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The practice of research reviewing 2. Ten case studies of reviews

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Abstract

This Working Paper reports on the second stage of a project by the UK Centre for Evidence Based Policy and Practice to explore and assess current practice in research reviewing, and prepare guidance on commissioning and managing research reviews. Working Paper 22 reports on the first stage.

It analyses ten reviews published in the UK since 2000 and commissioned by the Joseph Rowntree Foundation, the Home Office and a number of educational bodies including the Department for Education and Skills. Commissioners and contractors were interviewed by telephone to elicit their views on: the purposes of the reviews; project management (initiation of the project, resourcing, teamworking etc); review methods; and use of the reviews (including users beyond the commissioners, based on the results of a limited email survey). Five conclusions are drawn:

- Reviewing existing research is a worthwhile enterprise.
- There are many ways of reviewing research successfully.
- The purpose to be served by a review is crucial.
- Familiarity with the field of research is a necessary, but not sufficient, qualification for reviewers.
- Close working relationships between commissioners and contractors are vital.

Because of the diversity of reviewing practice, standard guidance is not appropriate. The Working Paper thus concludes with a checklist of issues that need to be considered when commissioning or conducting reviews.

The purpose of the Working Paper series of the UK Centre for Evidence Based Policy and Practice is the early dissemination of outputs from Centre research and other activities. Some titles may subsequently appear in peer reviewed journals or other publications. In all cases, the views expressed are those of the author(s).

The practice of research reviewing 2. Ten case studies of reviews

Introduction

This paper is the second output of the Centre project that aims to:

- explore and assess current practice in research reviewing
- prepare guidance on commissioning and managing research reviews

The background and rationale for the project are fully explained in Working Paper 22 on *The practice of research reviewing 1: An assessment of 28 review reports* (p3). Briefly restated, these are that in the context of the new interest in using reviews to contribute accumulated knowledge to a policy or practice issue (as distinct from undertaking yet more primary research), we decided to explore the *practice* of research reviewing: how reviews are done and also why, when, by whom, at what cost and with what effect on policy and practice.

Working Paper 22 reported findings from the first stage of work. This involved the analysis of a selection of published reviews conducted in the UK over the years 2000-2003, and focusing on their design, commissioning, conduct, management, reporting and use. Alongside this analysis, we conducted a number of interviews with representatives of commissioning organisations on the general subject of research reviews: their attitudes towards reviews; the circumstances in which they commission them; the role they play in the review process, their relationships with reviewers; and their policies on managing a review project. We concluded from this stage of work that:

- there is currently great variety in reviewing practice
- there is no established typology of reviews
- there is a desire to undertake reviewing in a more systematic manner
- but practice often falls short of this ideal

Our findings and conclusions were presented and discussed at a seminar in November 2004. Participants included commissioners, researchers and potential users of reviews. The seminar shaped the second stage of the project in which we examined a smaller sample of the reviews in more detailed case studies. In particular, we planned to interview those who had commissioned the reviews and those who undertook the work, and to survey potential users (other than the commissioners) in relevant domains of policy or practice. We also hoped to obtain additional documentation to supplement the published review reports: for example, invitations to tender, the commissioner's brief, progress reports and notes of advisory group discussions. Our intention here was to obtain firmer evidence on the practices of commissioning, managing, reporting and using research reviews than could be inferred from the written reports alone.

This work is reported in this Working Paper. Following an account of the case studies and our work on them, the findings are reported under the same generic aspects of reviews identified in Working Paper 22 (p6):

- **Purpose.** What was the *objective* of the review? Was it defined *in policy or practice* terms?
- **Project management.** Who was the *client*? Who the intended *user*? Who the *contractor*? Was there an agreed *brief* and what did it cover? How much *contact* was there between client, contractor and user in the course of the review? What was the *budget* and *timetable* for the work, both proposed and actual?
- **Review methods.** What *search strategy* was used to locate research? What *criteria* were used to include and exclude research from the review? How was research *appraised*? How were the research results *synthesised*?
- **Use.** How was the review *reported and communicated*? What *use* has been made of it, and *by whom*? Were the results considered good *value for money* by the client?

In the conclusions we draw together the findings from the earlier assessment of the 28 review reports and from the ten case studies. We have also formulated a checklist of key issues for those commissioning and conducting research reviews.

Some time has elapsed since the fieldwork for the case studies was conducted in 2005, and the reviews themselves were now compiled several years ago. Both the theory and practice of reviewing have developed since then. Even so, we believe that the project still makes a contribution to the debate on the role of reviewing through its unique analysis of the *practical* purposes, management and uses of reviews.

The case studies

We selected ten of the 28 reviews examined in the first stage of the project. Our choice sought to include:

- Reviews from each of the three fields represented: social policy issues (commissioned by the Joseph Rowntree Foundation); crime, public safety and criminal justice (commissioned by the Home Office and the Scottish Executive); and education (commissioned by various agencies).
- Reviews that had been undertaken – on the evidence of the review reports – using different methodologies, including new methods such as rapid evidence assessment.

The case study reviews are briefly described in the Annex. They focus on the following topics: reducing gang violence (HO1); street lighting and crime reduction (HO2); liquor licensing and public disorder (HO5); single homelessness (JRF5); young people and alcohol (JRF7); speech and language therapy (E2); continuing professional development (CPD) for teachers (E3); the costs of not being in education, employment and training

(E6); and attitudes to education and choice at 16 (E11a and E11b). The codes link to the analysis in the earlier Working Paper and identify the reviews in the discussions below.

We sought phone interviews with commissioners and contractors, and used an email survey of potential users. Both interviews and the survey were confidential. Identifying a commissioner for interview was sometimes problematic because people had changed job or had limited recall of the project details requested. This was less of a problem with the contractors. In both cases, some of those approached were unwilling – at least on the evidence of their failure to respond to repeated emails – to assist the project. In identifying potential users of the reviews we were sometimes assisted by the existence of an advisory group for the project, and sometimes advised by either the commissioner or the contractor; otherwise, we identified people in government agencies, professional bodies or voluntary organisations who were active in the field to which the review was relevant. In most cases complete data was obtained in the interviews with the commissioner and contractor, while data from the user survey were successfully collected in a smaller number of cases.

The topics to be pursued in the interviews and the survey were shaped by both the previous analysis of the published reviews and the seminar discussion. Reading the review reports often raised questions that could not be answered from their texts, and Working Paper 22 notes these. The seminar also highlighted issues about reviewing practice that could only be pursued through interviews or surveys of commissioners, contractors or users. These were the issues on which we focused.

In the interviews with *commissioners* we enquired about: the origins of the review proposal; who formulated the brief; the process of selecting a contractor and drawing up a contract; what price and timetable were agreed (and any subsequent changes to them); the management of the project, including roles and relationships; how the findings were reported; how the review was used; and whether it was good value for money. In addition, we asked some general questions about the necessary cost and desirable speed of reviews, and whether there is enough researcher capacity to do good quality reviews.

In the interviews with *contractors* we asked: how they became aware of the project; the tendering process; their resourcing and management of the project; relations with the client and any appointed advisers; their choice of review methods and the mode of reporting; whether they were adequately compensated for the work; and if there were any other benefits to them.

In the survey of *potential users* (other than the commissioner) we asked simple questions about their awareness of the review, how they rated its usefulness to them, what might have made it more useful and what gave them confidence in its quality.

Purposes of the reviews

Seven case study reviews were funded by agencies with executive roles or responsibilities: two by the Home Office (one from HQ, the other from a region); one by the Scottish Executive; three by the Department for Education and Skills (DfES); and one jointly by the National Union of Teachers and the General Teaching Council. The other three were supported by foundations who fund research in pursuit of policy or practice change: one was funded by the Nuffield Foundation and two were commissioned by the Joseph Rowntree Foundation.

In three cases interviewees pointed to a specific need to know – and know urgently – what research had to say on a matter of pressing concern: review HO1 on Reducing Gang Violence was a contribution to the work of a multi-agency group in the West Midlands seeking new ways to tackle a growing local problem of gun crime; HO5 on Liquor Licensing and Public Disorder was commissioned to inform the work of the Nicholson Committee’s inquiry on liquor licensing in Scotland; and E11b on Education and Choice was required to help the DfES answer a question posed by the House of Commons Education and Skills Select Committee on differences in staying-on rates between schools.

In other cases, the urgency may have been less, but the purpose was clearly related to developing policy or practice. E3 on CPD for Teachers addressed a matter of continuing concern to its principal clients at the National Union of Teachers and the General Teaching Council. E6 on the Costs of NEET (Not being in Education, Employment or Training) was devised by DfES economists seeking to find a basis for cost estimates to use in the interdepartmental debate on social exclusion. In the cases of JRF 5 on Homelessness and JRF 7 on Young People and Alcohol, the Joseph Rowntree Foundation had a need to know: in the first case, as a basis for responding to pressures upon it to commission new primary research in the field, and in the latter case as a basis for defining the focus of a new research programme on which it had decided. In the two remaining case studies – HO2 on Street Lighting and Crime, and E2 on Speech and Language Therapy – the purpose was more in the nature of ‘wouldn’t it be interesting to do a review on X’, partly to address substantive issues and partly to test out the methodology of systematic review. Overall, therefore, the purpose of the case studies was mostly to serve the needs of policy or practice.

In Working Paper 22 we noted (p6) that the purpose of a review – why it has been undertaken, what results were expected, and how they were to be used – is not always evident from the published report. We inferred from the review reports that they achieved one or more of what we called *mapping* the field (addressing the question ‘what do we know?’), *structuring* existing bodies of knowledge (‘how does this relate to our concerns?’) and *evaluating* policy or practice options (‘what works?’).

On closer inspection, the case study reviews seem to fit within these three broad categories. Two clear cases of mapping are evident: JRF 7 Young People and Alcohol and E11a Attitudes to Education and Choice at 16. Five cases of evaluative purpose are

also evident: HO1 Reducing Gang Violence; HO2 Street Lighting and Crime; HO5 Liquor Licensing and Public Disorder; E2 Speech and Language Therapy; and E3 CPD for Teachers. The others – JRF5 Homelessness, E6 Costs of NEET and E11b Education and Choice – appear to have been commissioned to structure, or even interrogate, existing knowledge to answer questions: ‘Can the research explain the nature, extent, causes and consequences of single homelessness?’; ‘Can the research yield some measures of the social costs of young people not in education, employment or training?’; and ‘What accounts for different staying on rates between schools?’. These reviews sought to use existing primary studies as data to explore and answer policy-relevant, as distinct from ‘what works?’, questions.

To summarise, in terms of purpose, the closer analysis of the case study reviews found that:

- Most of the reviews were commissioned on the basis of a ‘need to know’ for policy or practice purposes.
- These purposes, their precision and their urgency varied greatly.
- In broad terms, reviews served their purpose in one of three ways: by mapping existing research in the field; by structuring and perhaps interrogating the existing research in relation to policy and practice issues; or, more specifically, by drawing on the research to evaluate policy or practice interventions.
- While most reviews had one such primary function, some combined more than one.

Project management

Initiation

Most of the case study reviews were undertaken in response to an invitation from a funder who had decided to explore a field of research, and to do so by commissioning a review. There were two exceptions. E2 Speech and Language Therapy was initiated by the researcher as a Cochrane review (and was thus completed to a standard protocol set out and overseen by the international Cochrane Collaboration) for which funding from the Nuffield Foundation was then sought and obtained. E3 CPD for Teachers arose from prior work in the field of CPD by one of the contractors for one of the commissioners that extended into the review project.

Four of the commissions were by single tender. Only three were by competitive tender and then by invitation rather than by open, published tender. HO1 Reducing Gang Violence, was undertaken by an in-house team and not formally tendered – ‘it was sold rather than bought’, commented one interviewee. The cost of reviews (discussed below) mostly kept the contracts below the threshold above which commissioners’ procurement procedures would require them to seek competitive tenders. These choices of process were commonly justified by commissioners on the basis of there being a small, known field of potential contractors with expertise in the field – this was usually substantive rather than methodological review expertise – and/or a wish to minimise the costs of

commissioning. In only one case of competitive tendering was an interview of the potential contractors reported.

In all the case studies, there had been discussions between the commissioner/funder and the contractors about the scope, methods, budget and timetable of the review. However, in only two cases did an agreed review protocol or work plan for the conduct of the review result from these discussions: for E2 Speech and Language Therapy, a standard Cochrane Review protocol was produced and published for comment; and for E3 CPD for Teachers, standard EPPI-Centre procedures¹ were used. For the rest, the degree of agreement between commissioner and contractor about such issues resembled that in primary research commissioning. In particular, most contractors had found that the definition of the topics to be addressed and the methodologies to be used were largely left to their discretion.

Resources: time and money

We sought in our interviews to establish the resources consumed by the reviews. The Table below summarises what we found.

Resources for the 10 case study projects

Fees and expenses	Persons in team (not all full time)	Work duration: actual and (planned) where known
Conducted in house	4	2 months
<£5K	1	15 days
c£5K	1	not known-
£3-5K	2	3 months
£10K	2	6 months
£14K	2	12 months (4)
£15K	1	30 days
£23K	not known	7 months (4)
£24K	5-6	12 months (12)
£60-70K	17	30 months

In many cases, reviews were described by commissioners as a relatively low priority, low budget activity. The small budgets and relatively short time scales involved made them an ideal choice for commissioners seeking to use up surplus financial resources. As one commissioner commented, ‘These things are often done at the end of a financial year when there is money left to spend.’ Most interviewees, both commissioners and contractors, admitted that the originally planned budgets and timetables turned out to be unrealistic. The timetables were commonly, and amicably, re-negotiated and in only one reported case was the budget revised to provide extra staff time so that the review could be delivered on time. HO1 Reducing Gang Violence was designed – with advice from the Cabinet Office and Home Office HQ – as a ‘rapid evidence assessment.’ This relatively

¹ The EPPI-Centre (the Evidence for Policy and Practice Information and Coordination Centre) in the Institute of Education, University of London. See <http://www.eppi.ioe.ac.uk>.

new approach to reviewing involved speeding up the review process by investing additional staff resources, with a small team working full time for a short period.

Interviewed contractors demonstrated poor awareness of how much time they had put into the work, and thus whether the payment received was adequate. One commissioner reflected that a realistic level of resources for reviews is about £60K (£45K for staff time, plus overheads) and 12 months duration; anything less can only be achieved ‘by cutting corners’. On the other hand, one contractor was not convinced that spending more than the actual, modest time and money invested in the review would have produced a significantly better product. ‘Three times longer wouldn’t have been three times better... we provided a good product for the money’, and ‘If they were offering £60K I would be interested in doing a systematic review version, but I am not sure that if we did it in a different way it would come out any different.’

Team work

Four of the reviews – E2 Street Lighting and Crime, E2 Speech and Language Therapy, E11a and b Education and Choice – were single-authored reports, and interviews confirmed that these were essentially one-person projects. Other reviews were produced by teams of sizes ranging from two to seventeen people. Team members’ roles and degrees of involvement varied greatly. In interviews, three advantages were reported for team work in reviewing:

- It speeds things up. As noted above, over-running the timetable was a common failing, partly because of unforeseen circumstances (especially the scale of the literature and the time needed to retrieve it). Many hands can go some way to making lighter work. Working full-time alongside each other proved to be advantageous for one team as members could support each other in learning about the review process. However, there were problems that more people could not solve: for example, delays in getting hold of key papers.
- It allows a division of labour. Searching for and summarising publications were tasks that were sometimes assigned to particular team members, either for reasons of economy (if they were junior researchers) or expertise (if they were librarians or information scientists).
- It encourages discussion within the team about problematic choices. Those most commonly mentioned in interviews concerned the inclusion or exclusion of publications on quality grounds, and the shaping of a framework for synthesising the research.

One contractor noted that team reviews could have disadvantages. For example, using research assistants to extract data from the literature could lead to the original sources being filtered before the main reviewer had a chance to assess the data. However, while there was no consensus on their ideal composition, both contractors and commissioners saw potential value in review teams. One contractor, reflecting on experience of team work, identified three roles in successful reviewing: a manager/author; a research assistant(s) to do the ‘legwork’; and a supervisor to provide second opinions and quality

assurance. Others highlighted the need to involve an information scientist in the team to help with searching.

Intangible rewards

In the interviews we explored contractors' motivations for and satisfactions in doing their reviews. Here it is worth recalling that all but three of the reviews were single-tendered, so reviewers may have been flattered to be approached, or at least knew that the effort in pitching for the work was low. It is also noteworthy that all but one of the projects – HO5 Liquor Licensing and Public Disorder – were undertaken by academic contractors (all but two in the larger sample of 28 assessed in Working Paper 22). Seemingly, review work does not appeal to independent researchers or consultants, and nor did commissioners consider them in choosing potential contractors. Among the interviewed contractors, two motivations were found: the review was an opportunity 'to try one's hand' at review methodology; and/or it was a good opportunity 'to get to grips' with a field of interest. Thus, doing the review served some personal academic objectives as well as the commissioner's purpose. Two of the contractors attested to real academic payoffs from the work: one stated that 'It gets your name out there. It was fun to do and interesting'; and the other believed the review – that was widely communicated and actively followed up in various ways – 'launched my career.'

Steering and advice

Seven of the ten reviews had advisory or steering groups. The exceptions were HO2 Street Lighting, JRF7 Young People and Alcohol, and E2 Speech and Language Therapy. In the second and third cases it was argued in interviews that there was no time or resources for such an arrangement, and/or it would not have made a significant contribution. Otherwise, the appointment of a steering group seems to have been an application of standard research contracting practice, rather than a response to the belief that such a group was particularly appropriate to reviews. Exceptions were HO5 Liquor Licensing and Public Disorder, where the review was steered by a sub-group of the Nicholson Committee of Inquiry for whom it had been commissioned, and HOI Reducing Gang Violence, which was commissioned by an existing steering group looking at gang violence in the West Midlands. Such groups tended to have between five and twelve members, a mix of researchers and practitioners ('the usual suspects' in the word of one interviewee), meeting two or three times during the project.

Views about steering groups were sometimes negative – for example, one interviewee stated that group members only 'saw what they wanted to see' in presentations – and only rarely did interviewed contractors or commissioners praise their contribution. In the case of E3 CPD for Teachers the group was required formally to sign off the protocol, review and reports. And for JRF5 Homelessness, a large steering group was useful in keeping stakeholders on side, advising on presentation to non-academic audiences, and opening doors for the subsequent widespread communication of the review findings.

Only E3 CPD for Teachers cast its net more widely than an advisory group. This review was conducted within the procedures established by the EPPI-Centre, and included a commitment to involving practitioners in the review team and supporting them through

methodological advice from members of EPPI-Centre staff. The review team was also a subset of a wider review group, which had signed up with the EPPI-Centre to carry out a number of reviews on the topic of continuing professional development.

So, in terms of review management, we find that:

- Commissioners adopted standard approaches to research project management, including the use of steering groups, except that competitive tendering was the exception, and a formal work plan agreed between commissioner and contractor was a rarity.
- Most contractors were selected for their substantive knowledge rather than methodological expertise in reviewing.
- Agreed budgets and timetables – all, with one exception, below £25K and less than 12 months – were usually exceeded and rarely adjusted, except de facto through late delivery.
- Contractors, all but one from academia, were probably underpaid for the actual time spent on the reviews, but saw compensations in developing their knowledge, skills or reputation.
- Team work had many advantages in undertaking reviews.

Review methods

We have already noted that commissioners of the case study reviews were rarely prescriptive of the methods to be used. Some contractors and commissioners were unsure as to whether they had in fact used a review ‘method.’ One commissioner commented: ‘This was before we knew about systematic reviews.’ A contractor agreed, observing that ‘I am not sure that we did use a review method...we read some stuff and wrote about it.’ In interviews, some contractors took a laissez-faire view: ‘the review practically managed itself.’ These comments may, in part, reflect the fact that the case study reviews were all undertaken in the 2000-2003 period, and awareness of developing review methodologies has extended greatly since then. There seemed to be some burgeoning awareness of a method in systematic reviewing, from which people had begun, to varying extents, to reflect on their activities as reviewers. For example, one contractor commented: ‘We would have done a systematic review if we had time and resources.’

In contrast, some of the reviews were undertaken with an explicit commitment to a particular methodology: HO1 Reducing Gang Violence was a rapid evidence assessment; HO2 Street Lighting and Crime was commissioned in part to see what a systematic review would produce; E2 Speech and Language Therapy followed Cochrane Review procedures; and E3 CPD for Teachers used EPPI-Centre approaches. All of these adopted elements of the ‘medical model’ of systematic review.

In Working Paper 22, we identified a number of review stages – question definition, search strategy, inclusion and exclusion criteria, quality criteria, method of synthesis, reporting – as a basis for assessing the methodology as described in the 28 review reports. A number of issues were raised in that assessment that we hoped the case studies might

answer. We return to those stages and those questions here. At the seminar in November 2004 there was some criticism that thereby we were implicitly using systematic review methodology as a standard by which to judge all reviewing. We maintain that this structuring of the aspects of reviewing is useful in considering any methodology.

Question definition

On question definition our interviews with both commissioners and contractors revealed that there had often been intense discussions about the scope and focus of the review. This was usually, and appropriately, at the start of the project and conducted between the commissioner's project officer and the lead contractor in post-contract negotiations, although steering or advisory groups might sometimes address this question. However, that was not always the end of the matter. Questions about the definition of the focus or scope of the review commonly recurred at subsequent stages in the work, particularly as the extent and nature of the literature was revealed. In the case of E6 Costs of NEET, these discussions were still continuing at the end of the project in order, in the commissioner's view, 'to extract the maximum, reliable results from the work.'

Search strategies

In Working Paper 22 we noted great variability in the reporting of search strategies. Three reviews are cited here as illustrative of the range of practices encountered amongst the case studies: E3 CPD for Teachers, with exhaustive documentation of its strategy; JRF7 Young People and Alcohol, with a fairly full account; and E6 Costs of NEET, with nothing about searching at all. The team conducting the Young People and Alcohol review contracted out the searching to a librarian they had worked with before. The authors went through the list she generated and identified the 'interesting' publications, which the librarian then retrieved for them. They added to the material obtained in this way other publications of which they were aware from their previous experience of working in the field.

Inclusion, exclusion and quality appraisal

In the case studies the choice of criteria for inclusion or exclusion of publications in the review, and for appraisal of their quality was informed by the discussions with commissioners at the start of the project on its scope, budget and timetable. It was then usually left to the contractor's discretion to define and apply criteria. In the reviews undertaken according to a defined methodology, this was an explicit task. HO1 Reducing Gang Violence adopted the 'Maryland Scale', a quality appraisal tool featured in the Cabinet Office Magenta Book (Cabinet Office, 2003) that had already been used by Home Office researchers conducting another published rapid evidence assessments. However, the tool was designed for medical literature and seemed to offer 'too high a bar' for the literature on gang violence, so some adjustments needed to be made for this review.

Two reviews described themselves as systematic reviews – E3 CPD for Teachers, and E2 Speech and Language Therapy. The contractors commented that a lack of randomised controlled trials in the subject areas meant that it was not feasible to set the inclusion bar very high or there would have been no studies to synthesise. This played a role in the

decision by CPD funders to set up an EPPI-Centre review group, rather than conducting a Campbell-style review, since it was felt that EPPI has a more inclusive philosophy when it comes to study type. Follow-on work to the Speech and Language Therapy review was also done in collaboration with EPPI, in contrast to its initial work with a Cochrane protocol, again partly owing to EPPI's more inclusive approach.

For the remaining cases, contractors reported their reliance on 'professional judgement'. This underpinned, for example, the inclusion of 'only significant research' in the JRF5 Homelessness review; the selection of 'the most influential and important pieces of work in the area' in E11a Education and Choice; and the test of 'relevance with a bit of additional quality assessment' in JRF Young People and Alcohol. In these cases, criteria of relevance and reliability were not usually clearly distinguished. Some commissioners were happy with this approach, having trust in their choice of contractor; 'we knew we could rely on [name]' said one. However, others admitted in discussion that, with hindsight, they might as commissioners have required a more rigorous and transparent definition and application of criteria. Some contractors echoed this view, but at the same time often referred to constraints of time or money as a determining factor in what the review covered. One commissioner also had doubts about an over-rigorous approach to quality assessment, observing that 'people can make intelligent observations in research even if the fieldwork remains crap...they can raise issues.' The tension between quality and relevance can often be hard to resolve. One contractor commented that there was one particularly interesting study that was on the borderline methodologically, but which would have given the review a wider appeal in terms of explanatory and conceptual insights; in this case, the decision was made to privilege quality over relevance.

Synthesis

For most reviewers the approach to synthesis was determined by the task and the data rather than by methodological preferences. In most cases the individual studies were synthesised thematically, with the themes emerging from the literature rather than from the topics that the commissioner might have stated as priority concerns. HO1 Reducing Gun Violence sought to reconcile these two approaches by using a Q and A format in its executive summary. Few review teams found more formal synthesis possible with the data they had to work with. Only HO2 Street Lighting sought to use meta analysis.

Our main findings on methods are that:

- Methodological choices were left largely to the contractor, and there was little relationship between his/her chosen method and the commissioner's purpose.
- Explicit choices of methodology at the start of work were rare, and the methodology usually evolved as work proceeded.
- Initial definitions of the focus of the review, sometimes agreed with the commissioner, were commonly modified as the scope of the literature became apparent.
- Few reviews had adopted formally defined search strategies identifying sources and key words; the most common approach was to explore the

literature through a variety of sources, guided strongly by the reviewer's prior familiarity with the field and its literature.

- In appraising the quality of research, 'professional judgement' was used more often than explicit inclusion/exclusion criteria.
- Synthesis was mostly achieved by tracing the themes emerging in the research reviewed.
- Many commissioners and contractors were aware that there are more systematic methods that might have been used, though some remained doubtful that the outcomes would have been very different, or better.

The use of reviews

Most of the case study reviews were commissioned or funded with a view to the results informing policy or practice development. Those who paid for them were therefore the principal users and, in four of the case studies, commissioners reported an identifiable, fairly immediate use of the review. HO5 Liquor Licensing and Public Disorder became part of the evidence used by the Nicholson Committee, JRF7 Young People and Alcohol was used to help shape a new research programme, E3 CPD for Teachers informed the development of DfES national guidance on CPD and was recommended to local education authorities, and E6 Costs of NEET persuaded the DfES that reliable costing was not feasible. Of these four cases, it is worth noting that the outcomes for HO5 and JRF7 were as intended when the reviews were commissioned, E3's outcomes were somewhat serendipitous and those for E6 were unexpected, though still valuable.

In four other cases commissioners reported less specific use. HO1 Reducing Gang Violence revealed a lack of UK evidence but nevertheless stimulated a debate about improving the evidence on crime within the multi-agency group who commissioned the review. HO2 Street Lighting and Crime was judged to be disappointing by its commissioner ('It didn't tell us much we didn't know') but was still useful as background information ('It was a useful thing to have done. To have a good standard review on this topic'). JRF5 Homelessness became 'an essential resource for housing researchers', and E11 Education and Choice proved useful as background information for the DfES, mainly for its researchers.

In most cases, there was also a wider set of potential users in the worlds of policy and practice to whom the review reports were all publicly available. Our email survey of such potential users was intended to explore this wider impact by asking recipients about their awareness of the review, its usefulness to them and their view of its quality. The sample sizes were small and the response rates were poor, so it is impossible to generalise from this data about the particular uses of these reviews by practitioners other than the commissioner. Even so, some interesting insights into the utilisation of reviews emerged:

- Awareness of a review correlated closely with ownership of a copy; a user is likely to retain awareness of a review only if he/she has obtained and retained a hard copy.

- Usefulness of the review was more commonly reported as a source of ‘background knowledge’ than of ‘informing policy and/or practice choices’.
- Suggestions for increasing the usefulness of reviews included better summaries, clearer quality markers on reviewed studies, and more effort at synthesising evidence rather than providing a simple summary.
- Confidence in the quality of a review is based more on its authorship, than its methodology or presentation.

In some of the case studies a fuller story emerged from the interviews and the survey responses. JRF5 Homelessness had been commissioned by the Joseph Rowntree Foundation to map the field of research on single homelessness, following the publication of a report on street homelessness by the Social Exclusion Unit and an overture to the Foundation from the homelessness charity CRASH. It recruited a Project Advisory Group, with members from academic, charity and government organisations, and also arranged a meeting with a wider range of practitioners to discuss the presentation of the findings. The three outputs from the review – an overview, a bibliography and research summaries, all published in 2000 – were widely distributed, with funding from CRASH. The lead reviewer made a number of conference presentations and there was coverage in practice journals. There were no briefings of policy people, although this is often the Foundation’s practice, but there were two consequential developments. First, CRASH decided to fund annual updates of the review bibliography. Second, the lead reviewer was recruited to the Research Committee for a Scottish Executive and Parliament review of homelessness. There was also a Welsh Assembly review in 2001, followed by an English Select Committee report and government response in 2005, and a National Audit Office Value For Money study in the same year. While the reviewer was not personally involved in these initiatives, there is circumstantial evidence that the review was part of the contributory documentation.

Commissioners and other users commented that they found the results of reviews rather indigestible: the material in them did not lend itself very readily to the brief summary that politicians and senior staff in organisations expect. There were, however, few practical suggestions for improvement. Reviews appear to be accepted as a hard read, to be dipped into from time to time for reference purposes, rather than read from cover to cover. The one case study review that elicited positive comment on presentation was JRF5 Homelessness. This had been written up in three volumes and distributed widely, all made possible through additional funding by one of the commissioning bodies. An interesting approach to usability was adopted by E3 CPD for Teachers: upon completion of the review, commentaries on it were commissioned and posted on the EPPI-Centre website. The preamble states ‘Each review can be used by readers in different ways to address their particular needs. A variety of perspectives from such users as parents, teachers, headteachers, advisors, governors, and policy makers are offered in this section [of the website].’ Links to the review, the commentaries and other summaries of both E3 CPD for Teachers and other reviews carried out by the EPPI-Centre CPD review group can be found on the websites of other organisations including the General Teaching Council, CUREE (Centre for the Use of Research and Evidence in Education), National

Union of Teachers and the National Centre for Excellence in the Teaching of Mathematics.

Finally, did their users consider the reviews good value for money? As shown above, most of the reviews had cost relatively little in contractors' fees, and none had been subject to exceptional project management by the contractor. So, a fairly minimal degree of usefulness – as 'a helpful, up-to-date overview of the field' – made them good value for money. However, the fees paid were widely regarded as insufficient recompense for the work involved in reviewing. There was agreement that more should be paid, and this some action had been taken by the time of our interviews; as one commissioner put it, 'There has been inflation with regard to reviews.' Fees of £10K upwards had become the norm but it was not clear whether commissioners felt that they were getting added value for their extra investment. There continues to be a faith amongst commissioners in the lead author (as opposed to the methodology) as the value-added dimension of a review: 'It's not about the money, it's getting a good person to do the review.'

In summary, our findings from the case studies on the use of reviews show that:

- Reviews are mostly not widely known, valued or used, other than by the commissioner.
- Active promotion and interpretation for specific audiences can increase their impact.
- They are not easily readable by non-researchers, and this limits their appeal and use.
- They are commonly used by commissioners and others as background material for policy or practice development, rather than as direct evidence to inform choices.
- Even so, given their low cost, they remain good value for money.

Conclusions

We draw five conclusions from our work, drawn from both stages of the project.

First, reviewing existing research is a worthwhile enterprise. While there are limits to the 'shelf life' of research findings and while different contexts must temper interpretation, the accumulation of past research findings is a resource for the present. It can sometimes offer a sufficient answer to new questions or otherwise provide the point of departure for new lines of primary research. Both researchers and practitioners need to be aware of the present state of knowledge in their field of interest, and research reviewing is the means to that end.

Secondly, there are many ways of doing research reviews successfully. Much has been written in recent years about review methodology, much of it about the pros and cons of applying to public policy research the systematic review methodology originally developed for clinical medical research (see, for example, MacDonald, 2003; Petticrew and Roberts 2005; Pawson, 2006). Actual reviewing practice has been methodologically

more diverse, either because the ‘medical model’ of systematic review has not yet completely penetrated practice, or because it has been explicitly considered and rejected as impractical or inappropriate. While the application of this model may be a sound choice in certain circumstances, there is little to be gained from simply advocating its wider application. Rather, the development of more systematic methods for the tasks involved in commissioning, conducting and communicating reviews should be prioritised – tasks like focusing a review, searching for research, judging its relevance and reliability, synthesising findings, reporting. In short, a bespoke rather than off-the-peg approach to doing reviews.

Thirdly, the purpose that a review serves is crucial. The view that confines the potential of reviews to answering ‘what works?’ questions (and the associated proposition that evidence based policy is just the application of systematic reviewing) is absurdly limiting. As a first, practical step a review needs to map existing literature in the field of interest. This may be all that is needed for certain purposes; otherwise, the mapping process may serve to refocus the review and identify areas that need fuller appraisal. Reviews are most useful when this appraisal is directed to answering the questions implicit in their purpose, as agreed with a commissioner and/or users. These may be questions about the effectiveness of policy interventions, but equally they may be questions about the nature of phenomena, trends and patterns, contexts and comparisons or many other aspects of human behaviour. Reviews have the potential to inform policy and practice development in diverse settings and at diverse stages.

Fourthly, familiarity with a field of research is a necessary but not sufficient qualification for reviewers. Substantive expertise needs to be combined with methodological awareness, work planning, team work, project management and communication skills for successful reviewing. And all this needs to be properly priced and timetabled. Research reviewing requires a professionalism equal to that of primary research, and standards of objectivity, rigour and transparency similarly apply.

Fifthly, close working between commissioner and contractor is highly important, perhaps even more so than with primary research. In this case, the client may sometimes be able to sign off the research design and leave the researcher to collect and analyse data, with the two parties coming together again to discuss findings and conclusions without the project deviating too far from the commissioner’s original intentions. In contrast, research reviewing poses choices of direction at every stage as the true extent and nature of the data – the research publications – become apparent. So a closer relationship between commissioner and contractor is needed.

In the project’s initial objectives (Working Paper 22, p1) we stated that one of our aims was ‘to prepare guidance on commissioning and managing research reviews’. We had no a priori concept of the form such guidance would take. Having completed the project, and recognising the variety of practice it has revealed, we now feel that the best we can do is to offer a checklist to prompt reflection when commissioning or conducting reviews. In essence, it is just a shorthand way of expressing the good practice that our analysis has identified. It is presented in the Box below.

Checklist

Purpose

Is the review's intention just to map literature in the field or also to seek evidence relevant to questions of policy or practice, possibly including questions about the efficacy of interventions?

Is the scope of the research to be reviewed defined clearly?

Contractor

Does the contractor have:

- knowledge of the field of literature to be reviewed?
- understanding of the policy and/or practice domains to which it is relevant?
- experience in methods for reviewing research?
- a team with an appropriate mix of skills?

Workplan

Is there a project design (or protocol) for the review work, and are stages for reviewing progress (and if necessary revising the approach) identified?

Is the timetable realistic, especially in terms of the expected scope and scale of the literature and the elapsed time for accessing it?

Is the budget realistic, especially in terms of days of work and day rates for team members?

Are there provisions to review both timetable and budget as the work progresses?

Methods

What methods are proposed to:

- search for literature?
- manage data on identified research?
- decide on the inclusion or exclusion of research in the review?
- appraise its quality? using what criteria?
- summarise and/or synthesise included research?

Outputs

Is the review to provide one or more of:

- a bibliography?
- summaries of individual research?
- an overview?
- an executive summary?

For what audiences are the outputs intended?

Are the outputs to be in electronic and/or paper formats?

References

Cabinet Office (2003) *The Magenta Book: guidance notes for policy evaluation and analysis* London: Cabinet Office. Available via http://www.policyhub.gov.uk/magenta_book/

Macdonald, G (2003) *Using systematic reviews to improve social care* London: Social Care Institute for Excellence (Report 04). Available via <http://www.scie.org.uk/publications/list.asp>

Pawson, R (2006) *Evidence based policy: a realist perspective* London: Sage.

Petticrew, M and Roberts, H (2005) *Systematic reviews in the social sciences: a practical guide* Oxford: Blackwell.

Annex: the case study reviews

The code numbers are taken from Annex A in Working Paper 22 that gives a fuller account of each project.

HO1 Evidence based approaches to reducing gang violence: a rapid evidence assessment, 2004

Commissioned by Aston and Handsworth Operational [Policing] Group
Undertaken by the Government Office of the West Midlands/Home Office Regional Research Team
Published by the Government Office of the West Midlands/Home Office Regional Research Team

HO2 Effects of improved street lighting on crime, 2002

Commissioned by the Home Office
Undertaken by the Institute of Criminology, University of Cambridge
Published by the Home Office

HO5 Liquor licensing and public disorder: review of literature on the impact of licensing and other controls/audit of local initiatives, 2003

Commissioned by the Scottish Executive
Undertaken by Reid Howie Associates
Published by Scottish Executive Social Research

JRF5 Single homelessness: an overview of research in Britain, 2000

Commissioned by the Joseph Rowntree Foundation
Undertaken by the Department of Urban Studies, University of Glasgow
Published by Policy Press in three volumes – Single homelessness: an overview of research in Britain; A bibliography of single homelessness research; and Research summaries

JRF7 Teenage kicks? Young people and alcohol, 2001

Commissioned by the Joseph Rowntree Foundation
Undertaken by the Department of Politics, Goldsmiths College, University of London
Published by York Publishing Services

E2 Speech and language therapy interventions for children with primary speech and language delay or disorder, 2003

Funded by the Nuffield Foundation
Undertaken by City University
Published by Wiley

E3 How does Continuing Professional Development for teachers of the 5-16 age range affect teaching and learning? 2003

Funded by the National Union of Teachers and the General Teaching Council

Undertaken by the EPPI-Centre, Institute of Education, University of London

Published by the Institute of Education

E6 Literature review of the costs of being ‘not in education, employment or training’ at age 16-18, 2002

Commissioned by the Department for Education and Skills

Undertaken by the Social Policy Research Unit, University of York

Published by DfES

E11a Attitudes to education and choice at age 16, 2002

Commissioned by the Department for Education and Skills, Advisory Panel on Research Issues for the 14-19 age group

Undertaken by the Policy Studies Institute

Published by DfES

E11b Choice at the end of compulsory schooling, 2003

Commissioned by the Department for Education and Skills

Undertaken by Dr Joan Payne (freelance researcher)

Published by DfES