in facilitating institutional change. Holly Angelique et al. (2002) and Thomas et al. (2015) argue, however, that more research is needed on how mentoring in higher education settings may be used to bring about *institutional change*. Here, we perceive institutions as ‘supra-organizational patterns of human activity by which individuals and organizations produce and reproduce their material substance and organise time and space’ (Friedland and Alford 1991: 243). Thus, we consider institutional change as something that transforms and/or challenges those patterns.

### **Peer-group mentoring as a *critical educational praxis***

To examine (positive) institutional change, we use the conceptual framework of *critical educational praxis* developed by Mahon et al. (2019). They argue that in a higher education context, critical educational praxis is needed to foster a critical disposition, which in turn involves the exposure of taken-for-granted discourses, structures and relationships. This, furthermore, means addressing critique towards, and encouraging the transformation of, practices that impede people’s capacity for self-determination, self-development and self-expression (Mahon et al. 2019; Young 1990). This should ultimately lead



to overcoming those unjust and anti-educational practices within education, as well as to contributing to a more just and sustainable society (Mahon et al. 2019; see also Walker 2001).

Here it should also be noted that *educative practice* is distinguished from practices of *training, socialisation, indoctrination* or *schooling*, for example (Kemmis and Edwards-Groves 2018: 23–24). Education is the process in which people are initiated into forms of understanding that support the culture based on reason, modes of action that support and secure a productive and sustainable economy and environment and ways of relating to one another and the world that support and secure a just and democratic society (Kemmis and Edwards-Groves 2018: 23–24).

The goal of critical educational praxis is social justice and positive change. Mahon et al. (2019) argue that for this positive change to happen, universities need to restore their balance – to be considered as ecosystems of learning instead of solely as sites of production. They argue that this can be done by providing ‘communicative spaces for open, collaborative, critical dialogue and reflection’, as well as by ‘closely and continuously scrutinising university arrangements to see what is actually happening’ (Mahon et al. 2019: 447). This view is similar to the one introduced by Petri Johannes Salo and Karin Rönnerman (2013: 598), who suggest that, in educational practice, the central focus should be placed on the transformation of ‘what is’ into ‘what ought to be’. In the Nordic educational tradition of professional development, this involves consistent (rational), deliberative and comprehensive scrutiny of, and reflection upon, the relationships, the means, the procedures and the practices. This transformation is also at the core of the present study, whose empirical context and methods for both data collection and analysis we present next.

## **Data and methods**

### *The empirical context: The peer-group mentoring pilot project 2017–2018*

During the academic year 2017–2018, a multidisciplinary peer-group mentoring project was piloted at the University of Jyväskylä. It had thirteen participants: nine doctoral students, who were at different stages of their studies, and four established academics, who were in mid-career teaching or research positions. The latter group were also called ‘coordinators’, as they had slightly more responsibility in forming and facilitating the groups.

Overall, the thirteen participants came from four different faculties of the university; the Faculty of Education and Psychology, the Faculty of Humanities and Social Sciences, the Faculty of Mathematics and Science, and the Faculty of Sport and Health Sciences. The participants were divided into two smaller groups, the first consisting of two coordinators and five students, and the latter of two coordinators and four students. The coordinators were recruited during spring 2017 via the personal networks of two of the authors (Kiili and Nokkala), and the coordinators then recruited the students. However, there was a requirement that the coordinators and doctoral students would not have a supervisor/line manager–supervisee relationship or work in the same research group.

The preliminary meeting was organised in spring 2017, when the four coordinators met together with two of the authors (Kiili and Nokkala). In this meeting, the principles and rules for the peer-mentoring groups were negotiated: multidisciplinary, voluntariness, confidentiality, reciprocity and the dialogical and self-directing nature of the groups. Mahon et al. (2019) have identified six features needed for critical educational praxis: (1) time, (2) space for creativity, (3) space for autonomy and flexibility, (4) positive, productive and trusting relationships, (5) rigorous, critical dialogue and reflexive conversations, and (6) opportunity for engagement in scholarly activity in a higher education community. They also identify four constraints: (1) intensification of academic work, (2) lack of, or diminishing, contact time between university teachers and students, (3) over-regulation and standardisation of practice, and (4) promotion of particular constructions of pedagogical practices. The mentoring activity of this project was in line with several of these enabling and constraining factors: it created time and space for doctoral students to engage in reflective group discussions in trusting relationships, for example. Doctoral students also face the intensification of academic work, the lack of time (especially if they are part-time), normative expectations related to doctoral studies, and quite conservative supervision practices (University of Jyväskylä 2016).

The first official meeting for the peer-mentoring groups was in September 2017, when all thirteen participants first met together with two of the authors of this article (Kiili and Nokkala), before dividing into two groups. After this initial meeting, the groups met twice in autumn 2017 and twice in spring 2018. There was also a final meeting organised for all thirteen participants at the end of the pilot project, at which they could freely share their thoughts. Each of the four group meetings lasted between two and three hours, and





almost everyone was able to attend every meeting. For each meeting, the coordinators had prepared an initial list of possible themes to discuss, but they were only loose guidelines. In the end, there was a variety of topics discussed during the year: funding, supervision, wellbeing, time management, work/life balance, the publishing process, career prospects, career instability, the peer review system and dissertation defence (in particular regarding anxiety).

### *Data collection and research questions*

Originally, the pilot project that this study is based on had a very practical aim: to find out if multidisciplinary peer-mentoring groups would be useful for the participants, and especially for the scholarly growth of the doctoral student participants. We also wanted to know how such practice could be improved for future purposes. To collect data for this practical purpose, we interviewed each participant three times. The first round of interviews was before any of the group meetings had taken place, the second round after one or two official meetings and the final round after the pilot had ended. The interviews included practical questions regarding the project but also questions regarding academic community, being a researcher and researchers' skills. The interview lengths varied between thirty minutes and one hour and fifty-one minutes, with the average length being around one hour. One interview was conducted via Skype and one via WhatsApp; the others were face-to-face interviews. Each interview was recorded and later transcribed. The participants were given pseudonyms and the transcripts were anonymised and stored (along with the recordings) following the research ethical guidelines of the University of Jyväskylä.

The second and third interviews, conducted during and after the pilot project, revealed that the participants found the peer-mentoring groups extremely beneficial in many ways. Voluntariness, motivation, a safe/trustworthy environment and having enough time for discussion were crucial for the peer-mentoring groups to be a positive experience for the participants. These preliminary findings were reported to the university administration immediately after the pilot project had ended. When going through the interview data, however, we noticed that there was something of interest that we felt we needed to examine more closely. This follows Ron Scollon and Suzie Wong Scollon's (2004) idea of 'zooming in' to something that one might not have found interesting before conducting the study, but which turns out to be extremely relevant at a later stage in the research process. What we



'zoomed into' was *change*. Not only were the participants talking about how the peer-mentoring groups had changed their own ways of working, they also spent a great deal of time talking about how they wished the university and academia could change, reflecting the topics they had discussed during the peer-mentoring group meetings.

The preliminary analysis thus led us to formulate the three research questions presented in the introduction. We analysed the interviews of the third round specifically, in order to find answers to these questions. This round was the most comprehensive, as it was after the project had ended, and included many questions that had already been asked in the previous rounds as well. We first went through all thirteen interviews using qualitative content analysis (Hsieh and Shannon 2005; Mayring 2000), focusing on change and the two key aspects of critical educational praxis, specifically; 1) asking critical questions and 2) creating conditions for positive change. We searched for excerpts in which participants were discussing change in any way – on an individual or institutional level. After this, we inductively grouped all excerpts into wider categories. The results of the analysis are presented next.

## Results

### *Adopted individual changes*

#### *Increased understanding/new perspectives*

Attending the group meetings increased the participants' understanding or gave them new ideas or perspectives regarding academic work. This was largely due to the meetings' multidisciplinary nature: in the group meetings, the participants heard about practices and ideas from people whom they did not typically meet at work. This gave them new insights, ideas and perspectives on how to rethink multidisciplinary work in general, how to plan one's teaching materials to a multidisciplinary group of students, how to understand people from other disciplines better and how to be more empathetic towards different people in different situations, for example.

Irene (doctoral student): It [attending the peer-mentoring group meetings] somehow helped me to understand being a researcher. Because there's a difference between 'being a researcher' and 'being a physicist'. We have different kinds of perspectives and ways to do things, so if you talk about



'being a researcher' with a person from another department, the perspective of how to do things changes. So they [the peer-mentoring groups] helped in thinking about whether some things could be done and looked at differently.<sup>1</sup>

Multidisciplinary was almost unanimously considered one of the best aspects of the peer-mentoring groups:

Alli (coordinator): Well it [the multidisciplinary] was by far the most rewarding thing for me. It was great to get to know these people and hear how people do things in different disciplines. You got perspective to your own work, and also information which you can use if you go and work in multidisciplinary projects, or have to plan teaching, or anything. So now I know a bit what's the logic behind some disciplines, as there are quite big differences.

#### *Strengthened views and ideas*

The second aspect of change concerned the participants' views and ideas. As they were able to share their thoughts and ideas in a trustworthy environment, without fear of being judged, they understood better what they wanted from their work or career, realised the importance of giving positive feedback even better than before, and realised they had a great deal to give as mentors or as teachers.

Alli (coordinator): But I feel like I'm currently in my dream job. It [attending the peer-mentoring groups] didn't really change that but they strengthened my thoughts that this is 'my thing', this is what I want to do.

Here, the most striking change was that three out of the four coordinators either changed jobs or began part-time studies alongside work. While these changes happened as a result of longer decision-making processes, the coordinators admitted that sharing their thoughts about career or studies among peers that were not in their own department was very helpful.

#### *Acquired practical tips*

In addition to sharing views and ideas, the participants were also able to discuss practical issues during the meetings. They shared experiences on how to find time for reading, and tips on how to apply for specific funding or how to be more open with one's supervisors, for instance. As a result



of the discussions, the senior participants also changed their supervision habits, increasingly paying attention to the importance of positive feedback. Moreover, the participants felt that it was important to discuss the rules of supervision early on in a new supervisor–supervisee relationship: what is expected of the supervisor and supervisee, which ways of working are the best for both, and what the responsibilities are.

#### *Acquired tacit knowledge*

Fourth and finally, during the meetings it became clear that there is plenty of so-called ‘tacit knowledge’ among academics, and that without a proper venue for sharing this, it does not necessarily reach all of those whom it should reach. While ‘tacit knowledge’ has been theorised to a great extent, and there are many definitions for it in organisation studies (see, for example, Lam 2000; Nonaka 1994; Polanyi 1969), here we loosely follow the definition by Alice Lam (2000: 490), according to whom tacit knowledge is intuitive and unarticulated, and ‘cannot be communicated without the knowing subject’. We say ‘loosely’ because we did not ask the participants for a definition of ‘tacit knowledge’ during the interviews. Rather, we let them clarify what they meant by it, or provide examples.

Ellen (doctoral student): Yeah, during the meetings we shared tacit knowledge, related to these different issues that you usually just think about in your own head. Things you normally need to figure out on your own. And I think there’s just so much of such knowledge. I haven’t been at the university for long but I have this feeling that there’s a lot of this kind of thinking that you aren’t supposed to share that knowledge, ‘what I know, I keep to myself, and don’t want to share with others’ ... .

As a result of sharing this type of knowledge, the participants reported that they were now more knowledgeable on various issues about which they previously had no idea. This included how to approach article writing or publishing, how to respond to reviewers’ comments, or simply how to be braver in finding out information about different practices within academia. Along with the first change (increased understanding), this was considered one of the best parts of participating in the peer-mentoring groups.



## *Desired institutional changes*

### *Demand for more equality*

The first change that the participants hoped to see was an increased equality between doctoral students. During the meetings it became clear that there were great differences in practices between different faculties and departments, and also between different students. For example, some participants had serious supervisory issues. The reasons for this were suspected to be supervisors' lack of interest in supervision, their lack of know-how on how to properly supervise, or their lack of empathy towards their students. While the peer-mentoring groups had no tools to deal with the supervisory issues of specific students, discussing them revealed the differences:

Anna (coordinator): When we discussed supervision, the major differences between different disciplines came out. It's about the administrative culture and how you perceive pedagogical work, and there are massive differences within this university. I think it enabled some people to ask that if one department succeeds in doing something, why can't they have that as well.

Two participants mentioned the inequality between doctoral students based on their sources of funding. For example, doctoral students who are faculty members have work healthcare benefits, whereas those working on an external grant do not. Finally, one of the senior researchers brought up language issues between Finnish and non-Finnish-speaking doctoral students as a source of inequality. For example, most emails sent to their entire department were still only in Finnish instead of in Finnish and English.

### *Demand for a stronger academic community*

The participants did not currently think that there was a strong feeling of a shared academic community within the university. When asked about the factors enhancing or weakening the participants' sense of academic community, one of the coordinators provided the following thoughts:

Anna (coordinator): If we consider the work community, of course there should be more of this shared vision about who we are and where we are going. But, unfortunately, I don't think this is currently the case. I've been involved in different academic communities and it feels like there is a lot of competition and uncertainty about faculty mergers, for example. So [the shared vision] is something that I think we should implement more

strongly in academia, and actively build it ... Especially as we're now moving from this old university culture to a new one, working internationally and so forth, I think we also have to create new practices for the academic sense of communality.

Moreover, the participants strongly agreed that multidisciplinary peer-mentoring groups should become available for all doctoral students and also for all academic staff. For example, the participants felt that most disciplines were doing research mainly among themselves, completely ignoring what was done elsewhere. The current lack of 'out-of-the-box' thinking was mentioned several times. Furthermore, one participant pointed out that teachers should be considered a stronger part of the 'academic community' because even if they do not do research, they are still making an important contribution to the scientific community through teaching activities.

#### *Sharing knowledge and good practices*

As gaining valuable tacit knowledge was considered to be one of the best aspects of participating in the peer-mentoring groups, it was not surprising that the participants argued that sharing knowledge and good practices on a university level ought to be increased. Several participants thought that it would be crucial to have a venue, such as the peer-mentoring group, where tacit knowledge could be shared. This type of knowledge was related to methods of analysis, publishing processes, teaching materials, postdoctoral careers and interdisciplinary issues. The main argument provided for this was simple: 'Why reinvent the wheel over and over again?' The participants considered a couple of different reasons why this was not currently being done, in addition to the lack of a venue for this kind of exchange. First, the participants felt that there was a great deal of 'territorial pride' to be found in some corners of the university, meaning that either a discipline or its individuals were not interested in sharing, or not willing to share, their knowledge or good practices. Second, many issues, such as how to publish, might be considered to be 'self-evident' by more senior researchers and thus not talked about. This, in turn, led to a situation where many doctoral students, especially the international ones, did not necessarily realise what they should or should not know. All this might be connected to the (hidden) power relations of academia, as one participant explains:



Jonna (doctoral student) [giving examples on tacit knowledge]: And also getting this kind of backup for situations where I feel like I've been treated unfairly. For example, does a professor need to get their name into the publication, even if they didn't do anything for it? So we discussed these types of hierarchy questions quite a lot, hidden power relations, what you should do in specific situations, even though no one's telling you to do anything. Who do you need to ask a permission for something ... , can I do something in a project although the project is already outlined? ... So these types of things, all this hidden stuff that goes on around here [at the university], one day after another.

#### *Improving the academic work culture*

Fourth and finally, the participants spent a great deal of time discussing the psychological aspects of their work, many of which were traced back to an unhealthy or unsupportive work culture within the university and academia in general. For example, the participants felt that the impact of positive feedback and interest in others' wellbeing was not widely recognised among colleagues. This was perceived not as an issue only for doctoral students but for everyone, although for doctoral students especially it was considered a source of 'imposter syndrome' (see, for example, Gardner and Holley 2011). These factors were considered to be downsides of academic freedom. As one of the participants described, academic staff seem to be allowed to work as much as they want and to burn out without anyone noticing or caring. Two other participants were critical of the high number of weekly working hours that some of their colleagues were doing, and in some cases expected others to do as well. This, in their opinion, created an atmosphere where one had to be careful about whom to talk to and about what, in order not to seem lazy. Finally, short working contracts and funding were considered to be a source for emotional stress, especially for doctoral students but also for those at the postdoctoral stage.

To summarise the results, we present them below in a table where we have listed both the adapted and desired changes and how they could be implemented.

**Table 1.** Summary of the results.

	<b>Type of change</b>	<b>The feature facilitating change</b>
<b>Adapted individual changes</b>	Increased understanding/new perspectives	Multidisciplinarity; discussion with people one does not normally meet
	Strengthened views and ideas	Being able to share one's thoughts and ideas freely in a trustworthy environment
	Acquired practical tips	Open and plentiful discussion throughout the year about a variety of topics
	Acquired tacit knowledge	Multidisciplinarity; open and plentiful discussion throughout the year; being able to ask questions in a trustworthy environment
<b>Desired institutional changes</b>	Demand for more equality	Multidisciplinarity; sharing one's own previous experiences and hearing about others'; seeing a bigger picture than before (individual, department, and faculty-level)
	Demand for a stronger academic community	Sharing good practices across disciplines; learning about the similarities and differences between disciplines and departments
	Sharing knowledge and good practices	Open and plentiful discussion throughout the year about a variety of topics; multidisciplinarity
	Improving the academic work culture	Sharing experiences about academic work, irrespective of the discipline

## Discussion and conclusion

Returning to the idea of 'peer learning' as a pedagogical discourse, introduced by Boud and Lee (2005), the peer-mentoring groups of this study seem to have provided an open, communicative space where peers (doctoral students or more senior researchers) were able to learn from each other by sharing views, ideas and experiences regarding academic work. This was valuable not only for the doctoral students but also for the coordinators, which in turn is in line with the flexible idea of mentoring offered by Laurette Bristol et al. (2014): peer mentoring can include participants from various career stages and thus challenge the linear flow of knowledge (from experi-





enced to inexperienced). This resulted in individual changes but also made participants reflect on institutional changes that they felt were needed.

Many of the individual changes are in line with previous research on the benefits of mentoring, such as the practical information acquired from mentors (Curtin et al. 2016; Knight et al. 2018), increased resilience (Paglis et al. 2006), and increasing awareness about existing organisational structures (Schmidt and Faber 2016). However, the multidisciplinary aspect of the groups brought an extra dimension to the benefits reported earlier: the participants' understandings of the different discipline-based ways of working increased, which made them understand their own work and views on the nature of academic work better.

The result of the desired institutional changes, however, cannot be connected to previous research so easily. This is because, as pointed out in the literature review, existing research on mentoring and institutional benefits is rather scarce and focuses on institutional change mainly through individual benefits. To discuss institutional change, we ought to return to critical educational praxis and its critical disposition in the higher education context. For critical education praxis to happen, Mahon et al. (2019) listed three prerequisites: (1) exposing taken-for-granted discourses, structures, and relationships; (2) allowing for the addressing of critique; and (3) encouraging the transformation of practices that impede people's capacity for self-determination, self-development, and self-expression. Participating in the peer-mentoring groups seems to have provided a venue for all of these. First, open and trustworthy discussion about a variety of topics with peers from diverse disciplines *exposed* variations between current practices for individuals and between different disciplines, causing the participants to question the level (or lack) of equality between doctoral students. It also became apparent that many practices that are considered self-evident by some are not self-evident to everyone, thus addressing taken-for-granted discourses and practices. Second, the participants were free to *critique* the existing practices and structures due to the confidential, trustworthy, and voluntary nature of the groups. As none of the participants were working together, they could share their thoughts without being worried about who would hear them. This also shed light on the (hidden) power relations of the university and academia. Third, the peer-mentoring groups *encouraged* the participants to gain more control and confidence regarding their own work, as they were able to hear that other people, doctoral students and coordinators alike, were struggling with the very same issues that they themselves did. While this

is mainly an individual change that could be reported to have happened, we might ask what the consequences would be if multidisciplinary peer-mentoring groups were to become an established practice in the university. Would these positive individual changes have a direct effect on the quality of the institution as well?

For multidisciplinary peer-mentoring groups to be considered as critical educational praxis, there has to be a positive answer to two questions: ‘Are they providing an arena for asking critical questions?’ and ‘Are they creating conditions for positive change?’ The results of our analysis definitely show the participants – as well as us as researchers – questioning and reflecting critically on what is happening within university walls on a daily basis. In fact, the changes the participants had experienced and discussed made them view the current university practices in a rather critical light. This creates an interesting problem from an institutional perspective: as one participant put it, ‘peer-mentoring groups might be risky [for the university] because people talk to each other about the stuff that’s going on within the university walls’. However, they also continued that ‘it might be the right way to shake up things’. Based on the results, this is also the core argument of this article. We argue that multidisciplinary peer-mentoring groups can provide the kind of ‘communicative space for open, collaborative, critical dialogue and reflection’, as well as a venue for ‘closely and continuously scrutinising university arrangements to see what is actually happening’ (Mahon et al. 2019: 447).

Asking critical questions is not something that only critical educational praxis addresses, however. It is part of other types of activist research framework as well, such as nexus analysis, created by Scollon and Scollon (2004). As the final stage of their very practical framework, the Scollons encourage us to ask critical questions in order to address different types of social issues. Therefore, following both the ideas of Mahon et al. (2019) and Scollon and Scollon (2004), the critical questions *we* would like to ask, based on the results and the aftermath of the pilot project, are the following:

1. What, if anything, stands in the way of implementing useful educative practices on an individual and institutional level?
2. How could academic actors be encouraged to facilitate change, as they might acknowledge the need for it but not be willing to spend their own resources (such as time) on it?



If one wanted to study what ought to be changed in Finnish or other universities, there would certainly be many methodological options for conducting such a study. However, we argue that putting people from different disciplines together in one room to talk for several hours at a time, about whatever they consider important, might reveal something of interest that is beyond the original purpose. Taking a more global perspective, this is important for two additional reasons. First, encouraging and providing venues for multidisciplinary discussion ought to be increased, as it is also needed to address wider, global problems (Frank et al. 2017). Second, as Susan Wright and Davydd Greenwood (2017a) have argued, instead of merely critiquing the present, it is necessary to think more concretely about future solutions. More people need to be involved if we want to accomplish change, not only within academia but more globally. Instead of only asking higher education experts, it is also important to consult those with experience-based knowledge from diverse academic and non-academic backgrounds (see also Aarnikoivu et al. 2019; Wright and Greenwood 2017b). In this way, we can ensure that the universities can also fulfil their civic purpose in the future.

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## Note

1. All examples presented in the Results section are translated from Finnish.

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