

Final report

Literature review report

***Schools and continuing professional development (CPD) in
England – State of the Nation research project (T34718)***

A report for the
Training and Development Agency for Schools

Robert McCormick, Frank Banks, Bethan Morgan,
Darleen Opfer, David Pedder, Anne Storey, Freda Wolfenden

The Open University and Cambridge University

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Contents

Preface.....	3
Executive summary.....	4
Focus.....	4
Methodology.....	4
Findings.....	4
1 Focus of the literature review	9
2 Methodology.....	10
2.1 Criteria for selection	10
2.2 Searching process for relevant items	10
2.3 Selection of items for review	11
2.4 Review process	11
3 Sources reviewed	12
4 Findings.....	13
4.1 Introduction.....	13
4.2 Towards some working definitions.....	16
4.3 Benefits, status and effectiveness of CPD	17
4.4 Planning and organisation of CPD.....	36
5 Summary of findings.....	45
5.1 General issues	45
5.2 Benefits, status and effectiveness of CPD	45
5.3 Planning and organisation of CPD.....	46
References.....	47
Appendices.....	49
Appendix 1: TDA questions for literature review	49
Appendix 2: Record card	51
Appendix 3: Details of the review process	53
Appendix 4: List of sources reviewed	56
Appendix 5: Listing of sources by levels of confidence.....	61

Preface

This report is one of three elements of the complete project:

- literature review
- survey of school staff, and
- qualitative studies of particular schools.

The executive summary gives an overview of the literature review and a summary of all the findings. This summary is followed by the details of the review and its findings. The summary of findings at the end only gives the major findings from the review, particularly where we can be confident about the evidence. This review led to a number of recommendations mainly relating to further research, and these are included within the overall report of the project along with those of the other two parts of the project.

The research team from The Open University and Cambridge University would like to thank the advisory group for this project who were helpful in directing this review, supplying sources and contributing to this report.

Executive summary

Focus

This review addresses the two general questions asked by the TDA, drawing on qualitative studies to update previous work since 2004. It therefore sought evidence from empirical studies of the views of teachers on:

- the benefits, status and effectiveness of CPD they experience and provide
- the planning and organisation of CPD provided in and for schools.

Methodology

There were a number of steps in the review process (see appendix 3 for details). Firstly, criteria for inclusion were drawn up; secondly, a search (both opportunistic and systematic) was conducted using the criteria; thirdly, a selection from the searches was made; and finally, reviewing of the chosen items was carried out. The selection process resulted in 28 reports and 33 articles and conference papers being retrieved for review. A set of 'record cards' were then produced as the basis of this review.

The cards were analysed to provide information in the following groups:

- A Benefits and impact: questions 1.1 and 1.8.
- B Indirect benefits: questions 1.2 and 1.6.
- C Judgement on benefits and impact – value for money: question 1.7.
- D Effective features and activities/forms of CPD: questions 1.3 and 1.4.
- E The role of external agencies: questions 2.1, 2.9, 2.10 and 2.11.
- F Performance management, professional standards, career aspirations, professional life phases and career stages: questions 2.4, 2.5 and 2.6.
- G Matching needs of school and individual: questions 2.3 and 2.5 (also in F).
- H The evaluation of CPD activities: question 2.8.

Findings

General issues

Although there is relevant evidence on most questions, we found no relevant literature for question 2.2 concerning the existence of inter-professionalism in CPD planning in schools (eg to support the extended schools agenda). It may be that, as with many other questions that related to recent policy initiatives (at or since 2004), it is too early for data on them to be reported in published studies.

Our conceptualisation of the TDA questions associated with the benefits and effectiveness of CPD led us to propose four elements within this area:

- the *impact* of CPD

Final report

- effective CPD *forms* or *activities*
- *features* of effective CPD
- *conditions* for effective CPD.

We use these as part of the structure for our findings in this first area.

Benefits, status and effectiveness of CPD

Benefits and impact

While there is strong evidence that CPD can improve *pupil learning*, there are relatively few studies that show this in terms of measures of pupil achievement. There is also some evidence that it can produce affective changes in pupils (eg motivation, confidence and self-esteem). The few studies cited that indicated improvement in pupil achievement are based on the views of those involved (ie not through measures of improvements in pupil achievement).

Planning for the improvement of pupil achievement is important in itself in improving effectiveness and there is an important role for senior managers in understanding this.

Studies of impact on *teachers* are more common and, although few identify what elements are responsible for this, collaboration – particularly with more experienced colleagues – can lead to important changes in attitudes, beliefs and practice. There are also a number of effects that support pedagogy, but are not directly about it, such as attitudes to professional development, which are seen as important.

The research on the impact of CPD on *schools* is disappointing, though there was one study that indicated that it could change school leadership and management practices.

We make recommendations on further research in this area.

Indirect benefits: retention and accreditation

Although improvement of retention through CPD is clear in policy, there is almost no research to confirm that it is indeed having such an effect. One study did indicate that early professionals who had undertaken an induction programme were more likely to be in teaching five years later.

The value of accreditation again is not yet supported by research evidence, and in part this might be related to the lack of individual training plans (see later finding). There is some, not well supported, evidence that those on a postgraduate professional development (PPD) course think that the award is important to participants on it. Some of the policies in this area are recent and perhaps in the future more research will emerge.

Value for money

This is seen as important by CPD leaders, but the evidence is mixed on whether it is actually considered by school leaders when evaluating CPD. There are, consequently, few studies that can show evidence of value for money; in all cases this is reported by participants and/or their employers.

Effective CPD activities

The evidence on the kinds of activities encouraged by the TDA is relatively strong, with collaboration being the most common, though not one explicitly indicated on the TDA website. However, there is no clear evidence about how teachers rank the

various activities, though observation is commonly near the top of ratings in reports that investigate views on number of CPD activities simultaneously.

Coaching and mentoring is similarly well supported in terms of evidence, but less so in terms of specific studies on its use in schools. Research on newly qualified teachers (NQTs) shows that they experience this to good effect.

Networks are more likely to be advocated rather than found in practice, and there are different views of what these involve. Evidence from those networks that have a strong collaborative element (as in networked learning communities) indicates that they can have a major impact on pupil outcomes, but are most likely to have an impact on teachers. This evidence is neither contemporary, nor based in England.

Observation by teachers of their peers is particularly valued and there is plenty of general evidence of its effectiveness. Visits out of schools are particularly valued, though there are resource problems to arrange this. Whether such observation is common in schools is unclear from the evidence reviewed.

Enquiry is seen to be important and there is strong evidence of its importance in ensuring changes in practice, though there is weak evidence that it may not be well supported in schools.

Collaboration, as indicated, is well supported by the evidence in terms of its effectiveness and it can lead to a wide range of impacts. Again we do not have clear evidence about just how much collaborative activity takes place in school CPD.

There is lack of popularity of *online activities*, and little research to enlighten us about its potential in England or indeed how extensively it is used. **This is again an area for further research.**

Features of effective CPD

There is research that underpins the kinds of features advocated by the TDA, and we have found studies in our review that supported this further. In addition, some new features have been found that could be considered (eg that pupil consultation is involved, and that work should be based in teachers' own classrooms).

Conditions to support effective CPD

There are no systematic investigations of the kinds of conditions examined in the Ofsted (2006) logical chain (which are mainly those planned and therefore covered in the next section), though a variety of studies indicate others (eg that teachers should be volunteers in participating in CPD). This relates to an important idea advocated by one study that stressed a teacher's commitment, and this relates to the idea of 'learner agency' that is found in the workplace learning literature. There are issues relating to the more general culture of a school that are important.

There is little evidence on basic level conditions that support effective CPD – for example, the use of staff development days.

The evidence on conditions also needs to be thought of in terms of individuals' responses (ie teacher agency) as well as the affordances provided by the school.

CPD was most effective in schools where senior managers understood its potential for raising standards and committed to using it as a key driver for school improvement.

Planning and organisation of CPD

Priorities for CPD: individual and school needs

The importance of balancing these two types of needs is well recognised and there is evidence that the best schools do this successfully through detailed audits. The sources for individual and school needs are relatively easily identified, but there is a complex alignment of school, department and individual staff priorities and setting them in the context of national and local priorities.

There is a recognition of the tensions implicit in matching personal, policy and organisational needs, but evidence in the last few years does seem to indicate growing satisfaction of teachers in that their needs are increasingly being met (though there are some reservations about the most recent statistical evidence).

The above indicates that key to balancing needs is a systematic audit process, which is problematic and varied in schools, and it appears that individual training plans could be important in ensuring this. The dominance of performance management as the sole means of identifying needs is a concern where this distorts the balance.

Performance management, professional standards career aspirations, professional life phases and career stages

The basing of the identification of needs on performance management is evident in recent studies, but in general it is too early to see the impact of policies to link all the elements in this area. This is particularly so for the impact of professional standards. The role of CPD can have a positive influence on teachers throughout their careers, but teacher effectiveness is a consequence of a combination of factors relating to the individuals and the schools they work in and colleagues they work with.

Role of external agencies

In general these are seen as providers of CPD, particularly of expertise, though this is seen as variable in quality. The role of such experts is in supporting teachers work in schools. Teachers as experts is an underrated but important element of external expertise. We were not able to consider fully the evidence on advanced skills teachers (ASTs), but the picture is not a clear one.

The role of specialist schools is seen to be important for supporting local schools, but little research exists on how this is done.

Local authorities (LAs) are still important as providers, but there is little evidence of change in their role as envisaged by the Department for Children, Schools and Families (DCSF) in terms of, for example, being commissioners or quality assurers of CPD. Higher education institutions (HEIs) still fulfil the traditional role as providers of accredited programmes.

The evaluation of CPD activities

This remains a problematic area for schools, though strategic schools do consider pupil outcomes a key indicator of impact of their CPD. Although there are technical difficulties in attributing improvements in outcomes to CPD activity, there is also a lack of concern for this in schools. The main focus in evaluation is on the views of participants, most commonly through questionnaires. Classroom observation was also common.

Final report

It could be that the TDA advice on evaluation (on its website) may yet improve the situation in schools (it is too early to tell from current research), but our advice on improving clarity about impact and effectiveness might help schools think about this more productively.

1 Focus of the literature review

The TDA made it clear that the desk research for the State of the Nation CPD research project should focus on two general questions, on qualitative studies that address these, and that it should update previous work, which we have chosen to mean since 2004. Thus the research question guiding our research is:

What is the evidence available from the reviews of the empirical studies on the views of teachers (of various kinds and roles) on:

- 1 the benefits, status and effectiveness of CPD they experience and provide?
- 2 the planning and organisation of CPD provided in and for schools?

The elements of these two areas are detailed in the TDA questions, which we have reproduced in appendix 1, assigning each a reference number (1.1, 1.2, 2.1 etc).

2 Methodology

A number of steps in the review process were followed. Firstly, criteria for inclusion were drawn up; secondly, a search (both opportunistic and systematic) was conducted using the criteria; thirdly, selection from the searches was made; and finally, reviewing of the chosen items was carried out. This process resulted in a set of ‘record cards’ that were then used as the basis of this review. The elements of each of these steps will be described.

2.1 Criteria for selection

It was agreed that each study reviewed should:

- a be relevant to one or both of the two headings of benefits, status and effectiveness of CPD and planning and organisation of CPD
- b focus on teachers’ and school leaders’ views on CPD (wherever it is undertaken)
- c favour empirical, and particularly qualitative, studies
- d concern CPD in England (but with some account of UK and international studies)
- e be published within the years 2004–2008.

These criteria were used at the initial sift in the search procedure (eg by rejecting any source that was outside the date period), and then at the penultimate stage of item selection for review.

2.2 Searching process for relevant items

There were two kinds of searching: one that was done opportunistically for major reports, and studies that were usually commissioned by government or other educational agencies – eg the TDA and General Teaching Council for England (GTCE) – drawing on the research team’s knowledge and that of the advisory group. In some cases the TDA provided internal documents, or at least those not available on its website. This opportunistic approach also included exhaustive searching of the websites of the Department for Children, Schools and Families (DCSF), TDA, GTCE and CERUK, using titles as the main guide to relevant reports. This resulted in 28 reports being available for review.

The second kind of search was based on systematic searches of the educational databases, namely the British Educational Index (BEI), the Australian Educational Index (AEI) and the Education Resources Information Centre (ERIC). These gave access mainly to articles and conference papers. These databases were searched, using a variety of search words, for each of the publication years 2004–2007. The search words included: professional development, teacher professional development, teacher inservice/in-service, teacher INSET, teacher learning and teacher improvement. Large numbers of items (over 10,000) were cited in some of these searches and the numbers reduced by using ‘England’ as a further limitation. Each of the lists of items was examined and items selected based on title and abstract, where necessary, and ‘long lists’ prepared from these.

2.3 Selection of items for review

The long lists were further reduced and prioritised to enable a manageable number of sources to be reviewed in detail. The priority 1 list used the criteria ‘b to e’ in subsection 2.1; the priority 2 list relaxed the criterion related to ‘England’; and the priority 3 list used the criteria ‘b, d and e’ (ie it allowed non-empirical studies). In the event, the priority 1 list contained 44 items that were selected for review. There were nine items that had been included in the original priority 1 list, but which turned out on examination of the actual article not to meet the criteria, and four items that were not retrieved as they were unavailable conference papers or journals, and which appeared to be marginal.

This gave a total of 28 reports and 33 articles and conference papers that were then retrieved from websites (those listed earlier for reports and *Education-line* for papers) and from the Open University Library for articles. In all cases electronic copies were obtained. To these were added a set of four papers from our own research on Assessment for Learning (AfL) that reported on teacher learning and CPD in this context.

2.4 Review process

A review record was constructed (see appendix 2 for the final version), trialled, guidelines of the process produced, and each member of the team given an allocation to review. The resulting review cards for the sources were collected and analysed under themes related to the TDA questions as indicated below:

- A Benefits and impact: questions 1.1 and 1.8.
- B Indirect benefits: questions 1.2 and 1.6.
- C Judgement on benefits and impact – value for money: question 1.7.
- D Effective features and activities/forms of CPD: questions 1.3 and 1.4.
- E The role of external agencies: questions 2.1, 2.9, 2.10 and 2.11.
- F Performance management, professional standards, career aspirations, professional life phases and career stages: questions 2.4, 2.5 and 2.6.
- G Matching needs of school and individual: questions 2.3 and 2.5 (also in F).
- H The evaluation of CPD activities: question 2.8.

There were no items in the selection for review that addressed question 2.2. The report was then written based on these areas and the analysis. (Details of the review process are given in appendix 3.)

3 Sources reviewed

By way of introduction to a discussion of the findings from the literature review in the next section it is worth reflecting overall on the items reviewed. A full listing of reports and articles/conference papers is given in appendix 4. The reports reflect in general relatively well-funded projects, most with an empirical element, but a number are reviews of literature themselves (eg Bolam and Weindling, 2006, a study carried out for the General Teaching Council for England).

Some are Ofsted reports and one is a proposal of policy that draws on empirical work (TTA, 2005). The articles and conference papers are all empirical studies, and mainly qualitative. We have not assumed that any of these are of high quality simply because of their source of funding or where they have been published.¹ Each item has a confidence rating of high, medium or low reflecting the reviewer's judgement about this, based on the explicitness of the methodology and details given, to enable a judgement of the validity of the findings (see appendix 2 for an explanation of the rating).

We have not always chosen to qualify a study when we discuss the findings in the next section, unless it is particularly important, but we have indicated our confidence in each source; appendix 5 gives the listing of the sources at each of the levels of confidence. In the event, none of our major findings rely solely on studies in which we have low confidence.

In terms of an overall judgement on the literature available, it is evident that insufficient time has elapsed since the policy statement of the TDA (TTA, 2005), or since some of the government policy changes were made, for their effects to be evident in the studies reviewed. For example, as noted above, none of the items reviewed provided evidence about inter-professionalism in CPD planning (question 2.2). The review therefore notes a number of times that there is as yet insufficient evidence on such issues. This is exacerbated by the fact that publications, even in 2007, are often drawing on data collected several years previously. (All record cards state, where known, the year when data were collected.)

We were struck by the lack of studies about what teachers and school leaders think about CPD. There is no follow-up to the baseline study by Hustler *et al* (2003), although one of our selected items (Boyle *et al*, 2004) is part of a programme of surveys that will provide such information. At the time of writing it appears that this programme will not report before our own empirical work associated with this project. Few of the qualitative studies reported directly on teacher and headteacher perceptions, the focus of the questions posed by the TDA, although they did pertain to the general issues behind them (eg CUREE, 2008, a literature review and qualitative study carried out for the GTCE).

¹ We were, however, mindful of the cautions provided by Dunkin (1996) on the errors that occur in literature reviews, such as simply incorrectly reporting findings, and the often poor quality of conference papers.

4 Findings

4.1 Introduction

This review is structured around the two broad areas of the TDA questions:

- the benefits, status and effectiveness of CPD, and
- the planning and organisation of CPD.

The review will not deal with each individual question but use the groups A–H outlined in 2.4. We have tried wherever possible to fill in background information on the issues discussed or on the item cited.

Before we come to the discussion of the two main TDA question areas, we need to clarify some terms that are used in them, and which therefore underlie the way we see and group the issues for discussion. In particular, these terms relate to the first area – benefits, status and effectiveness of CPD – where, in our view, there is some possible confusion in the way the questions are formulated and in the way the concepts are commonly (mis)understood.

On its website at the time of the review, the TDA appeared to continue this confusion, beginning with a paragraph under the heading ‘Effective CPD’:

“Continuing professional development (CPD) can take many different forms. Whatever form it takes, there are certain features that determine if it is effective.”

However, this could be seen as a general statement on effective CPD, rather than as an introduction to what follows, which is in fact a list of CPD *activities*:²

- a. professional development meetings and professional development items in staff and team meetings
- b. attending external conferences and courses
- c. attending internal conferences, courses and professional development events
- d. coaching and mentoring, shadowing and peer support
- e. participating in networks or projects providing opportunities for professional development
- f. lesson observations
- g. discussions with colleagues or pupils to reflect on working practices, and
- h. research and investigation.

As the introduction to the list indicates, it consists mainly of CPD activities (eg ‘d–h’) or forms of CPD (eg ‘a–c’) and we will use these terms to refer to distinct approaches used. The features are not evident as such (with the possible exception of ‘g’), but are clearly what is referred to by the paragraph following the list of activities:

²This is no longer the case as is evident in the current equivalent page:
www.tda.gov.uk/teachers/continuingprofessionaldevelopment/cpdleadership/effective_cpd_opportunities/what_is_effective_cpd.aspx (checked 9 June 2009).

“To be effective, CPD should be directly relevant to the participants, clearly identify intended outcomes, take account of previous knowledge and expertise, model effective teaching and learning strategies, and include impact evaluation designed as part of the activity from the outset.”³

These are what we would call elements of the pedagogy employed within the CPD (though it is possible to see the inclusion of impact evaluation as a planning and organisational issue).

In addition to the TDA’s paragraph outlining effective features of CPD above, a fuller list of what the TDA considers to be effective features of CPD can be found in the document *What Does Good CPD Look Like?* (available to be downloaded from the same web page). This list cites various research studies and other documents (eg Ofsted reports):

- (i) Each activity is part of a coherent long-term plan that gives the participants opportunities to apply what they have learned, evaluate the effect on their practice, and develop their practice.
- (ii) It is planned with a clear vision of the effective or improved practice being sought. This vision is shared by those undertaking the development and by people leading or supporting it.
- (iii) It enables the participants to develop skills, knowledge and understanding which will be practical, relevant and applicable to their current role or career aspiration – for example, in curriculum or subject content, teaching and learning strategies and the uses of technology.
- (iv) It is provided by people with the necessary experience, expertise and skills.
- (v) It is based on the best available evidence about teaching and learning.
- (vi) It takes account of the participant’s previous knowledge and experience.
- (vii) It is supported by coaching or mentoring from experienced colleagues, either from within the school or from outside.
- (xiii) It uses lesson observation as a basis for discussion about the focus of CPD and its impact.
- (ix) It models effective learning and teaching strategies, eg active learning.
- (x) It promotes continuous enquiry and problem-solving embedded in the daily life of schools.
- (xi) Its impact on teaching and learning is evaluated, and this evaluation guides subsequent professional development activities.
(pages 02–03)

This list is a combination of:

- planning and operational issues, eg (i), (ii) and (xi)
- CPD pedagogy, eg (vi) and (x)
- forms/activities of CPD, eg (vii), (viii) and (x).

³ This is indeed what the web page indicated in footnote 2 now says.

(The third feature in the list (iii) is geared to outcomes, albeit through a statement of objectives of CPD. Note that (x) can be seen as a feature of CPD *and* as a CPD activity.)

A reasonable definition of the effective *features* of CPD would therefore be: the elements of CPD activity that are in line with good teaching and learning principles (CPD pedagogy and strategic planning of it at school level).

As we will see in the literature that we review, there are some elements that cannot be planned for nor are directly part of the pedagogy of CPD, but which could be seen as *conditions* that should prevail to enable CPD to be effective. An example of this would be ensuring the culture of the school is conducive to teacher learning. Of course this can be planned for, but would not necessarily be seen as an element of CPD planning *per se*.

Finally, we have ‘impact’. Another TDA web page, on the impact evaluation of CPD,⁴ mentions the impact on pupil learning:

“Continuing professional development (CPD) has a valuable impact on the teaching and learning experiences of children and young people within a learning community.”

It also acknowledges that linking CPD provision to pupils’ achievement is difficult, although it points out: “it is often possible to find evidence of observable changes in teaching that result from CPD.” There is also a short section on the importance of teachers reflecting (individually and collectively) on what they have learned. Again this web page has a document to aid this impact evaluation: Impact Evaluation Of CPD. This mainly consists of general questions that any such evaluation should address (including planning, evidence, and using the evaluation to develop CPD), with a set of “principles underlying effective evaluation of the impact of CPD” (page 02). One of these specifically mentions types of impact:

“Impact evaluation should focus on what participants learn, how they use what they have learned, and the effect on the learning of children and young people.”

Thus we have impact expressed in terms of effect on teacher thinking, their pedagogy (and other features of school activity) and pupil learning. This has an implication of a causal chain (that teacher thinking affects pedagogy that in turn affects pupil outcomes), though the earlier qualification recognises the difficulty of establishing this for particular CPD activity (at least in terms of pupil learning). There is a ‘tool’ to guide impact evaluation and it contains topics for discussion on impact “on children and young people... on colleagues... on me... on school as a whole.” (page 06)

This indicates that there are three targets for impact: pupils, teachers and school. This is the approach taken by Goodall *et al* (2005) in their review of the literature relating to the evaluation of the impact of CPD. Each of these different levels of impact can be defined (Table 1), from the most to the least tangible (there is no implied hierarchical dependence in these levels).

⁴http://www.tda.gov.uk/teachers/continuingprofessionaldevelopment/cpdleadership/evaluate_impact/how_to.aspx

Table 1: Different levels of impact for each target of impact

Pupils	Achievement outcomes
	Learning practices
	Classroom practices (behaviours)
	Attitudes
	Awareness
Teachers	Classroom practices (climate)
	Specific behaviours/skills/knowledge
	Classroom/curriculum materials
	Attitudes
	Awareness
School	School practices
	School organisation/structures
	School policy

4.2 Towards some working definitions

In the light of the discussion above we will conceptualise four different elements within ‘benefits, status and effectiveness of CPD’:

- the *impact* of CPD
- effective CPD *forms* or *activities*
- *features* of effective CPD
- *conditions* for effective CPD.

Of course, in terms of empirical work, it is likely that teachers and headteachers will use a variety of understandings, but we need to be able to relate them consistently to our own understanding of the concepts involved. However, it will be evident that there are times when our discussion of the literature itself reveals some unavoidable overlap of these four elements.

We take each of the terms used in the TDA questions and indicate how they relate to the above four concepts.

Benefits: these can be conceived of in three ways:

- a. In the sense that CPD will lead to changes in pupils, teachers or school practices that are perceived as positive by either teachers or headteachers; these will be considered as *impacts*.
- b. In the sense that CPD will enhance a teacher’s status or career prospects, even salary, if CPD is linked to the latter in some way; these will be considered as *indirect benefits to teachers*.

- c. In the sense that CPD will increase recruitment or retention they will be considered as *indirect benefits to the school*, something of concern to headteachers (question 1.2).

Effectiveness: we distinguish between what we see as *features* of effective CPD, and what we see as effective *forms* of CPD or *CPD activities*. Again it is of course an empirical point as to how teachers and headteachers themselves conceptualise ‘effectiveness’ (or how those investigating these issues do so), but we will classify their responses (either in our own empirical work, or that of others) in terms of features and activities/forms of CPD.

Quality: is a more difficult term as it could mean effective CPD *activities* or *features* of effective CPD, depending upon the way *quality* is described. In effect it will be subsumed under effectiveness.

Value for money: is a judgement that the benefit or the impact is worth the time, disruption to the education of pupils, and other resources committed to the CPD effort. In a sense it is best seen as a criterion in the evaluation of any CPD activity, though it involves being able to put a value on the impact and calculate the ‘cost’ of the activity, including the opportunity cost of not doing anything. (It is likely that only rough estimates can be made by schools.)

Impact: this is concerned with the impact of the CPD on the teacher, pupils or school. All these definitions and their interrelations are important to keep in mind throughout our discussion of the literature.

We will discuss our findings from the literature reviewed for the two broad TDA question areas, including treatments of each of the following areas in turn. Section 4.3 will deal with benefits, status and effectiveness (A–D) and section 4.4 with planning and organisation (E–H).

- A Benefits and impact: questions 1.1 and 1.8.
- B Indirect benefits: questions 1.2 and 1.6.
- C Judgement on benefits and impact – value for money: question 1.7.
- D Effective features and activities/forms of CPD: questions 1.3 and 1.4.
- E The role of external agencies: questions 2.1, 2.9, 2.10 and 2.11.
- F Performance management, professional standards, career aspirations, professional life phases and career stages: questions 2.4, 2.5 and 2.6.
- G Matching needs of school and individual: questions 2.3 and 2.5 (also in F).
- H The evaluation of CPD activities: question 2.8.

4.3 Benefits, status and effectiveness of CPD

The questions in this section focus attention on what staff in schools think about outcomes and what leads to them. We found that much of the literature examined reinforces relatively well-known generalisations about the benefits and effectiveness of CPD. Hence, in our discussion of these issues, we will distinguish between that which affirms what we already know *in general terms* about the benefits and effectiveness from that which tells us what *particular teachers or schools* have

experienced or think about these issues. Where there are new elements – for example, benefits not previously recognised – we will point these out. Where we find negative findings on the issues we will also highlight these. It has to be recognised that we have found nothing substantial to detract from the general approach laid out by the various policy documents, and in particular by the TDA (then TTA) evidence to the Secretary of State (TTA, 2005). For example, in their summary and conclusions on outcomes and impact, Bolam and Weindling (2006, page 113) say that:

“...these findings support the assumptions made in several policy documents that well-structured CPD can lead to successful changes in teachers’ practice, school improvement and improvements in pupils’ achievement.”

Benefits and impact

We will consider the benefits and impact as indicated earlier, with reference to pupils, teachers and schools (Area A, questions 1.1 and 1.8). Indirect benefits, such as teacher retention and accreditation, are considered in the next subsection. Before considering the evidence, it is worth noting the point that Cordingley *et al* (2005a) make about the nature of the studies reviewed, namely that:

“the CPD featured in studies which focused their aims on both teacher and student outcomes was more likely to be rooted in evidence about pedagogy. Conversely, the CPD in studies which collected teacher-only impact data was more likely to be rooted in the literature about CPD and adult learning.” (Cordingley *et al*, 2005a, page 12)

They see this as an implication of their review for researchers, and it is worth bearing in mind the implied bias in studies in terms of what they provide evidence on.

Impact on pupils

The TDA questions direct attention to the specific impact on pupil achievement, which is known to be an outcome of CPD. Bolam and Weindling (2006, page 113) conclude that some of the studies they have examined point to “fairly strong and sometimes strong evidence that effective CPD can improve pupil learning”, by which we take them to include ‘pupil achievement’, given the quote from their work above. Cordingley *et al* (2007), in their review of the literature, were able to identify studies that resulted in improvement in specific aspects of pupil achievement, including knowledge of scientific concepts and problem solving, mathematical and literacy skills, and reasoning and problem-solving skills. However, we need to exercise some caution about the totality of this evidence because a recent USA-focused review of research into the evaluation of CPD concluded that few studies used the impact on pupil outcomes as a measure of its effectiveness (Lawless and Pellegrino, 2007). This review concluded:

“Although the number of professional development opportunities for teachers has increased, our understanding about what constitutes quality professional development, what teachers learn from it, or its impact on student outcomes has not substantially increased [since 1999]....” (Lawless and Pellegrino, 2007, page 576)

They were reviewing a situation that had not improved since a previous review (Wilson and Berne, 1999) came to similar conclusions almost a decade earlier.

Affective changes among pupils is a feature of some of the studies examined by Cordingley *et al* (2007), with improved motivation leading to better pupil engagement

in classroom activities and, in some cases, changes to pupil confidence and self-esteem.

The questions that we need to answer relate to whether there is evidence of this impact on pupils in schools and what teachers think about it (within the period of the review). Ofsted (2006) recognised that where CPD was most effective, senior managers understood the potential of it for raising standards; but CUREE (2008) concludes that there is little evidence in the literature that CPD is targeted in this way (as we will see, this is because schools do not collect or use evidence about student learning in relation to CPD – see *The evaluation of CPD activities* later). There are specific studies where instances of this understanding are cited, for example, a case study in Cordingley *et al* (2004), where again the school's leadership role was important in ensuring improvements in pupil achievement.

Specific studies where there is evidence of impact on pupil achievement include:

- Award-bearing postgraduate in-service courses funded by TTA (Ofsted 2004c; based on inspections in 2001).
- A study of professional development of teachers early in their career by the National Foundation for Educational Research (NFER), reviewed by Wilde (2005), reported that this early professional development (EPD) pilot project was seen as having a positive impact on practice by over three-quarters of the teachers. And the top area for this impact was the enhancement of pupils' learning, a finding confirmed by Moor *et al* (2005), who found it the highest rated outcome of all in surveys of early career teachers.
- The Ofsted (2004b) evaluation of eight providers of the mandatory qualification for all three sensory impairment specialisms (hearing impairment, visual impairment or multi-sensory impairment) found that the majority of participants felt this training enabled them to significantly raise the achievement of their pupils.
- A specific small-scale programme on literacy for primary teachers was judged successful in improving pupil achievement (Nicholson, 2006).

Of course it is important to relate this impact to the actual nature of the provision, which is not usually done. However, Cordingley *et al* (2005b) show that studies of collaborative CPD provide evidence of improvement in pupil achievement, but that studies of individual CPD usually don't measure it (though there is some evidence of impact on pupil attitudes and behaviour). This is reinforced indirectly in an Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre) review of networks, which have a strong collaborative element, and we review this evidence under *Effectiveness of CPD activities, Networks*.

There is strong evidence that an explicit, planned and evaluated focus of CPD should be on pupil achievement for it to be most effective. Indeed, pupil impact is itself motivating to teachers to sustain their learning (Cordingley *et al*, 2005a). However, CPD practice within schools has clearly some way to go in both planning and evaluating CPD explicitly in relation to pupil achievement. There was a warning voice against the positive impact of CPD on pupil achievement from a study of training and development in LAs. In this study nearly three-quarters of the LAs reported a perceived negative effect of CPD caused by time away from the classroom,

which made it difficult for them to gain the release of staff to attend CPD (Wilde, 2005).

Impact on teachers

As before, Bolam and Weindling (2006) provide the general evidence about the impact of CPD on teachers' attitudes, knowledge and skills, and Cordingley *et al* (2007) specify particular impact in which teachers learn more about their subject, more about learning, and about new ways of teaching. Boyle *et al* (2004) are able to show some correlation between long-term CPD and changes in teaching practice, most usually 'planning', then 'teaching style' and finally 'assessment practices'.

Few of the reviews isolate particular characteristics of CPD that lead to such changes, but again Cordingley *et al* (2005b) report that collaborative, rather than individual CPD, more consistently produce changes in teacher practice, attitudes or beliefs (parallel to their findings for the effect of collaborative CPD on pupil outcomes). Dalgarno and Colgan (2007) indicate that there is an impact on teachers' practice when the CPD content originates from teachers' more experienced colleagues, and that informal interactions allow teachers to test ideas and to take risks with their teaching. Howes *et al* (2005), in the context of CPD related to inclusive education, indicate that social learning enables taken-for-granted assumptions to be recognised and questioned, prejudices to be subject to reflection and value structures questioned and addressed.

There are a number of specific projects that have shown positive effects on teachers:

- Improvements in knowledge of teaching and learning strategies for early career teachers (Wilde, 2005).
- Mathematics teachers' improvement in the level of lessons and increased pedagogic planning leading to enhanced use of interactive whiteboards (Miller and Glover, 2007).
- A-level biology teachers were able to improve practice, not just by replicating the original intervention, but appeared to have made deep-seated changes to their everyday thinking and practice (McNicholl and Noone, 2007).
- The participants on the mandatory qualification courses sensory-impairment specialisms reported that they developed their: professional knowledge, understanding and skills; ability to meet their pupils' needs more effectively; knowledge and ability to select from a range of appropriate teaching methods; organisational and analytic skills; greater understanding of current initiatives (Ofsted, 2004b).
- Online provision for teachers of the visually impaired helped develop their knowledge and understanding about the issues in particular problem-based scenarios (McLinden *et al*, 2006).
- A gain in confidence of early professionals on a programme of early professional development seemed to be instrumental in fostering further impacts, in addition to improving their well-being (Moor *et al*, 2005).
- Newly qualified teachers (NQTs) experiencing an induction programme improved their reflection and observation; the latter helped them to develop new teaching strategies and increase their feelings of competence (Smethem and Adey, 2005).

Final report

- The Nuffield Primary History Project, based on cognitive apprenticeship, facilitated the transfer of teaching expertise from one classroom to another – it involved only a small group of teachers from primary and secondary schools (Nichol and Turner, 2008).

Moor *et al* (2005) also reported a direct relationship between teachers' level of involvement in selecting their own CPD opportunities and the outcomes they derived, including enhancing subject knowledge, pupil learning and actual teaching practice and commitment to teaching. This 'teacher autonomy', as Moor and his colleagues call it, is in some ways a condition for effective CPD, something we will consider later.

In planning a specific programme in citizenship, Warwick *et al* (2004) reported, from a review of the literature, a lack of success in extending teachers' knowledge, understanding and skills from existing CPD provision but, because this source is a research briefing, we have no details of the reasons for this.

There are other kinds of changes that are more indirect, for example:

- improvements in attitudes to professional development (Cordingley *et al*, 2005b; Wilde, 2005)
- improvement in relationships among teachers (from collaborative CPD; Coldwell *et al*, 2008)
- changes in teacher classroom practice associated with 'inquiry' (a group of practices that incorporates joint, classroom-based, experimental approaches to teachers' learning; Pedder, 2006)
- collaborative CPD can improve teachers' attitudes to working and reflecting collaboratively and will aid those who did not volunteer to take part in the CPD (Cordingley *et al*, 2005a)
- the benefits of peer coaching is an important element in CPD in which teacher change is the goal (Cordingley *et al*, 2005a)
- observation led to improvements of post-induction NQTs in formalised target setting and awareness of entitlements (Smethem and Adey, 2005)
- NQT thinking on career development (Moor *et al*, 2005; Wilde, 2005).

In the context of early professional development, Moor *et al* (2005) report an important effect on teachers at this early career stage that relates to them becoming effective members of school communities. This pilot programme of CPD in a dozen LAs also had a wider impact within the schools.

Impact on schools

This form of impact is much less well recognised in the literature, although it is referred to in general terms by Bolam and Weindling (2006), as indicated earlier. Wilde (2005, page 2) contains a similarly general reference to the early career pilot "making a contribution to colleagues and school" in an evaluation carried out by NFER, in much the same way as Moor and his colleagues cited above. The mentors of the early professionals in this latter study identified dissemination and sharing of new skills, knowledge, ideas and resources from the programme to other teachers' practice, leading to a growth of professional learning in the schools and the adoption

of new school systems (Moor *et al*, 2005). They also reported an impact of the programme on the mentors themselves.

The only specific study on school impact is by Pedder (2006), who reported changes in school leadership and management practices such as auditing expertise and supporting networking that occurred over the course of the schools' work on Assessment for Learning (AfL).

All this represents a poor basis for identifying any particular school-level impact and clearly indicates an area for further research.

Indirect benefits: retention and accreditation

The issue of *retaining* teachers in schools is a recurring one in government and national-level policy documents. The notion of the value of capacity building and growing the skills of teachers in schools, through CPD, is a key theme in these publications. A parallel idea, also pressed, is that such processes are a prerequisite for retaining staff in the schools that invest in them. Ofsted (2006) illustrates this assumed connection, noting in its research study, *The Logical Chain*, that well-planned CPD can have a positive effect on the recruitment and retention of staff, simultaneously generating high morale and sustained enthusiasm for teaching. Likewise, among the findings of the synthesis report, Bolam and Weindling (2006), is the expressed hope that teacher retention will result from effective CPD. The reservation is notably made in this source, however, that only very weak evidence can be marshalled to support the view that improved retention may indeed be a possible outcome.

We did locate one study, on early professional development, which collected data in the period 2001–2004. It reported that those who had undertaken an induction programme are more likely to indicate that they will still be in teaching in five years time than those prior to such a programme, and this held across different phases, year of teaching and school location (Moor *et al*, 2005).

Similarly, the issue of *accreditation* of CPD undertaken by teachers does not feature in any substantial way in the literature reviewed; and again, many of the policy documents are simply ambitious in outlining projected rather than real outcomes. Ofsted (2006), for example, notes that it does not prescribe any single model of CPD, but that accreditation through masters and other routes is advocated as a productive route for teachers – and therefore one that should be encouraged. Little, however, is revealed in the literature surveyed of the rationale, detail and evidence relating to the outcomes of effectively-targeted individualised CPD provision,⁵ and the issue of accreditation still appears to rest at the general level of information-giving and recommendation.

Ofsted (2006, page 2) reports that: “Planning for individual teachers’ professional development is weak”, and that even in the good practice schools it was unusual to find individual training plans. Given this finding, it is unsurprising that the accreditation issue is only sporadically addressed and in a small-scale way, such as in:

- Wilde’s (2005) reference to extending support for teachers beyond induction, with certification and accreditation for registered and/or chartered status teachers being part of the process, and

⁵ We deal with the meshing of these needs with those of schools’ development needs in the later section *Priorities for CPD: individual and school needs*.

- another study of factors that affect completion rates by teachers for masters-level awards as part of the Postgraduate Professional Development Programme (Arthur *et al*, 2006).

A very recent policy document presumes an *accreditation–retention link* of an across-the-board aspiration to make teaching a masters-level profession through the general push to a masters-level dimension in PGCE courses and progress beyond through the DCSF’s proposal for a masters in teaching and learning (MTL). This is presented as an attractive option for all parts of the profession as a result of which “retention should be improved, especially in the early years” (DCSF, 2008, page 15). As noted above, there is one study dealing with teachers on a postgraduate professional development (PPD) course, which reported that a substantial majority said that it was important that the course led to an award, and two-thirds of respondents were planning to continue with their studies to a masters degree (Arthur *et al*, 2006); they are a biased sample as they are already on an accredited course.

It may perhaps be surmised that, as performance management processes linked to professional standards and career stages become more embedded in school cultures and practices (see the discussion of these later in this review), then this lack of focused detail in relation to retention and accreditation may be replaced by increased research reportage relating to accreditation options, more consistently reported experiences by teachers, and some study of the effective CPD–retention link. There may well need to be some caution applied, however, to an assumption that such a higher-level development will rapidly occur, given that the current literature review reveals an erratic, unevenly patterned distribution of CPD provision and its actual outcomes.

Judgement on benefits and impact: value for money

The TDA advice to the Secretary of State (TTA, 2005), in reporting the then current state of CPD in schools, noted that schools were not getting enough value out of the investment being made in CPD. Figures for 2001 that it used indicated that five to six per cent of teacher time was used for CPD, but that this was not *effectively* used. Reflecting on this, Bolam and Weindling (2006) said there was strong evidence that cost-effectiveness and value for money were rarely taken into account when CPD is evaluated. However, Goodall *et al* (2006) show survey data that indicates CPD leaders rate value for money highly, ranking it second after ‘participant satisfaction’ (teachers were understandably less concerned about this and it had a lower ranking). But it is important to realise, as indicated above, that making judgements about value for money are difficult, something recognised by Ofsted (2006, page 21):

“School managers did not assess the cost-effectiveness or value for money of their professional development policy. At best, they identified courses and providers which word of mouth suggested were not worth using again. Many doubted that a value-for-money assessment was feasible. And yet they were making a considerable investment in CPD activities, but could not establish convincingly if they were worth the money.”

Although the evidence is slight from the review, it is not encouraging about how such judgements about value for money could be made, though there is some indication that it is used at least by CPD leaders.

Reporting on award-bearing courses on school improvement, Ofsted (2004c), based on data collected in 2001, said that the high quality of the training provided effective professional development in relation to its cost. This was based on the improved

personal effectiveness of the participants, the effect on school improvement, and low financial costs to schools and participants. But schools and providers were not felt to be giving enough attention to value for money when evaluating courses; they usually had limited evidence, little systematic evaluation and little idea of the costs to make this judgement. A minority assessed against the four best value principles (challenge, competition, comparison and consultation). A study of an online course for sensory impairment indicated that both participants and their employers felt it to be effective and good value for money (data collected in 2003/4; Ofsted, 2004b).

Effective CPD activities and features of CPD

This area has by far the largest amount of evidence cited in the studies reviewed. A number of studies, however, as we noted at the beginning of this section, simply reinforce what is already understood as effective *features* and *forms* or *activities* of CPD. In addition to features, there is some evidence on the conditions that support CPD and aid its effectiveness. We will deal with all these three elements: activities, features and conditions.

Effective CPD activities

Here there is considerable evidence that confirms *some* of the effective forms of CPD put forward by the TDA, and these are shown for each (in parenthesis):

- a. professional development meetings and professional development items in staff and team meetings
- b. attending external conferences and courses
- c. attending internal conferences, courses and professional development events
- d. coaching and mentoring (Bolam and Weindling, 2006; Cordingley *et al*, 2005b; CUREE, 2008), shadowing and peer support
- e. participating in networks or projects providing opportunities for professional development
- f. lesson observations (Cordingley *et al*, 2005b)
- g. research and investigation (Bolam and Weindling, 2006; Cordingley *et al*, 2005b; CUREE, 2008).

We have removed ‘discussions with colleagues or pupils to reflect on working practices’ as we consider this to be a feature of CPD (reflective practice), which we will consider in the next subsection. It is difficult to specifically associate research with items ‘a–c’ in the list, as they would not provide a good focus for a research question without a clear understanding of the nature of the activity in these ‘events’, and so they will be covered in terms of ‘in- and out-of-school’ activities, and item ‘e’ networking (which is one of the activities carried out at conferences). The TDA list omits ‘collaboration’ that is evidenced very strongly in the literature (eg Bolam and Weindling, 2006; Cordingley *et al*, 2005b; CUREE, 2008; Warwick *et al*, 2004), and online CPD for which we have found evidence, so we will therefore examine the evidence from our review on these, following our examination of coaching and mentoring, networks, observation and enquiry.

There are three studies that try to gauge how much of the various activities are experienced. The survey by Boyle *et al* (2004) reported that, for those who had participated in long-term CPD, ‘observation’ was the most common form of CPD, followed by ‘sharing practice’; least popular were ‘study groups’, ‘drop-in clinics’

Final report

and ‘coaching’. They also asked them to rate their quality: ‘sharing practice’ and ‘observation’ came out high and ‘online’ courses came out low. For NQTs, evidence from the NFER (cited in Wilde, 2005) gives the following rankings and percentages for CPD activities in terms of impact:

- other activities (eg school visits, shadowing, MA, research, cultural visits, discussion) – 83 per cent
- courses open to all teachers – 75 per cent
- observing others’ lessons – 74 per cent
- being observed – 65 per cent
- specific courses on early years – 56 per cent
- networking – 56 per cent.

Gray (2005), surveying teachers and headteachers on the Villiers Park Educational Trust databases, reported the full range of CPD forms and activities confirming the findings of Boyle and his colleagues:

- whole-school training days
- the induction, mentoring and assessment of individual teachers
- peer observation
- collaborative planning and evaluation
- self-evaluation.

She also includes work outside the school on courses etc, and networking through conferences and visits to other schools. No information is given on relative frequency of these activities.

In the light of the range that seem to be in use, it is as well to bear in mind the importance that Cordingley *et al* (2005a) place on using them in combination (they cite a variety of studies that make this point).

Coaching and mentoring

Coaching and mentoring are often linked with collaboration for those schools that provide high-quality CPD: they are included in the Ofsted (2006) ‘logical chain’ and the evidence of a ‘strategic school’ (CUREE, 2008). However, these studies also saw coaching and mentoring as an area of development because schools made insufficient use of them and had a lack of understanding of the practices involved. We have already noted the benefit of peer coaching in terms of teacher change, and Cordingley *et al* (2005a) report a number of studies where it led to sustained change in teachers’ practice and ways of working with pupils. The use of Assessment for Learning ideas is an area of practice that requires profound changes (James *et al*, 2007), and a small study in Jersey indicated that peer coaching, both within schools themselves and across schools in a network, was a powerful aid to teacher learning (Jones and Webb, 2006).

Not surprisingly, mentoring is particularly valued by NQTs, and Hobson *et al* (2007) report that the vast majority reported good relationships with mentors, which was correlated with the mentor being of the same subject specialism (if the mentor was a headteacher they were more likely to report a poor relationship). Moor *et al* (2005)

Final report

also report that mentor support, particularly for second year teachers, improved practice, behaviour management and career development. They indicate that the most can be gained from a mentor when the NQT is involved in the selection of a mentor, and there are regular meetings.

In a specific intervention on mentoring (by ‘school induction tutors’ – SITs), Harrison *et al* (2005) analysed the behaviours of mentors in the following way, indicating the roles mentors need to develop:

- Telling – the school induction tutor (SIT) is the expert offering tips, rather than requiring the mentee to reflect on their work in the lesson.
- Active coaching – the SIT helps the mentee to make sense of their own practice by systematic interventions to challenge the NQT’s version of events and examine alternative possibilities.
- Guiding – the SIT acts as a ‘critical friend’. Focus on pupils’ learning rather than teacher performance.
- Enquiry – the SIT and NQT operate together to investigate the causes and possible solutions and look for ways to test ideas through agreed focused observations.
- Reflecting – the SIT probes and questions while providing a fund of relevant contextual knowledge and allows the NQT to think about similar processes to reflect on the ‘process of reflection’.

This particular study involved mentors in analysing meetings with mentees to try to develop the mentors but, useful though this appeared to be, in our view it may be too cumbersome to use as a general approach to mentor development.

Networks

Before considering the evidence on these, we need to clarify the ways of looking at networks. In recent years the ideas of networks have stemmed from the National College for School Leadership (NCSL) Networked Learning Communities Programme. These are groups of schools, usually in a locality, that work together and, in their initial conception within the NCSL-funded programme of networked learning communities, adopt a particular focus – for example, on Assessment for Learning (AfL). The working together would include specific activities and organisation that were effectively CPD activities. In one school that members of the research team studied, this involved joint sharing of practice on AfL among teachers of the schools within the NLC.

Our view is that the overriding idea within these NLCs is one of ‘community’, and indeed much of the literature upon which they draw takes the idea of the professional learning community as its main focus (eg Veugelers and O’Hair, 2005). (Note that the term ‘network’ is also used to describe a school, rather than a network of schools; CUREE, 2008.) Part of this network comes from partnerships with higher education institutions.

We have already made a number of references to networking (Boyle *et al*, 2004; Cordingley *et al*, 2005a; Gray, 2005; Pedder, 2006), and only one other item related to this conception of networks was found. McGregor *et al* (2006) report on a number of

related research activities associated with NLCs (many not well referenced⁶), indicating the importance of school-to-school knowledge sharing, largely through face-to-face school visits. They argue that the network is a supportive environment, and one where external expertise can be used, professional dialogue conducted, individualised focus obtained, peer support and dedicated teacher time provided.

A systematic review carried out for NCSL by the EPPI-Centre (Bell *et al*, 2006) examined the impact of these kinds of networks, concluding that six of the 14 studies reviewed in depth showed high impact on pupil outcomes (about the same number of studies showing no or low impact), whereas all studies showed some impact on teachers, and just over half showed impacts on the school or other organisations. The review was not able to indicate what network processes were responsible for the particular impact (a limitation of impact studies), though they did classify the structures and processes, including CPD, used by the networks involved.

CPD was at the heart of 12 of the 14 studies. Three characteristics of the CPD were collaboration, specific focuses and ownership of the network. Knowledge transfer is seen to be a feature of networks and this was largely built on interpersonal contact (rather than, say, print or electronic communication), which involved peer support (ie collaboration), expert input and events (conferences etc). A significant source of external input was through partnerships with higher education institutions (HEIs), but also included business and parents. This review is an important one – though it draws almost exclusively on USA research, with only one UK study that reported in 2004 and was based on an Education Action Zone – and none of the NLCs that were such a large movement in England.

There is another concept of networks and networking that draws on social network theory, rather than that of communities, and gives an alternative perspective. McCormick *et al* (2007) spell out how this view of networking can enable knowledge creation and sharing. However, at this stage it is not possible to say anything directly about the effectiveness, except by implication from the effectiveness of such networking in other non-educational sectors (eg Hakkarainen *et al*, 2004). This kind of approach also allows events such as conferences to be viewed as networking opportunities, but as yet there is almost no literature on this.⁷

Observation

We have already noted that there is general evidence for the importance of this, and one source has this to say about the studies related to it (in a cluster that involved ‘observation and reflection’):

“Observation featured in all the collaborative second review studies, as it did in the first [Cordingley *et al*, 2005a]. In two of the studies, video was used as the principal means of observation. In 10 of the studies, it was evident that the observations were used formatively (followed by feedback and discussion), mostly in combination with data collection. In one study, the researchers used observation purely for data-collection purposes.” (Cordingley *et al*, 2005b, page 7)

⁶ This source was a paper for an interactive symposium so did not fully follow the conventions of a formal conference paper.

⁷ Members of the research team have completed pilot work on how such events may be investigated as networking opportunities, but this is not yet in the public domain.

The Jersey study of AfL saw how peer observation led to video vignettes that could be used for staff discussions as a means of sharing and the development of strategies (Jones and Webb, 2006).

In the survey by Gray (2005) she found that many teachers expressed great enthusiasm for observing peers teaching the same or similar subject areas. Some schools had taken part in a recent NUT training programme, to encourage peer-to-peer relationships within teaching, over a long period of time. Some teachers reported organising peer observation within departments, or on occasion, within different local schools. The ability to visit other schools in this way was felt to be extremely important, as it prevented staff teams from becoming too introspective. Teachers felt that peer observation was an extremely cost-effective and time-effective professional development opportunity. They argued that, in the present uncertain funding climate, this was one method of training that could play a more important role within schools.

It would not be surprising to find NQTs involved in observation activity and Wilde (2005), in reviewing the NFER study of early career teachers, reported that such teachers rated observation as third in terms of impact, chosen by almost three-quarters of the sample, with 93 per cent and 83 per cent respectively believing that observing others and being observed teaching was useful CPD. Similarly, Dymoke and Harrison (2006), although conducting a small study, conclude that observation is an important part of professional learning, but that it is more often focused on new teachers' learning from being observed and receiving feedback rather than the opportunity to observe others. There is little evidence about the observation carried out by NQTs, but Hodgkinson (2006) reports only 21 per cent involved in the observation of experienced practitioners in their CPD.

How general the experience of 'observation' is in schools is not altogether clear from the studies that systematically report on this. Pedder *et al* (2005), in a survey of 32 schools involved in the learning how to learn (LHTL) project, concluded that there was an apparent lack of use of peer observation as a means of professional learning. Boyle *et al* (2004), on the other hand, reported that for those involved in long-term CPD, observation by colleagues was the most common, experienced by 69 per cent of respondents.⁸

*Enquiry*⁹

This is described as 'research and investigation' in the TDA list, and it indicates a strong orientation of the CPD and directs the main activities of it. MacBeath *et al* (2007) reported the central importance of 'inquiry' (as a factor encapsulating a

⁸ There are two possible explanations for the apparent differences between the two studies: 1. The two research studies asked teachers to record experience of peer observation differently. Asking teachers to say whether this occurs rarely or most of the time etc, is a different question to what proportion of teachers record it as part of their CPD, so differences in results would be unsurprising. 2. Another possibility is that there appears to be no stable pattern of peer observation taking the results from two fairly representative samples. This seems to indicate variable practice across school nationwide. More systematic and explicitly comparable data are needed on this.

⁹ The literature uses 'enquiry' and 'inquiry' interchangeably, as we do, relying on the term of the source under discussion. As noted earlier, we have not included action research studies *per se*, though there is evidence of their effectiveness (Cordingley *et al*, 2005a). A study of its use for implementing inclusion (Davies *et al*, 2007) found that teachers were unfamiliar with it, and without ownership of it by teachers was just another imposition on teachers' time and energy.

number of related behaviours, for example “carrying out joint research and evaluation with colleagues”) that related school management systems through teacher professional learning to influence changes to be made on classroom practices.¹⁰ The implication of this they say is “that school leaders who want to promote LHTL in classrooms need to focus management on enabling inquiry approaches to professional learning in their staff.” (page 69). They also reported the difficulties teachers had in bringing their practices related to the factor ‘inquiry’ up to the levels that reflected how much they valued these practices.

Arthur *et al* (2006) also reported school differences in putting enquiry into practice, with some relishing it and others showing little interest in it (indeed, in some cases, there was even subtle undermining of teachers in their enquiries). They too concluded that it was important for schools to build classroom-based research into their development plans and support those engaged in it, though this may also reflect the bias of this orientation in postgraduate professional development (PPD) courses. Teachers believed that the reason the A-level biology CPD programme was better than more traditional CPD methods was in part because they could conduct research into their own classroom practice.

Collaboration

This had the most evidence of all the forms of CPD. Of course the research from systematic reviews indicated earlier (Cordingley *et al*, 2005a and b) make it quite clear how effective this approach is to CPD.¹¹ Ofsted (2004c) saw it as a key factor in developing teachers’ ability to contribute effectively to school improvement. In this discussion therefore, our focus will be on the context of its use and the benefits seen.

As noted above, collaboration is often linked to enquiry, and this was evident in the PPD courses studied by Arthur *et al* (2006), where schools that organised collaborative enquiry were likely to encourage completion of the course by teachers. More usually, collaboration was contrasted with individual CPD, seeing the former in a more favourable light (eg Cordingley *et al*, 2005b), and this is explained by McNicoll and Noone (2007) in terms of those who worked in relative isolation becoming ‘stuck in a rut’. Collaboration can be a vehicle for securing teacher commitment and ownership of CPD, where it is not possible for teachers to select a CPD focus of their own choice (Cordingley *et al*, 2005a). The use of student portfolios has a potential to provide this ownership and belonging through which teachers can learn from each other.

Other studies include subject-based courses and interventions (eg Makopoulou and Armour, 2006, for PE; Warwick *et al*, 2004, for citizenship) as well as more generic ones or covering particular groups (eg CUREE, 2008, reviewing a DfES study of an Intensifying Support Programme, a school improvement programme designed to raise standards and improve teaching and learning in the context of the school as a professional learning community). All these have collaborative elements that lead to:

¹⁰ This was done by a regression analysis that allows factors related to school management systems to explain factors related to changes in classroom practice through an ‘inquiry’ factor (one of several teacher learning factors).

¹¹ When it is coupled with active experimentation it may be more effective in changing practice than reflection and discussion about practice alone, and paired or small group collaboration may have greater impact on CPD outcomes than larger groups (Cordingley *et al*, 2005a).

Final report

- greater understanding of the issues and better relationships (Coldwell *et al*, 2008)
- greater awareness among teachers of the CPD options and of how to identify training needs (CUREE, 2008)
- a shared language and collective frameworks of understanding, which then formed the foundations for subsequent teamwork and peer support (Makopoulou and Armour, 2006).

For such collaboration to be effective it needs to be focused on areas of perceived relevance and to be given time to embed (Warwick *et al*, 2004) and, in the case of NQTs, it requires a change in the culture in which their learning takes place in ways that allow dialogue among teachers (Keay, 2006).

What is more difficult to judge is just how common this collaboration is in school CPD. Of the four case studies Cordingley *et al* (2004) conducted, only one involved collaboration, and this did so linked to coaching. The data on the relative use of the various CPD activities at the beginning of the section did not seem to support its common use.

Other forms of CPD: online CPD

We have not so far considered the ‘medium of presentation’ of the CPD, and earlier we put aside the distinction between ‘in and out of school’ as forms of CPD, but we feel there is an exception to be made for online provision of CPD. Current TDA policy recognises the role of online resources, and indeed provides these on its own website.¹² Here our concern is with the creation of CPD experience online, including the use of collaborative activities.

Unfortunately there is little UK research on this area (there is more overseas), and we were only able to locate two studies of relevance. We have some partial evidence about how online provision is seen by teachers, which is not positive: as indicated earlier, almost a quarter of respondents in a survey rate online courses as of poor quality (Boyle *et al*, 2004). However, we have no evidence of the extent of provision. Surveys on CPD do not systematically collect these kinds of data, although our own work also shows that there is more hope than realisation in the use of this environment, even in the more limited terms of the use of online resources (Carmichael and Procter, 2006).

McLinden *et al* (2006), which we indicated earlier provided evidence of impact of online provision for teachers of the visually impaired, reported that collaborative work on problem-based learning required more support during the collaborative process as well as summative feedback (but this is a very small-scale study). Dalgarno and Colgan (2007) reported that respondents in their study of an online community who were carrying out collaborative work said that it could be effective because it maintained regular contact with members, was based on small groups and provided trusted resources. This provision was for novice primary mathematics teachers and the study concludes that collaboration for novice teachers was less essential and that sharing and communication were of importance in the community – a more modest aim than collaboration.

¹² www.tda.gov.uk/teachers/continuingprofessionaldevelopment.aspx

We are aware that there is a large amount of research in the area of online work, including that on teacher education, but the question at this stage is not could it work, but what has to be done to encourage teachers to use this environment? Another question would be to identify the extent to which our own survey work might reveal what is used by way of online resources etc (including that from the TDA). This will be helpful in designing studies that could investigate the opportunities and barriers for their use.

Features of effective CPD

Here we are referring to general features of CPD that could apply to almost any form of CPD, and we draw upon the list given in the TDA document *What Does Good CPD Look Like?* available on the CPD area of the TDA website, which itself draws on research (Cordingley *et al*, 2005a and b, 2007; Hargreaves, 2003; Hopkins *et al*, 2001; Ofsted, 2006):

- a Each activity is part of a coherent long-term plan that gives the participants opportunities to apply what they have learned, evaluate the effect on their practice, and develop their practice.
- b It is planned with a clear vision of the effective or improved practice being sought. This vision is shared by those undertaking the development and by people leading or supporting it.
- c It enables the participants to develop skills, knowledge and understanding which will be practical, relevant and applicable to their current role or career aspiration – for example, in curriculum or subject content, teaching and learning strategies and the uses of technology.
- d It is provided by people with the necessary experience, expertise and skills.
- e It is based on the best available evidence about teaching and learning.
- f It takes account of the participant’s previous knowledge and experience.
- g It models effective learning and teaching strategies, eg active learning.
- h It promotes continuous enquiry and problem solving embedded in the daily life of schools.
(pages 02–03)

Following our discussion of features of effective CPD in the *Introduction*, we have removed elements of the original list that in our view are particular *CPD activities*. The final issue in the original list, evaluation, is considered later under *Planning and organisation of CPD*.

There is no single review of research that we have considered (ie published within the period 2004–2008) that gives the basis for all of the features ‘a–h’, though Bolam and Weindling (2005) affirm ‘g’ (it should involve reflective practice), and ‘h’ (it should involve a research orientation).¹³ Indeed, few consider these features in any systematic way. For example, Taber (2005) in the context of chemistry subject CPD,

¹³ Cordingley *et al* (2005a) quote a study that lists a number of ‘features’ that are consistently associated with teacher change, many of which are conditions, but the ones that are features in the terms used in this review include: self-directed learning, individual and group introspection, continuous professional interaction, well-defined knowledge base, participation in curriculum development, classroom-based trials, and ongoing feedback.

Final report

reports that the workshops provided centrally matched some of the characteristics of effective CPD: focus on improved practice, subject teaching, use of experts and based on good research evidence about teaching and learning. Table 1, however, shows what evidence we found for the relevant elements in the list 'a-h' above, within the period of our review (2004–2008).

There are a number of other features which are not in the TDA list, but which are included in some studies:

- that CPD lasting more than one term may not result in more impact (Cordingley *et al*, 2005a)
- that CPD should be based on teachers' own classrooms (Cordingley *et al*, 2005a; Makopoulou and Armour, 2006; McNicholl and Noone, 2007; Warwick *et al*, 2004)
- that it should combine reflection with active experimentation (Cordingley *et al*, 2005a)
- that it should involve pupil consultation (Pedder *et al* (2005) notes that this is lacking in the professional learning of those in the Learning How to Learn Project, involved in promoting the use of Assessment for Learning)
- it should be based on defined models of effective teaching, exemplified by detailed lesson plans and model lessons (Ofsted, 2004a)
- in the context of mandatory provision for sensory impairment, there should be opportunities for regular contact and discussion with other participants and tutors at central sessions, residentials and regional tutorials.

In terms of CPD for NQTs, there are also features such as being able to meet other NQTs. There are also negative features, for example the repetition of content covered in initial teacher training (ITT) and content that is too theoretical or general (Hobson *et al*, 2007).

Ofsted (2004c) provide another kind of list of important features in the context of mainly distance learning courses offered by various providers. Their list overlaps with some of the above (including the TDA list), but the features are expressed and manifest differently: academic rigour of courses (motivating); linking theory to practical action in the participant's own school; emphasis on research skills so teachers can evaluate and analyse current practice effectively.

Conditions to support CPD

Apart from the features of any particular CPD provision, there are more general conditions that may help to make it effective. Some of these are expressed in the Ofsted 'logical chain' in terms of elements of CPD policy – for example: recognising the school's needs; identifying the staff's individual needs; planning to meet staff's development needs (planning for school improvement, allocating resources etc). These will be considered in the next section, on planning and organising CPD. One condition straddles this boundary: length of training and planning provision to take account of teachers' commitments (Ofsted, 2004c).

There remain some conditions that are more general and not so easy to 'plan for'. One of the most difficult to specify is 'culture of the school'. Two studies mention this in their findings, particularly in relation to professional dialogue; one talks of a 'culture of learning' (Keay, 2006), and another of the general approach of staff towards 'novel and creative pupil activities' (Loveless *et al*, 2006). Both studies involved teachers early in their career, the first in the context of PE and the second in the use of digital technologies. The nature of these cultures is not spelt out in these studies, though Pedder (2006) did do so indirectly for learning cultures through his school management system factors for supporting teachers' learning. These factors were:

‘developing a sense of where we are going’, ‘supporting CPD’ and ‘supporting networking and auditing expertise’. Jones and Webb (2006) talk of a ‘culture of trust’ that allows peer observation to be commonplace (as mentioned earlier in relation to this CPD activity). They also talk of a whole-school community that forms the basis of a shared appropriate discourse (in this case about Assessment for Learning).

Related to the culture of learning is also the idea of ‘space’ for professional dialogue and for sharing practice (Makopoulou and Armour, 2006). Their use of the term is metaphorical – McGregor *et al* (2006) are more specific, citing “a supportive emotional climate, trust, confidentiality protocols, shared vocabularies, group ‘bonding’, or coaching in presentation” (p 5). But they also cite literature that acknowledges a practical (non-metaphorical) use of ‘space’ – drawing on some geographical literature that considers differences between ‘space’ and ‘place’. We are aware of this literature, which in fact relates to networking (see Fox, 2006), but feel that this work is at too early a stage to yield any advice to schools.

At the more basic level, other conditions that are noted are:

- the need to develop CPD leaders in schools,¹⁴ and to create greater consistency across a school in CPD provision (CUREE, 2008)
- managers with clear expectations of how a new strategy will be implemented and who provide clear direction (Ofsted, 2004a)
- effective staff development days (Ofsted, 2006)
- involvement of stakeholders in supporting participants’ study (Ofsted, 2004c)
- that teachers should take part voluntarily (Cordingley *et al*, 2005a).

There is another set of conditions that relate not to the school, but to the individuals engaging in the CPD. Day and Gu (2007) argue that fundamental to the effectiveness of CPD is teachers’ sense of commitment, which influences their capacities for and attitudes to professional learning (a different sense from the ‘sense of commitment’ engendered by CPD, referred to earlier in relation to early professionals (Moor *et al*, 2005)). Day and Gu’s argument echoes the research on work-based learning where, for example, Billett (2006) sees the employee’s agency being important to take up the affordances for learning provided in the workplace (afforded by the employer and any mentors or co-workers).

In a more specific way Taber (2005), in the context of chemistry teaching, identified a number of attitudes and a lack of awareness among teachers about their subject (eg that they looked for definitive answers to science activities) that affected their responses to their CPD provision, some of which appear to reflect their views of learning. Although this issue of a teacher’s views of learning is often referred to (eg Marshall and Drummond, 2006), there is little empirical work that helps us to be definitive about how these views on pupils’ and teachers’ own learning affect their engagement with, and the impact on them of, CPD.

¹⁴ Leadership of CPD is outside the remit of our study, but there is a recent specific study on leadership of CPD in schools (TDA, 2007a).

4.4 Planning and organisation of CPD

The findings in this section relate to the groups of TDA questions E–H, given earlier:

- role of external agencies
- performance management, professional standards, career aspirations, professional life phases and career stages
- matching needs of school and individual
- the evaluation of CPD activities.

Priorities for CPD: individual and school needs

This is an issue that is raised by many sources in the literature and a balance of such needs is seen as an essential element in all school CPD (eg Ofsted, 2004c). This balance is differently described in policy documents as between personal and school performance (TTA, 2005), and between the needs of the school and of individuals (the ‘logical chain’; Ofsted, 2006). The *school needs* are seen to stem from the school development or improvement plan (Ofsted, 2006; cited also in CUREE, 2008).

In the context of the key stage 3 strategy, the best schools carried out detailed and rigorous audits of strengths and weaknesses to identify training needs and priorities for development (Ofsted, 2004a). Success in this was in part related to the provision of time for departments to meet and discuss strategy (Ofsted, 2004a). For early career teachers, allowing them autonomy did not result in them focusing exclusively on their own professional needs, but also included the needs of the school community (Moor *et al*, 2005).

The *individual teacher’s needs* can, however, be related to career stages, as indicated in terms of the TDA (then TTA) idea of a new professionalism (which we examine in the next subsection), or to his or her personal needs (TTA, 2005). Indeed the specific question in the TDA list for us to investigate contrasts ‘career aspirations [and]... immediate needs’ (question 2.5). But the alignment is actually more complex than this, as CUREE (2008) indicates in reference to being ‘strategic’ by aligning school, department and individual staff priorities and setting them in the context of national and local priorities.

The question then arises about whether schools are managing this alignment – whether it is viewed as widely as the CUREE study envisaged, or more narrowly as the TDA list does. In its earlier report, Ofsted (2002) concluded that CPD was in the main becoming better organised and better related to schools’ and teachers’ individual needs. The TDA account of the current state of CPD in 2005 recognised that only some schools were balancing these needs and that this was the cause of not realising the investment in CPD (TTA, 2005).

In its more recent report, Ofsted (2006) suggests that the very best schools selected the types of CPD most appropriate to the needs of the school and of individuals. Although Ofsted reported that CPD plans gave suitable emphasis to staff’s individual need and career aspirations, they noted that managers did not simply agree to their staff’s requests for training unless there was a clear benefit for the school. The most recent teacher survey (GTCE, 2007) lends support to the view that some elements of recent CPD provision in England are effective in meeting the professional development needs of teachers, showing increases over previous years in those saying

needs were fully met (and a corresponding reduction in those whose needs were not met). However, there are problems with the unrepresentativeness of the sample that could also explain these figures.

A subject-based CPD study of a national programme indicated that it proved relevant both to teachers' professional development needs and schools' improvement planning (Makopoulou and Armour, 2006). What is important about this study is the audit process through which the balance of needs was achieved; to identify the two types of needs and tailor the CPD to them. As noted earlier, Ofsted (2002) reported a lack of coherent individual training plans, and in its more recent report it thought that arrangements were too subjective in about a third of schools, where they relied too heavily on staff's own perception of their needs and on the effectiveness of subject leaders to identify needs (Ofsted, 2006). This was accompanied by weak personal professional development planning. In these types of schools there were few individual training plans. The TDA (then TTA) had recognised this in its advice, noting that teachers rarely engaged in systematic analysis of needs.

There is a variety of evidence that indicates that the means of identifying needs is problematic or at best varied:

- Those providers offering mandatory courses on sensory impairment were insufficiently auditing individual needs against the special educational needs (SEN) specialist standards leading to individual training plans with insufficient links with the teachers' own day-to-day practice (Ofsted, 2004b).
- Goodall's survey reported that needs identification was most often met through performance management (Goodall, 2006), and this was also the case for those doing PPD courses (TDA, 2007b), implying that some of their career needs, for example, might be underplayed.
- Only some schools use questionnaires to identify individual needs (Ofsted, 2006).
- NQT CPD seems to be more systematic in its methods of needs identification than is the case for other teachers. Yet 40 per cent of those who did not get an individualised induction programme had said they were not well prepared for the first teaching post, and hence would be most in need of such a programme (ICM, 2006).¹⁵ In addition, a tool developed for creating an individualised programme (Career Entry and Development Profile), did not appear to help in arranging induction nor did it link ITT and induction (Hobson *et al*, 2007).

The idea of individual training plans seems to be a fruitful area for further work to encourage their use.

Performance management, professional standards, career aspirations, professional life phases and career stages

The overall impression here is that, while the reports from official education bodies express confidence that structured and strategically-devised CPD will link effectively with these elements, little of this in practical terms is yet emerging in the literature sources identified and examined. This lack appears as a result of the time lapse

¹⁵ However, this has to be put in the context of other evidence from this report which shows that 88 per cent of NQTs had an induction tutor and an individualised induction programme, and 91 per cent (38 per cent + 53 per cent) of NQTs feeling 'satisfactorily' or 'well prepared' for their first teaching post.

between the publication of some of these national-level documents and the structures and processes they herald. For example, the TDA (TTA, 2005) makes robust reference to a national framework for pay and professional standards for teachers, to be implemented in 2006 (actually occurring in September 2007).

Bolam and Weindling (2006), in a systematic review of 20 research studies conducted between 2002–2006, offers ‘fairly strong evidence’ in support of a policy of offering CPD programmes for teachers at different career stages, and to a projected framework of national professional standards. This synthesis of research findings establishes that none of the studies provides any direct evidence to demonstrate the government’s ‘new professionalism’ or about recently revised systems of performance management or performance development in schools. Gray (2005) reports headteachers being keen to base CPD activities on their teachers’ performance management criteria, and any resulting training would be taken into account when teachers applied for threshold payments.¹⁶

Moreover, there was no clear evidence available in relation to the new professional standards or subject-related CPD; and as noted earlier there is only weak evidence in the studies of national policy statements that increased teacher retention had indeed resulted from effective CPD operating in schools. As we noted above, Goodall (2006) indicates that performance management is the most common form of needs identification and that this causes tension in meeting personal, policy and organisational needs.

The relative paucity of evidence in relation to concrete systemic developments will require further investigation in the field, but currently the research evidence in the literature 2004–2008 finds practically no marked change and no rapid movement to the across-the-board performance-related practices (relating, for example, to career-stage professional standards) and outcomes (relating to such elements as increased retention) that the government would want to see.

Within this context, however, Day *et al* (2006) report from their three-year study that CPD can be seen to have had a consistently positive influence on teachers across all professional life phases; also that teacher effectiveness is not simply a consequence of age or experience of individuals, but that school cultures, school leaders and professional colleagues all represent key influences on teachers’ capacity to be effective. The importance of this last point is emphasised by Ofsted (2006). This source reported that CPD was most effective in schools where senior managers understood its potential for raising standards and committed to using it as a key driver for school improvement.

The role of external agencies

The role of external agencies in CPD is usually seen as positive, although in general this is as a *provider of CPD*. For example, Bolam and Weindling (2006) see external agencies in terms of the provision of expertise (the subject of questions 2.9 and 2.10), although other roles are reported. The logical chain (Ofsted, 2006) recognises that the “exploiting of external links with partners” is part of ensuring good quality CPD, though again in terms of provision. They noted in their investigation that there was a tendency for secondary school subject leaders to have limited understanding of CPD (seeing it as mainly out-of-school courses), which led to restrictions in the range of

¹⁶ It is not evident when the data for this study were collected, though it appears to be 2003.

activities for the staff in those departments. This was particularly acute in localities where there were few or any external, subject-specific courses for the staff to attend. The lack of knowledge about quality external providers was recognised by the TDA (then TTA) in its advice to the Secretary of State (TTA, 2005).

The *role of external expertise* is now well recognised, whether that be for school-based and collaborative, or individual, CPD (eg Cordingley *et al*, 2004; Cordingley *et al*, 2005b), with evidence of changes in teacher practice and pupil achievement (Cordingley *et al*, 2007). Bolam and Weindling (2006), in supporting this finding, also note that the quality of external expertise is variable. Ofsted (2006) expressed concern about the reliance of secondary schools on examination boards for subject CPD, which they saw as an area for development.

A specific contribution of external experts is to provide the outside perspective to move schools on from insularity, and Howes *et al* (2005) report that they help schools to be persistent in the face of boundaries that have resisted necessary changes in attitude and habit. Such a contribution of course implies a close relationship with a school, part of the wider issue of partnership,¹⁷ which can lead to important roles in supporting teachers in schools, as the main study of ‘experts’ indicates:

“Specialists supported teachers through modelling, workshops, observation, feedback, coaching, and planned and informal meetings for discussion. Nearly all specialist support took place on school premises. More than half the CPD involved the specialists in observing teachers and providing feedback and debriefing. They discussed pupil needs, examined test results, reviewed the results of interviews conducted with and by pupils, and observed pupil interaction in the classroom. The quantity of formal ‘input’ was extensive and sustained.” (Cordingley *et al*, 2007, page 1)

There is also a role for external consultants in monitoring action plans, lesson observation, modelling good practice, including subject-specific work (Ofsted, 2004a).

The one underrated issue is the role of teachers from other schools as experts. It appears that this is still not seen as a major element of external expertise, with Cordingley *et al* (2007, page 1) reporting that, in the studies they reviewed, most are external, with only four out of 24 studies using teachers. The vision of specialist schools, and indeed of advanced skills teachers (ASTs), is that they can provide expertise to schools that is founded on current and skilled practice. Specialist schools have a role in relation to supporting other schools, but we have only located one study (Sinkinson, 2007): this provides evidence from a specialist school, and those it collaborated with (including primary schools), on the positive views of teachers involved. However, there were problems between the specialist school and another secondary school.

While we are not in a position to comment on the role of ASTs more generally, one study notes that the “examples of joint professional development [they observed] may be replacing work previously carried out by the local authority”; this included, but was not exclusively provided by, ASTs (Woods *et al*, 2006, page 43). Another notes the activities they carry out: coaching colleagues, developing teaching and learning

¹⁷ Again this beyond our study but evident in professional learning communities and the role of HEIs, as we noted earlier.

initiative (within own schools as well as externally), running master classes, and making visits across a local authority (LA) to promote best practice (Gray, 2005). We are also aware that the external role of ASTs is problematic (Cooper, 2007), and that their main role tends to be internal to their own schools as the following comment on school CPD capacity indicates:

“The development of an array of CPD capacity (including skilled ASTs and experienced coaches and mentors) seems to have been a key factor in enabling the development of more strategic decision making.” (Cordingley *et al*, 2008, page 26)

Thus it is not in terms of outside work that the ASTs are being recognised, but inside work. Our own research in relation to networking in schools suggests that the role of teachers as experts needs more investigation (McCormick *et al*, 2007).

The move in policy, to put the school much more in control of the provision of CPD, has led to a changing role for external agencies, particularly LAs and HEIs. CUREE (2008) notes that the development of more strategic decision making on the part of the school is accompanied by a reduction in the use of LA and HEI support.

There is therefore a *changing role for the LA*. In the past the LA has been a provider of CPD, often driven by subject/phase advisers who had a phase or subject responsibility and who may even have had in mind the development of particular school departments or individuals. Indeed, in advice to the Secretary of State of the then TTA, the LA is discussed in terms of the ‘supply side’ of CPD provision, along with others such as subject associations (TTA, 2005). Few of the studies reviewed actually address the role of the LA, and only seven studies make reference in their findings to LAs.

The most notable is the review of policy of Bolam and Weindling (2006) who noted the implications of the *Five Year Strategy* (DfES, 2004), while not being specific about CPD, implied that they should be commissioners and quality assurers rather than providers of educational services. From the review of findings of the studies they were concerned with they concluded:

“The findings provide fairly strong, and sometimes strong, evidence which confirms the current policy requirement that local authorities (LAs) should make a significant contribution to CPD and school improvement. They also provide fairly strong, and sometimes strong, evidence that the best LAs do so; however, the support available from advisers reportedly varied both within and across LAs.” (Bolam and Weindling, 2006, page 111)

Unfortunately there is insufficient clarity about what ‘significant contribution’ means. Even the reference to the support from advisers is unclear in terms of whether this is with planning and organising CPD and/or providing it (though they are concerned about variability). There is no evidence of their role as commissioners or quality assurers, as envisaged by the strategy document (DfES, 2004) but, as is common with a number of these areas, it may be too early to see this appearing in studies that collected data prior to or at the time of the policy implementation.

One study reports the importance of positive expectations and informed interest from LA personnel in the context of the PPD courses (Arthur *et al*, 2006), and another study of them provides access to support networks in the context of early years (Wilde, 2006, reviewing NFER, 2005). One study reported teachers frequently expressing the desire for LA subject advisers to arrange networking activities, even though many LAs had ceased to provide this function (Gray, 2005). Another saw the

role in terms of providing support for an induction programme that made early career teachers feel involved and informed, and as in the previous study they gave access to support networks (Moor *et al*, 2005).

One study, considering barriers to supporting CPD, identified gaps in provision compared with what schools were requesting, and noted that the new role of being a broker rather than a provider was a common cause of such gaps occurring (Wilde, 2005, reviewing the TDA, 2005: Training and Development in Local Authorities).

One study of induction for NQTs noted that a large part of this consisted of LA-provided courses (Hodkinson, 2006), but we are given no other details.

Outside the brief of this review, Rhodes (2006) reports that teaching assistants (what he called ‘learning mentors’) were pleased to be able to access a menu of LA CPD opportunities that their action zone management saw as relevant to their needs.

It is less clear that there is a changing *role for HEIs*, although again they are seen mainly as providers in policy documents (eg in relation to PPD programmes). Warwick *et al* (2004), reporting on citizenship CPD, indicate that in their interviews with teachers and regional and national respondents,¹⁸ HEIs with an expertise in citizenship were key players in the design and development of a CPD programme. Although they were to bring their own theoretical expertise, HEIs were to combine this with the local expertise of voluntary and statutory bodies, such as LAs. This study also noted that respondents looked to HEIs for accreditation, and for a nationally recognised qualification to be established (through credit transfer). There is of course a wide range of literature on partnerships between HEIs and schools, in various research and development projects, and indeed as part of professional learning communities, but as noted earlier this literature is beyond the scope of this review.

One indirect effect of HEIs is through their role in the school element of initial teacher training (ITT) programmes, where the involvement of school staff provides opportunities for host teachers to reflect upon and improve their own practice (Hurd, 2007). There may well be a wider literature on ITT, which would allow more confidence in this finding, but it is beyond the scope of this study.

The evaluation of CPD activities

Unlike many of the areas we have reviewed, there has been a specific study on the evaluation of CPD, carried out by Goodall and his colleagues (2006), though CUREE (2008) also has specific information on this, albeit from case studies. The overwhelming impression is still that schools have problems with evaluation of CPD. The TDA advice to the Secretary of State in 2005 noted a similar situation in its review of the then current state of CPD: “Most schools do not have established processes for evaluating the impact of CPD at school, teacher or pupil level.” (TTA, 2005, page 6).

Bolam and Weindling (2006), in reviewing relevant studies, concluded that there was strong evidence from one study, and fairly strong evidence from another, that schools found it difficult to evaluate the impact of CPD. The later CUREE study for the General Teaching Council for England (CUREE, 2008) also noted a similar situation in its review of the literature, and our review does not reveal any improvement (eg

¹⁸ With which we had only medium confidence, exacerbated by the fact that the full report is not available, only a ‘research brief’.

Ofsted, 2004b). CUREE's subsequent case study work indicated that strategic schools geared their CPD to pupil learning and used evaluation processes that took account of pupil outcomes as key indicators of impact. But there is also a recognition of the difficulties in isolating the variables that could give rise to changes in pupil outcomes that make such evaluation difficult and hence a barrier to taking a strategic approach (Ofsted, 2004c; CUREE, 2005).

Nevertheless, the problem lies not just with technical issues of evaluation, but with a concern for impact, as Ofsted noted in its report:

“Few of the schools evaluated successfully the impact of CPD on the quality of teaching and on pupils' achievement because they did not identify the intended outcomes clearly at the planning stage.” (Ofsted, 2006, pages 2–3)

This is not to say that there is no evaluation, as Goodall *et al* (2005) indicated in their surveys and interviews in 2003:

“The study found that the vast majority of evaluation practice in schools remains at the level of participant reaction and learning, with only 41 per cent of schools in the interview phase evaluating organisational support and change, and only 25 per cent evaluating pupil learning outcomes. The impact of CPD on student learning was rarely evaluated by schools in the study, and if done so, was rarely executed very effectively or well.” (Goodall *et al*, 2005, p. 10)

They also recorded a conceptual confusion:

“There was a high degree of confusion amongst those in schools between dissemination and evaluation. This confusion meant that very often dissemination was equated with evaluation. Schools in the study frequently responded to questions about evaluation of impact with examples of dissemination: cascade training, sharing new knowledge and skills. These activities often focused upon sharing the content of the CPD rather than gauging the impact of the CPD.” (Goodall *et al*, 2005, pages 10–11)

Their survey question adds to this confusion by asking about ‘feedback from evaluation’ which could be seen as ‘dissemination’.

The situation is not much better among external providers of CPD, where there is a desire to move away from ‘input-based measures’ (eg time spent on CPD activities) to ones that indicate if any learning has taken place (on the part of teachers) and indeed if there are any changes of practice (PARN, 2008). The TDA study of PPD providers also showed a lack of use of pupil outcome data in evaluation, with some only just starting to establish small research projects to gather evidence about such impact (TDA, 2007b). There is also some discussion in the literature that recognises the desirability of this kind of requirement on external providers, but which thinks it is unrealistic (Flecknoe, 2002).

It is important to calibrate our expectations of what schools can do with regard to the evaluation of pupil outcomes, by reference to the recent review of *research* into the evaluation of CPD that we considered under *Benefits and impact* earlier (Lawless and Pellegrino, 2007; Wilson and Berne, 1999),¹⁹ where we would expect the technical issues to be better understood and handled than in school evaluations.

¹⁹ Where Lawless and Pellegrino said our understanding about what constitutes quality professional development, what teachers learn from it, or its impact on student outcomes had not substantially increased since that of the Wilson and Berne.

Putting these difficulties aside, what do we know about the mechanisms that schools employ for evaluation? In terms of *what* they are concerned to evaluate, Goodall *et al* (2006) report the following survey data from CPD leaders and teachers – (per cent) of ‘usually’ or ‘always’ is for leaders; [per cent] is for teachers:

- participant satisfaction (76 per cent) [85 per cent]
- value for money (51 per cent) [30 per cent]
- participant learning (44 per cent) [59 per cent knowledge and skills; 37 per cent views/attitudes; 27 per cent behaviour]
- pupil learning outcomes (39 per cent) [37 per cent]
- participants use of knowledge and skills (38 per cent) [27 per cent]
- support from the school (36 per cent)
- changes in pupil behaviour (24 per cent).

In terms of *how* they evaluate:

“[surveys of CPD leaders indicated that] Classroom observation appeared to be a particularly popular evaluation method... [though] one could question whether it might be overused, especially as a measure of pupil learning. Interviews with participants were also frequently used. Use of questionnaires depended on the aspect evaluated [for teachers this was the most common method encountered, and least liked]... Learning logs and journals proved unpopular, notwithstanding the often rich data they can provide.” (Goodall *et al*, 2005, p. 58)

“In the interview phase the study found that the most widely used evaluation tool was a survey or questionnaire. The use of this method across schools, however, was found to be highly variable. In many cases the completion of the survey or questionnaire was viewed as an end in itself.”

“Schools identified a need for focused professional development and training that could assist them in evaluating CPD more effectively.” (Goodall *et al*, 2005, p. 11)

The ‘strategic evaluation’, to use CUREE’s term, includes such things as:

- “Annual departmental reviews which included pupil questionnaires and interviews.
- Assessing goals and targets through performance management system: if targets were not met, fresh learning support mechanisms were identified to help staff achieve their goals.
- Use of video for both peer and self-monitoring and formative evaluation.
- Systematic use of data monitoring by teachers and by senior and middle management.
- Using coaching, including observation and debriefing/formative assessment for adults as a peer review strategy.
- Taking account of teacher judgement as well as data monitoring.” (CUREE, 2008, page 31)

The literature suggests that the question of how schools understand impact is as important as the question about the techniques to evaluate it. It is obviously too early

Final report

to know if the TDA guidance on this to schools will help in each of these elements (*Impact evaluation of CPD*; TDA, 2007b). Given the problems with understanding the nature and scope of impact, it would be worth considering in more detail the kind of conceptualisation indicated earlier in this review.

5 Summary of findings

5.1 General issues

There is some relevant evidence in the literature reviewed about most of the questions, but we found no relevant literature for question 2.2, concerning the existence of inter-professionalism in CPD planning in schools (eg to support the extended schools agenda). It may be that, as with many other questions that related to recent policy initiatives (at or since 2004), it is too early for data on them to be reported in published studies. This is particularly so for the indirect benefits related to retention and accreditation, and for planning of CPD in relation to performance management, professional standards, career aspirations, professional life phases and career stages. In terms of effectiveness of CPD there is little research related to online provision of CPD and on the kinds of conditions for effective CPD identified in the logical chain (Ofsted, 2006).

Below we summarise only the main findings, particularly where we can be confident about the evidence.

5.2 Benefits, status and effectiveness of CPD

Benefits and impact

While there is strong evidence that CPD can improve *pupil learning*, there are relatively few studies that show this in terms of measures of pupil achievement, most relying on teacher views of improvements in achievement. There is also some evidence that it can produce affective changes in pupils (eg motivation, confidence and self-esteem).

Planning for the improvement of pupil achievement is important in itself in improving effectiveness and there is an important role for senior managers in understanding this.

Studies of impact on *teachers* are more common, although few identify what elements are responsible for this. There are also a number of effects that support pedagogy, but are not directly about it, such as attitudes to professional development, which are seen as important.

Value for money

This is seen as important and the evidence is mixed on whether it is actually considered by school leaders when evaluating CPD, and hence few studies that can show evidence of value for money.

Effective CPD activities

The evidence on the kinds of activities encouraged by the TDA is relatively strong, with collaboration being the most common, though not one is explicitly indicated on the TDA website. However, there is no clear evidence about how teachers rank the various activities, though observation is commonly near the top of ratings.

Of the various kinds of activities the effectiveness of *coaching and mentoring*, *observation by teachers*, *collaboration* and *enquiry* are well supported by evidence, but less so in terms of studies of their use in schools.

Networks are advocated rather than found in practice, and in any case the evidence is neither contemporary, nor based in England.

Features of effective CPD

There is research that underpins the kinds of features advocated by the TDA. In addition, some new features have been found that could be considered (eg that pupil consultation is involved, and that work should be based in teachers' own classrooms).

Conditions to support effective CPD

There are no systematic investigations of the kinds of conditions examined in the Ofsted (2006) logical chain, though there is a variety of studies that indicate others (eg that teachers should be volunteers in participating in CPD). These also relate to the teacher's commitment, the agency of the teacher as learner, and the more general culture of a school that are important.

CPD was most effective in schools where senior managers understood its potential for raising standards and committed to using it as a key driver for school improvement.

5.3 Planning and organisation of CPD

Priorities for CPD: individual and school needs

The importance of balancing these two types of needs is well recognised, and there is evidence that the best schools do this successfully through detailed audits. It also appears that individual training plans could be important in ensuring this.

There is evidence that in the last few years teachers' needs are increasingly being met (though there are some reservations in the most recent statistical evidence).

Role of external agencies

In general, these are seen as providers of CPD, particularly of expertise, though this is seen as variable in quality. The role of such experts is in supporting teachers work in schools. Teachers as experts is an underrated but important element of external expertise.

LAs are still important as providers, but there is little evidence of change in their role as envisaged by the DCSF in terms of, for example, being commissioners or quality assurers of CPD. HEIs still fulfil the traditional role as providers of accredited programmes.

The evaluation of CPD activities

This remains a problematic area for schools, though strategic schools do consider pupil outcomes as a key indicator of impact of their CPD. The main focus in evaluation is on the views of participants, most commonly through questionnaires.

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²⁰ These are only those references which are not included in the listings of reports and articles/conference papers in appendix 4.

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Appendices

Appendix 1: TDA questions for literature review

1 Benefits, status and effectiveness of CPD

- 1.1 What are the benefits of engaging in CPD as perceived by teachers and headteachers?
- 1.2 How important is CPD seen to be for the retention of teachers? What evidence is there of CPD improving the retention of teachers?
- 1.3 Are there differences in views of CPD's effectiveness held by teachers/the senior management team in different types of school (eg pupil referral units (PRUs), special schools, primary/secondary schools, academies and specialist schools) or at different career stages (ie trainees, NQTs, mainscale teachers, student teachers, ASTs, excellent teachers, deputy headteachers and headteachers)?
- 1.4 Which CPD activities or resources are evaluated by headteachers to be effective and of good quality?
- 1.5 How many of the characteristics of effective CPD as identified by the TDA (www.tda.gov.uk/cpd) are commonly present in CPD activity in schools?
- 1.6 How important is it to teachers that their CPD is accredited?
- 1.7 What kinds of CPD activity are perceived to be value for money? How is value for money measured?
- 1.8 How is CPD seen to be having an impact in terms of raising standards and narrowing the achievement gap?

2 Planning and organisation of CPD

- 2.1 What is the role of local authorities in CPD?
- 2.2 Is there inter-professionalism in CPD planning in schools (eg to support the extended schools agenda)?
- 2.3 Is CPD in schools determined consistently by the priorities for school improvement (ie is CPD approached strategically, how are the needs of the individual balanced with the needs of the school in CPD planning, and how, and by whom, are the CPD activities agreed)?
- 2.4 How does CPD feature in performance management reviews?
- 2.5 Do plans for CPD link to career aspirations as well as immediate needs?
- 2.6 How are CPD choices influenced and informed by the professional standards?
- 2.7 What resources and sources of information do teachers use and how helpful do they find them?
- 2.8 What are the mechanisms used for the evaluation of CPD activities?
- 2.9 How, and why, are external experts used in CPD? What is seen to be the impact of this?
- 2.10 How are ASTs and excellent teachers used in CPD in schools?

Final report

2.11 What are the roles of other players in schools' decisions about CPD (eg governors, HEIs, subject associations)? Are these roles different in different contexts)?

Appendix 2: Record card

Source

Full reference as given in Paper 2b Literature Review Reports List or Consolidated Search List (Indexes) P1a, depending on whether report or article/conference paper.

Abstract

Edit the given article/conference paper abstract to reflect item (using entry in Consolidated Search List (Indexes) P1a); note you will have to construct one for reports perhaps using elements of executive summary.

Subject

Which of the area descriptors addressed by research:

- *benefits, status and effectiveness of CPD?*
- *planning and organisation of CPD?*

See details in Literature Review Process and TDA Questions For Literature Review Papers (appendix 1 in this report) – you may want to use these questions to annotate or direct you in your analysis of the item, in which case use the numbering system in the latter paper, ie 1.1, 1.2, 2.3 etc).

Focus

Use the author(s)' research questions or what you think these are, or the aims of the research reported.

Methodology

Survey; case study; interviews etc.

Sample

- numbers surveyed, interviewed etc (include any details of representativeness)
- the type of school(s) covered in the study (primary, secondary [specialist], special etc,
- the date(s) when the data were collected.

Review

Give a review trying to answer the questions under 'Subject' above, along with any other conclusions/outcomes of the study relevant to the project. There should be three elements to this:

Findings

- Reporting the results of the study, including perhaps any relevant review of literature that was included, drawing on both what they conclude and your detailed reading that relates to the questions under 'Subject' above. Findings may include recommendations if they address the TDA questions.

Confidence

- A judgement of *Confidence* (high, medium, low) in the study based on both a statement of how explicit the methodology is (if explicit and comprehensive then

Final report

‘high’, or if details of procedure/processes employed are unclear/unbroached in the article/report, ‘low’), and your judgement of the warrant for the findings (a subjective judgement of rigour of the methodology – eg, if a sample is unrepresentative for a survey or only those who are positive are interviewed). This could be ‘strengths and weaknesses’. It will be used to moderate how we view the findings.

Commentary

- A *Commentary* on the study, which will put a personal gloss on the findings and draw out issues or indeed comment on the findings.

We expect this review to be of the order of a page for an article and 2–3 pages for a report, but that will depend on how well it addresses the TDA questions (the two main areas in ‘Subject’ above).

Appendix 3: Details of the review process

A review record was constructed to detail key features of each reviewed source:

- source (publication details)
- abstract
- subject (in terms of the TDA questions)
- focus (research question)
- methodology (survey, case study etc)
- sample
- review of item (including findings, our confidence rating and any other commentary by the reviewer).

This card was agreed within the team and an initial allocation of items for review was made to enable the team to try out the reviewing task. A day for trialling the review process was organised by some members of the team. A number of reports and articles were reviewed and these reviews discussed to construct guidelines for all reviewers and a revised review record (see appendix 2). The full allocation to individual team members of all the items for review was then circulated along with required documentation.

The resulting review cards were assembled and, as noted earlier, treated as the source upon which to base this literature review report. As a preliminary to their analysis for this report all the findings of the studies on the record cards were entered into *Atlas-ti* and coded according to the TDA questions. From this the software was used to create reports of all the findings for each question. Such a report gives details such as those shown in Figure 1 for question 1.7 – What kinds of CPD activity are perceived to be value for money? How is value for money measured? – with each item in the review being given a unique document number; P2, P11 etc.

Figure 1: extract from Atlas-ti report for question 1.7 of the TDA questions

P2: Bolam and Weindling 2006.txt – 2:21 [The findings provide generally...]

Codes:[1.7]

The findings provide generally strong evidence that cost-effectiveness and value for money are rarely taken into account when CPD is evaluated. This was consistent with statements in recent and current policy documents.

P11: Goodall 2006 Review card.txt – 11:5 [and changes in pupil behaviour...]

Codes:[1.7]

and changes in pupil behaviour (24 per cent).

Teacher questions seem to be different, but they agree on rank 1, but put value for money much lower (30 per cent); for them 'organisational change' is added (27 per cent).

Schools felt that they were generally not skilled in the processes of evaluation and lacked the experience and tools to consider the impact of CPD at all of the five Guskey Levels.

**P27: Ofsted 2006 RC.txt – 27:15 [The schools did not have an effective...]
(49:49) (Super)**

Codes:[1.7]

The schools did not have an effective method for assessing the value for money of their CPD (indeed many doubting it was feasible to do so), or its cost-effectiveness.

P32: TTA 2005 RC.txt – 32:3 [Current state of CPD Although...]

Codes:[1.7]

Current state of CPD

Although some schools recognise the importance of CPD for personal and school performance, the school system is not getting sufficient value out of the investment being made in CPD. Only six per cent of primary teacher's time and five per cent of secondary teachers time for CPD (2001 figures), and this time is not used effectively (2004 GTCE survey says 80 per cent of teachers think their needs are not fully met). Patchy provision and too much organised on ad hoc basis with resulting limited impact. Reduced subject content focus even though seen as one of most important components of effective CPD.

These reports, as will be evident, do not make complete sense without the actual review, and they were only used as a way of seeing which items would address which TDA questions.

Another 'literature review day' with core team members was used with these reports and review cards to discuss how the actual literature review report would be constructed. The questions were grouped to allow coherence to areas of consideration to be created and team members attempted that day to construct a report. The groupings were:

- A Benefits and impact: questions 1.1 and 1.8.
- B Indirect benefits: questions 1.2 and 1.6.
- C Judgement on benefits and impact – value for money: question 1.7.

Final report

D Effective features and activities/forms of CPD: questions 1.3 and 1.4.

E The role of external agencies: questions 2.1, 2.9, 2.10 and 2.11.

F Performance management, professional standards, career aspirations, professional life phases and career stages: questions 2.4, 2.5 and 2.6.

G Matching needs of school and individual: questions 2.3 and 2.5 (also in F).

H The evaluation of CPD activities: question 2.8.

(Note that there were no findings in the review records related to question 2.2.)

The preliminary reports were discussed to highlight issues to be taken into account. The team wrote up partial reports in these areas and these were put together with suitable editing and amendments for this full report.

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* These items have not been retrieved and reviewed, but were part of the search.

Appendix 5: Listing of sources by levels of confidence

Refer to appendix 4 for the full source details.

High confidence	Medium confidence	Low confidence
Bell <i>et al</i> , 2006 Bolam and Weindling, 2006 Cordingley <i>et al</i> , 2005b Cordingley <i>et al</i> , 2007 Cordingley <i>et al</i> , 2005a CUREE, 2008 Davies <i>et al</i> , 2007 Day and Gu, 2007 Day <i>et al</i> , 2006 Hargreaves <i>et al</i> , 2007 Hobson <i>et al</i> , 2007 Hodgen and Askew, 2007 Howes <i>et al</i> , 2005 ICM, 2007 McCaughy <i>et al</i> , 2006 McNicholl and Noone, 2007 Moor <i>et al</i> , 2005 Ofsted, 2004a Ofsted, 2004b Ofsted, 2004c Pedder, D (2006) Pedder, D (2007) Pedder and MacBeath (2008) Pedder, James and MacBeath (2005) TTA, 2005	Boyle <i>et al</i> , 2004 Dalgarno and Colgan, 2007 Dymoke and Harrison, 2006 Goodall, 2006 Gray, 2005 Harrison <i>et al</i> , 2005 Hurd, 2007 Keay, 2006 Makopoulou and Armour, 2006 Miller and Glover, 2007 Nicholson, 2006 Ofsted, 2002 Ofsted, 2006 Taber, 2005 TDA 2007b	Arthur <i>et al</i> , 2006 Chappell, 2007 Coldwell <i>et al</i> , 2008 Cordingley <i>et al</i> , 2004 Duncombe <i>et al</i> , 2004 GTCE, 2007 Hall <i>et al</i> , 2006 Hodkinson, 2006 Jones and Webb, 2006 Loveless <i>et al</i> , 2006 Mahony and Hextall, 2006 McGregor <i>et al</i> , 2006 McLinden <i>et al</i> , 2006 Nichol and Turner, 2006 PARN, 2008 Sinkinson, 2007 Smethem and Adey, 2005 Warwick <i>et al</i> , 2004

Note that Wilde (2005) was not given a confidence rating as insufficient details were given of the sources reviewed to make a judgement.