Stirring doctoral candidates into academic practices: a doctoral course and its practice architectures

Karin Rönnerman* & Stephen Kemmis**

Abstract
This article reports on the experiences of 104 doctoral candidates who participated in six offerings (2008–2015) of an intensive 5-day course for doctoral candidates associated with the research programme of an international research network. The purpose of the article is to demonstrate how higher education practices, like those of this course, can be understood through the lens of a particular form of practice theory, namely the theory of practice architectures. The analyses show how the practice architectures of the course enable and constrain candidates’ academic practices such as presenting and discussing their own research, chairing seminar presentations and being discussants for research papers whose authors are present. The candidates entered some new academic practices in the course but sometimes contested these practices, for example by requesting greater structure in some sessions, perhaps reflecting their expectations that the course would be more similar to other doctoral courses they had attended. Using the lens of the theory of practice architectures, the analyses shows how these new practices were enabled and constrained by specific arrangements built into the design of the course that served both as practice architectures for learning in the course and for the academic practices being learned.

Keywords: academic practices, theory of practice architectures, doctoral coursework, enabling research collaboration, international networking, higher education

Introduction
Around the world, there is a great variety in the coursework requirements for candidates undertaking doctoral degrees.¹ In some countries, the coursework is minimal; in others, candidates choose from a large number of different courses of various lengths. This is the case in Sweden, for example, where doctoral candidates in the educational sciences are required to take almost 1.5 years of coursework out of the (normally) 4-year full-time candidature for a PhD degree. In Sweden, as elsewhere, there is also a strong emphasis on internationalisation in doctoral education, both in the coursework parts of candidature for the degree and in the expectation that candidates will participate in international conferences in their fields. Many universities today support measures to help candidates connect with other students in...
their field of research, enabling them to learn from others’ experiences and especially to build networks. Networking is regarded as increasingly important in contemporary academic work, because it opens spaces for cross-national communication and collaboration.

In this article, we report on an intensive course for doctoral candidates that takes place within a research network, in parallel with annual meetings of researchers in the network. The course is offered over a period of 5 working days, timed to precede one or another of a variety of international conferences held in different places around the world.

Our principal purpose in offering this report and analysis, however, is to demonstrate the resources of a particular kind of practice theory (Nicolini 2013; Schatzki 2001). In general, practice theory draws attention to how social life is composed in practice (e.g. Reckwitz 2002). In this broad field, some practice theories (e.g. Gherardi 2008) are more epistemologically inclined, focussing on how knowledge is caught up in practices, whereas others, like Schatzki’s (2002, 2010; see also Latour 2005) are more ontologically inclined, showing how social life is composed in sociomaterial realities and, especially, shaped by the arrangements amongst which the practices are enacted. The significance of this article is that it demonstrates the utility of the particular resources provided by one of these ontologically inclined practice theories, namely, the theory of practice architectures (Kemmis et al. 2014; Kemmis and Grootenboer 2008). In the present article, we demonstrate how this particular theory allows us better to understand how a course design ‘works’: how the sociomaterial arrangements that constitute a course design (which we will describe in terms of ‘practice architectures’) enable and constrain the academic practices of doctoral candidates: what they say, what they do and how they relate to each other and the world.

In the next section, we briefly outline the theory of practice architectures. We then present and analyse data collected during and after each of six offerings of the course from 2008 to 2013. Subsequently, we present an analysis explicitly using the theory of practice architectures to throw light on elements of the course and its design, in order to draw conclusions about how the course ‘worked’. We conclude with a discussion of how the practice architectures of the course enabled learning and networking for the candidates involved and ‘stirred them into’ the academic practices of a research field.

The theory of practice architectures
In this paper, we view the course as a space designed to foster particular kinds of academic practice characteristic of a research community investigating a particular research field or problem. We now introduce the theory of practice architectures as a way to understand how the course works to foster these practices.
First, we define a ‘practice’ as a form of socially established cooperative human activity involving characteristic forms of understanding (sayings), modes of action (doings), and ways in which people relate to one another and the world (relatings), that ‘hang together’ in a distinctive project. The project of a practice is what people say when they sincerely answer the questions, ‘What are you doing?’ and, ‘Why?’ while they are engaged in the practice. The project of a practice encompasses (a) the intention (aim) that motivates the practice, (b) the actions (interconnected sayings, doings and relatings) undertaken in the conduct of the practice and (c) the ends the actor aims to achieve through the practice (although it might turn out that these ends are not attained). Examples of practices, on different scales and levels of complexity, include undertaking a programme of doctoral education, taking a 5-day doctoral course titled Researching Professional Practice, reading scholarly journal articles for the course, leading and participating in a discussion with the author of an article and asking questions in a seminar.

According to the theory of practice architectures (Kemmis et al. 2014), practices are made possible by particular practice architectures that enable and constrain the way the conduct of a practice unfolds. Practice architectures are jointly composed of three kinds of arrangements found in or brought to a site:

1. Cultural-discursive arrangements, in the medium of language, in semantic space, that make possible the sayings of the practice (what is said in and about the practice)
2. Material-economic arrangements, in the medium of activity or work, in physical space–time, that make possible the doings of the practice (what is done in the practice, amid what material arrangements and set-ups)
3. Social–political arrangements, in the medium of power and solidarity (belonging), in social space, that make possible the relatings of the practice (how people relate to one another and the world in the practice)

According to the theory of practice architectures, practices are enabled and constrained by practice architectures not in the abstract or in general, but by the particular kinds of arrangements that are present in or brought to a particular site. In this, the theory adopts what Schatzki (2002, 2003) calls the perspective of ‘site ontologies’, in which practices are understood as unfolding in, and entangled with, the particular arrangements found at particular sites. This ontological perspective rejects the view that practices are shaped by invisible ‘social structures’, and aims instead to identify and interpret how practices are shaped (but not determined) by different kinds of arrangements that are actually present in or brought to a site.

According to the theory of practice architectures (similar to other sociomaterial practice theories), it is not possible to understand a practice by only studying the sayings, doings and relatings that compose the practice, that is, only from the side of
the individual person doing the practice. It is also necessary to understand the ‘extra-individual’ (Kemmis and Grootenboer 2008) or, more generally, social, dimensions in which these sayings, doings and relatings are made possible, namely, the language and culture that make possible the sayings of the practice, the material arrangements that make possible the doings of the practice, and the social arrangements that make possible the relatings of the practice. The theory of practice architectures thus rejects an individualist perspective on practices in favour of what Schatzki (2002, 2003) describes as a ‘societist’ perspective.

Finally, the theory of practice architectures takes a dialectical view of the relationship between practices and practice architectures: although practice architectures shape practices, they are also shaped by practices, as for example, when the practices and experiences of one cohort of doctoral candidates observed by and reported to course leaders on a doctoral course shape the leaders’ design for the next offering of the course. The design that emerges is new practice architectures that differently enable and constrain the practices of the next cohort of candidates. The theory of practice architectures sees practices as enmeshed with the site-based arrangements that form the practice architectures for the practice, but also acknowledges that some practices (for example, a teacher’s practices) can also be practice architectures for other practices (for example, a doctoral candidate’s practices).

Figure 1. The theory of practice architectures (adapted from Kemmis et al. 2014, Figures 2.4, 38).
Figure 1 summarises the theory of practice architectures depicting relationships between the key terms italicised in the paragraphs above. (The figure also includes other key terms in the theory not discussed here; for a more complete description, see Kemmis et al. 2014, chapter 2).

**The PhD course researching professional practice**

In what follows, a description of the course Researching Professional Practice, which is the focus of this study, is outlined. The empirical material used for the analyses undertaken was primarily written evaluations from 104 doctoral students over six offerings of the course, in which the final, open-ended question inviting candidates’ own comments was used as a source of empirical material (quotes) to validate the mean ratings on the five questionnaire items presented in Table 2 (below). Additional data included field notes collected from oral discussions in various sessions of the six offerings of the course. A summary of the different kinds of data collected is found in Table 3. A description of the course intertwined with data collected follows, after which we present analyses (of examples of data) using the lens of practice architectures (Table 4).

The doctoral course that is the focus of this study is offered under the auspices of the University of Gothenburg and the international research network Pedagogy, Education, Praxis (PEP), established in 2005. Researchers in the PEP network come from universities in Sweden, Australia, Norway, Finland, the Netherlands, Colombia and the United Kingdom. Their research programme explores professional practice in education from a variety of different intellectual traditions. The network has an annual research meeting at which cross-national collaborative research projects are initiated and reported, exploring themes related to professional practice in education (see www.ips.gu.se/samverkan/natverk/pep/). Each year, the network organises an international doctoral course called Researching Professional Practice. The purpose of the doctoral course is to engage doctoral candidates (many supervised by researchers in the network) with the research field of the network and to give them opportunities to make their own contacts with other doctoral candidates, across nations, at an early stage of their studies. The University of Gothenburg formally administers the course for 7.5 higher education credits, without fees, and issues a formal certificate to candidates who complete the course.

The course is an intensive, 5-day course exploring ways of understanding and researching professional practice and, since 2009, specialised foci within this topic (identified by subtitles; see Table 1). In alternating years from 2008 to 2012, it was offered in Australia and Sweden; in 2013, it was offered in Norway. Offering the course in different places has made it possible to attract new doctoral candidates and to involve the home universities of different members of the PEP research network. Table 1 presents information about the numbers and origins (by country) of participants and the locations of the course each year. Between 2008 and 2013, the
course attracted a total of 104 attendees, although this number includes some doctoral candidates who attended twice.

The course is outlined to participating candidates in two ways. The first is a timetable that allocates each candidate’s responsibility for specific different roles in the different sessions over the 5 days. The second allocates times for each candidate to present their own research, to discuss the selected readings and to reflect on how the concepts they encounter relate to their own research. The first strand focuses on the community of the course, giving each candidate different responsibilities as a member of this community; the second focuses on each candidate, encouraging each of them to relate the ideas they encounter specifically to their own research. The two strands are described below. During the course week, the participants are divided into groups of about eight. Outside formal sessions, the candidates have a variety of informal meetings with researchers in the PEP network.

**Doctoral candidates taking on different roles**

The working methods of the course vary, with an emphasis on candidates taking responsibility for a range of different tasks. These tasks include candidates presenting their own thesis research, with others taking the formal role of discussant in response to the presentation and others participating in further discussion of the research. Candidates read prescribed papers, chair seminar discussions about these readings, introduce the author(s) of the prescribed readings (who are present at the seminar), prepare discussion questions, open the discussion by asking the first questions or making the first comments, participate in critical discussion with the author and other participants. Candidates also facilitate and participate in reflec-
tion sessions about the prescribed readings and their relationship to the topic of researching professional practice and in relation to their own research; they lead and participate actively in the collaborative evaluation of the course as it unfolds and in an evaluation session at the end of the course. The specific roles are rotated so candidates take almost all of the roles. The course outline provides a brief description of the requirements of each role; in the introductory session of the course, the course leaders emphasise that participants should make sure they perform the role as described.

The evaluation of the course is a significant role. Doctoral candidates selected to facilitate the small groups (usually two, sometimes three) undertake the evaluation together, leading reflection sessions in small groups each day and making time for formative reflection on how participants think the course is going. Based on these reflections, in the penultimate session on the final day (with the course leaders not present), the facilitators present a draft of the collective evaluation to their peers (usually as a PowerPoint presentation), invite additions and amendments and finalise the evaluation. In the final session, the facilitators present the summative evaluation report to the course leaders, invite others to add comments and invite course leaders to respond to the views presented, with implications for future offerings of the course. We suggest that the summary evaluation addresses (a) the overall value of the course to participants, (b) any problems or issues that emerged and might need to be addressed and (c) suggestions for ways the course could be improved. In addition, all candidates individually complete a brief evaluation questionnaire (10 statements rated on five-point Likert scales with space for open-ended comments and an eleventh item inviting any other comments).

**Presenting and discussing research**

Candidates present their thesis research in the small groups, which are also the setting for the sessions reflecting on the discussion of the prescribed papers and for discussions concerning the formative and summative evaluations. Two candidates present their research in the first session each morning (45 minutes each), following a conference model of a 20-minute presentation and 25 minutes of discussion. The candidates themselves run the session. Senior researchers can attend but do not lead these sessions.

This session is followed by a plenary seminar in which all candidates join a discussion with the authors of two readings chosen to deepen knowledge about researching professional practice and the specific focus for that year’s course (indicated by its subtitle). Each seminar interrogates two readings, with 45 minutes for discussion of each. The readings are selected (1) to disseminate research conducted in empirical projects conducted and published by members of the PEP network and (2) to invite participation by researchers into professional practice from...
the university hosting the course that year. Authors are asked not to give a talk but rather to participate in a scholarly conversation guided by the doctoral candidates. One candidate chairs the session (for the two articles); others have responsibilities as ‘discussion starters’ to begin the interrogation of each reading before the discussion opens up to involve all the candidates. After these plenary sessions, the candidates meet in their small groups for further reflection, to strengthen and further deepen the discussion relating to emerging concepts, themes and theories to their own research. By staying in the same small group throughout the course, the candidates develop deep knowledge of each other’s work, making connections between the thesis research presentations in the mornings, themes emerging in the seminars and the constructive discussions in the reflection groups.

Two weeks after the course finishes, the doctoral candidates submit a 1,000-word reflection about how the course influenced their thinking on their own research, to which the course leaders provide more or less immediate feedback.

**Course outcomes and main findings of the research**

The primary evidence collected for the evaluation of the course each year consists of an evaluation questionnaire completed by each candidate anonymously and individually, as well as the candidates’ group evaluation reported in the last session of the course.

The individual evaluation questionnaire was used in 2010–2013 and the collective group evaluation in 2008–2013.

**Individual and collective evaluation**

The course was highly rated overall by the candidates over the years. In the individual evaluation questionnaire, ratings ranged between 1 (low) and 5 (high). The mean rating across all questions and years was 4.4. For this article, we have chosen five items from the questionnaires for analysis (listed in Table 2), because we have complementary evidence about these topics from the candidates’ collective evaluations each year.

| Item                                           | 2010 | 2011 | 2012 | 2013 |
|------------------------------------------------|------|------|------|------|
| Candidates sharing their own research          | 4.5  | 4.7  | 4.8  | 4.5  |
| Taking responsibility for one’s own learning   | 4.3  | 4.3  | 4.9  | 4.8  |
| Different roles/ways of working                 | 4.0  | 4.7  | 4.7  | 4.4  |
| Readings helpful for understanding             | 4.1  | 4.4  | 4.2  | 4.2  |
| Interaction between course participants         | 4.9  | 4.8  | 4.7  | 4.8  |
In this section, we discuss these five items (the second and third are combined in the second of the topics below) and then make a further comment on the intensiveness of the course as it was experienced by the doctoral candidates.

(1) Candidates sharing their own research
Candidates said the sessions where they presented their own research were the best part of the course. On the evaluation questionnaires, candidates gave this element of the course among the highest ratings. Strikingly, this item received absolutely no negative comments in the space provided for comments across all years. Positive comments from individual candidates included the following:

A great chance for feedback and advice by peers.

It stimulated generous discussions between participants and gave good context for where people were coming from.

These were very interesting/gave me some good ideas for my own research.

The quality of discussions among the candidates was also rated very highly. One candidate said it was “very engaging and [I valued] knowing about what other participants are engaged in.”

Making presentations about their own theses is a familiar activity for doctoral candidates, but the confidence and trust the candidates developed in their small groups allowed them to share and reflect openly on their own research. The small group also invites practices typical of a familiar ‘student’ role: presenting in seminars. This familiarity might help to explain the high ratings this element of the course received. The high ratings might also reflect candidates’ reluctance to be critical about themselves and their peers.

(2) Taking responsibility for one’s own and others’ learning by taking various roles
The course design obliged candidates to take a variety of different roles encouraging them to take responsibility for their own and others’ learning. On the one hand, the candidates talked about how they could take responsibility for the structure of the discussions in the seminars with authors and about how they felt they ‘owned’ the site in which the discussion took place. Candidates said: “[It was a] good idea to have a discussion starter”; and “These ‘low’ [i.e. grass-roots] structures make us creative and responsible.” Discussants met beforehand and agreed how the discussion would be structured in order to include everyone, as well as how to handle the situation when some voices dominated. Candidates also appreciated the opportunity to have a conversation with authors rather than hear them lecture.
On the other hand, some candidates felt these sessions could be improved by further clarification of roles, for example, “Better descriptions of these roles are needed.” Overall, however, the candidates found their own learning satisfying. They said that the different roles, and the mix of small groups and plenary sessions during the week, facilitated learning. For example:

The course has challenged my theoretical thinking.

Broadened my understanding of professional practices.

Fantastic boost to confidence in existing ideas/work as well as introducing me to a valuable new/expanded lexicon.

In the 2012 course, the candidates requested a lecture on the theory of practice architectures, so this was scheduled as an additional session one afternoon. According to that year’s collective course evaluation, the lecture was much appreciated, so a 1-hour lecture was included in the timetable for the 2013 course. Surprisingly, in the individual evaluation questionnaires for 2013, several candidates suggested that future courses include more lectures. This may reflect expectations from more familiar forms of doctoral courses, based primarily on lectures, in which responsibility falls largely on lecturers, rather than on candidates, as in the current design of the course.

(3) The quality and quantity of reading
Overall, candidates found the readings ‘interesting’, ‘relevant’, ‘mostly easily understood’, and ‘overall a good selection’. Even if the readings did not match the candidates’ own research topics, they found them valuable in broadening their thinking. Over the years, candidates discussed whether there were too many or too few readings. In the first year, the doctoral candidates read about 2,000 pages and thought it was too much reading for a course week; we agreed and reduced the volume of readings. However, in the 2011 course, the candidates thought the amount of reading too small and too narrowly focussed on the subtitle “Tensions and issues in action research” rather than the more general “Researching Professional Practice”; they emphasised that readings should adequately cover the more general topic. One candidate said, “For upcoming courses it could be a good idea to have some grounding literature to read, i.e., literature that the articles draw on or literature that has influenced the researchers.” This was organised in subsequent years.

(4) The opportunity to build relationships and networks
The most unexpected outcome from the course was the way the doctoral candidates appreciated the work in small groups and how that work helped them to relate to one another in a specific way. Most of the time was spent in the small groups, so
members got to know a good deal about each other’s areas of research and the theoretical and methodological underpinnings of their work, which helped them find areas of overlapping interest that they could develop together. A candidate from the 2011 course said

This course was fantastic. I greatly benefited from the exposure I had to different orientations toward action research. I was able to see a snapshot of how doctoral life operates in Sweden and about educational/school infrastructure in Sweden. I greatly appreciate the chance I had to read, ask questions, and speak to fellow students and faculty members during the week, and I especially appreciate the chance to make new personal and professional friendships from the course.

The design of the course has had a lasting impact on some candidates’ relationships and continuing joint cross-national work. Here, we note three cases. First, from the 2010 course, a candidate from Norway and one from Australia found areas of overlap in their research projects. Continuing to explore this interest after completing the course, they prepared and delivered a joint presentation to the 2012 AARE conference in Sydney, Australia (Sjølie and Clayton 2012). Second, from the 2011 course, a candidate from the Netherlands and one from Sweden similarly explored shared interests to prepare and deliver a joint presentation to the 2013 CARN conference in Tromsø, Norway (Larsson and Plomp 2013). Third, also from the 2011 course, six members of one small group, three from Sweden and three from Canada, continued their discussions for about 18 months after the course, writing narratives about their own struggles in becoming action researchers. They collaboratively analysed these narratives and presented their analysis in a joint paper at the 2012 Canadian Society for the Study of Education conference (Fyn et al. 2012). The paper was further developed for publication in the international journal *Action Research* (Zhang et al. 2014).

These collaborations indicate how bringing people together in an intensive course can enable relationships to grow and research networks to flourish, coming to fruition not just in ‘contacts’ but in sustained collaborative academic practices.

(5) The intensiveness of the doctoral course

Participants in the 2010 course suggested that the doctoral course should be given at the end of 1 week and the beginning of the next, making time for a weekend in the middle. They said this would allow (1) international visiting candidates to do some sightseeing and (2) more time for digesting the quantity of presentations, readings, discussions and reflections that fill the scheduled course time. We thought these suggestions had merit and redesigned the 2012 course accordingly. Candidates in the 2012 course appreciated the break over the weekend but also made suggestions about kinds of activities they would like arranged for the weekend.
An intensive course offers many benefits, especially the benefits for candidates of building good connections and relationships. However, there are also constraints such as the short time available to read and digest the ideas from literature and discussions. It might be interesting to add online discussions before and after the intensive week.

In summary, this doctoral course enabled candidates to enter a collective academic practice involving critical thinking and reflection about ideas concerning researching professional practice; a variety of shared activities including presenting their own research, leading and chairing discussions; and creating significant and sometimes long-lasting relationships with other candidates and others involved with the course. The high ratings the course received suggest that most participants liked the way the course was designed, with shared readings, shared activities and shared responsibility for different roles. However, in open-ended responses, some participants asked for more structure, more lectures or more guidance. This result is interesting, as most of the participants were teachers who could have organised to do whatever they thought was missing, as the course gave them that freedom. This freedom was emphasised in the introduction on the first day of the course. It seemed to us that, in asking for more structure, these candidates seemed willing to sacrifice their own agency. Perhaps when they thought of themselves as participating in a course, they fell back on prior expectations about what kind of experience a ‘course’ should be and waited for others to structure things.

The only item on the evaluation questionnaire that did not attract occasional comments requesting more structure was the one about the sessions in which candidates presented their own research. This session was highly structured with a chair and a discussant, with guidelines about how much time should be used for presentation and discussion. Nevertheless it was also a very familiar situation, structured in the same way as many seminars in academia. We also know that, in one group, one of the candidates presented a specific guide about how to give feedback to one another; in this case, the candidates took agency to improve the session with further structuring, without involving the course leaders.

**Analyses: seeing the course through the lens of practice architectures**

As has been shown, the Researching Professional Practice doctoral course is both highly structured and gives the participants freedom: its design prefigures but does not predetermine what happens in the course. We now use the theory of practice architectures to show how it is structured as a set of practice architectures that channel the practices of participants in intersubjective space, shaping but not determining the ways participants encounter one another in semantic space, physical space-time and social space.

Table 3 presents a summary of the ways the evidence for this study was collected.
Each of the different kinds of sessions timetabled into the doctoral course (including informal sessions) has its own particular practice architectures, designed to bring particular kinds of practices into play. The course leaders are not present for most sessions of the course; instead sessions are designed and roles allocated so that the candidates occupy the different kinds of roles involved in enacting the purposes of the session. Table 4 gives examples of the kinds of practices and the kinds of practice architectures in the seminar sessions in the course, in which candidates had formally chaired discussions of pre-circulated required readings with their authors. For reasons of space, we present a practice architectures analysis of just this one setting in the doctoral course, showing how candidates’ practices in the seminars enmesh with the practice architectures that make them possible and hold them in place. From this example, readers will readily infer the kinds of practice architectures relevant in the other settings of the course.

Table 4 shows how the seminar is enabled and constrained in particular ways in semantic space, physical space–time and social space and how it has a particular project (further initiating candidates into the conduct of scholarly debates, for example). Furthermore the table shows how the seminar aims to develop particular kinds of dispositions in candidates, especially the disposition of being a participant in scholarly debates in a field, rather than casting oneself as a student or newcomer. The analysis also suggests how practices in the seminar setting connect with broader practice landscapes, including other settings in the doctoral course and other
Table 4. Examples of practices and practice architectures of the seminars with authors

| Practices in the seminar                                                                 | Practice architectures of the seminar                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| **Examples of sayings (specialised discourses)**                                        | **Examples of cultural-discursive arrangements**                                                                                                                                                                                        |
| Using the language and ideas employed in required readings (the specific semantic content of the readings); critically interrogating the ideas, their potential and limits. In addition, using the language appropriate for scholarly communication and for different kinds of academic performances (e.g. presenting, critically discussing, evaluating). | The particular semantic content (language and specialist discourses) of the required readings under discussion (and, in the background, the content of other readings). The language used in the course outline to describe the course, its content and the work to be done (including the roles and associated practices for each kind of session). |
| **Examples of doings**                                                                   | **Examples of material-economic arrangements**                                                                                                                                                                                          |
| Talking about the article with the author and with peers: raising questions and issues, commenting on the content, enacting a critical stance in relation to the text and author, exploring relationships with other ideas and research. | The author sitting at the front of the class next to the session chair. Candidates seated in a U-shape behind tables, with notes and copies of the article for discussion and 45 minutes allotted for discussion of the article. |
| **Examples of relatings**                                                                | **Examples of social-political arrangements**                                                                                                                                                                                          |
| The author relates to the candidates as informed readers of her or his work; the participants relate to one another and the author enacting their specific roles as chair, discussion starters and other participants in the discussion. Candidates aim to adopt a critical stance towards the text and author and perhaps also to the other participants and their assumptions. Those involved relate as a critical community exploring ideas together, foreshadowing relationships in wider research fields. | The author comes as a contributor to the field of research into professional practice; other participants enact roles defined in the course outline, including chair, discussion starter and seminar participants. In this session, the two small groups of candidates are combined and work with members of the other group (with whom they are less familiar). The role relationships are designed to evoke the practices of a research community and to counter expectations of expert–novice relationships (as in other settings where candidates are expected to behave as ‘students’ relating to ‘teachers’). |
| **Project**                                                                             | **Practice landscapes**                                                                                                                                                                                                                |
| For the doctoral candidates, the project is to learn how to participate as a researcher in the scholarly field of research into professional practice, by engaging critically with relevant texts and their authors in ways that can inform their own research practice. For the course leaders, the project is to create settings in which candidates deepen their initiation into the practices of the research field and the discipline. | The seminar room is the stage for performing a variety of sub-practices related to the conduct of the seminar, but it is also connected to other rooms in the building, including break-out rooms for small group work, a cafeteria and staff offices, as well as corridors, stairs and elevators that allow people to move around the building. Usually about half of the candidates are new to the setting, learning to find their way around a new university and city. |
| **Dispositions**                                                                        | **Practice traditions**                                                                                                                                                                                                                 |
| The candidates develop knowledge (understandings, skills and values) appropriate for being an interlocutor with other specialists in this research field, as well as knowledge likely to influence the way their own research unfolds. The author usually displays the dispositions of a scholar expert in research and practice in this field and in being an interlocutor in discussions about the work in this field. | The doctoral seminar is a particular kind of performance, reaching back to the medieval disputation in which participants, especially new participants, were invited to argue a case while avoiding error and heresy. The seminar is a site for disciplining (via the roles participants play) the performance of participants in the discipline and the field of research into professional practice. |
settings in the university and city where the course is held. It also suggests that the practices conducted in the doctoral course have a long history, both in organisations and institutions such as universities as well as in the lives of the participants.

Table 4 shows how practices “as they happen” (Schatzki 2006) are enmeshed with practice architectures in a site. Schatzki (2012) describes the relationship between practices and arrangements in terms of practice-arrangement bundles (a relationship we describe in terms of practices and practice architectures) and indicates (2012, 16) how practices are ‘bound up’ with ‘materialities’ so that practices and arrangements ‘bundle together’, meaning

(1) that practices effect, use, give meaning to, and are inseparable from arrangements while
(2) arrangements channel, prefigure, facilitate, and are essential to practices. More specifically, practices and arrangements form bundles through five types of relation: causality, prefiguration, constitution, intentionality, and intelligibility.

There is not space in this brief article to elaborate a practice architectures analysis for all of the elements of the doctoral course; in this section, we highlight just four observations.

First, as indicated, the practice architectures of the doctoral course are deliberately designed to prefigure particular kinds of practices for participating candidates, especially the practices appropriate for academic communication (in semantic space), for making and critically developing scholarly contributions (in physical space–time) and for constructing and sustaining critical communities (in social space) for research and the maintenance of a research field and discipline over time. Participants’ evaluations of the course over 6 years suggest that the course has been successful in attaining these objectives, drawing candidates into the scholarly debates of the field of researching professional practice.

Second, it should be noted that the doctoral course does not seamlessly open new communicative spaces for the candidates involved; there are also signs of tension as the new space opens up. The candidates in the course, many of them teachers, have different expectations about how doctoral courses work. Some appear to believe that, when participating in a course, they should be a particular kind of learner: a student. That is, they want to occupy the role of student vis-à-vis others occupying the role of teacher. We have not described ourselves as ‘teachers’ in this article, but rather as course leaders and course designers. Similarly, we discourage the visiting authors who come to participate in discussions of their texts with the candidates from making presentations about their texts; we suggest that they limit themselves to a few minutes contextualising why they wrote the text. Furthermore, we establish working arrangements in which every candidate can make his or her own voice heard and be an active listener to the voices of others in the conversations of the
course. The only place in the course where the candidates can disappear into the role of passive listener is the welcome session.

Third, in the evaluations, some candidates ask for more structure: additional guidance on how to fulfil the different roles they are expected to take through the course, or more lectures from authors or others. The former comment suggests that they feel insufficiently prepared for the various roles they are asked to perform, despite the fact that they already play these roles in other contexts, as in their own teaching or at conferences. The latter comment suggests that they want more academic ‘input’ from ‘teachers’, in contexts where they can be listeners and observers rather than active participants expected to fill the communicative space of the various sessions with their own substantive contributions and critical analysis. In our view, the candidates have all come to the course already ‘filled’ with the relevant content (they have usually read all of the required readings before arriving), so the course leaders expect them to use this content and to engage it critically in constructive discussions when they participate in the course, not to receive new ‘packages’ of ‘content’. As designers of the course, our expectation is that most of whatever the candidates learn at the doctoral course will be learned from one another, through active engagement with ideas in texts and contributions to the discussions. We expect that they will learn by using and engaging critically with what they have read and that this will be a very substantial bonus of learning beyond their critical engagement with the required readings before they arrive at the course. What is worth coming for, we believe, is the conversation, because it is the practice of conversation, and not just the content of the readings, that constitutes the life of academic work – academic work as it is lived through scholarly communication, contribution and community maintenance.

Finally, we know that being part of the doctoral course builds new networks at various depths. The candidates meet each other, the authors of relevant research and members of the PEP research network, as well as people at the university where the course is held. They join the conversations that constitute the research field. After completing the course and their doctoral degrees, some candidates have in fact become active members of the PEP research network; others have maintained irregular contact with the course leaders and some other course participants. For at least the life of the doctoral course, however, they become a network. Rönnerman and Erlandson (2013) reported similar experiences from other doctoral courses.

**Conclusion**

Using the theory of practice architectures, we have described and discussed a doctoral course, Researching Professional Practice, that sits alongside the work of the international PEP network, whose members, among other things, have been developing and testing the theory of practice architectures. The course offers candidates opportunities to explore the research literature and the field of research.
into professional practice and to meet and work with authors who contribute to that literature, as well as with members of the PEP network who are active researchers in that field. Perhaps we could have described the doctoral course as a form of “legitimate peripheral participation” (Lave and Wenger 1991) or in terms of what Wenger (1998, 230–40) called ‘learning architectures’. For reasons described in Kemmis and Grootenboer (2008, 57–59), however, we prefer to describe the course in terms of its practice architectures, that is, the arrangements that hold practices in place, and not just the practices of learning. Indeed, Kemmis et al. (2014, 56–61) described learning as a process of initiation into practices and (following Wittgenstein 1958, §151, §159) as “learning how to go on in practices” and (Kemmis et al. 2014, 58–61) ‘being stirred in’ to practices. The course was designed to be an intersubjective space in which candidates would learn how to go on in the practice of researching professional practice; in which they would be ‘stirred in’ to the field by participating in conversations with each other and with some ‘old hands’ in the field.

The Researching Professional Practice course opens an intersubjective space in which candidates encounter a variety of other people in social space. It does not determine who will relate to whom, or how, in this social space, but it does prefigure the space so candidates have a chance to encounter and engage with people they are likely to find interesting and with whom they may have continuing contacts and conversations.

Similarly, the doctoral course has candidates encounter other participants in semantic space. Before coming to the course, they read a number of required readings for the course, and they prepare to discuss them with the authors and others. Likewise, each candidate brings her or his own work into a shared conversation space that also accommodates the ideas and texts of other participants. The course does not determine what ideas will attract close interest, for whom or what ideas will ‘prevail’ in discussion, but it does prefigure the semantic space by putting those particular ideas ‘on the table’.

Likewise, the doctoral course has candidates encounter one another in particular arrangements in physical space–time. Many inhabit a new city, a new university and new buildings and meeting spaces for the first time, bringing their work and work practices into new settings. They are distributed into (usually) two small groups, and the members of each group get to know one another better than they do members of the other group. They are allocated tasks and locations through each working day of the course, so their activities are not determined but at least prefigured by the arrangements of the course. Moreover, in a number of informal settings, candidates encounter other members of the PEP research network, others in the host university and other people in the city where the course is held. Out-of-town candidates also learn something about the city and the country where the course is held.

The course is designed with certain core practices in mind: having the candidates think together, discuss ideas, consider the utility (or not) of practice theory and
research on professional practice for their own thesis research, and ‘stirring them in’ to the work of an international research network. The course thus spreads knowledge about practices of research into professional practice to rising generations of scholars. It has helped to draw some into the field as researchers, and it has drawn some into the PEP research network as continuing research collaborators, thus renewing the research field and the network itself.

Each year, a small number of candidates in the course say they want more structure. Some have asked for more explication of the roles they are expected to play during the course. This reaction seems counter-intuitive, since almost all the candidates are experienced teachers who regularly take these very roles in their everyday working lives. These few candidates ask for more guidance; our design for the course, by contrast, aims to develop the candidates’ practices of leadership, autonomy and professional activism (Sachs 2010) in a ‘safe’ setting where various responsibilities are shared among peers.

This mild contestation over the form of the course leads us to think that we may need to find ways to address some candidates’ expectations of greater structure, input and guidance. Perhaps we can construct transitional spaces (semantic, physical and social) that will make the course more comfortable for those who come to it with the expectation of learning by being taught by experts rather than by participation in study groups or ‘study circles’ (Rönnerman and Salo 2014).

Despite this reservation, we take heart from the response of most candidates to the course. They lead us to conclude that the practice architectures we have designed for the doctoral course do indeed open communicative space in which candidates can encounter and engage critically with ideas, developmental activities and each other.

Earlier, we defined a ‘practice’ as a form of socially established cooperative human activity involving characteristic forms of understanding (sayings), modes of action (doings), and ways in which people relate to one another and the world (relatings) that ‘hang together’ in a distinctive project. Through participating in this doctoral course, candidates reach new forms of understanding about researching professional practice, new modes of action for doing research on professional practice and new ways of relating to one another and the world as participants in local and international communities of researchers researching professional practice. When signing up for the course, the candidates’ project is generally to learn more about researching professional practice. For the course leaders, however, the project is more than to ‘teach’ about researching professional practice; it is to sustain research on professional practice by initiating rising scholars to practice in this research field and having them experience the field as a living, evolving practice whose tendrils reach out in space and forward in time. For the course leaders, these candidates are not ‘students’ passively receiving knowledge from the intellectual traditions we represent; on the contrary, they are a rising generation of researchers actively
entering the academic practices and practice traditions of our research community, equipping themselves, if they choose to do so, to secure our field for the future.

The purpose of this article was to report empirical data from a specific intensive doctoral course run six times (2008–2013) and to demonstrate how the theory of practice architectures, as a specific version of practice theory, could be used as a lens for analysing how the doctoral candidates were being stirred into academic practices. We find the theory rich in implications for practice – for example, suggesting ideas to be taken into account in the planning and construction of future offerings of this course for doctoral candidates, but also for the design of other doctoral courses (although this is not the place to explore those). By letting doctoral candidates bring their own research for discussion and by making them responsible for specific tasks and roles during the course, for example, we believe that this course better prepared them for their future academic lives, connecting them to one another in communicative networks that, in practice, constitute a research field.

Karin Rönnerman is a professor in the Department of Education and Special Education at the University of Gothenburg, Sweden. Her research is in the fields of action research, professional development, practice theory, leadership and research circles. She has been conducting action research in educational contexts for almost 20 years. She is a leader of the Nordic Network for Action Research and a co-leader of the international research network Pedagogy, Education, Praxis. She recently published the book Lost in practice: Transforming Nordic educational action research (Rönnerman, K. and Salo, P. (2014) Rotterdam: Sense Publishers).

Stephen Kemmis is a professor emeritus at the Research Institute for Professional Practice, Learning and Education, Charles Sturt University, Wagga Wagga, Australia. His recent books include Changing practices, changing education (Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P. & Bristol, J. (2014) (Singapore: Springer)) and The action research planner: Doing critical participatory action research (Kemmis, S., McTaggart, R. & Nixon, R. (2014) (Singapore: Springer)).
Note

1 In this article, we adopt current Swedish (and other) nomenclature in which the overall doctoral education includes units of coursework called 'courses', which comprise a particular part of the studies for the degree.
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