

# Research-capacity building, professional learning and the social practices of educational research

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There have been numerous attempts in the past few years within education research—and social science research more generally—to alter the character of research practice(s). In particular, there has been a systematic effort to address perceived shortcomings in research practice through a series of ‘research-capacity building’ initiatives, aimed at the restructuring of professional learning. In this article the authors explore empirically the ways in which different modes of professional learning are implicated in the social practices of education research. These considerations lead to the conclusion that the currently dominant approaches to research-capacity building are based on an underestimation of the difficulties in influencing the professional learning of educational researchers significantly and, thereby, changing the practices of educational research. More realistic expectations of these forms of research-capacity building, in turn, suggest the need to develop alternative approaches that acknowledge the exigencies of the current social organisation of educational research more fully.

## **The political economy of educational research: critiques and their consequences**

Educational research has been subjected to a significant restructuring in recent years. Of crucial importance in the UK were the largely critical evaluations of educational research conducted during the latter part of the 1990s (most notably by Hargreaves, 1996, but see also Hillage *et al.*, 1998; Tooley & Darby, 1998; Oakley, 2000).<sup>1</sup> These critiques differed somewhat in the perspectives they adopted and the recommendations they made (Oancea, 2005). Nevertheless, they did share a concern that educational research did not cumulate to provide a robust body of

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systematic evidence and conclusions that would provide an adequate basis for the improvement of education policy and professional practice.

It is not our purpose here to provide further commentary on the validity or otherwise of these critiques (but see, *inter alia*, Goldstein, 1998; Hammersley, 2002). Rather, we simply wish to indicate some of the developments which have been influenced by them. Most immediately, the critiques gave rise to wide-ranging debates over the nature of educational research and the most appropriate ways in which it should be organised (for example, Hammersley, 2002). However, these debates adopted a particular agenda. Certainly, it is clear that the UK government protagonists saw the issues primarily in terms of the development of an appropriate evidential basis for initiating policies and forms of professional practice which would contribute to the raising of educational standards (especially, Blunkett, 2000). There was also an emphasis in ministerial pronouncements on the need to develop better forms of evidence through systematic reviews, large-scale and quantitative studies, interdisciplinary approaches and randomised controlled trials (Clarke, 1998; Blunkett, 2000).

In more concrete terms, the critiques contributed to the adoption of a much more proactive role by governments in the organisation, funding and direction of educational research. This is reflected in key institutional changes, such as the establishment of a number of government-funded research centres, perhaps most notably the EPPI (Evidence for Policy and Practice Information and Coordinating) Centre (Oakley, 2003), which would identify and disseminate ‘what works’ (Clarke, 1998). The National Educational Research Forum (NERF) was set up in 1999 to set priorities for educational research which would be more closely attuned to the perceived needs of ‘users’ (NERF, 2001).<sup>2</sup> And, of course, the launching of the Teaching and Learning Research Programme (TLRP)—on the basis of funding from the Higher Education Funding Council for England and a number of government departments—was designed to promote new forms of collaboration between researchers and policy makers and practitioners in the development and execution of educational research (Pollard, 2004).

However, the changes in the organisation and funding of educational research constitute only one, albeit major, element in officially sponsored ‘solutions’ to the perceived shortcomings in educational research practice. ‘Research-capacity building’ initiatives have also included a systematic effort to address these shortcomings by changing the everyday practices of individual educational researchers. A key element here has been the promotion of forms of professional learning which are intended to improve the technical competences of researchers, especially with respect to research methodologies and the techniques of data collection and analysis associated with them.<sup>3</sup> Hence, the TLRP is the first Economic and Social Research Council (ESRC) programme which has enhancing research capacity as one of its principal purposes. All the projects within the Programme are required to develop and implement strategies by which research capacity will be developed. Moreover, the Programme also funded (from 2001 until 2005) a Research-Capacity Building Network (RCBN), whose remit was wholly devoted to the development of research

capacity. Since 2005 and the evaluation of RCBN, the TLRP has continued to support research-capacity building, albeit in rather different forms (see: [www.tlrp.org/capacity](http://www.tlrp.org/capacity)).

What has been happening within educational research is paralleled by developments across the social sciences more widely. Hence, the ESRC has come to identify the building of research capacity as one of its principal aims (ESRC, 2005a). This is reflected, for example, in the requirements for the training in research methods of ESRC-sponsored Ph.D. students (ESRC, 2005b). Equally, the Research Methods Programme undertakes significant research-capacity building activities amongst established social science researchers, through the funding of ‘new initiatives in methodological training’ and the ‘improvement of methodological practice’. Similarly, the ESRC National Centre for Research Methods requires that each of its ‘nodes’ devotes at least one-third of its budget to research-capacity building activities. And, more recently, the Researcher Development Initiative has been funded to provide for the ‘training and development of researchers in the social sciences at all stages of their career’.<sup>4</sup>

What all of this suggests, therefore, is that there are systematic and well-resourced initiatives aimed at changing the ways in which research in the social sciences is conducted. These constitute an important social phenomenon, worthy of systematic analysis. Educational research provides an especially important case study in this context, because influential diagnoses of its perceived shortcomings have ensured that efforts at research-capacity building have been applied earlier and more intensively than elsewhere. Accordingly, our aim in this text is to use the example of educational research to explore some of the implications of this attempt to shift the character of research practice. In particular, we draw on the experience of the RCBN (2001–05) to illuminate our analysis empirically. The TLRP’s later strategies for capacity building were based on an ‘embedded social practices’ strategy (see Baron, 2005) and await analysis in due course.

### **Research-capacity building and modes of professional learning**

We conceptualise research-capacity building in terms of the professional learning undertaken by educational—and other—researchers. There is, of course, nothing new about such learning, although, in contrast with other professional groups, relatively little is known about how it is achieved in the ‘normal’ practice of educational research. However, the development of significant research-capacity building initiatives (through the ESRC and other bodies) does mark a much more systematic effort not only to *ensure* that professional learning takes place, but also to influence its content and the ways in which it is brought about.

#### *Existing approaches to research-capacity building*

Given the breadth of research-capacity building activities that have developed over recent years, some caution should be exercised in producing general characterisations.

Nevertheless, we suggest that the research-capacity building initiatives implemented up until now have focused—although by no means exclusively—on specific areas of professional learning. In particular, the approach has emphasised the need to develop researchers' capacities with respect to the conduct of empirical research, especially the design of studies, the collection and analysis of data and techniques for disseminating results (especially to 'users'). This is clearly illustrated, for example, in the character of the ESRC's general research-capacity building initiatives, such as the Research Methods Programme, the National Centre for Research Methods and the Researcher Development Initiative.

Embedded in this conception of research capacity is the notion that researchers should be competent *across the range* of research methodologies and their associated approaches to data collection and analysis. This is most clearly exemplified in the training requirements made of Ph.D. students funded by the ESRC. They are expected to become competent in the variety of techniques of data collection and in both quantitative and qualitative data analysis, irrespective of the nature of their own research project (ESRC, 2005b).<sup>5</sup> More experienced researchers are certainly not individually subject to these kinds of requirements. However, the argument has been advanced very powerfully that the research community *as a whole* should have the capacity to conduct research of all kinds. Moreover, given the predominant view of the current state of social science research in the UK, what this implies in reality is extending researchers' competences in the design and execution of quantitative analyses and the utilisation of large-scale data sets (ESRC, 2005a).

Within this wider context of the social sciences, educational research provides a special case, reflecting the diagnoses made of the shortcomings of educational research. Here, it is instructive that, for example, the RCBN was, on the one hand, required to develop research capacity across the board and to be as inclusive as possible of different methodological approaches. On the other, it was given particular priorities with respect to the strengthening of capacity in the analysis of large-scale data sets, the application of quantitative approaches and interdisciplinary research, all of which mirror the wider emphases within the 'official' analysis of the shortcomings of educational research.<sup>6</sup> Moreover, given the particular relationships of educational research to the development of policy and professional practice, the *application* of research—especially through randomised controlled trials—to the improvement of teaching and learning was given especial emphasis (see Gorard, 2001).

These previous approaches to research-capacity building have tended to adopt characteristic approaches not only towards the content of professional learning, but also to methods of effecting it. The developmental needs of individual researchers are viewed as being quite readily identified or at least inferred from the general analyses of the shortcomings of existing research-capacity. Crucially, it is assumed—albeit implicitly—that social science researchers will *internalise* the objectives of skills development and diversification. In the case of educational research, for example, where 'motivation' is recognised as an issue at all, it is in terms of the engagement of staff in university education departments with any kind of research, given the

exigencies of their other roles (Bassey & Constable, 1997; McIntyre & McIntyre, 1999). However, for those who *do* engage with educational research, it is assumed that they will wish to acquire new expertise of these kinds and will thus enter willingly into programmes of professional development.

Research-capacity building initiatives have also largely adopted an approach based on formal provision, characteristically making use of written materials, classes and workshops. It is true that these activities are generally led by individuals whose expertise is guaranteed by their own experience of research (Deem & Lucas, 2006). Nevertheless, it remains the case that they embody a pedagogy which is most closely attuned to the communication of propositional knowledge. Inevitably, the emphasis is upon transmitting knowledge about how to do research, rather than actually doing research itself. Hence, for example, the ESRC National Centre for Research Methods has adopted almost exclusively this approach to its research-capacity building activities (see [www.ncrm.ac.uk](http://www.ncrm.ac.uk)). Likewise, in the field of educational research, the RCBN devoted most attention to activities of this kind (Rees *et al.*, 2005).

There are, of course, elements of this approach which are of considerable value. It would be difficult to argue that enhancing and diversifying the technical skills and competences of social science researchers—and educational researchers more specifically—would be a bad thing in itself. Likewise, most approaches to professional learning usefully incorporate elements of formal provision. Indeed, there are very good practical reasons why adopting this form of pedagogy is necessary (if not sufficient). Nevertheless, it is important to acknowledge that the approach which has been used hitherto has shortcomings too.

A decade ago, Bernstein (1996) expressed his concerns over the treatment of research methods in the research-capacity building programmes that were then confined almost wholly to the training of Ph.D. students. He argued that research training was presenting research methods ‘as a driving license rather than a license [*sic*] to explore’ (p. 135). Methods were abstracted from the actual social practices of research, to the detriment of the quality of research and, more particularly, the development of imaginative theory on the basis of systematic empirical work.

As Brown (2006) has argued, Bernstein’s analysis can be applied with some effect to the present-day requirements placed upon Ph.D. students in the social sciences too; and, we would add, to much of the other research-capacity building activity described earlier. Current approaches to research-capacity building still run the risk of abstracting research methods from the theoretical and philosophical traditions within which they are located, as well as from the social context of actual research practice. For example, Brown (2006) points to the tensions that arise when students are exhorted to develop the competences necessary to use the range of research approaches (and even to combine them within a single study), whilst simultaneously developing an understanding of the very different—and, in strict terms, incommensurable—theoretical and philosophical perspectives on which they are based (see ESRC, 2005b).<sup>7</sup>

More generally, numerous commentators have pointed to the manifest diversity of methodological positions which are characteristic of educational research. For some,

this plurality detracts from the quality of educational research and, in particular, its capacity to develop knowledge sufficiently robust to provide the evidence-base for policy and professional practice (for example, Feuer *et al.*, 2002). Others argue that divergent methodological positions are inherent to educational research, but this is not a matter for concern, provided that there is respectful communication between the proponents of different positions (for example, Furlong, 2004). Still others see the diversity of methodological perspectives as not only inevitable, but also to be valued positively in the face of the dominance of a ‘new orthodoxy’ that emphasises the role of an ‘objective’ methodology as the guarantor of robust and usable research findings (Hodkinson, 2004).

It is not necessary for the purposes of our discussion here to adjudicate between these competing views on how educational research ought to be conducted. It is simply necessary to acknowledge that these different methodological positions have their adherents amongst educational researchers. The crucial point for our discussion is that this makes the task facing research-capacity building initiatives of the kind which have been adopted up until now much more complex. Certainly, it raises questions as to the willingness of researchers to engage in research-capacity building activities, where the latter only partially recognise the significance of this methodological diversity.

#### *Research-capacity building and situated professional learning*

The wider literature on the nature of professional learning emphasises that the acquisition of expert knowledge and the capacity for making judgements, characteristic of professional occupations, is actually achieved through a combination of different means. Formal modes of learning clearly constitute one of these. However, numerous commentators argue that they are generally less significant than informal modes, such as learning through the conduct of professional activity itself, critical reflection on professional experience and—perhaps most importantly—interacting with professional colleagues both within and outside of the workplace (for example, Eraut, 1994). It is suggested that different combinations of formal and informal learning correspond—albeit not in an exact way—to the acquisition of different types of knowledge, skills and understanding. In particular, where what is learned is context-specific and/or tacit, informal modes of learning are clearly essential (Eraut *et al.*, 2000).

What this suggests, therefore, is the need for systematic, empirical studies of the contributions which different forms of professional learning make amongst educational researchers. As far as we are aware, such studies do not exist. However, studies in the sociology of science have suggested that researchers in the natural sciences accomplish at least aspects of their professional learning most effectively through processes of what Collins (1992) terms ‘enculturation’, rather than the formal communication of purportedly authoritative information (the ‘algorithmic model’). As with other professional groupings, scientific researchers need to access context-specific and tacit forms of knowledge, which require

interaction with other, more experienced practitioners. This is not to suggest, however, that formal modes of learning have no part to play. It is instructive that Collins's (1992) analysis was concerned with already experienced researchers, rather than those who were at the entry stages of professional learning.<sup>8</sup> Equally, he shows that 'enculturation' was necessary to develop expertise fully, but this process had already begun through the communication of written reports of research activity. In short, this analysis raises important questions about the impacts of different forms of professional learning amongst researchers in the natural sciences; and, for the purposes of the present discussion, about the applicability of such findings to researchers in the social sciences.

Collins's (1992) analysis, originally published in the mid-1980s, in some ways prefigures the more general analysis of workplace learning presented in the work of Lave and Wenger (1991) and Wenger (1998), which has recently been adopted by some writers as a fruitful basis through which to analyse educational research (Hodkinson, 2004). In such accounts of 'situated learning', a primary emphasis is on informal modes of learning and the importance of context-specific and tacit forms of knowledge and skills. Novices become accomplished participants in the 'community of practice' through 'legitimate peripheral participation', which embodies engagement in actual—albeit selected—work-based activities. Formal instruction, implemented by specialist teachers separate from the craft practitioners, plays a rather insignificant part (Lave & Wenger, 1991). Moreover, what is highlighted is gaining access to what Hammersley (2005a, p.145) has termed 'a shared repertoire of cultural resources', rather than the transmission of propositional knowledge (cf. Hodkinson, 2004). Similarly, established members of a 'community of practice' continue to learn primarily through interaction with other members (Wenger, 1998).

We can glean important insights from this sort of analysis, whilst at the same time acknowledging that it is problematic in key respects, both in general terms (for example, Fuller *et al.*, 2005) and in its application to educational research (Hammersley, 2005a, b). For the purposes of the present discussion, this approach emphasises some crucial arguments in relation to the analysis of the contribution of research-capacity building to professional learning. Firstly, it is not necessary to assert the in-principle superiority of one form of learning over the other; but rather, simply to acknowledge that different forms of professional learning have significant roles to play (cf. Hammersley, 2005b). Hence, the crucial issue is to explore empirically what kinds of impacts these different forms of professional learning have. Secondly, the 'situated learning' approach highlights the ways in which professional learning—of whatever kind—is embedded in actual social practices, whether of educational research or of any other form of professional activity. Moreover, these social practices are themselves subject to wider determinations which are external to the dynamics of individual workplaces and the location of individual professionals within them (for example, Engeström, 2001).

As should be clear, therefore, our purpose is not to advance the claims of one form of professional learning over another. Rather, we are concerned to explore

empirically (as far as we can) the ways in which different modes of professional learning are implicated in the social practices of educational research, and, on this basis, to make judgements about the likely impacts of research-capacity building activities on these diverse forms of professional learning and, ultimately, on the social practices of educational research themselves.

### **Empirical evidence**

In the subsequent sections of this article, we draw on the experience of the RCBN to explore some of these issues. As we have seen, the RCBN was one of the first of the major research-capacity building initiatives, certainly within education, but also the social sciences more widely. It should be emphasised, however, that we do not intend to evaluate—still less to justify—the performance of the RCBN.<sup>9</sup> Rather, given the absence of empirical studies of the social practices of educational research, we draw upon the considerable amounts of data which were collected in the course of the RCBN's 'normal' research-capacity building activities as a source of evidence.

Accordingly, what is involved here is a form of secondary data analysis. Most of the data which we use were generated to facilitate the RCBN's research-capacity building activities, rather than expressly to analyse the social organisation of educational research practices. Therefore, what follows is a variant of the analysis of 'administrative' data, collected for purposes other than research (see, for example, Scott, 1990).

More specifically, we draw upon three major sources of data. The first comprises the detailed information which was collected about the participants in RCBN activities. These participants included researchers from the TLRP itself and from educational research more widely, as well as lecturers from university education departments. The focus here is on 'face-to-face' events, such as workshops, seminars and conferences. These comprise the most important part of the RCBN's overall programme and exemplify most clearly the characteristics of research-capacity building initiatives more generally. However, it should not be forgotten that they constituted only one part of the RCBN's work.<sup>10</sup>

Secondly, we draw upon a self-completion questionnaire survey of all TLRP researchers (in Phases I and II of the Programme), including principal investigators and contract researchers. This was designed to collect information on the nature and extent of the uses made of different research methods in their everyday research practices, and on the ways in which respondents understood their own needs for developing their knowledge and skills in respect of research methods. One hundred and twenty-one completed responses were returned, giving a response rate of 82.3%.

The third source is a series of 25 semi-structured interviews conducted with TLRP researchers as part of the RCBN's evaluation of its activities. Interviewees were selected quasi-randomly from an alphabetical list of TLRP researchers; again, both principal investigators and contract researchers were included. The intention here was to gather better information on how the RCBN's activities related to the actual research practices of TLRP researchers.<sup>11</sup>

## Research-capacity building and the social organisation of educational research

### *Participation in research-capacity building activities*

We begin by examining the patterns of participation in research-capacity building activities undertaken by the RCBN, which are summarised in Table 1. All such events attracted a total of some 880 participants, of whom 40% were researchers on TLRP projects. This total participation is accounted for by some 570 individuals, of whom 35% were TLRP researchers. The frequency of participation is shown in Table 2.

It is, of course, very difficult to draw conclusions about the importance of this level of participation in terms of the educational research community as a whole (given the indeterminacy of the total population). However, in respect of the TLRP itself, there were approximately 330 researchers involved in 39 TLRP projects (as of September 2004). This indicates that more than 60% of potential TLRP participants took part in at least one event.

This rate of participation amongst TLRP researchers is rather striking, especially in the light of the findings from the earlier questionnaire survey. The latter revealed that only a minority of respondents expressed a willingness to participate in activities designed to develop their methodological competences further. Hence, for example, only some 17% of TLRP respondents expressed willingness to undertake training which was designed to enable them to understand the literature in different methodological areas. A much higher proportion was willing to undertake training which was designed to equip them to use various methods in their own research. But even here the highest level of positive response was only some 43% (for training in qualitative data analysis software) and training in only seven types of method attracted a positive response from a third or more of respondents.

Clearly, then, there was a divergence between these earlier expressions of willingness to undertake methodological training and the actual patterns of participation. This provides some grounds for optimism that the kind of intensive investment in research-capacity building made possible by the RCBN constitutes an effective strategy. However, it should also be remembered that 110 TLRP

Table 1. Summary of participation in 'face-to-face' activities

Type of activity*	No. of activities	No. of participants in total	TLRP participants
Training workshops	23	256	84 (32.8%)
Seminar discussions	11	357	156 (43.7%)
Conferences	6	148	109 (73.6%)
Master class (with BERA)	4	120	Unknown
Total no. of activities	44	881	349 (39.6%)

\*There are some missing data.

Table 2. Frequency of participation in 'face-to-face' events

Frequency of participation	No. of individual participants*	TLRP participants
1	448	110
2	64	36
3	24	23
4	11	11
5	7	6
6	4	4
7	3	3
8	3	3
9	1	1
10	1	1

\*There are some missing data.

participants took part in only one event. Moreover, there remain more general questions as to the impacts of participation in RCBN activities on the practices of TLRP (and other) researchers.

In this context, it is instructive that the questionnaire survey revealed strong relationships between the reported use of different research methods and willingness to undertake training in them. Methods with the least demand for training were reported to have both the greatest and the least use in research practice. It may well be expected that the methods currently in most use have the least demand for training, as researchers are presumably satisfied with their existing levels of competence. However, this analysis also reveals that there is a group of methods which are not only little used, but also educational researchers expressed little interest in developing the competences necessary for their use. Experimental and quasi-experimental designs, the analysis of secondary data sets and more sophisticated statistical methods (multilevel modelling, log-linear modelling, time-series analysis) all fell into this category, although a number of distinctively qualitative approaches did too (such as methods for the analysis of visual and sound-based data).

What this evidence indicates, therefore, is that substantial numbers of our respondents are content to use the research methods of which they already have considerable experience and are reluctant to extend their methodological repertoires, especially where this implies acquiring new areas of expertise. How far this applies to educational researchers generally is difficult to judge. However, it is at least consistent with the views summarised earlier that educational research is composed of a multiplicity of 'communities of practice', within which researchers forge characteristic 'methodological identities' (Hodkinson, 2004).

What this suggests, in turn, is that approaches to research-capacity building of this kind are more successful at *deepening* researchers' knowledge of methods with which they are already familiar than they are at *diversifying* the range of methods across which they are competent. Indeed, in the extreme, it raises the prospect of a

research-capacity building which operates in what, in effect, become ‘methodological silos’, where the objective is to enhance research practice *within* specific research traditions. In terms of the approach to research-capacity building which has been adopted hitherto, this clearly constitutes a significant limitation on its impact.

It is also instructive that in their own assessments of the impacts of the RCBN’s activities (through the semi-structured interviews), respondents tended to emphasise their *short-term* benefits. They stressed the utility of the various training activities in addressing the *immediate* problems confronted by individuals or whole project teams, rather than their own development as researchers; still less the improvement of the quality of educational research as a whole. One respondent expressed this ‘short-termism’ very clearly:

it is the stuff that you want that is very specific, because we were after training on specific packages. We were after training for the Atlas.ti program and that was our major, you know, we wanted a training course for this specifically. So, you know, maybe there was a lot of stuff going on that we didn’t really need.

In this respect, of course, educational research is no different from other areas of employment (Finegold & Soskice, 1988). Indeed, this tension between the long-term development of educational research and the short-term demands of educational researchers’ particular work situations may only be resolved by a fundamental restructuring of the institutional context of the latter.

#### *Professional learning in the educational research workplace*

In this context, it is instructive that the majority of respondents in the semi-structured interviews accounted for their often quite limited participation in RCBN activities simply in terms of the pressures on their time in the workplace. For contract researchers, this tension seemed especially acute, as their access to learning opportunities reflects the managerial strategies of the directors of their projects, as well as their own preferences (Collinson, 2000, 2004).<sup>12</sup> As one such contract researcher commented:

I think, maybe, the tricky thing from ... my perspective has been making the best use of the RCBN, while being involved in a heavily demanding research project. There may have been things that I wanted to attend or felt that I should go to in terms of my own career, or in terms of having an input into the whole community ... but obviously not having the time available or whatever ...

Again, this problem is not specific to educational research. It reflects a familiar tension between providing opportunities for learning for workers and the exigencies of production, in this case the completion of the study. Nevertheless, it does constitute a practical constraint on the impact of the sort of research-capacity building activities of the kind exemplified by the RCBN.

However, the responses of the three principal investigators who participated in the semi-structured interviews begin to indicate that these kinds of activities are

themselves able to influence how the managers of research projects understand their responsibilities for the development of less experienced contract researchers. As one project director put it:

Normally ... we learn how to run research projects by *doing* them. And the RCBN is a new ... acknowledgement that we can do it more efficiently. ... I think [the RCBN] has done a good job in raising the profile, if you like, of professional development and not just leaving it to happen by osmosis.

Of course, the true extent of growth in this sort of concern over research-capacity building amongst the managers of research projects remains to be seen. Moreover, it is difficult to distinguish the effects of research-capacity building initiatives such as the RCBN from those of wider shifts in the organisation of research within universities, through the influence, for example, of the Research Assessment Exercise and the ESRC's own evaluation criteria for projects (Gordon, 2005). Nevertheless, there are some grounds for concluding that research-capacity building through initiatives such as the RCBN can have positive effects on the circumstances within which they are themselves implemented.

It is also important to note that one of the clearest messages to emerge from the responses of contract researchers in the semi-structured interviews was not about the *negative* effects of workplace organisation, but rather the *positive* effects of the forms of professional learning which were available from the everyday practices of research projects. One aspect of this was the role played by critical reflection on the individual's own accumulated research experience. One respondent, for example, expressed this in these terms:

Somewhere along the line, I moved from being just a person that just collected data to being a person that could write stuff up, write articles. I am not quite sure when it happened. It was more a matter of suddenly realising that, actually, what one of the directors had done was pretty pathetic and I could actually do it better.

What nearly all these respondents highlighted, however, was that, in their experience, the most significant impacts on their actual research practices had been brought about through interaction with more experienced colleagues. One contract researcher contrasted different forms of professional learning very clearly:

there would be, like, five of us working on a bunch of interviews and you basically pick things up from the 'great and the good'. And coming in as, like, one of the junior members of the team, that has been useful and, like I say, that is more of an apprenticeship thing than a sort of learning thing. I kind of sit there asking loads of questions, like 'What do I do now?', 'How do I look at this?', 'What am I trying to pull out?' And, you know, you've got a professor sitting there, telling you what to do and that's been superb. But that is more like apprenticeship than, you know, learning the stuff.

Such interaction was also identified as a means of acquiring specific research skills:

I mean, I've never done any interview training, but the way I've learned is by interviewing with a more experienced colleague ... You certainly do have to learn quite a lot [and] I'm not sure how effective it would be to do a sort of generic interviewing course.

Equally, the role of learning through interaction with peers was emphasised by a substantial minority of these respondents. As one respondent put it:

It was very good to have somebody within the immediate vicinity that you can consult, so working with other researchers ... who are easy to communicate with is important. I think that is a very important part of professional learning, actually ...

Indeed, so entrenched was this view that a few of the contract researchers even saw the principal benefits of *formal* research-capacity building activities in terms of facilitating *informal* learning through interaction. As one such respondent explained:

I think one of the values of the RCBN ... is not measured necessarily in terms of how good a researcher you are, but in terms of networking. I think, if you talk about communities of learning and [the] social construction of knowledge and whatever, talking to other people is very important ...

In short, therefore, there are good grounds for concluding that, at least by their own estimations, these contract researchers viewed forms of professional learning that are situated in the everyday practices of their research projects as crucial to their development as accomplished researchers. Of course, this does not demonstrate some inherent superiority of situated professional learning over the forms facilitated through research-capacity building initiatives such as the RCBN. However, it does raise important issues which the latter need to address. Hence, the question arises of the extent to which these existing forms of research-capacity building are able to influence patterns of professional learning and, ultimately, research practices themselves, given that what have been identified here as crucial forms of this professional learning are only in part affected by established research-capacity building activities. In addition, although the contract researchers in our study did not report shortcomings in their access to situated forms of professional learning, this does not resolve the issue of whether forms of research-capacity building can be developed to improve access to professional learning of this kind.

#### *Research-capacity building and educational research careers*

The RCBN's experience also indicates that professional learning and the role of research-capacity building cannot properly be divorced from consideration of the career trajectories of educational researchers, which themselves reflect the exigencies of the wider organisation of educational research. The ESRC (2006) has recently cast new light on the patterns of initial recruitment to educational research and teaching in higher education. It emphasises that, firstly, education in universities is a net 'importer' of staff whose initial training is in other disciplines (such as psychology and sociology) and, secondly, reflecting its 'practice-based' character, it recruits very substantially from teaching. The latter finding, of course, confirms the results of previous analyses (for example, McIntyre & McIntyre, 1999; BERA, 2001). It also suggests that a substantial proportion of these recruits have undergone only the most rudimentary learning with respect to the conduct of empirical research (McIntyre & McIntyre, 1999). What this highlights, in turn, is that in educational research, even more than in other areas of the social sciences, there is a substantial need to provide

opportunities for professional learning. At this initial entry level, moreover, formal approaches to research-capacity building, based substantially on the transmission of propositional knowledge, are likely to play a significant part.

These considerations also suggest that, for educational research in particular, considerable significance attaches to ensuring that appropriate professional learning is embedded within the working practices of research projects themselves; and that contract researchers thus constitute a key group. Here, it is perhaps not surprising that of the TLRP researchers who participated in RCBN activities, over two-thirds *had* completed Ph.D. degrees, although their disciplines and whether they included systematic training in research methodologies are not known. This may well reflect the fact that these researchers were, for the most part, at what Collinson (2000) dubs the 'luxury end' of the contract researcher market, with relatively stable contracts on high prestige projects, funded through a research council. In this respect, therefore, their employment situation was not typical of contract researchers more widely, many of whom shift from one short-term contract to another, becoming 'jobbing' researchers, with no established area of research expertise beyond the craft skills of such precarious research itself (Collinson, 2004).

Given this, what *is* surprising is that, even amongst these TLRP researchers, their engagement with research-capacity building was dominated by anxieties over their precarious employment prospects. For example, it is noteworthy that nearly all of the recommendations which emerged from the discussion at an RCBN conference organised specifically for contract researchers related to career opportunities. In an important sense, therefore, for these contract researchers, research-capacity building entailed a much more concrete notion of career development than was implied in the brief of the RCBN and other such initiatives (TLRP Research Capacity Building Network, 2005).

Similar concerns about career trajectories also underpin the dissatisfactions expressed by some—but by no means all—of the TLRP contract researchers over what they saw to be the limited possibilities for contributing to the intellectual direction of projects and the lack of proper acknowledgement of the contributions which they made (Wahlberg *et al.*, 2005). Again, the danger is that considerations of this kind become all encompassing and limit these researchers' participation in the forms of research-capacity building which *can* be addressed through initiatives such as the RCBN. Certainly, a contract researcher's motivation to participate in such activities is likely to be weakened where—uncertain—career prospects are seen to be dependent on direct contributions to the completion of research projects and resulting publications (see the earlier discussion of these issues; and, more generally, Lucas, 2006).

The relationships between research-capacity building and characteristic career trajectories are further complicated by the ways in which the appropriate *content* of professional learning has been construed in capacity building initiatives hitherto. As we have seen, these initiatives—including the RCBN—have emphasised the acquisition of skills and competences across the range of research methodologies. However, for individual researchers, this emphasis creates tensions between, on the

one hand, the ‘official’ promotion of the need for diversification and a ‘toolkit of technical skills’ and, on the other, the reality of the demands within many research projects for *specialist* knowledge and technical skills. Again, tensions are especially acute for contract researchers, who are well aware of the agenda of research-capacity building, but whose autonomy to control their own work is inevitably limited (Collinson, 2000). As one such respondent put it:

everybody [on the project] is doing ethnography and reading interviews ... the one thing I wish is that I got more into the SPSS stuff. But the role ... I had in the project, it wasn't necessary for me to use these tools. Somebody else was doing the quantitative analysis and coming back with all the stats ...

These ambiguities at the level of contract researchers' work within individual projects are compounded by the characteristic career trajectories of academic researchers. As Becher and Trowler (2001) have demonstrated, *specialisation* is a fundamental feature of the organisation of academic life and this frequently involves methodological, as well as substantive considerations. Certainly, as we have seen, there is a diversity of methodological perspectives within educational research. Moreover, senior researchers who are able—and choose—to work with equal facility across these perspectives are not numerous. Indeed, it is undoubtedly the case that ‘successful’ careers in educational research are by no means precluded by methodological specialisation; they may even be facilitated by it. What this implies, therefore, is that the role models available to less experienced researchers are unlikely to reinforce the case for the latter to expend considerable time and energy on the acquisition of a wide range of research knowledge and expertise.

In summary, therefore, whilst the empirical evidence is certainly not definitive, there are some grounds for concluding that the impacts of the forms of research-capacity building which have been adopted hitherto are restricted by some of the characteristic features of educational research careers. In particular, the tensions between methodological specialisation and diversification are experienced especially acutely by the key grouping of contract researchers, making their participation in established forms of capacity building especially problematic.

### **Concluding comments**

We have argued that research-capacity building initiatives have hitherto adopted approaches to professional learning which have emphasised particular types of content and pedagogy: namely, the diversification of researchers' repertoires across the range of methodologies and the transmission of propositional knowledge about how to do research through largely formal means. The corollary of this has been that much less attention has been paid to other forms of professional learning, which are based upon participation in the conduct of research and the development of experience through critical reflection and, most significantly, interaction with more experienced researchers and peers. The issue here is not to argue the merits of one form of professional learning over the other. Rather, it is to recognise the rather different roles which they play.

Our analysis has shown that the likely impacts of research-capacity building initiatives are shaped by the ways in which different forms of professional learning are embedded in the everyday practices characteristic of the work of researchers and the wider social organisation of educational research within which these are located. Considerations of this kind suggest that existing approaches to research-capacity building do not provide a *general model* for the transformation of professional learning and, ultimately, research practices. Rather, these approaches are quite specific in the issues they address and the effects that they are likely to induce, and, therefore, we need to have realistic expectations of what they are capable of achieving.

It also remains to be seen how far it is possible to develop approaches to research-capacity building which are able to shape professional learning in other ways. In this context, it is instructive, for example, that the Applied Educational Research Scheme (AERS) in Scotland has adopted a strategy for capacity building which is based partly on a formal pedagogy (albeit through distance-delivery methods), but also embraces the mentoring of less experienced researchers on the basis of their active participation in a set of research projects (<http://www.aers.org.uk/aers>). The TLRP's current capacity building activities (Baron, 2005) involve an ambitious attempt to develop research capacity through engagement with already existing 'communities of practice' within professional associations; for instance, through mentorship and the provision of web-based materials for leading research (<http://www.tlrp.org/capacity/index.html>). It is not yet clear what impacts these initiatives will have. However, they do at least illustrate the possibilities of a wider range of approaches to research-capacity building.

As Hammersley (2005a) has recently reminded us, it is important not to be complacent about the current state of educational research. Certainly, we can acknowledge the desirability of effective professional learning amongst educational researchers, without accepting the 'official' diagnoses of the shortcomings of educational research that were so influential during the 1990s. Neither are we restricted in our approaches to research-capacity building to the kinds of initiatives which have been attempted so far. What our analysis implies is that the starting point for developing new and perhaps more imaginative strategies for research-capacity building is a much better understanding of the conditions under which educational researchers do their jobs and of the wider social relations within which these are situated. Indeed, it is clear that the reshaping of the working environment of educational researchers is a necessary precondition of more effective professional learning and, hence, of creating an enhanced educational research practice.

## Notes

1. Similar critiques have been made elsewhere too. See, for example, Organisation for Economic Cooperation and Development (1995), Shavelson and Towne (2002).
2. This initiative was abandoned in March 2006, without having made a major impact (although see Morris and Peckham [2006] for an account of what was achieved).

3. In what follows, we use the term 'research-capacity building' to refer to these initiatives aimed at the restructuring of professional learning. This focus is justified simply in terms of the previous neglect of these particular aspects of research-capacity building.
4. For further details of the ESRC's research-capacity building activities, see <http://www.esrcsocietytoday.ac.uk/ESRCInfoCentre/research/resources>
5. The ESRC, of course, also requires training in a range of professional development skills, over and above these generic research skills (ESRC, 2005b).
6. The need to develop further capacity in quantitative research was also confirmed by independent, academic analysis (McIntyre & McIntyre, 1999).
7. It is, of course, the case that Ph.D. students have further opportunities to address these issues whilst completing their own research study. This is an aspect of the doctoral research programme which is rather left out of consideration by Bernstein (1996).
8. In this context, it should be noted that Thomas Kuhn (1970) emphasised the role of textbooks and formal training in sustaining 'normal science'.
9. For such evaluations, see Rickinson *et al.* (2005) and Rees *et al.* (2005).
10. For further details, see Rees *et al.* (2005).
11. For further details of these sources, see Rees *et al.* (2005).
12. Principal investigators also complained that it was difficult to find time to participate in RCBN activities, although here it was the pressure of other aspects of their work—teaching, administration, research projects outside of the TLRP—which accounted for this.

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