London Review of Education
Vol. 4, No. 2, July 2006, pp. 183–195

Conducting systematic review in education: a reflexive narrative

Melanie Nind*
University of Southampton, UK

The evaluation of systematic review as part of the evidence-based or evidence-informed practice movement is a dominant theme in current debates in educational research. This article contributes to the debate by offering a personal, reflexive narrative on the process of doing systematic review, relating some of the arguments regarding the merits and problems of systematic review to the author's own experience and to parallels in other research approaches. The author highlights areas where systematic review might usefully develop and evolve.

Introduction

A major issue troubling both researchers and policy-makers in education has been how we can do research that makes a difference to practice. One of the most hotly debated responses to this challenge has been the flurry of systematic reviews funded centrally by the Department for Education and Skills (DfES) and The Teacher Training Agency (TTA, now Training and Development Agency for Schools). I was moved to write this reflexive narrative as a consequence of reading Maggie MacLure's (2004/2005) paper questioning 'where's the quality in systematic review?' This coincided with colleagues and I having just completed a report for The Evidence for Policy and Practice Information and Coordinating Centre (EPPI-Centre) presenting the findings from the first year of a three-year commitment to systematic review (Nind & Wearmouth, 2004). In addition to disseminating a report of the study's findings, I found that, recalling the impact Walford's (1991) collection of real research stories had on me as a new researcher, I wanted to write a reflexive account of the process of doing the review. This would help answer a question equally pertinent for myself and others: why get involved in systematic review amidst all the controversy about evidence-based practice in general and systematic reviewing in particular—is it worth it?

*Reader in Education, School of Education, University of Southampton, Highfield, Southampton SO17 1BJ, UK. Email: M.A.Nind@soton.ac.uk

ISSN 1474-8460 (print)/ISSN 1474-8479 (online)/06/020183–13

DOI 10.1080/14748460600855500

I write not as someone who is wed to the approach of systematic review, nor as a complete outsider. Rather I write as someone who knows from experience what is involved and now wishes to come to terms with mixed feelings about it as we embark on further reviewing. I have a vested interest in helping to move the debate on regarding whether systematic reviews are worth doing—their validity and their impact. My involvement in the process is as part of a team conducting a series of systematic reviews, sharing the co-direction of the projects across the three years with others, reviewing papers and guiding and commenting on the process. This discussion owes much to conversation with and among members of this team, but inevitably this is a personal narrative and I do not claim to speak for others.

What is systematic review?

In keeping with any other research approach the answer to the question of what it is depends on who you ask. Ann Oakley (2000, p. 3) perhaps best sums up the official rhetoric: 'Systematic reviews … synthesize the findings of many different research studies in a way which is explicit, transparent, replicable, accountable and (potentially) updateable'. Davies expands on this:

> Systematic reviews are one form of research synthesis which contribute to evidence-based policy and practice by identifying the accumulated research evidence on a topic or question, critically appraising it for its methodological quality and findings, and determining the consistent and variable messages that are generated by this body of work. … [They] differ from other types of research synthesis … by virtue of the way they formulate a research question, their comprehensive approach to searching, their critical appraisal strategy, and the transparency of criteria for including and excluding primary studies for review. (Davies, 2004, p. 22)

There is a discourse here that has inspired much critical comment including MacLure's (2005) deliberately blunt summation of systematic review as 'clarity bordering on stupidity'. It is the reduction of complexity to simplicity, rather than seeking to understand complexity as a basis for action, that critics of systematic review might define it by.

Why do systematic review?

Following the narrative tradition of a chronological account I begin at the beginning of my involvement in systematic review and interweave the chronology with the hindsight I now have about my motivations, concerns and feelings about the process. My intention is to illustrate some of the connections and divergences between the movement for evidence-based practice and some of us working loosely, temporarily or uncertainly under its umbrella. First, what were my personal reasons for getting involved in answering the tender from the Teacher Training Agency for a systematic literature review of pedagogical approaches for special educational needs? For me, there is great pleasure in being paid to read and I particularly enjoy reading for a purpose as part of a project. Therefore, research that involved immersion in a

mass of literature had a strange allure. (How unsettling now to read MacLure arguing that systematic reviewing is almost anti-reading, but that is for discussion later in the story; see MacLure, 2004.)

Another prime motivation came from the subject matter: I had a sense in which pedagogy for pupils with special needs was my thing and, therefore, if anyone should be doing this review it should be me and my team! I wonder now if this is a powerful pull that has called many of us into doing systematic reviews. Whether or not it was inherently a good thing to do (and I did have some doubts here) I thought that *we* at least could do justice to the complex issues. *We* would adopt an approach informed by the social model of disability, an inclusionist philosophy, social constructivism and all those other value positions important to us.

Thirdly, I accepted a need (and still do) for some kind of evidence review. The need arises because of all the wild claims about glossy techniques and special methods that abound in special education (fully discussed by Thomas & Loxley, 2001). I myself had been involved with developing a special teaching approach (Nind & Hewett, 1994, 2001) and I would strongly defend its sound theoretical underpinning. I had felt the pressure to subject the approach to tight, quasi-experimental evaluation (Nind, 1996), at least partially buying in into the rhetoric of evidence-based practice, which, as Hammersley (2001a, p. 1) points out, carries the power of 'a slogan whose rhetorical effect is to discredit opposition'.

Fourthly, systematic review, which follows the topical concern with building evidence, gets research funding. Pressure on academics to secure research funding gives the funders of research considerable influence over the research that gets done. Without such realities systematic literature review may not have been my first choice.

Lastly, I was reassured by members of the team who had previous experience of systematic reviewing. They brought with them critical awareness in relation to the shortcomings of the process, which they gave the impression was arduous, constrained and often frustrating—but not all bad. This strongly influenced my expectations and was largely borne out in practice. The dynamic of working as a team combining experience in 'special' and 'ordinary' pedagogy and bringing together experienced and novice systematic reviewers had considerable appeal.

First impressions

The initial stages of working on the systematic review involved a period of negotiation. We had to agree our research question, which needed to be meaningful for us as a team with all our different backgrounds, feasible for the EPPI-Centre and approved by the TTA. This perhaps was a taste of the audit culture (MacLure, 2005), transparent accountability and managerialism (Hammersley, 2001a) of the genre. However, the pleasure of discussing within a good team of colleagues what matters in education, how we define priorities and key terms and so on softened the impact of this and made the process of agreeing a research question largely a stimulating and enjoyable one.

Similarly, I can read MacLure's (2005) account of the policing of reviews in what she describes as a largely distrustful process and recognize elements of this. At the time, however, we were embarking on EPPI-Centre training that was delivered by thoughtful, supportive people. While the prescription in the method gave it a feel of 'painting by numbers' rather than a creative undertaking, everyone was at pains to show the flexibility in the system. The pressure to comply with what is essentially quite formulaic was not something I felt strongly. The whole thing was intellectually engaging and some of my concerns about undertaking what I anticipated might be a technical rather than reflective task were set aside.

Reflecting on the process

I now turn to the process of conducting a systematic review, as described by its advocates, its critics and as experienced by our team. For us, the process was pressured, partly because the time allowed for the research in the way it was funded went nowhere near the real time investment it necessitated. Like many of the criticisms of systematic review, this is probably not peculiar to it, but equally true of much other research.

Perhaps what is peculiar to systematic review—or at least those reviews linked to the EPPI-Centre—is that each stage is externally monitored as part of 'quality assurance'. A consequence of intense monitoring is that it can draw one into an instrumental approach to the task. I have seen this happen in schools when intensive supervision of pupils whose poor progress causes concern seems to contribute toward their emotional detachment from the intrinsic pleasures of the task. In contrast, optimal levels of scrutiny and interest from a researcher can lead teachers and pupils to high levels of involvement and interest in a project. My attitude to the 2000 titles and abstracts that faced us was, I think, different because I knew my performance in applying the inclusion and exclusion criteria to them was being judged. I am familiar with subjecting my judgement to checks of inter-rater agreement, but the more formalized nature of this in the EPPI-Centre process made it feel more perfunctory. Pressures we felt from the imposed deadlines meant that we rushed the process of deciding the review specific keywords; these turned out to be very important and not spending more time on this is one of my regrets.

Systematic reviewing has been somewhat ridiculed for the way in which a huge body of literature is whittled down to a small quantity for ultimate synthesis: MacLure (2006, p. 399) has described it as 'an algorithm for not-reading as much of the literature as possible'. This is a real tension in this type of review: to me it seems a real strength that so much literature is initially identified and a weakness that so little of it is well used. I had been actively reading the literature on inclusive pedagogy for some years and I had thought I knew what was out there. Finding new literature and authors was one of the pleasures (although I concede there were no real surprises in what they had to offer). I had to smile at MacLure's not-reading comment as it reminded me of the genuine relief I felt each time I added a briefly skimmed article to the exclude pile! Yet surely, this relates to the feeling familiar to

most researchers, when at some stage in the process they feel overwhelmed by the amount of data they have collected. This may relate to the fact that we have genuinely collected more data than we need, or that we have simply not found a way to manage it yet. In systematic reviews it might be that, over time, the searching process becomes refined—no one claims to have found the optimum balance of inclusion/exclusion criteria yet in terms of getting the search strategy sufficiently but not overly sensitive. It might also be that how much time is actually involved becomes recognized, so that reviewers can address a massive data base with less trepidation, less instrumental desire to get through it, and a longer term plan to do many useful things with it at a range of levels. In the meantime, I do not dispute that ending up with a synthesis of just a small number of studies is as much an artefact of the methodology itself as substantive truth (Torrance, 2004). I see this, however, as in common with all research—the scope of the findings are always defined by the question and the approach.

The process of discussing the literature was essentially a good one for us. There was superficial dialogue about superficial matters but there was also meaningful dialogue about what validity and generalizability really mean in this or that context. There were many useful asides of 'that was a powerful case study', 'I liked her approach' and so on. Reading is more often a solitary activity and there was something about a pair or group of us contemporaneously reading the same articles that was bonding and stimulating.

MacLure (2005) is right in her observation that the language of reading, writing, interpreting and analysing is strangely missing from the literature and guidance on systematic review, but this does not mean that these things are missing from the process. The vocabulary of screening, mapping, keywording and data-extraction is, I suggest, as much about establishing the process as special and different from other reviewing as about actually doing something different. (The development of special pedagogy is similarly full of specialist vocabulary for often very ordinary teaching processes.) Learning the language of systematic reviews is perhaps part of the process of being socialized into them. I can recall being perplexed in the early stages about what mapping and keywording actually entailed—and I know I now speak this language somewhat automatically—so my socialization may be deemed successful.

A disappointment for me in the process came at the stage of the map of the literature. In my naivete to the process I had envisaged a rich concept map and as I read the studies I began to draw various maps of how the literature was linked thematically, historically or conceptually. The reality was that the process actually required constructing a descriptive set of bar charts and the like to depict the geographical spread of studies, age range of the populations and so on. This was altogether less ambitious and served a very different purpose. Systematic reviews attempt to tell us what research is out there, as well as to do something more with it. In previous research I have tended not to dwell on this question of what is there: to pause and take stock at such a juncture, before evaluating, using and applying. This is partly because in other kinds of reviews we are not seeking an impartial view of the field, though of course we do form views of the field based on our different approach to the literature.

I turn now briefly to the issue of transparency in the systematic review process. The element of making transparent the decisions about which literature is selected and which is rejected and on what basis, as well as about how quality of studies is judged, is one of the defining characteristics of systematic review (Evans & Benefield, 2001; Oakley, 2003; Torgeson, 2004). There have been criticisms of this based on the inability of systematic reviews to deliver on transparency (MacLure, 2005). Yet I offer two observations here. First, the aspiration of transparency in research is not unique to systematic review—being transparent enough to allow others to replicate your research of whatever kind is characteristically advocated in research textbooks. Second, there is also a great deal of myth around transparency. For every research project we can provide a public account while also knowing the indecision, the cul de sacs, the errors, the missed opportunities and so on that we do not always want to share. Walford (1991), Clough and Barton (1995) and more recently Lewis *et al.* (2004) have sought to make some of this more open. Needless to say, for every transparent account of the process of applying inclusion and exclusion criteria and so on in systematic review there is another story of pragmatic decision-making and subtle judgement. Perhaps all we need is some honesty about this.

My final theme in discussing our experience of the process of systematic review relates to this issue of the researcher's expert judgement. Hammersley (2001b, p. 544) argues that an implication of the replicability sought in systematic review is that 'there must be minimal reliance on judgement or discretion by the reviewer'. He is critical of this, arguing that 'attempting to eradicate it [researcher judgement] is unlikely to serve the task of research well' (p. 545). I can honestly say that in the process of systematic review I never felt that I was setting aside my interpretive abilities or, indeed, that I was being asked to do so. Much of my experience as a researcher is in the method of systematic observation. In this I apply codes with operational definitions in analysis of video data. But I am acutely aware that in doing this I, the researcher, am applying my human abilities as a valuable part of the instrument (Bakeman & Gottman, 1986). Similarly, in systematic review processes of including and excluding studies, keywording and data extracting, I applied my judgement within the confines of the explicit rubric (as in using observation systems; Herbert & Attridge, 1975). And again, in common with systematic observation, different amounts of inference were involved with different criteria or keywords (codes).

What is surprising about the systematic review process we have taken part in, is that at key times when we were most required to use our expert judgement, such as in deciding on our review-specific keywords, we were not required to make our thinking explicit. Comments have been made about the lack of trust of reviewers (MacLure, 2005) but we were entirely trusted in this respect. (It would be interesting to know if the teachers new to research who were doing DfES funded reviews were treated similarly.) EPPI-Centre colleagues demonstrated an acceptance that some parts of reviewing require researchers' judgement, but perhaps also a lack of interest in this and more concern with the technical aspects where replication of process is such a strong feature. There may also be an implication that anyone replicating or updating the systematic review would be undertaking an inherently

technical process—methodically using these review-specific keywords rather than engaging with the process of developing their own.

What may become frustrating perhaps, as our team engages in future reviews, is that more of the codings/keywords do not come from us, the reviewers rather than being standard. Using the prescribed EPPI-Centre keywords is about establishing a common language within and across reviews and enabling greater comparability and synthesis of studies. Desire among reviewers to have greater control over the process of categorization may, however, be inevitable. Even so, looking back on the review we have just completed, people who know us will not be surprised by our choice of focus for the in-depth review being on peer-group interactive approaches. This shows that despite all the constraints imposed on researchers by the EPPI-Centre process, this does not preclude researchers from pursuing their particular perspectives and stamping their authority on the research.

The fact that, like any researcher, we made judgements does not mean that the process did not at times feel mechanistic—complying with a set of rules. This aspect is again challenged by Hammersley (2001b, p. 545) who argues that science 'does not require the process of inquiry be reduced to a set of rules'. He acknowledges that 'even the most simple rule-following involves some judgement; and rational decision-making will often take the form of the interpretation of principles rather than the "application" of rules' (p. 546). I think we oscillated between applying rules and interpreting principles, often working with some flexibility within a set rubric. I often felt a desire to break the rules by evaluating the studies earlier in the process: I could not help but begin to 'unsystematically' evaluate methodological issues while seeking to systematically find basic facts about the studies we included in the map of the field. The process, though, does not permit using these particular judgements. Thinking of systematic review as an evolving rather than static approach, I wonder if it might come to include a map of good research as well as a map of all research. The healthy debate about who defines good research, and how, may need to move on somewhat though, before this can happen.

Reflection on the product

I now turn to the end-stage of synthesizing the data from the literature and to the end product itself. Synthesis was a hugely challenging part of the process as the studies that passed the ultimate test of fitting our inclusion criteria and being judged to have medium to high trustworthiness based on our application of the EPPI-Centre quality questions were quite different in scope and nature. Critics of systematic review quite rightly point out that a simple process of aggregating findings is not possible. Hammersley (2001b) suggests a mosaic image of how evidence might fit together as part of a big picture rather than just add up to form strong evidence. The mosaic idea goes some way to describing our synthesis, though some of our pieces overlapped as well as fitted together, and some, as he predicts, did not fit at all; some studies somewhat clashed or challenged rather than complemented each other. The act of attempting synthesis was one of scholarly interpretation as MacLure (2005)

says it must be. We were never given the impression that it should be anything other than this. In this I see criticisms, important as I acknowledge them to be, of the over-simplification of the processes in systematic review as based on an over-simplification in itself of what is involved.

It is not too uncomfortable to reflect on whether the review process was worthwhile and personally I have little hesitation in concluding that it was. There were real positives, for example, in working with a skilled and experienced librarian from whom I learned a great deal. I learned also about writing good abstracts. I read some excellent studies and I did, most definitely, 'look over the hedge' (MacLure, 2004) at literature beyond our remit. It may be less comfortable to assess the benefits for 'users' of the research, who invariably gain less than do those 'doing' the research (Nind, 1997) and in this work the researchers and users were largely separate. Ultimately, however, we must ask—do the products of our systematic review process, the report and the user summary, have any value?

Evans and Benefield (2001, p. 538) said of their systematic review of interventions for pupils with emotional and behavioural difficulties that it enabled them to 'say something more precise and targeted about specific interventions in the classroom and their effectiveness'. We could make a similar claim, but I do wonder whether this kind of precision is both real and helpful. For example, our concern with pedagogical approaches that can effectively include children with special educational needs in mainstream classrooms meant that we only looked at studies conducted in the mainstream. Thus, as Evans and Benefield (2001) argue, our conclusions are precise in relation to this context. But how precise is this actually when one considers how diverse the mainstream classrooms were; the staffing ratios differed, as did the pupils, countries, cultures, and teachers' experience. Would a teacher in a mainstream classroom in the UK have as much chance of making good use of a study of a pedagogical approach used in a special context in the UK as they would of an approach used in a mainstream school attached to a university in the US? The answer, I think, is possibly, and this brings us back to what must be the central issue—what we do with systematic reviews when we have them.

The culture of systematic reviews is finding what works so that this can inform practice. By focusing on mainstream contexts we were able to be more precise in our reporting but this does not necessarily mean that we were able to offer something more useable. Teachers using the products of systematic review will do so in ways that employ their abilities to reflect, judge, even research (Elliott, 2001). Is it precision they want? Is practice most enhanced by giving teachers access to the findings of systematic review presented as contingent connections between certain activities and certain outcomes? Or are the products of systematic review more useable when they discuss connections within and not divorced from the contexts in which they are studied? There is little empirical evidence to address these questions yet, but we are currently engaged in collecting this kind of feedback. Our own product does emphasize uncertainties and the complexities and we sought to avoid drawing simplistic conclusions. The review, though, is guilty of some of the charges made against them. We did focus to a large extent on finding pedagogical approaches that work and we

did address the positivist agenda of effect sizes. However, we did also engage with qualitative data in pursuing an alternative agenda of wanting to be able to say something about *why* peer group approaches are likely to be effective, if they are. We deliberately made room for more interpretive data by asking two questions at the in-depth stage: *Does a pedagogy involving a peer group interactive approach effectively include children with SEN in mainstream classrooms?* and *How do mainstream classroom teachers enhance the academic attainment and social inclusion of children with special educational needs through peer group interactions?* While feeling the need to be clear about whether the studies did indicate that peer group approaches are effective we also wanted to be able to say something about the process by which inclusion was achieved. Thus, we resisted to some extent the removal of information from its context. This was fully supported and, indeed, encouraged by the EPPI-Centre.

I find myself reflecting now on the balance we achieved between a concern with outcomes and a concern with processes. We limited our review to studies that indicated outcomes. This was important because there is so much anti-inclusion literature that accuses it of being ideological without evidence that it is possible or beneficial (see Wilson, 1999; Farrell, 2001). I reject this argument and fully support the alternative stance, most eloquently articulated by Thomas (1997) and Mittler (2000), that education should be guided by our values regarding what kind of a society and school system we want. Nevertheless, inclusive education does bring with it considerable pedagogical challenge and I find considerable value in identifying and sharing practices associated with positive outcomes for social participation and academic progress. By looking at processes together with outcomes I hope we have resisted the narrow engineering model of the purpose of systematic review described by Hargreaves (1999) and discussed by Elliott (2001). In our user summary in particular we have deliberately placed less emphasis on *this works–do it* and more on *this works in this context–this might be how–this is worth doing/thinking about/exploring further*.

There were important complexities that we addressed briefly that ideally we should have dwelt more on. The outcomes of teaching we were concerned with were not just behavioural but more in keeping with Eisner's (1979) problem-solving and expressive outcomes. We did not set aside our objection to an uncritical outcomes-based model of education (Nind & Wearmouth, 2004). We chose to focus for the in-depth review on pedagogical approaches that we as educators would feel comfortable using. Moreover, we were concerned with who judges the outcomes—understanding that what might appear beneficial to a researcher might not feel inclusive to a pupil.

Hammersley (2001a) criticizes the focus in systematic review on 'what works' for reflecting a view of practice as technical, whereas, he argues, professional activity usually involves multiple goals, which involve professional judgement in their operationalization. This view of practice as technical is not, however, inevitable. Indeed, a finding of our review was that pedagogical approaches with measurable outcomes demonstrating they effectively include children with special educational needs, often involve a complex web of practices. Indeed we concluded that:

> It is very important that effective teaching for inclusion is seen as the complex practice that it is, often combining attention to (subject-specific) adaptation of teaching/curriculum with attention to community participation, social grouping and roles within the group. According to the research evidence, teaching approaches that effectively include children with special educational needs cannot be reduced to simplistic formulae but rather bring together teacher skills with a willingness and ability to utilize pupil skills also. Given the complex nature of inclusive and peer group interactive pedagogy, teachers in training would need opportunities to reflect on their practices in the light of the existing research base. (Nind & Wearmouth, 2004, p. 75)

This guidance may not be prescriptive and tight enough for some tastes, but I think it is a sign that we have not merely disinterred 'tiny dead bodies of knowledge' that 'hold little power to generate new understandings' (MacLure, 2005, p. 394).

Concluding thoughts

The current debate about systematic review is a lively one. It will, however, cease to be engaging if it fails to move our thinking (and practice) on. In this article I have not sought to join either the defense of, or attack on, systematic review and the rhetoric about it, but I have sought to reflect on, and to some extent defend my own involvement as a systematic reviewer. Before beginning to write I began this process of reflection with a somewhat alarmed set of questions: Have I lost my critical faculties? Have I subjected myself to the EPPI-Centre way (MacLure, 2005)? Have I been 'EPPIfied'?! I have wondered about the checking-in we did at every stage and whether this was necessary, supportive, controlling? I have tried to tease out how much of the criticism of systematic review is criticism of what it *might* be rather than what it *has* to be, how much room there is for manoeuvre within the positivist epistemological assumptions about the nature of knowledge and so on. I have not fully answered all of these questions, but I think that addressing them in relation to the process of doing a specific review is helpful. Getting involved in an EPPI-Centre review does not mean one has to sign up to a technical notion of what works, but it does mean one has to write one's report according to a prescribed framework. The willingness to discuss that framework is evident; how much fluidity and growth will emerge is yet to be seen. I was given no reason to doubt, though, the openness characterized by Gough's (2004, p. 61) acknowledgment that 'as a relatively new method it [systematic review] is in its early stages of development and must not be seen as a fixed method for which all problems have been resolved'.

Looking back on my teaching notes for this term reassures me that being involved in systematic review has not overtaken me. With student teachers I discussed the importance of all kinds of evidence: so-called hard evidence, broader evidence, and experiential evidence (the craft knowledge, discussed by Evans & Benefield, 2000). Alongside presenting the findings from the systematic review I asked students to reflect on something they had done to create a moment of inclusion, thus fostering a self-image of themselves as generators not just users of evidence (Eraut, 2004).

So, in terms of what we do with systematic reviews, I want student teachers to look at the findings, but not *just* at the findings. I would not want to see an instrumental

relationship between research and practice (Hammersley, 2001b). While I am glad to be able to say that peer group interactive approaches have been used to good effect, I do not want my student teachers to have unquestioning faith in the review but to read it using all their critical powers. These powers, after all, are essential to becoming an inclusive teacher. I also want them to interact with the research and apply it in ways that make best use of their abilities to reflect, to solve problems, and to reflect again. Cordingley (2004, p. 84) regards this use of evidence as 'a highly complex, sustained professional skill and one that involves a series of activities closely related to research'. I might prefer teachers to use this review, and in Elliott's (2001) terms engage *in* educational research and not just *with* it, but engaging with it in a 'problematizing approach' to practice (Cordingley, 2004, p. 85) is probably good enough. Even if systematic reviews do privilege certain kinds of studies, and I acknowledge this is problematic, this does not mean that they cannot foster action research and case study, whether at personal–professional levels or made public.

Do we have to be either for or against systematic review? Is it not just an approach in research that has its place amongst, but not superior to, other approaches, including narrative review? Can we maintain an open dialogue about it without those of us who have done systematic review with the EPPI-Centre feeling like pariahs? Hammersley (2002b, p. 547) argues that it is not the case that 'some designs have all the advantages and others have none' and surely we must include systematic review in this. It may be that they produce a different kind of knowledge, rather than better or lesser knowledge than other kinds of literature review or research. While to some extent I reserve judgment until I end my three-year involvement in the process, I am glad that my ongoing involvement is informed by the critical debates going on and that I participate with heightened awareness of the language of systematic review and its potential importance.

Notes on contributor

Melanie Nind is Reader in the School of Education, University of Southampton. She began her career as a special schoolteacher and has lectured in special and inclusive education at Oxford Brookes University and The Open University. Her research is primarily in the field of special, inclusive and interactive pedagogy, with a particular interest in learning in the social, communication and emotional domains. She has recently co-edited *Curriculum and pedagogy in inclusive education: values into practice* (RoutledgeFalmer, with Jonathon Rix, Kieron Sheehy and Katy Simmons).

References

Bakeman, R. & Gottman, J. M. (1986) *Observing interaction: an introduction to sequential analysis* (Cambridge, Cambridge University Press).

Clough, P. & Barton, L. (1995) *Making difficulties: research and the construction of special educational need* (London, Paul Chapman).

Cordingley, P. (2004) Teachers using evidence, in: G. Thomas & R. Pring (Eds) *Evidence-based practice in education* (Maidenhead, Open University Press), 77–87.

Davies, P. (2004) Systematic reviews and the Campbell collaboration, in: G. Thomas & R. Pring (Eds) *Evidence-based practice in education* (Maidenhead, Open University Press), 21–33.

Eisner, E. W. (1979) *The educational imagination: on the design and evaluation of school programs* (New York, MacMillan).

Elliott, J. (2001) Making evidence-based practice educational, *British Educational Research Journal,* 27(5), 555–574.

Eraut, M. (2004) Practice-based evidence, in: G. Thomas & R. Pring (Eds) *Evidence-based practice in education* (Maidenhead, Open University Press), 91–101.

Evans, J. & Benefield, P. (2000) Systematic reviews of educational research, *British Educational Research Journal,* 27(5), 527–541.

Farrell, P. (2001) Special education in the last twenty years: have things really got better?, *British Journal of Special Education,* 28(1), 3–9.

Gough, D. (2004) Systematic research synthesis, in: G. Thomas & R. Pring (Eds) *Evidence-based practice in education* (Maidenhead, Open University Press), 44–62.

Hammersley, M. (2001a) Some questions about evidence-based practice in education, paper presented to *BERA Annual Conference,* University of Leeds, September.

Hammersley, M. (2001b) On 'systematic' reviews of research literatures: a 'narrative' response to Evans and Benefield, *British Educational Research Journal,* 27(5), 543–554.

Hargreaves, D. (1996) Teaching as a research-based profession: possibilities and prospects, *The Teacher Training Agency Annual Lecture,* London, TTA.

Herbert, J. & Attridge, C. (1975) A guide for developers and users of observation systems and manuals, *American Educational Research Journal,* 12, 1–20.

Lewis, V., Kellett, M., Robinson, C., Fraser, S. & Ding, S. (2004) *The reality of research with children and young people* (London, Sage).

MacLure, M. (2004) 'Clarity bordering on stupidity': where's the quality in systematic review?, paper presented to *BERA Annual Conference,* UMIST, September.

MacLure, M. (2005) 'Clarity bordering on stupidity': where's the quality in systematic review?, *Journal of Education Policy,* 20(4), 393–416.

Mittler, P. (2000) *Working towards inclusive education: social contexts* (London, David Fulton).

Nind, M. (1996) Efficacy of intensive interaction: developing sociability and communication in people with severe learning difficulties using an approach based on caregiver-infant interaction, *European Journal of Special Needs Education,* 11(1), 48–66.

Nind, M (1997) The potential role of teacher–researchers in in-service education, *British Journal of In-Service Education,* 23(2), 231–240.

Nind, M. & Hewett, D. (1994) *Access to communication: developing the basics of communication with people with severe learning difficulties through intensive interaction* (London, David Fulton).

Nind, M. & Hewett, D. (2001) *A practical guide to intensive interaction* (Kidderminster, British Institute of Learning Disabilities).

Nind, M. & Wearmouth, J. with Collins, J., Hall, K., Rix, J. & Sheehy, K. (2004) *A systematic review of pedagogical approaches that can effectively include children with special educational needs in mainstream classrooms with a particular focus on peer group interactive approaches* (London, Teacher Training Agency). Available online at: http://eppi.ioe.ac.uk/EPPIWeb/home.aspx?page=/reel/review_groups/TTA_SEN/review1.htm

Oakley, A. (2000) *Experiments in knowing: gender and method in the social sciences* (Cambridge, Polity Press).

Thomas, G. (1997) Inclusive schools for an inclusive society, *British Journal of Special Education,* 24(3), 103–107.

Thomas, G. & Loxley, A. (2001) *Deconstructing special education and constructing inclusion* (Buckingham, Open University Press).

Torgeson, C. (2004) *Systematic reviews* (London, Continuum).

Torrance, H. (2004) Using action research to generate knowledge about educational practice, in: G. Thomas & R. Pring (Eds) *Evidence-based practice in education* (Maidenhead, Open University Press), 187–200.

Walford, G. (1991) *Doing educational research* (London, Routledge).

Wilson, J. (1999) Some conceptual difficulties about inclusion, *Support for Learning,* 14(3), 110–112.