

The Teaching of Research Methods: Fostering Discursive Pedagogic Spaces in Capacity Building

Melanie Nind, Daniel Kilburn and Rose Wiles

National Centre for Research Methods

University of Southampton

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Background

How do social science researchers learn about social research methods - the skills - and the knowledge and understanding required for their tailored application to research problems? How do teachers/trainers of research methods develop and use their methodological and pedagogical knowledge for developing the methodological learning of others? These are the fundamental questions underpinning current research funded by the National Centre for Research Methods in the UK and informing this paper. The UK's Economic and Social Research Council (ESRC) has been concerned enough about the UK's social science research capacity and global competitiveness to make capacity building in methods the focus of major investment for the last decade. In the recent past social science doctoral researchers largely learned through apprenticeship/ supervision only; since then taught courses and formal training have increasingly become a requirement for doctoral students. The emergence of ESRC Doctoral Training Centres is a landmark in this shift in focus, discussed by Boud and Lee (2008), from the thesis and independent research as the sole focus of the doctoral education process to a the incorporation of core and advanced training tailored toward professional development of the capacity of the researcher. On a European level, the Salzburg Principles also appear to have fostered the adoption of more structured forms of doctoral training, under a conception of doctoral learners as 'early stage researchers' undergoing preparation for the job market, as advocated by the European University Association's (EUA) Council for Doctoral Education (Kottmann 2011). The policy climate in Europe and the UK therefore appears to reflect similar concerns about research training and capacity building in response to the challenges of the global knowledge economy.

Pedagogic dialogical spaces

Amidst this context of the drive towards more methods training, there has developed (at least) two concurrent discourses – one about doctoral education and one about training and capacity building. While the former is concerned with longer term development and the latter is geared towards short courses, both refer to backfilling or up-skilling to equip researchers with the ability to apply research methods needed for a fast-changing landscape of research opportunities and demands (Moley et al. 2013) encompassing new uses and types of data.

In the world of short course training and capacity building in particular there has been a dearth of pedagogic space, with the discourse largely limited to problematising deficits in skills or capacities and exploring effective modes of training delivery such as online versus face-to-face. Even with international interest in MOOCs (massive open online courses) triggered by the potential for

economies of scale, there is limited interest in the tensions between potential for networked learning versus largely transmission (Daniel 2012). In the UK, a lack of research on the experience of doctoral students and particularly the pedagogy associated with their training has been observed via systematic review (Leonard et al. 2006). Other reviews of the literature on research methods training more widely have highlighted the lack a pedagogic culture for research methods (Wagner et al. 2011; Early 2013). Wagner et al. (2011) conducted a systematic review of academic literature 1997-2007 pertaining to the topics and gaps in research methods teaching and identified a lack of a 'pedagogical culture', that is a lack of debate, investigation and evaluation regarding how research methods are taught and learnt. Insights tended to be bounded by individual methods or discipline and based in experience more than research. More recently and more extensively, Earley's (2013) synthesis identified a similar sets of limitations in the literature and concluded that it contributed little on how students actually learn research method and little for teachers to use in developing their practice. Our own thematic review (Kilburn, Nind & Wiles 2014: 14) endorsed the finding of 'little evidence of systematic debate, whether in the form of cross-citations within the literature, or dialogue between disciplinary or methodological contexts' and 'little evidence of a "substantial research base"' (Wagner *et al.* 2011:85). We did though find encouraging 'aspects of pedagogical scholarship' and 'increasing attention to the specifics of teaching and learning for particular research methods, approaches or techniques' (p.14). Moreover, we found indications that 'The potential limitations of past orthodoxies in research methods teaching are being aired, and, in response to learners' demands, methods teachers are innovating and experimenting with alternative approaches' (p.14).

The research discussed in this paper has been a response to this situation in which there is a need for the beginnings of pedagogic culture around research methods to grow. Our intention has been to conduct a study in which the processes and products of our research create pedagogic dialogical spaces where they have so far barely been apparent, specifically in the area of short courses for advanced and innovative research methods. We are engaged in an ongoing project to open and sustain a dialogue between teachers of research methods, the people concerned with strategy and provision of advanced methods training to researchers, methodologists and learners of research methods.

Theoretically, concepts of complexity are useful in this research. Our working premise is that what is needed is not what Stacey (2012) describes as the high agreement, high certainty territory of standards, guidance and monitoring of best practice. This would lead to prescriptions of pedagogic practice and ultimately undermine the development of a pedagogic culture. The opposite in terms of Stacey's low agreement, low certainty territory of chaos and anarchy would be equally unhelpful. The research is concerned with nurturing the middle space 'zone of complexity' fostering exploration and dialogue so that the pedagogic culture can blossom. Stacey (2001: 210) argues that 'the source of skilled behaviour is not tacit knowledge locked in an individual's head but the ongoing participation in patterns of relating'; thus, it is the relating between teachers and trainers (with their different cultures and identities) and between teachers and learners that we have been exploring. This is transformative research designed to bring transformative learning with it, in that taken-for-granted frames of reference (perspectives and habits of mind) will be opened for scrutiny and potential change (Mezirow 2003) with the participants in the study potentially changed by it. The research may be a catalyst for 'extended professionalism' (Carr and Kemmis 1986: 19) – with

professional teachers/tutors extending beyond knowledge as technical expertise to embrace to some extent a strategic, critical or problematising approach (reflexivity) to their teaching as to their research.

In fostering dialogue in this research we have followed Stacey's (2012: 113) advice that it is widening and deepening the conversation that matters – as opposed to 'closing down the conversation by a hasty jump straight to what is thought of as a "solution"'. Creating research 'spaces for restless encounter' (Fielding, 2010: 61) is a constructive route to enable 'creative, holistic and potentially transformative ways' of engaging with the challenge and teasing out the pedagogical content knowledge for social research methods.

Methods

To-date, as we have argued, there has been comparatively little empirical engagement with the processes involved in the teaching and learning of social research methods (Earley 2013). Published work has largely been represented by reflections on in-house action research, evaluations or case studies of particular cohorts, contexts or challenges. The methodology for this research was a deliberate attempt to move beyond such parameters and instead engage participants from across disciplines, organizations and methods with a focus on how advanced or innovative social research methods are taught and learned.

The design comprises a complex, iterative process of combining an expert panel method with video stimulated recall and reflection focus group dialogue. Thus we have conducted one-to-one, in-depth, semi-structured interviews with a panel of eight specialists in research methods – and in the teaching and learning of such methods – to illuminate the issues at the heart of the challenge of building capacity in social science research methods. Themes generated from analysis of these interviews were further discussed in three hour-long focus group interviews with experienced and specialist methods teachers (14 in total) and in an online forum involving 18 doctoral and early career methods learners. Alongside this, we conducted detailed observation and video recordings of four short course teaching/training events, which we then used to stimulate discussion in focus group dialogue with eight participating teachers/trainers and 25 learners about what they had just done, said, and thought - and why. This close up component added a more immediate temporal/distance perspective on the challenge of teaching and learning particular methods, specifically multi-modal analysis, computer-assisted qualitative data analysis software, multi-level modelling, and systematic review.

The approach throughout, across all the methods, has been to foreground working *with* other teachers/ trainers/ developers/ users and learners of methods and not to pass judgment, or do research, *on* them. We sought to engage advanced methods teachers and learners in working with us with the aim of elucidating the distinctive pedagogical challenges, demands, knowledge and processes involved in this field. We are ourselves researchers, methodologists, teachers and learners of research methods, thus working with others in the project we are outsider to their courses, insiders to their broad communities, occupying the insider-outsider status of the 'paradox of *detached involvement*' (Stacey and Griffin, 2005: 9) perhaps, within the dialogue while simultaneously looking in on the dialogue.

Findings

The themes from the different methods flowed through the various dialogic encounters such that the combined dataset led to small number of over-arching leitmotifs related to our original research questions:

- (i) the challenges discussed in relation to teaching and learning advanced or innovative methods;
- (ii) the teaching approaches that are used, valued or regarded as problematic;
- (iii) the pedagogical content knowledge of methods teachers/trainers - the assertions made about what they know about how to teach research methods - their pedagogical discourses and thinking;
- (iv) innovation in research methods and what this means for the teaching of them, and innovation in teaching and learning regardless of whether the methods are innovative;
- (v) the qualities and pedagogical learning of methods teachers/trainers; and
- (vi) the qualities that learners bring to the pedagogic situation.

In this paper we focus on the first three, though often the themes are inevitably intertwined. The specialist panel began the conversation about the challenges involved in teaching and learning advanced or innovative methods in response to direct questioning about this, linking it to discussion of their own methodological expertise, pedagogical experience and concerns. A common thread was the wide variation in learner knowledge or skills, making the challenge how to address these different levels of preparedness or 'having to quickly ascertain where people are and quickly realise where I can start off at' (Nadia, CAQDAS). Thus the mismatches between learners and contexts were highlighted, including the mismatch between the complexity of the material involved in learning the method and the amount of time available to teach it (typically between one and three days, for these sorts of courses). Pedagogically this presents challenges related to the timing, sequencing and pace of the teaching, intensified by the diversity of the learners and their often unknown nature. Julia Brannan¹ expressed the problem that the short course model is meant to solve but does not always achieve: 'For any kind of learning to be maximally beneficial, it has to occur at a point when you are likely to put it into practice.'

The expressed challenges were somewhat different according to whether the discussion was about quantitative or qualitative methods. Teachers of quantitative methods spoke more of the challenges associated with fearful learners, with sometimes weak mathematical foundations on which to build, and with making research methods learning appealing. This sometimes led to teachers adopting approaches involving 'mass gimmickry' (Andy Field), but also with the aim of engaging learners in relevant research problems and data. Teachers of qualitative methods spoke more of the challenge of needing to ground methods in ethics and theoretical and epistemological underpinnings (Amanda Coffey). Most countered the view that qualitative methods cannot be taught, though learners still experienced some of this, one ethnographer commenting on the forum that 'When I started my fieldwork it was a "learn as you go" experience. Maybe that's the nature of it.' However, both quantitative and qualitative specialists shared concerns with relating methods learning to knowledge

¹ With their agreement the specialists in the individual expert panel interviews are named, for others pseudonyms are used.

of everyday worlds, and to thinking about data and evidence, whether it be employing a 'statistical imagination' (John MacInnes) or stimulating critical engagement (Amanda Coffey). All the teachers discussed the challenges associated with the kinds of data involved with their methods and how they used data in their teaching approaches. Some advocated using real data, while others preferred data designed for the pedagogical purpose, though all saw the need for data to act as a pedagogical hook. There was near unanimous agreement around the aim of learners actively doing things with data, expressed both in terms of the challenges for teaching as well as the benefits of learning in this way.

The challenge of *what* to include and *what* to leave out was as big as the challenge of *how* to communicate it and *how* to pass on skills and understanding. This was a particular consequence of the short course format which prompted descriptions of a constant battle with time and ongoing compromises and decisions regarding comprehensiveness versus cohesion, methodological literacy versus methodological competence, the conceptual versus the operational. The challenges shaped the teaching approaches and the teachers' developing pedagogical content knowledge. By this we refer to Shulman's (1986, 1987) concept of transforming subject expertise and general pedagogic knowledge into particular professional craft knowledge on, in our case, the teachability of research methods including things like how to powerfully represent ideas, which analogies and examples are effective, and what makes grasp of particular aspects easy or difficult. From the learners' perspective, time spent in active learning and time spent in interaction with each other or hearing from more expert peers was particularly valued, as was resource material to prepare for face-to-face teaching and to follow up with (video stimulated focus groups). Everyone appreciated the sharing of insights from researchers' lived research experience as invaluable for embedding methods learning in authentic research problems and situations (although there was some disagreement over how far these should be based in particular disciplinary contexts).

In terms of the journey of ideas across dialogic spaces the individual expert interviews located the key ideas within policy debates, national or institutional developments, and methodological innovations and developments. Other teachers and learners related these to their particular methods or disciplinary contexts. The close up component of discussing actual training events immediately following their happening placed the ideas in even sharper focus. For example one learner articulated a lot about the pedagogical decision-making in the course on systematic review she had just undergone:

I think it was a really well balanced course in terms of content, but in terms of paradigms as well, because I think, like what you were saying about kind of doing the qualitative critical appraisal first, I think because you get really used to kind of what's traditionally, so you're like oh I'll just do the quant first because that's what everyone does, and then it kind of like you then learn that in a way, like it kind of almost reinforces the, you know the paradigm like oh well the quantitative is what you do, what you would do first if you were doing research on something, you would then translate that into your practice, whereas to me I was like oh we're doing qualitative first, and it kind of like promotes qualitative research within this forum and actually I think they were treated really equally, which, because I'm interested in mixed methods that's really interesting to me that actually it's a really open, equal forum where no-one comes with a massive agenda and no-one comes trying to attack the other one, and I think actually it's a really productive way of doing it, so I thought that was really interesting, and I like definitely picked up on that.

Some participants utilised specialist pedagogic language with reference to 'pedagogical starting points', learning by doing, problem-based learning, hooks for critical engagement, embodiment of methods (Amanda Coffey, Pat Sikes, Malcolm Williams). Sometimes pedagogical concepts, such as active and interactive learning, modelling, reflective learning, differentiation, and the limitations of a didactic approach were communicated, but most often without the speakers necessarily using these terms. Those without backgrounds in education did not have easy recourse to the vocabulary that can aid pedagogical discussion.

Some of the pedagogical knowledge communicated was well-rehearsed, built up over years, for example:

often if I know I've got people in the room who have used another software, then that's a really good teaching mechanism for me, because when I'm saying something about one software and I compare it to how it works in the other software, that's often quite a good way of making something clear I think, so I do, I do, but I wouldn't do that if I had room with fourteen people very much, because...

Other knowledge was more fresh, knowledge in the making, such as:

- Daniel: ... The diagram actually became quite important.
Nadia: You know that diagram, I've never drawn that diagram for [this course focus] before.
Mel: I've photographed it.
Nadia: I draw that diagram when I teach with the other stuff I've had to produce before, but because of the, because of the thing that we were talking about, I don't draw that, I've never drawn it with, so that was a bit of [.]
Mel: So that was new.
Nadia: So I was half way up thinking I'm not sure what's going to happen when I get up the other end.
Kim: No, it was useful; really useful.
Nadia: Good. So that's trying something I know works in the context of something else here, but I wasn't planning to do that, it was just because of the conversation we were having, I thought okay, this is what this is isn't it, so I then, but I wasn't really sure how it was going to turn out, so.
Mel: So that was a bit of risk taking wasn't it, but it paid off you were saying.
Kim: Oh yeah, really, it really helped clarify things for me.

In the dialogic spaces created ideas were challenged and affirmed. One teacher expressed his concerns about the parts of the teaching not under his direct control:

where I'm actually planning what goes on to a workshop or a course, the bit where there's a great big space with nothing in it, other than exercise or round table discussion, it makes me feel nervous putting it in, and because you feel to prepare, you've got to prepare, you've got to do something, and this idea of having this enormous space, and so there's always a tension that I feel when I'm putting together a programme, of just how much I'm willing to risk, and it feels like a risk.

And the learners helped him with that, one commenting 'I think we could have had another fifteen, twenty minutes easily on that' and 'by that point we kind of knew each other well enough that it was

really helpful doing this group work'. Another added 'I think it's so much nicer talking in peer groups rather than just asking direct questions all the time, because it's just, you don't know each other, and then even like little bits that you need clarification on, it's easy to do with the person sitting next to you, but then if there is a bigger issue, you can kind of ...'. The led the tutor to conclude, 'I think you're right, it's about holding my nerve as an organiser, and allowing there to be big blank space to sit there.' Importantly then, implicit, tacit knowledge was brought into the dialogic space where it could shape and be shaped into new forms of knowledge in interaction with others.

Discussion and conclusion

This research was not geared toward establishing best practice but toward fostering pedagogic *how to* discourse and cultures that might contribute in ways that are more productive than policy drives for *more and more* training. The conference paper will hopefully facilitate a valuable enriching of the conversation with a European dimension while showing why dialogue about the findings and issues is as important as the findings themselves.

The problem highlighted by Earley (2013: 2) is that the pool of research means that methods teachers are in a position in which they have to 'rely on a network of peers, scattered research literature, and much trial-and-error' for developing their practice. This research shows that teachers of advanced or innovative methods also rely on deep methodological knowledge, extensive research experience, and feedback where they can get it, as a basis for their teaching. It also provides a study that crosses social science and related disciplines, numerous research methods, twelve institutions and multiple roles in its sources of evidence. Good dialogue is about enabling us to have a constructive relationship with our 'authoritative doubt' (Mason 2005), that is, our balance of knowing and not knowing pedagogically, which offers potential for learning. Creating dialogic spaces to deepen the pedagogic conversation is informing, and will further inform, the strategic work of the National Centre for Research Methods, Doctoral Training Centres and other providers and facilitators of methods teaching and learning, so that it has impact on practice and policy. Through the dialogic process there is the option to move away from the constraints of the language of clients, delivery, and over-simplified training outputs, and scope for an alternative 'rich storying' (Todd, 2007: 84) of what is going on in methods teaching & learning for the individuals involved.

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