

Teaching research methods in the social sciences: Expert perspectives on pedagogy and practice

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Abstract

Capacity building in social science research methods is positioned by research councils as crucial to global competitiveness. The pedagogies involved, however, remain under-researched and the pedagogical culture under-developed. This paper builds upon recent thematic reviews of the literature to report new research that shifts the focus from individual experiences of research methods teaching to empirical evidence from a study crossing research methods, disciplines and nations. A dialogic, expert panel method was used, engaging international experts to examine teaching and learning practices in advanced social research methods. Experts' perspectives demonstrated strong thematic commonalities across quantitative, qualitative and mixed methods domains in terms of pedagogy, i.e. connecting learners to research, giving direct and immersive experiences of research practice and promoting reflexivity. This paper argues that through analysis of expert responses to the distinct pedagogic challenges of the methods classroom, the principles and illustrative examples generated can form the knowledge and understanding required to enhance pedagogic culture and practice.

Keywords: research methods, teaching, learning, pedagogic culture, expert panel method

1. Introduction

The teaching of research methods places very specific demands on teachers and learners. The capacity to undertake and engage with research 'requires a combination of theoretical understanding, procedural knowledge and mastery of a range of practical skills' (Kilburn *et al.*, 2015, p. 191). These pose significant challenges to both methods teachers and learners. For learners, Howard and Brady (2015) argue that methods modules are amongst the most intellectually demanding courses in university education (see also, Earley, 2014; Wagner *et al.*, 2011). Methods teachers and instructors face additional challenges as methodological expertise is often fragmented across academic disciplines. Nationally and internationally there are no agreed curricula; methods content is dynamic. Working in this fast-changing environment requires constant vigilance and skills development on the part of learners and teachers. Within this challenging context, efforts to accelerate the development of methodological expertise have not always been informed by pedagogic research, principles and theories.

Reviews of the literature suggest a disjointed and under-developed discourse around the pedagogy of methodological learning. A systematic review by Wagner *et al.*, (2011) identified a lack of 'pedagogic culture' in research methods teaching, concluding that there is little guidance available to teachers. The authors define this deficit as a lack of debate, cross-citation within the literature, dialogue across disciplinary contexts, and substantial empirical research. Earley's (2014) review also notes a paucity of pedagogical research and pedagogic culture across disciplinary boundaries. He observes that teachers of methods cannot inform their practice by calling upon a substantial body of literature characterised by systematic debate, investigation and evaluation of teaching and learning. Instead, there is a reliance on peers, trial-and-error and methodological know-how, rather than pedagogic knowledge informed by theory or research (Earley, 2014). Given that the ability to undertake and evaluate research are foundational within the social sciences (Ryan *et al.*, 2014), this pedagogic situation is troubling.

2. From thematic and systematic review to empirical research

Published in this journal, a thematic review of papers from 2007 onwards suggests that pedagogic dialogue is beginning to emerge, particularly in the form of pedagogies for active, experiential and reflective forms of learning in research methods (Kilburn *et al.*, 2014). Indications of this dialogue include edited collections (Garner *et al.*, 2009) and research on teaching quantitative (Payne and Williams, 2011), qualitative (Hurworth, 2008), and discipline specific methods (Loxley *et al.*, 2013; Adriaensen *et al.*, 2015) that go beyond reflections on the authors' own practice. Nonetheless, these activities may be more indicative of pockets of interest, rather than a major building of pedagogic culture.

Indeed, recent debate around the teaching of quantitative methods exposes the lack of connection between the teaching and educational research and theory. In the USA, Gelman and Lokan (2015, p. 1) argue that attitudes in statistics education are more informed by 'views about statistics, and personal experiences in the classroom, than from systematic studies of what works in what context'. This is echoed in the UK, where MacInnes (2012) and Jones and Goldring (2015) observe the neglect of quantitative methods and problems with understanding how they might be taught in the social sciences. Within the mixed-methods classroom, the need for pedagogic culture has spurred deliberate moves to develop the field. Here the challenges include a 'first generation of faculty' in which teachers themselves are learning the 'how-to's of conducting mixed-methods research, as they simultaneously teach these methods to their students (Creswell *et al.*, 2003, p. 620). Mixed methods courses are new (Frels *et al.*, 2012) and Hesse-Biber (2015) argues that instructors continue to be largely self-taught and are themselves lacking in adequate training in both quantitative and qualitative methods. Taken together, she argues, these training gaps can undermine students' understanding of using mixed methods and teachers' confidence in addressing student needs.

Despite the growing corpus of research in methods pedagogy, this literature is marginal when compared with discussions of social science methodology' (Nind *et al.*, 2015). Moreover, as Nind *et al.*, (2015) argue, to date, work that is published tends to comprise narratives of specific pedagogic examples, based on the experience of a single teaching team with one or two cohorts of students. The trend they observed, of reflection, both as a key pedagogic theme and the dominant research method (e.g. Hernández-Hernández and Sancho-Gil, 2015; Scott Jones and Goldring, 2015), continues in other recent literature, (for example, Dyrhaug, 2014; Silver and Rivers, 2015). The insights gained from such research are valuable, contributing to pedagogical culture by providing detailed examples of the ways in which teachers can engage with, and motivate, learners through changes to pedagogic practice. However, there remains a need for research that expands the frame of reference to cross-cutting research that encourages the dialogic practices through which teaching praxis can be more empirically and systematically examined and debated. This is the gap that we are working to fill.

In this paper we develop the emerging pedagogy for research methods identified by Kilburn *et al.* (2014) by connecting new research to the pedagogic approaches they discuss. These are approaches that are grounded in reflection on the research process, learning by doing research, and the processes necessary to make methods visible. To do this, we present and discuss a new evidence base grounded in qualitative analysis of expert praxis in the teaching of social science research methods, which constitutes a step towards the formation of a pedagogic culture. Our aim is to further stimulate debate and dialogue, and to advance understanding in this nascent, but growing field.

3. Methodological Approach

To build on the emerging pedagogic culture surrounding methods learning, we have sought a dialogic method design that develops understanding of expert pedagogic practice, moving from a level of individual reflection to a level of communal engagement. Moreover, we have sought an approach that could encourage and expand the dialogue that characterises and promotes the development of pedagogic culture through and between participants and the wider research methods community. In this way we have set out to engage with teachers and learners of research methods, rather than to evaluate them.

We were not interested in developing what Stacey (2002) theorises as the high agreement, high certainty territory of standards, guidance and monitoring of so-called best practice. This alone might lead to prescriptions of pedagogic practice which could undermine the development of pedagogic culture and obscure the socio-cultural aspects of methods learners' journeys (Nind *et al.*, 2014). Similarly, we saw the unhelpfulness of Stacey's low agreement, low certainty territory for the teaching of research methods. We were concerned with nurturing his middle space 'zone of complexity', which fosters exploration and so provides a space where pedagogic culture can grow (Nind *et al.*, 2014). Stacey (2012, p. 210) argues, 'the source of skilled behaviour is not tacit knowledge locked in an individual's head', rather the source is interaction and ongoing

participation in patterns of relating. Thus, in Stacey's terms, we devised a study to widen and deepen the conversation, as opposed to closing it down by rushing to a solution or to a consensus. Working with the guiding principle of dialogue we initiated an 'expert panel method' adapted from the work of Galliers and Haug (2012). Expert panel method involves a series of qualitative interviews with individual experts who are then each invited to respond to an analysis of the group's data. As our work was concerned with dialogue and sharing conceptual insights our panel method differs from previous work. Our participants were invited to respond to initial findings as a group in a shared forum, foregrounding opportunities for dialogue with between methods specialists.

3.1 Expertise in Method and Pedagogy

A key challenge in the development of excellence in the teaching of research methods has been that the development of advanced methods training has frequently been the task of methodological experts who do not have a pedagogic background. In this sense, they demonstrate strong content knowledge (a knowledge of method), but, as Nind *et al.* (2015) observe, they do not necessarily have the pedagogic knowledge (including that specific to the subject matter, pedagogic content knowledge, (Shulman, 1986) associated with excellent learning experiences. For the purposes of sharing pedagogic experience and insight, it was therefore necessary to recruit participants with both teaching and methodological expertise who could share their pedagogical content knowledge. Within higher education, expertise is notable for its social aspect, developed with and judged by peers (Wray and Wallace 2011). Such recognition of expertise by peers must also exist side-by-side with the procedural knowledge, theoretical expertise and practical skills accumulated through ongoing experience. As 'expertise develops slowly and can be characterised by a large integrated knowledge base' (Shraw, 2006, p. 259), we recruited senior academics and scholars with significant experience over time of advanced methods teaching at a postgraduate level whose expertise was marked by peer-recommendation (through the National Centre for Research Methods' teaching networks and our expert advisory group), the publication of ground-breaking and influential methods textbooks and papers with a pedagogic function, and published reflections on pedagogy for methods teaching. Many held leading positions within international methods societies and as trans-national visiting academics. Thereby we created a panel of people we characterise as methods experts and 'pedagogic leaders' (Lucas and Claxton, 2013). We recognise that expertise in teaching practice is not necessarily visible within these criteria. For example, the pedagogy of textbooks is often implicit, rather than explicit in its formulation and expression. Moreover, we acknowledge that the notion of leadership is contentious, and that our participants would not necessarily define themselves as experts or leaders. Nonetheless, we hold that their academic teaching practices 'set the cultural tone' (Lucas and Claxton, 2013, p. 15) of much contemporary methods teaching and learning.

3.2 Expert Panel Method

Expert panel method has previously been used to examine aspects of methods teaching in Information Systems. Galliers and Huang (2012) sought alternative narratives to dominant positivist paradigms and a quantitative methods culture. They note ‘expert panels provide a forum in which leading experts in a given field are invited to share their experiences and thoughts’ (p. 122). We conducted two expert panels; panel 1 (2012-13) involved experts from the UK and panel 2 (2015) had an international focus. We undertook individual semi-structured interviews with eight UK expert methods teachers and 13 international experts (see table 1) working across Europe, the Americas, Africa and Asia. The status and specialisms of many of the experts meant that retaining their anonymity before a social science readership would be unfeasible. With advance ethical approval and their explicit agreement, expert panellists are therefore referred to in this paper by name.

TABLE 1: Expert participants

Quantitative Methods		Mixed Methods		Qualitative Methods	
Panel 1	Panel 2	Panel 1	Panel 2	Panel 1	Panel 2
Andy Field	Andrew Gelman, USA	Julia Brannen	Pat Bazeley, Australia	Amanda Coffey	Bagele Chilisa, Botswana
John MacInnes	Anne Porter, Australia	Pauline Leonard	Manfred Max Bergman, Switzerland	Pat Sikes	César Cisneros-Puebla, Mexico
Malcolm Williams	W. Paul Vogt, USA		John Creswell, USA	Harry Torrance	Yvonna Lincoln, USA
	Chris Wild, New Zealand		Sharlene Hesse-Biber, USA		Johnny Saldaña, USA
			Richard Rogers, Netherlands ¹		

Interviews were conducted by phone/Skype or in person, audio-recorded and transcribed in full. The interview schedule was shared with participants for consideration in advance. Questions covered pedagogical knowledge (for example, probing the distinctiveness of methods teaching; the influences, learning theories and approaches that experts associated with their practice), the culture of methods and pedagogy (including socio-cultural factors, such as the influence of discipline, method and geopolitics amongst others), and innovation in methods and in teaching and learning (for example, how experts respond to the challenges of new types of data in the teaching of data analysis).

Experts were consulted on themes from the analysis of panel 1 data, which were then used in face-to-face focus groups comprising 15 teachers deeply immersed in teaching particular methods (quantitative, qualitative, narrative) to test out

the resonance of identified pedagogic challenges, approaches and issues. Some expert panel themes were simply endorsed, such as the challenge of the diversity of learners in a group and the need to find out what they know and pitch the teaching accordingly. Other themes were challenged, however, such as the notion of short courses not providing sufficient space for reflection on practice ('I think you can do it on a short course actually'). Other themes (presented in the focus groups through illustrative quotes) led to extensive consideration, sometimes problematising an issue ('I don't know how to read that comment actually, because ...'), and to discussion of how different experiences mapped with those of the panel. The method thereby generated data through interactive dialogue across groups with pertinent expertise.

The second expert panel expanded the lens of interest from a national to an international level. Methodological and pedagogical cultures vary widely internationally. To give nuance and to avoid an Anglo-centric orientation we purposefully targeted different regions and experts with international experience. Once again, the expert panel was invited to respond to and discuss emergent themes to inform subsequent in-depth analysis, this time via a password protected online forum over a four-week timeframe. This approach promoted the dialogue and debate that characterises pedagogic culture, but also deepened our understanding of the emergent data and offered experts reciprocal insight into the pedagogic expertise of their peers.

Analysis of the dataset was thematic, with data coded independently by two researchers. Coding in the first instance was based on immersion in the data (listening to complete interview recordings as well as working with transcripts). Following an initial analysis, emergent themes were shared with panel participants. Participant validation helped us to establish the credibility of our themes (Lincoln and Guba, 1985) and online panel discussions generated further data (Bloor, 1983), suggesting useful lines for more in-depth analysis. In the second deeper wave of analysis, we inductively and iteratively pursued lines of inquiry critical to the study and our participants. This influenced the choice of broad level themes (e.g. pedagogic challenge, pedagogic approach, innovation in pedagogy); themes within these emerged in a more grounded fashion (e.g. unprepared learners, project-based, risk-taking) and were labelled using expert's own terminology. We were interested not just in recurrent themes, but in the importance these held for individuals, and responses to them in dialogue.

4. Findings

In this study, we have begun examining the pedagogy of methods learning at a community level, rather than the individual level that currently characterises the literature. Individual findings have been exposed to an iterative sharing process through the expert forum and focus groups thereby exploring which themes resonate beyond individual contexts. Three prominent meta-themes identified within the data are discussed here. These map closely to the themes established by Kilburn *et al.* (2014) relating firstly to the importance of making research visible – connecting learners to a world of methods through active engagement

with methods; secondly to perspectives and approaches concerned with learning through the experience of conducting research; and finally, to approaches that encourage reflection on research practice. These themes are interrelated – importantly, we note that a given learning activity may express multiple complementary pedagogic aims. We also report themes relating to the origins of experts’ pedagogic approaches and pedagogies, where we begin.

4.1 Pedagogical roots

Through our analysis and expert dialogue, strong commonalities emerged regarding the roots of pedagogic practice. Experts talked about, and reflected jointly upon how their pedagogical approaches have evolved. Substantive discipline was a key theme. Johnny Saldaña expressed the importance of his substantive discipline (Theatre) as it informed every aspect of his methods teaching practice. He described how transferring concepts such as ‘perceived similarity’ (‘meaning that if the audience sees something in the characters on stage that they can identify with ... the audience is going to be more engaged’) underpinned his teaching rationale when engaging with methods students. This substantive aspect was echoed by Richard Rogers for whom ‘hacker methodologies’ and teaching approaches from computer science were expressed in digital research methods teaching through hackathons (in which programmers and others collaborate to develop new hardware or software) and intensive project-based courses conceived as ‘data sprints’. Disciplines were also made visible in experts’ reflections on their own training and how this influenced their pedagogy. They repeatedly referred to their disciplinary foundations, whether or not they had moved from the discipline in which they were trained: For Sharlene Hesse-Biber this was expressed in the formative influence of the Institute of Social Research’s ‘Detroit Area Study’ at the University of Michigan and for Bagele Chilisa it was critical training at the University of Pittsburgh. Pat Bazeley referred to her pedagogical roots and values within her psychology training, which fostered an appreciation of ‘all substantive learning’ as being ‘based on evidence from research’.

The formative influence of prior methods training was also lucidly articulated among the panel. Max Bergman reported having ‘emulated more or less good teachers that I had and developed relatively quickly my own style’. Johnny Saldaña concurred: ‘Like Max, I have been greatly influenced in my pedagogy by outstanding teachers and I try to replicate their pedagogical style’. According to Yvonna Lincoln, ‘we tend to teach what we were taught’ with ‘direct links’ between supervisors and students across generations of researcher-teachers. This ‘social reproduction’ of intellectual forebears, she argues, influences everything from choice of textbooks, to pedagogical style and substance. Andrew Gelman spoke of this ‘tradition’ in statistics – adapting across platforms from the blackboard to computer codes. However, Lincoln stressed that in qualitative methods this was not *simply* tradition, ‘there’s a very real sense of doing it [methods teaching] in the same vein, if not in the same way... as you were taught to do it’. Experts also reported the influence and value of mentors (Bazeley), teacher-educator colleagues (Wild), and the learners themselves (Bergman, Creswell).

Moving from the micro to a macro level, pedagogic expertise was also rooted deeply in national context in several key cases. For Cesar Cisneros-Puebla this was expressed as pedagogical inheritance of the 1970s inspired by Cuban teachers connected to Vygotsky. In his words, 'this legacy around participatory action research, activity theory ... it's always in our connection to the students'. Bagele Chilisa, 'coming from Africa', wanted to 'understand whether there is a standpoint ... that is informed by where we are in terms of development, and where we are in terms of our histories ... not only our histories but our involvement in research'. These departures from Western-centric methods teaching narratives are a reminder of the political and situated nature of methods teaching inheritance.

The individual values and methods of the expert teacher/researcher were assigned great importance in the discussion of pedagogical roots. Johnny Saldaña observed 'We teach who we are' and Andy Field recognised that 'one person's teaching style is not necessarily another person's teaching style', that we each have our 'individual stamp'. Amanda Coffey stressed the role of her deep appreciation of qualitative methods in how she taught and communicated this.

We can see that the combination of disciplinary, methods teaching, cultural and individual histories influenced the evolution of the experts' pedagogical practices, by their own accounts more so than any pedagogical theories. When more theoretical influences were mentioned (such as Vygotskian and Freirian influence in South American contexts) these were in the context of the above. Exceptionally, and understandably so, this was different only for those with a background in education, such as Amanda Coffey, who made greater reference to pedagogic concepts such as pedagogic spaces and peer learning.

From the foundations of pedagogy, we now turn to how experts articulated their pedagogical approaches in practice with a view to the learning that can be gleaned for the methods teaching community.

4.2 Theme 1: Making research visible: Connecting learners to research

Kilburn *et al.* (2014, p. 197) referred to a group of teaching approaches linked by the goal of making the 'research process visible by actively engaging students in the aspects of the methods at hand'. We did not analyse our interview transcripts with this categorisation in mind. However, our coding allowed us to map the experts' pedagogical content knowledge in this area. We interpreted this range of pedagogic activity in terms of the pedagogic starting points or hooks that our interviewees described as ways of connecting the learners to the research space. Andy Field articulated the long-term nature of this project: 'if you get people engaged at undergraduate level you've potentially hooked them for life'. Amanda Coffey referred to the 'kind of pedagogical techniques or tricks in a sense' that do this, and Field to a core 'scaffold' that he uses to bridge entry to statistical learning. For Bagele Chilisa, this activity was geo-political, relating to the need for students in an African context to be able to critique government research and international literatures. Use of pedagogic hooks might involve connecting

methods learners to research ideas, data or methods, but it is fundamental work, central to bringing learners in to the activity of researchers so that they might see or know research in engaging ways.

According to the literature and to our expert panel, to hook in - or connect - learners and research methods might require active learning, 'which gets students actively involved' (Keyser, 2000, p. 35) in solving problems and using methods. Teachers working in a student-centred way to foster engagement might use tasks and exercises, but also examples, metaphors or vignettes to make the research method knowable to learners (Kilburn *et al.*, 2014). Amanda Coffey referred to 'very tangible' tasks that 'enable learners to critically engage'. She described getting them working with data 'right at the start' and Malcolm Williams' starting point might be for students to 'get their teeth into' datasets by activity working on them. Going beyond doing things as a route in, there is also knowing how researchers do things. Sharlene Hesse-Biber spoke specifically about taking methods learners 'behind the scenes' of research, sharing the 'back-story' behind the 'final product' as a way of making the research process visible and thereby understanding 'the enormous journey that researchers go on, the false starts, the stops, the need to regroup, the iterative nature'. Similarly, Malcom Williams recounts the importance of 'great stories' from the field 'that will illustrate issues', challenges, setbacks; this, he argues, is 'the only way students are ever going to get there ... when they hear it from the people themselves'. Field, Leonard and Sikes are also explicit about using stories in this way to engage learners. Hence, pedagogic hooks in the process of making research visible are about active engagement rather than just activity.

Pedagogic hooks are often the things that are non-threatening, non-technical, even enjoyable. This might mean hands on working with analytic software (as described by Vogt, Wild, Williams) or engaging with interesting quantitative datasets (advocated by MacInnes, Wild, Williams) or ethical questions (Sikes, Torrance). Experienced methods teachers 'start from where people are', how they use observing and listening as 'methods of everyday life' (Coffey). Such teachers use the learners' interests (Vogt, Wild, Williams) and own culture to build bridges into the research space, for example, learners' disciplinary culture or literature familiar to them (Lincoln). Connecting learners to research in this respect can be a matter of 'appreciation' of what might count as data or evidence (Coffey). Yvonna Lincoln explained that this is about 'help[ing] them to see that [research] questions don't exist in a vacuum': they are located in research spaces just as the methods learners are. For Sharlene Hesse-Biber the hook or connection needs to be between the standpoint of the methods teacher as a researcher and the standpoints of the learners. She described her teaching as starting from reflecting on these standpoints, and also her pedagogic practice of 'experience sampling' - frequently dipping into learners' experiences to aid teaching. Paul Vogt was most explicit about combining learner interest and learner activity as an effective hook, arguing from his experience of that '[n]othing works better than hands-on work on something they're interested in'. He explained, 'once you have gotten them hooked, then you can ...', indicating various activity that can follow from this first stage. He elaborated on a range of non-technical ways of hooking methods learners into quantitative research

methods and the technical language and practices therein. Cross-cultural and inter-disciplinary teaching practices complicate these activities – as experts (Bergman, Chilisa, Cisernos-Puebla, Creswell, Gelman, Hesse-Biber, Lincoln, Vogt) identified how national methods cultures and disciplinary legacies determine both the teaching context and pre-existing methods knowledge amongst students that teachers must engage or supplement to ensure parity in student learning outcomes. As John Creswell observed ‘one of the key issues globally, is whether the country has sufficient training in both quantitative and qualitative research’. While he recognised the difficulty in generalising, student-centred teaching does need to acknowledge the predominance of particular schools of method in given cultural (and disciplinary) contexts to effectively engage students and meet their needs.

We also identified, among a broad spectrum of teaching approaches described, those that could be categorised as active or problem-based learning. Such conceptualisation, therefore, has been applied not only in the descriptive, reflective and evaluative accounts of pockets of methods teaching to be found in the literature, but in the accounts of very experienced teachers of methods (quantitative, qualitative and mixed) across cultures and disciplines. Active learning was often about hands-on working with data and software (Gellman, Vogt, Wild), but also about ‘doing and reflecting’ (Leonard). It was about opportunities to practice the process (Chilisa, Hesse-Biber), to make mistakes and learn from them, learning to take responsibility (Hesse-Biber, Porter) and to really know the methods within the disciplinary context (Bergman, Chilisa). Problem-based learning could be about using a real world research problem as a starting point (Chilisa, Rogers), using worked examples and then working through problems in statistics (Porter, Gellman), using software in a problem oriented way (Rogers), or exposing the diversity of approaches to solving a research or statistical problem (Hesse-Biber, Porter). Max Berman reflected on how he links a problem-based approach with scaffolding learning, describing giving learners ‘a problem that I am dealing with, and then engaging with them seriously about what they think could be the solution’. He refers to the ‘advanced apprentice model’ incorporated in this, and Johnny Saldaña too refers to using his research experiences incorporated into a kind of spiral curriculum for ‘scaffolding them [learners] into their research activities’. Once again, the process of making research visible and connecting learners to it is exemplified.

4.3 Theme 2: Learning by Doing: giving learners first-hand experience of research practice.

We can see in the data that conceptually, ‘hands-on’ working was essential and pre-eminant for many experts, in terms of student motivation and development of skills and expertise and of ethical practice (Torrance, Vogt, Rogers), on the way to deeper pedagogical moves. John MacInnes lamented the lack of learning by doing in the social as opposed to natural sciences and Malcolm Williams valued ‘flying time’. Bagele Chilsa also referred directly to the need for ‘hands-on’ training, linking it with student motivation ‘once we make it hands-on ... students will always like it, because it is fulfilling, in the sense that in the end they always have a product of their own’. Going beyond the above though,

Kilburn *et al.* (2014, p. 199) refer to a second pedagogic approach visible in the literature focussed on activities that give students 'first-hand experience of undertaking research in real-world contexts or using authentic empirical data'. This was also a significant theme within the expert interviews, with experts frequently referring to learning by doing (Brannen, Leonard, Torrance, Cisneros-Puebla, Hesse-Biber), experiential learning (Hesse-Biber, Lincoln, Rogers, Saldaña, Wild) and authentic problem-based learning (Williams) as named and explicit pedagogic approaches. For all experts, learning with and through data was fundamental to their teaching practice, across qualitative, quantitative and mixed specialisms.

Within panel discussion, learning-by-doing or experiential learning was cited as key to teaching practice. Johnny Saldaña stated 'I consider all my methods classes a "research studio" where we are actively DOING things with data, with analysis, and so on.' He reflected on how he privileged and relied upon a 'hands-on' approach to the teaching of research methods as his 'most important pedagogical root'. Sharlene Hesse-Biber described learning-by-doing as 'critical'. Yvonna Lincoln saw her approach as 'very experiential', arguing that it was essential to get students into the field, 'doing fieldwork notes, doing the observation ... doing interviews, doing thoughtful analysis of interviews ... doing this experimental writing ... searching documents'. This mirrors the literature, where Hammersley (2009) and others argue certain aspects of research practice cannot be taught in abstraction. Put simply: 'you can't teach fieldwork methods as a theoretical course' (Lincoln). Supporting literature also highlights the tasks and work necessary to gain insight into methods, for example, Aguardo's (2009, p. 256) focus on the 'challenges of operationalisation' that might be encountered in real world research projects. Amanda Coffey summarises this position:

you cannot teach someone to become a qualitative research practitioner, actually to be able to do it and do it well, without them actually practicing ... I feel very strongly that ... we have to get them out into the field. We have to get them generating data, and maybe get them critically working on datasets. We have to get them doing preliminary analyses of data.

The stress on teaching experientially (Torrance, Hesse-Biber, Lincoln, Rogers, Saldaña, Wild) resonated beyond qualitative into quantitative and mixed-methods areas. However, the insight of Lincoln and Coffey is especially useful as it draws the level of focus from the procedural knowledge - and often skills-based learning of 'learning by doing' and 'hands-on' working that is also visible in the 'active-learning' and problem-based scenarios that we have previously discussed - into the more immersive and authentic landscape of experiential, real world research and the knowledge(s) this can evoke.

'Doing' with data

Across the interviews and focus groups, a common theme emerged on use of data to facilitate learning, as a pedagogic hook and more. The necessity of gathering/generating, handling analysis and the reporting of data within empirical research methods training meant data was a key issue within for

experts. They recounted a variety of pedagogic approaches that focus on experiential, authentic, real world and immersive engagement with methods and 'real' data. Examples include research projects with published outcomes (Rogers); those that engage communities and research organisations (such as NGOs) (Chilsa) and research using real data in the form of (for example) country-level datasets detailing economic, health or environmental data (Wild). Within these, data was used to several pedagogic ends.

Approaches characterised as learning by doing frequently gravitated around data to learn through. John Creswell made the case for using student data powerfully: 'the best way to actually grab the students' attention, is to have them work on their own project'. He continued:

It's a very student-orientated approach, and it's not where I am the all-wisdom dispenser of knowledge, but I am the shaper, I help sculpt, if you will, a way for the students framing [of] things, to improve them, to strengthen them.... working from their ideas; it's a magnificent teaching strategy, I think.

Experts' use of data also enacted other pedagogic functions. For Johnny Saldaña, data could be experienced and embodied, deepening learner's engagement in the analysis process:

I get my students to read [aloud] the data. ... With talking the data you get to embody it right, you take cognitive ownership of it. We use personal data and narratives for analytic exercises.

The use of student generated data was frequently identified as ideal in grounding learning, but also problematized in the discussions (MacInnes, Creswell). Problems with using the students' own data were elaborated on by the focus group of qualitative methods teachers who had experienced trying to manage working with poor or incomplete data, data that failed to interest others in the group and so on. Using the teacher's own data could bring parallel authenticity but reduce problems: 'because you can choose the data and you can choose what kinds of challenges and messages there are in that'.

4.4 Theme 3: Reflection: understanding the different ways in which research problems can be engaged with.

Much is written about reflective and reflexive practice in the teaching and learning of research methods, whereby the element of judgement or reasoned decision-making necessitates embedding reflection in the process of being competent (Kilburn *et al.*, 2014). Experts elaborated on this theme from their experiences, identifying the ways in which they facilitated learning in which learners reflect upon their own understanding of research. We found experts use reflection on methods as a key way to promote a deeper knowledge of method expertise in learners. However, the modes of reflection, and the pedagogy deployed vary, dependent on a number of variables (linked to pedagogic challenge).

Reflexive language and pedagogic approaches were frequently embedded in expert teaching practices. These were articulated as attention to critical standpoints (Hesse-Biber), critical engagement in peer groups (Coffey), promoting the evaluation and adoption of multiple perspectives (Coffey, Creswell), an engaging understandings of paradigms and critique (Chilisa), reflexivity (Coffey, Leonard, Sikes, Hesse-Biber, Chilisa, Lincoln, Vogt) and the reflexivity defined by Thien (2009) which seeks to recognise the role of identity politics (Hesse-Biber, Chilisa, Lincoln) or embodied approaches (Saldaña). Notably, these terms can be considered as overlapping themes, rather than discrete definitions, that allow learners to situate themselves in different ways. Bagele Chilisa observes 'paradigms are actually methodological standpoints'. She places her emphasis on 'making the students aware that whenever they do research, they are doing research from a standpoint ... to be clear about their standpoints.' Moreover, the tasks deployed to engage learners in reflexive practice also illustrate how multiple pedagogic aims can be articulated in a single learning task (for example, in terms of the embodiment of methods, previously discussed by Saldaña, or in peer-evaluation, by Porter). As a whole, reflexivity in these cases was characterised as an ability to locate and situate oneself, and ones' methods decisions within a wider methods landscape. Kilburn *et al.* (2014) find these approaches to be largely qualitative. We found that approaches that promoted reflection were deployed strongly in qualitative and mixed methods, but also in a significant strand of quantitative teaching (Porter, Vogt, Wild).

An additional essential aspect of reflexivity in advanced methods exposes the realities of research in a given context. For Max Bergman this was critical: '...part of the training that I do ... is to teach them first of all you have to realise how political research methods actually are and secondly learn the rules of the game within your field.' This knowledge was essential to the articulation of methods in emergent methods cultures where new forms of research can be fraught with difficulty. Sharlene Hesse-Biber also actively sought to expose the 'back-story' of the research process and its iterative nature using 'behind-the-scenes' cases to deconstruction notions of perfect and sequential research activities.

Within reflexive (and particularly cross-cultural) practices, the necessity of orientating teaching to the learner's particular context(s) in terms of their expertise, discipline, background, nationality, standpoints and so forth was a recurrent theme (Bergman, Creswell, Lincoln). In practice, experts reported additional benefits from student-centred practices. Experienced (expert) learners can constitute a resource for teachers. In a focus group, one methods teacher described the benefits of teaching a group with scholars who 'have an expertise in one particular kind of field of qualitative research but are relative novices, say, in narrative or another [method]' and 'the kind of doctoral students who have extraordinary expertise'. Orientating to learners in this way was frequently spurred pedagogic development, suggesting that the reflexivity of teacher-as-learner continues to be a strong tenant of expert practice.

5. Discussion

Our findings engage with recent systematic and thematic reviews to offer an analytic lens on multiple teaching practices rather than a reflection from within practice, as has previously characterised the literature. Our focus has been to elucidate not only what experts do, but also the roots of pedagogical approaches and the import and value placed upon them within the methods classroom. Deepening the conversation about methods pedagogy enriches our understanding, thereby promoting pedagogic culture in advanced methods teaching. Nonetheless, amongst our participants, there remained a strong sense that the gap in pedagogic culture is still felt. Experts identified a need for forums to debate, give visibility to teaching practices and draw in more significant pedagogic discussions from the disciplines (and education more specifically). Thus, while we have sought to promote pedagogic debate, this research highlights the substantial work still needed to adequately represent and connect developments in the field.

Experts' perspectives demonstrated strong thematic commonalities across methods domains; at the same time, these perspectives were frequently highly original and independent in their articulation. Pedagogy, in each case, is found to centre on connecting learners to research, giving direct and immersive experiences of research practice and promoting reflexivity. While these themes have been scoped by Kilburn *et al.* (2014) in the literature, here we get a sense of the importance placed upon these themes in practice. Expert practitioners place great significance on particular pedagogic approaches, notably, active learning, learning by doing, working with and through data, and the facilitation of multiple methodological perspectives and reflexive standpoints. The teaching acts associated with these approaches are enacted, reflected and theorised in highly unique ways. In this paper we have offered a thematic and conceptual frame for expert insights. This has not been straightforward, as the pedagogic actions of both teachers and learners may be understood to serve multiple purposes. Moreover, we find that within expert talk, language when probed can blur the conceptual terrain, as terms are used gesture to different facets of similar practices. In this respect, there remains significant scope for exploring the richness of expert and practitioner standpoints across disciplines, locations and methods. We also find that expertise within social science methods teaching largely continues to be based on individual work over a lifetime of practice. However, by engaging across disciplinary, national and methodological borders, we have sought to establish a more granular understanding of the basis of this expertise, and a clearer insight into the overarching challenges of methods teaching.

6. Conclusion

In social science research methods, pedagogic culture is, as we and others have argued, still nascent. This research has helped to elicit what experienced teachers know about the pedagogy of methodological learning, to synthesise and communicate this, and thereby to stimulate pedagogic culture. In the interest of pedagogic culture, we have fostered dialogue to expand the lens of focus from

individual accounts of ‘what works’ that are primarily located within individual disciplines. We have crossed disciplines, national boundaries, and qualitative, quantitative and mixed methods to engage significant actors and informants within research methods in productive discussion of methods pedagogy. Through analysis of expert responses to the distinct pedagogic challenges of the methods classroom, the principles and illustrative examples generated can form the knowledge and understanding required to enhance practice and wider pedagogic culture.

7. Notes

¹ Richard Rogers specialises in digital methods that blur the distinction between qualitative and quantitative.

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