Professional Development for Teachers Early in their Careers: An Evaluation of the Early Professional Development Pilot Scheme

Helen Moor, Karen Halsey, Megan Jones, Kerry Martin, Alison Stott, Celia Brown and John Harland

National Foundation for Educational Research



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The views expressed in this report are the authors' and do not necessarily reflect those of the Department for Education and Skills.

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Executive Summary

1 The evaluation

This summary sets out in brief the findings of the final report on the Early Professional Development (EPD) pilot scheme. The evaluation was conducted by the National Foundation for Educational Research (NFER) on the behalf of the Department for Education and Skills (DfES) and the General Teaching Council for England (GTC). Building on the results of two interim, unpublished reports produced at the end of the first and second years of the pilot (Moor *et al.*, 2002 and 2003), the final report draws together evidence collected during its three-year duration via:

- case studies of three schools in each of the 12 local education authorities (LEAs) piloting the EPD scheme generating a total of 555 interviews
- a postal survey to a sample of second and third year teachers and their mentors in the EPD pilot LEAs – 990 returns in year 1; 1,665 returns in year 2 and 1,880 returns in year 3¹
- a postal survey during year 2 only to a comparative sample of second and third year teachers outside the EPD pilot areas (the schools from which this comparative sample was drawn mirrored those in the EPD sample in terms of LEA type, attainment level, size and type of management) 1530 returns.

2 About the EPD scheme

The pilot programme to make available EPD to teachers in the second and third years of their careers was launched by the DfES in September 2001. The pilots were established in 12 LEAs and ran for three years until July 2004. The participating authorities were: Birmingham, Brighton and Hove, Cornwall, Croydon, Cumbria, Hammersmith and Fulham, Hampshire, Kensington and Chelsea, Lewisham, Newham, Stoke-on-Trent and Wakefield. The EPD scheme provided £700 per term to support the professional development of second year teachers and then £350 per term for their third year (though there was variation in how LEAs chose to allocate the funding).

The LEA had a central role in the conceptualisation and administration of the pilot within their authority. Therefore, the implementation of the scheme differed somewhat across the 12 areas. Overall, however, the EPD experience was chiefly characterised by two elements. Firstly, there was an underlying principle that second and third year teachers would have involvement in decisions regarding the use of EPD funding to address their own professional development needs. Secondly, there was a commitment to mentoring: in 11 of the 12 LEAs, it was intended that EPD teachers would have a mentor.

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¹In the first year of the pilot, the survey involved second year teachers and their mentors only. In subsequent years, both second and third year teachers and mentors were included. Survey response rates: year 1 = 68 per cent; year 2 = 62 per cent; year 3 = 59 per cent.

3 The impact of the EPD scheme

3.1 The outcomes of EPD for teachers

Over the three years of the pilot, there was strong evidence that the EPD scheme made a very positive impact on participating teachers. In the first year, the level of impact reported by teachers was notable, with 61 per cent of teacher survey respondents stating that EPD had affected their overall professional practices to a considerable degree. From this high starting point, as the pilot progressed, teachers' assessments of the impact of the scheme became increasingly positive. By the final year, when asked to score the overall effect of EPD on their professional practices, more than three-quarters of teachers felt that EPD had impacted on them to a considerable degree.

In terms of the nature of the outcomes derived, the strongest effects were felt on teachers' teaching practice and their focus on career development. Both of these were frequently cited when teachers were invited in an open-ended question to volunteer the 'main impact' of EPD on themselves in the first and second years of the pilot. Further, in their survey, teachers were given a list of possible outcomes and asked to rate the extent to which EPD had affected their practice in these areas. The top five impacts, as registered in the final year of the pilot, were:

- an enhancement to pupils' learning
- an enhanced willingness to undertake professional development
- actual teaching practice
- the contribution made to colleagues and school
- thinking on career development.

What becomes apparent when looking at this list of highest-rated impacts is that the EPD scheme did not only benefit teachers, but that also the positive effects radiated outwards to those they taught and worked with.

For all the specified outcomes on which teachers were asked to comment, the proportion registering that EPD had affected their practice considerably rose markedly – on average by around 12 percentage points – between the first and third year of the pilot. When mentors were asked to rate the outcomes of EPD on their mentees, their responses not only confirmed, but exceeded teachers' own assessments of impact.

With assurance, it is possible to establish from the evaluation of EPD that participating teachers experienced a multitude of effects in key areas of their professional lives: impact on teaching practice; impact on career development; and commitment to the teaching profession. That these impacts were extensive, rose over the duration of the scheme and were reported by the majority of participants, serves to underline the substantial successes of the EPD scheme in contributing to the professional lives of teachers early in their careers. The outcome of enhanced confidence that teachers gained from taking part in EPD seemed particularly instrumental in fostering further impacts. Instilled with higher confidence levels, teachers reported having implemented new teaching practices and of being able to pursue their chosen career paths, and these, in turn, helped teachers feel more content in their chosen profession.

3.2 The outcomes of EPD for schools

As well as the benefits experienced by the teachers themselves, there was strong evidence that the early professional development of teachers had led to them becoming more effective members of their school communities. In the final year of the pilot, three-quarters of teachers surveyed registered that EPD had considerably affected their ability to contribute to their colleagues and the school. Mentors concurred, with 78 per cent believing that EPD had had a considerable effect on their mentees' contribution to school life. The proportion of teachers and mentors indicating that EPD had considerably affected teachers' contribution to colleagues and the school increased over the course of the pilot.

In a further enquiry, over half of the mentor survey sample in the third year of the pilot identified a wider impact of EPD within the school, with mentors who were headteachers or deputy heads most frequently expressing this view. Virtually all of the impacts described were positive and included the following.

- EPD teachers' dissemination of their learning to other colleagues, and the advancement of other teachers' practice as a result.
- The adoption of new school systems developed by teachers through their EPD e.g. whole-school initiatives, GCSE courses, schemes of work and teaching materials.
- Consequential impacts of progression in EPD teachers' competencies e.g. better teaching, greater ability to take on leadership roles, improved confidence and commitment.
- The growth of professional development in the school e.g. EPD spurring others to consider more keenly their own development and the opportunities available, or changing systems for provision of professional development within the school.
- Improvements in pupils' progress and school experiences e.g. enhanced learning and understanding, attainment, behaviour, engagement in lessons.

Critical to the achievement of impacts on other teachers' practice was the dissemination of EPD activities by the participating teacher – the sharing of new skills, knowledge, ideas and resources. Impacts on the management and structures of the school occurred since the pilot gave teachers opportunities to enhance directly both academic and pastoral aspects of school life for their colleagues and pupils. The outcomes teachers derived from EPD activities increased their confidence, improved their practice and gave a clearer idea of their preferred career path, which then served as the vital step towards teachers becoming more active within the school and, beyond that, to further impacts at a whole-school level.

The perceived benefit to pupils as a result of their teachers' EPD involvement is striking. In the year 3 survey, more than three-quarters of teachers and mentors indicated that EPD had considerably enhanced pupils' learning. For teacher survey respondents, this was the highest ranking outcome in 2004 from a list of 12. This is a notable finding and it confirms that EPD was not solely benefiting participating teachers. Rather, the majority of teachers believed that the effects they enjoyed were

being passed on to their pupils and 'enhancements to pupils' learning' registered the highest degree of effect, over and above every other impact.

3.3 The outcomes of EPD for mentors

Over two-thirds of mentors in the survey sample believed that their mentoring role had had an effect on them, and four out of five mentors interviewed in the case-study schools described an impact from EPD on themselves. The vast majority (80 per cent) of the impacts cited by mentors in response to an open enquiry in the survey were positive and included: getting to know EPD teachers' and others' professional development needs; deriving satisfaction from undertaking the role; a general benefit for the whole school which they, in turn, experienced; and enhancement of their own professional development.

To some degree though, the outcomes experienced by mentors themselves were more variable than those experienced by teachers and schools. This could be explained by the characteristics of the mentoring sample – predominately long-serving, senior members of staff with previous mentoring experience – and the manageability issues associated with the role.

Whilst the outcomes mentors reported for themselves may have been variable, the benefits of the mentoring relationship for EPD teachers, particularly those in the second year of their career, were found to be critical for teachers' outcomes and for school outcomes. In particular, in many schools the mentor played a vital role in the transposition of improvements in the teacher to benefits for the wider school community.

3.4 The outcomes of EPD for the teaching profession

The evaluation evidence clearly pointed to the substantial impact of EPD on participating teachers. However, taken in isolation, it was uncertain whether the extent of the reported effects was attributable to the particular approach of EPD or was simply that ordinarily gained from professional development opportunities. When the attitudes and experiences of EPD teachers were contrasted with the comparative sample of non-participating teachers outside the pilot areas, the added value of the scheme became apparent – both in terms of its effect on participants' practice and their longer-term commitment to the profession.

- Participants in the EPD scheme consistently reported far greater outcomes from their EPD than the comparative sample registered gaining from their professional development opportunities. Over a range of 12 outcomes, EPD teachers registered a higher level of impact in every case, with statistically significant differences between their ratings and those of the comparative teachers.
- In particular, when contrasted with comparative teachers, EPD was most influential in terms of its impact on: improvements to morale and wellbeing; thinking regarding career development; willingness to undertake professional development; commitment to teaching; and the contribution made to other colleagues and the school.

To determine whether EPD could impact on retention in the teaching profession, both the EPD and comparative samples were asked: 'How likely is it that you will be working in teaching in five years' time?'. EPD teachers responded with much greater certainty that they anticipated being members of the profession five years from now. The difference between the two samples' ratings was highly statistically significant, with 70 per cent of the EPD teachers registering a strong likelihood that they would remain in teaching compared with 59 per cent of the comparative sample. Considered in terms of the 96,000 teachers early in their careers in England (DfES, 2003), then this difference of 11 percentage points might be seen to represent a sizeable number.

EPD teachers rated the likelihood of their remaining in teaching more highly than the comparative sample irrespective of phase of school (primary/secondary), year of teaching (second/third year) or LEA type (Inner London/Outer London/metropolitan/unitary/county).

4 Achieving outcomes in Early Professional Development

Given the extent of the impact of EPD as set out above, analysis was undertaken to identify the factors central to the EPD experience that accounted for outcomes of such range and depth. Through the statistical analysis of the teacher survey data (including the use of multivariate techniques), scrutiny of the interviews conducted in case-study schools and a comparison of the experiences of the EPD and comparative samples, the following key characteristics emerged as pivotal in generating outcomes from EPD.

- **Teacher autonomy** The greater teachers' level of involvement in selecting their professional development opportunities, the greater the outcomes they derived. Teacher autonomy was particularly influential in terms of enhancing subject knowledge, pupils' learning, actual teaching practice and commitment to teaching.
- **School support** As with autonomy, this emerged as one of the strongest predictors of the outcomes derived from EPD. It was most strongly associated with career-related effects and related to teachers' role in and impact in the school.
- Mentor support The link between mentoring and the impacts derived was particularly strong for second year teachers, with the effects of having a mentor particular influential in terms of improving teaching practice (especially behaviour management) and career development. For third year teachers, the relationship was less influential, though remained valuable in terms of how teachers related to their careers: their commitment, their morale and their desire to develop professionally.
- **LEA support** Because of the LEA's role in the management of EPD, participants were brought into contact with the officers responsible for the scheme who provided a font of expertise and guidance on professional development matters.

5. Effective practices in Early Professional Development

The research investigated how the factors found to be instrumental in achieving outcomes from EPD operated in practice. In doing so, the intention was to highlight the elements found to work well and any associated issues.

5.1 Teacher autonomy

The case-study interviews provided an avenue through which to explore how teacher autonomy worked – to what extent, for example, did they consider the needs of the school as well as their individual needs? In the vast majority of cases, the EPD teacher and their mentor had planned the professional development activities together. In a smaller number of cases, the EPD teacher had been entirely self-directed, without significant input from their school. Nevertheless, EPD coordinators frequently referred to the fact that the EPD teachers' needs overlapped with the schools', explaining that the EPD teachers had tended to focus on an aspect of professional development that was beneficial to both parties. Thus, allowing teachers their autonomy was not of detriment to schools, rather, EPD teachers were mindful of school needs, and ensured that their professional development activities would also profit their colleagues and their school.

5.2 The role of the school

Analysis of 'high-scoring' EPD schools (i.e. those where all participating teachers recorded that EPD had considerably affected their overall professional practices) revealed that there was little in the overarching characteristics of these schools that accounted for this e.g. free school meals eligibility, attainment levels, LEA type, region². Rather, it appeared that the attitude towards professional development in the school was decisive: teachers in 'high-scoring' schools were significantly more likely to record a high level of involvement in selecting their EPD and to feel that their school strongly supported their professional development needs.

Whether a teacher's EPD activities addressed the development needs of the individual teacher, or of the school itself, it was frequently the case that outcomes emerged in many areas, beginning with improvements to the teacher, such that a chain of outcomes developed. A number of contextual factors appeared to be instrumental in taking impacts beyond the teacher, including:

- the teacher's ability to recognise the potential for their professional learning to reach an audience beyond the classroom
- the teacher taking the initiative in developing a wider role for themselves
- the support of the mentor and the leadership team recognising the interests and developments in their teacher
- the support systems being in place for the teacher to impact on the school.

²In 2004, the only characteristic by which 'high-scoring' schools differed from the remainder of the sample was the size of the school and this was true only of secondary schools.

Thus, both the teacher and the school played a vital part in transposing effects from one to the other.

5.3 The role of the mentor

Mentoring played an integral role throughout the EPD scheme for the majority of teachers. Around three-quarters of all teachers involved in the scheme had a mentor each year. There was evidence that to gain most from the mentoring relationship, teachers should have involvement in selecting their mentor and have the additional support of regular meetings.

However, the manageability of the role was a central issue for mentors each year. Seven out of ten mentors reported experiencing some degree of difficulty with the time or workload involved in undertaking their role. This was of concern, particularly since the mentor was found to play a critical role in helping both teachers and the school derive outcomes from EPD. Effective training for mentors was found to alleviate some of the issues surrounding workload.

5.4 The role of the LEA

The LEA had a central role in the conceptualisation of the pilot within their authority. Where EPD was particularly successful, LEAs took an inclusive approach – involving schools and teachers so that they felt fully informed about and involved in the scheme. Additionally, these LEAs gave participants access to support networks and control over what their programmes entailed. Where the configuration between the LEA, schools and teachers was less well aligned, programmes were still successful, but not to the extent of the highest performing LEAs.

6 Concluding comments

The strength of the outcomes reported for EPD as a pilot scheme demonstrate what can be achieved for the individual, the school and the profession if the teacher takes a directive role in their professional development with support from a mentor, their school and the LEA. The transmission of effects starts with the immediate recipient of EPD, the teacher, before transferring to their pupils, their colleagues, the school and also to the wider teaching profession. In short, it shows the benefits of a collaborative, grassroots approach to professional development.

The EPD scheme as documented in this summary was discontinued after the three-year pilot. This was due to changes in the funding arrangements for CPD and a shift in emphasis to building schools' capacity for effective CPD. Looking into the future, it is possible to extrapolate some very valuable lessons from the experience of the pilot for increasing the impacts of professional development for teachers early in their careers. Participants commended highly the levels of autonomy offered through EPD and the opportunity to direct their own professional learning. Additionally, where teachers received support from a mentor and the school, the impact of the scheme was boosted further. The potential contribution that LEAs can make to teachers' professional development also needs to be recognised – LEA personnel not only

offered expertise in this area, but helped raise the profile and extend understanding of the multitude of development activities available, through communications with schools and teachers directly. These, then, might be seen as the transferable features of the EPD scheme, which having been identified, could be utilised in future professional development activities.

What should not be overlooked though, is that the EPD scheme, as a concept, did offer something unique. During interviews, teachers would frequently praise the funding and the thought for their professional development that the EPD pilot represented. This had made them feel valued and empowered. Furthermore, analysis of the EPD and comparative sample suggested that this could be a factor in the greater likelihood of EPD teachers remaining in the profession. Thus, the very existence of a dedicated, funded scheme specifically for the professional development of second and third year teachers was, in itself, crucial to the outcomes derived from EPD.

To conclude, this evaluation has chronicled the success of the EPD pilot scheme. Given its discontinuation, it is important to consider what lessons might be carried forward to inform subsequent policies and practices aimed at supporting teachers at the outset of their careers and – given the strength of the outcomes to emerge from the pilot – perhaps all teachers. Based on the experience of the EPD scheme, amongst the key factors associated with effective professional development were: autonomy for teachers, mentoring, a school ethos that embraces the professional development of its staff and an LEA role in support and promotion. In the absence of the scheme itself, these are the attributes that would perhaps benefit from particular attention so the philosophy of EPD – autonomy, mentoring, school and LEA support – can be used to nurture and develop new cohorts of teachers entering the profession.

Part One

Introduction

1.1 The EPD scheme

1.1.1 Background

This report presents findings from the three-year evaluation of the Early Professional Development (EPD) pilot scheme. The research was conducted by the National Foundation for Educational Research (NFER) on the behalf of the Department for Education and Skills (DfES) and the General Teaching Council for England (GTC). Building on the results of two interim, unpublished reports produced at the end of the first and second years of the pilot (Moor *et al.*, 2002 and 2003), this final report draws together evidence from across its three-year duration.

The pilot programme to make available EPD to teachers in the second and third years of their careers was launched by the DfES in September 2001. The pilots were established in 12 local education authorities (LEAs) and ran for three years until July 2004. The participating authorities were: Birmingham, Brighton and Hove, Cornwall, Croydon, Cumbria, Hammersmith and Fulham, Hampshire, Kensington and Chelsea, Lewisham, Newham, Stoke-on-Trent and Wakefield. The EPD scheme provided £700 per term to support the professional development of second year teachers and then £350 per term for their third year (though there was variation in how LEAs chose to allocate the funding).

The LEA had a central role in the conceptualisation and administration of the EPD pilot within their authority. Therefore, the implementation of the scheme differed somewhat across the 12 areas. Overall, however, the EPD experience was chiefly characterised by two elements. Firstly, there was an underlying principle that second and third year teachers would – with support from their school – have involvement in decisions regarding the use of EPD funding to address their own professional development needs. Secondly, there was a commitment to mentoring: in 11 of the 12 LEAs, it was intended that EPD teachers would have a mentor and in the remaining LEA, mentoring was optional.

As EPD teachers were encouraged to use the funding to address their own professional development needs, the type of activities undertaken were wide ranging and included: attendance on courses designed specifically for EPD teachers; courses open to all teachers; professional networking; lesson observations and team teaching. In addition to this, EPD teachers used the funding to: carry out research and/or study for an educational qualification; to purchase resources (e.g. interactive whiteboards, laptops, books); to go on school and cultural visits; and to pay for supply cover while they used the non-contact time to develop their role in school (e.g. to produce schemes of work, policies, resources for use in the classroom, to establish initiatives like Healthy Schools, school-community links).

1.1.2 Issues for teachers in the early stages of their careers

The pilot programme for the early professional development of teachers in their second and third years of teaching was developed against a background of research highlighting issues for teachers in the early stages of their careers. In particular, there was increasing concern regarding the recruitment and retention of teachers where evidence suggested that new entrants to the profession were an especially vulnerable group. Research from Smithers and Robinson (2003) identified that, in 2002, teacher 'wastage' was 7.9 per cent: that is, the loss of primary and secondary teachers holding full-time posts to destinations other than posts (full or part-time) in other maintained schools. Moreover, they found that, of those leaving the profession, a disproportionate number were younger members of staff with few years' service. Indeed, their report highlighted that over a quarter (28 per cent) of teachers leaving full-time permanent contracts had been teaching for five years or fewer. Regional variation was also apparent, such that teachers in London and the south east were more likely to leave the profession than those in the midlands and the north.

In addition, there was some concern about the support available to teachers in the early stages of their careers after completion of the induction year with its individualised programme of guidance and monitoring, opportunity for newly qualified teachers (NQTs) to enhance their knowledge and skills so as to provide 'the foundation for continuing professional and career development' (DfES, 2003), and reduced timetable (90 per cent) compared with other teachers. However, following this statutory support during the induction year, and prior to middle-management leadership and headship training, there was concern that targeted support for teachers during the initial years of their professional life may be more limited.

1.1.3 Development of the EPD scheme

In recognition of such issues, and in response to a recommendation from the GTC, in September 2001, the DfES launched a three-year pilot programme to make EPD available to teachers in the second and third years of their careers. The EPD programme represented part of the DfES's then framework for teachers' continuing professional development (CPD) as described in 'Learning and teaching: a strategy for professional development' (DfEE, 2001). As well as outlining the requirement for schools to provide effective professional learning for all staff, this document set out the DfES's policies and funding streams to enhance the CPD of individual teachers (e.g. through Best Practice Research Scholarships and Teachers' International Professional Development), and schemes to facilitate career-long professional development (e.g. Professional Bursaries and Sabbaticals for experienced teachers working in challenging schools). Within this, the EPD scheme sought to 'encourage a firm base for career-long professional development' (DfEE, 2001).

Research evidence supported the promotion of professional development as a means through which to raise teachers' commitment to the profession as well as enhance teaching and pupil learning. A report by Demos (Horne, 2001) suggested that the provision of high quality CPD, which develops an individual's professional autonomy, may encourage new staff to pursue their teaching career. Furthermore,

OFSTED (2003) highlighted the importance of early professional development. In a study of the quality and effectiveness of the professional development activities undertaken by teachers in their second and third years of teaching (taken from LEAs not participating in the EPD pilot scheme), OFSTED concluded that, in around half of the schools, the activities had directly strengthened commitment to a career in teaching. It was also noted that, where professional development was effective, there was evidence that teachers were making a contribution to the development of their colleagues and, to a lesser extent, the whole school. In addition, research conducted by Hustler et al., (2003) identified that professional development positively affected teachers' motivation, and that this was particularly prevalent among female and younger teachers. Teachers in this study also articulated that professional development led to improved standards of teaching and pupil learning. Furthermore, following a review of the literature on professional development in 2003, Cordingly et al., 2003 concluded that sustained collaborative CPD not only impacted on teaching, but also extended to produce positive outcomes for pupils, including: increased motivation, improved performance and more positive responses to specific subjects.

1.1.4 Changing landscape of Continuing Professional Development

In recent years, the landscape of professional development has undergone considerable change. There has been a shift of emphasis at a national level away from the provision of ring-fenced grants and centrally-run programmes to targeted groups of teachers i.e. Professional Bursaries, Best Practice Research Scholarships and Sabbaticals, to the integration of funding within the main local government funding system (DfES, 2004a). As such, despite positive evaluation findings (Moor *et al.*, 2002 and 2003) and an early undertaking to implement the EPD scheme nationally from September 2004, this decision was reversed and EPD, as a scheme, was discontinued after the end of the pilot in July 2004³.

The DfES's current CPD strategy is to 'promote the benefits of CPD and to help teachers make the most of the opportunities and choices available to them' (DfES, 2004b). Furthermore, it aims to 'build schools' capacity for effective professional development' (DfES, 2004b) through four main strands:

- closer integration of CPD, performance management and school improvement as key components of effective whole-school policies on teaching and learning, and contributing to the delivery of personalised learning
- building a stronger CPD infrastructure in schools
- increasing schools' awareness and use of CPD activities that lead to significant and sustained changes in practice
- developing clearer expectations of the skills, knowledge and understanding that teachers should develop over the first five years of their careers.

To date, this commitment at a national level has been reflected in the development of an online resource base providing guidance and good practice for CPD and the

³Professional Bursaries, Best Practice Research Scholarships and the Sabbaticals scheme have also been discontinued.

establishment of an online tool, enabling pre-threshold teachers to 'identify their strengths, priorities, development needs and career preferences and play an active part in planning their career and professional development' (DfES, 2004b). In addition, there is a focus on CPD within the Primary National Strategy and the Key Stage 3 National Strategy. The Primary National Strategy, to raise the quality of teaching and learning and standards of achievement, outlines a number of characteristics of effective professional development and considers the evidence for these (DfES, 2004d). In particular, it stresses the impact of all school staff engaging in collaborative professional enquiry and the role of the leadership team in supporting this. Further, it sets out that engaging staff as learners in collaborative enquiry can be a powerful factor in school improvement and in raising standards. The Key Stage 3 National Strategy also provides research evidence and best practice information on effective CPD activity as well as 'on-the-job' support from consultants and leading professionals (DfES, 2004e). Moreover, it promotes professional development through active enquiry via networking and collaborative working. What is noted within these strategies is that the current strategy advocates a model of CPD that promotes the development of schools 'as a community of learners via collaborative enquiry' (DfES, 2004d), and emphasises the importance of both professional peer support and specialist inputs.

1.1.5 The contribution of the EPD scheme to current CPD thinking

The experience of the EPD scheme and the lessons of the pilot have much to offer to the development of thinking and practice around the new CPD strategy. This evaluation of the EPD scheme has collected data on the outcomes that second and third year teachers derived from professional development opportunities; the factors associated with generating these outcomes; teachers' assessment of the relevance and impact on practice of professional development activities; and the effectiveness of management at LEA and school level. This evidence may contribute to aspects of the current CPD strategy as well as proposed developments (see DfES 2004e), including:

- schools' awareness and use of CPD activities that lead to changes in practice, and the conditions in which professional development has the greatest impact on performance
- the closer integration of CPD, performance management and school improvement
- the roles for coaching and mentoring
- the LEA's role in working with schools to strengthen approaches to professional development
- the development of a framework of progression for teachers in their first five years in the profession.

1.2 The research

1.2.1 The purpose

The EPD pilot spanned three academic years:

year 1: September 2001 – July 2002
year 2: September 2002 – July 2003
year 3: September 2003 – July 2004.

The evaluation of the EPD scheme tracked the pilot for its three-year duration, with the original objective to investigate:

Aim 1	the outcomes for teachers
Aim 2	the quality and effectiveness of the EPD experiences from the teachers'
	perspectives
Aim 3	the contribution of EPD to schools' capacity to function as effective professional learning communities
Aim 4	the effectiveness of the management and resource allocation at LEA, school and partner level.

The decision to discontinue the EPD scheme after the three years of the pilot was made at the end of its second year. Following this, the purpose of the research altered slightly for the third year to focus more on drawing out the lessons of the EPD experience in order to contribute to thinking on professional development in the wider context.

1.2.2 The methodology

Evidence was garnered for the study via:

- annual case-study visits to three schools in each of the 12 EPD pilot LEAs
- an annual questionnaire survey of a sample of participating EPD teachers and their mentors in a wide range of schools within the EPD pilot LEAs
- a questionnaire survey of second and third year teachers in a comparative sample
 of schools in LEAs outside the EPD authorities, undertaken in the second year of
 the study only in order to compare the experiences and attitudes of teachers
 involved in the EPD pilot and those outside these areas.

Data collection took place in the summer terms of 2002, 2003 and 2004. This allowed participants in the research to reflect upon their experience of EPD across the full academic year (for those from the EPD pilot areas) or any professional development received during that school year (for those in the comparative non-EPD sample).

Further details of each phase of data collection are presented below.

The EPD case studies

The case-study school sample

The original aim of the case-study component was to follow schools' experiences throughout each of the three years of the EPD pilot. To this end, in the first year of the pilot, three schools from each of the 12 LEAs were selected to form a case-study sample of 36 schools. In 11 LEAs, the three schools comprised one secondary and two primary-equivalent; in the remaining LEA, one of the primaries was replaced by a special educational needs (SEN) school. In choosing the case-study sample, the criteria for selection was to ensure that the case studies were illustrative of the characteristics of the schools participating in the EPD scheme overall, in terms of: type of management (community, voluntary aided, etc.); attainment levels; level of eligibility for free school meals (FSM); and size (in terms of the number of pupils on roll).

Visits were made to the 36 selected schools in the first year of the pilot. Then, in year 2, return visits were made to 33 of the original 36 schools and first visits made to three new schools that replaced those withdrawing from the case-study sample. Reasons for withdrawal included: the EPD teacher having left the school; the EPD teacher on sick leave; and in the third case, a forthcoming OFSTED inspection, amalgamation and change of headteacher.

In the third and final year of the pilot, reflecting the change in the emphasis of the research towards drawing out the lessons of EPD to inform thinking at large on professional development, the criteria for the case studies was changed. The case-study sample was then re-selected on the basis of their EPD practices as stated in the questionnaires completed by their teachers in the second year of the pilot. Ten of the original case-study schools remained part of the sample and were visited again in this third year, and 26 new schools were chosen.

Over the course of the study, the case-study sample comprised four schools that had been designated by OFSTED as either being in 'special measures' (two) or as having 'serious weaknesses' (two).

Case-study interviewees

Interviews in the case-study schools were conducted with the following.

- In each year of the pilot, second year teachers participating in EPD were interviewed.
- In years 2 and 3 of the scheme, participating third year teachers were also interviewed wherever possible, those who had been interviewed as second year teachers the previous year.
- The mentors of the interviewed EPD teachers (if applicable).
- The staff member with an overview of the initiative at whole-school level the CPD/EPD coordinator.
- In year 3 of the study only, short interviews were also conducted with headteachers, wherever possible.

To provide the context of the EPD scheme in each of the 12 pilot areas, the LEA officer(s) responsible for coordinating the scheme in each authority were interviewed, as were any partners (e.g. higher education institute (HEI) personnel) with whom they had liaised in the running of the initiative.

Over the course of the evaluation, interviews were carried out with 555 people involved with the EPD scheme. Table 1 presents a breakdown of EPD interviewees according to their role. Following this, Table 2 sets out the number of second and third year teachers interviewed in the case-study primary, secondary and special schools. Table 3 gives details of the EPD teachers' gender.

Table 1 The breakdown of EPD interviewees by role

Interviewees	Year 1 (N)	Year 2 (N)	Year 3 (N)	Total (N)
EPD 2 nd year teachers	81	38	54	173
EPD 3 rd year teachers	/	62	43	105
Mentors	27	33	26	86
Coordinators	21	19	16	56
Joint coordinators/mentors	16	16	20	52
Lead tutors ⁴	4	3	1	8
LEA personnel	20	15	14	49
Partners	6	3	/	9
Headteachers	/	/	17	17
Total	175	189	191	555

Source: EPD evaluation: case-study interviews 2002, 2003 & 2004

Table 2 The breakdown of EPD teacher interviewees by school type

EPD teacher interviewees	Year 1 (N)	Year 2 (N)	Year 3 (N)	Total (N)			
PRIMARY - EQUIVALENT							
EPD 2 nd year teachers	45	16	27	88			
EPD 3 rd year teachers	1	36	17	53			
SECONDARY							
EPD 2 nd year teachers	35	19	27	81			
EPD 3 rd year teachers	1	25	25	50			
SPECIAL							
EPD 2 nd year teachers	1	3	/	4			
EPD 3 rd year teachers	1	1	1	2			
Total	81	100	97	278			

Source: EPD evaluation: case-study interviews 2002, 2003 & 2004

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⁴In one of the pilot LEAs, 'lead tutors' were part of the approach to EPD. Each school was allocated a 'lead tutor', an individual, usually from another school, who coordinated the EPD scheme within a defined geographical area.

Table 3 The breakdown of EPD teacher interviewees by gender

EPD teacher interviewees	Year 1 (N)	Year 2 (N)	Year 3 (N)	Total (N)
Male	17	24	24	65
Female	64	76	73	213
Total	81	100	97	278

Source: EPD evaluation: case-study interviews 2002, 2003 & 2004

Observations

Over the course of the pilot, 16 professional development observations were conducted to provide contextual and in-situ evidence of EPD-funded activities. This involved attendance at ten full-day courses and six twilight sessions attended by EPD teachers. Of these 16 professional development sessions, 13 had been staged specifically for EPD teachers and three were courses that were open to all teachers. Notes were made during the observations and handouts collected, but the researcher played no direct part in events.

The EPD questionnaire survey

In order to canvass the views of a large number of participants in the EPD scheme, a postal questionnaire survey was conducted, the target of which was EPD teachers and their mentors. Below we explain: the rationale for the survey sample selection; the questionnaire design; the administration of the surveys; the response rates achieved; and the main characteristics of the EPD teacher and mentor survey respondents.

The EPD survey sample

The EPD questionnaire survey was longitudinal. In the first year of the pilot, the survey concentrated on second year teachers and their mentors only. This cohort of second year teachers was then followed through into year 2 of the pilot and surveyed as third year teachers. In addition, in year 2, a new cohort of second year teachers was picked up and surveyed. For year 3, these second year teachers were tracked through into their third year of teaching, and another new cohort of second year teachers was included. Table 4 illustrates the progression of the cohorts during the evaluation. The target set for each cohort comprised 1,600 teachers and mentors, as shown in Table 5.

Table 4 Cohorts for the surveys of EPD teachers and mentors

	Year of evaluation						
	Year 1 Year 2 Year 3						
Second year teachers	Cohort 1	Cohort 2	Cohort 3				
Third year teachers	-	Cohort 1	Cohort 2				

Table 5 Target questionnaire distribution over the three years of the evaluation

Year 1	1600 second year teachers (Cohort 1) and mentors
Year 2	1600 second year teachers (Cohort 2) and mentors 1600 third year teachers (Cohort 1) and mentors
Year 3	1600 second year teachers (Cohort 3) and mentors 1600 third year teachers (Cohort 2) and mentors

One of the purposes of the survey was to compare the differing approaches to EPD across the 12 pilot LEAs. Therefore, when selecting schools from which to take the teachers and mentors for the survey sample, the original rationale was to include roughly equivalent numbers of schools per LEA. The 12 pilot authorities very kindly provided details of all participating EPD teachers and their mentors. From this, it was calculated that the required sample sizes could be reached by including a target of 29 primaries and ten secondaries per LEA. As five authorities did not contain the required number of schools, the shortfall was made up by oversampling in the larger LEAs. In years 2 and 3, when new cohorts of second year teachers were added to the sample, they were taken from the same schools as the third year teachers, wherever possible.

The design of the EPD questionnaires

For years 1 and 2 of the evaluation, four survey instruments were devised: primary teacher questionnaire, secondary teacher, primary mentor and secondary mentor. Each instrument was eight pages in length, and the primary versions differed from the secondary versions by only one question – an item on year group taught. In the third year of the pilot, primary and secondary versions of the teacher questionnaire were amalgamated and shortened to four pages. Similarly, the primary and secondary mentor questionnaires were merged and shortened.

To monitor developments in respondents' views over the course of the pilot, the same wording was used for questions each year. In their responses, teacher and mentors were asked to focus upon EPD in that academic year.

The EPD teacher questionnaire contained the following items:

- their year of teaching and the effectiveness of the their Initial Teacher Training (ITT) and their induction year
- experience of EPD that academic year e.g. mentoring arrangements and the foci and mode of delivery of EPD-funded activities (including ratings of their effectiveness)
- perceived outcomes of EPD for themselves
- the manageability of the scheme for themselves (years 1 and 2 only)
- the most valuable aspects of the initiative and suggestions for improvement (years 1 and 2 only)

• background details: age, gender, ethnicity, ITT route, subjects/year group taught, roles in school (years 1 and 2 only).

The EPD mentor questionnaire contained the following items:

- length of service in the teaching profession and role in school
- experience of EPD in that academic year, including the method by which they became an EPD mentor, previous experience of mentoring, any training and guidance received for their role and the support they provided to their mentee(s)
- perceived outcomes of EPD for their mentees, for themselves as mentors and, in years 2 and 3 only, for their school
- the manageability of the scheme for themselves and, in years 2 and 3, the amount of time they spent on their mentoring role (including specific non-contact time)
- the most valuable aspects of the initiative and suggestions for improvement (years 1 and 2 only)
- background details: age, gender, ethnicity (years 1 and 2 only).

The administration of the EPD surveys

In the May of each year of the pilot, following a courtesy letter to the headteacher, NFER's survey administration department, Research Data Services (RDS), despatched the questionnaires, with a covering letter and a reply paid envelope, individually labelled to the teachers and mentors in the survey-sample schools. In instances where there were no named mentors, a 'mentor pack' was included with the teacher letter for the teacher to pass on to their mentor, if applicable. In the June and July of each year, reminder letters and faxes were sent, and telephone calls made, to non-respondents.

EPD survey response rates

The above methods produced:

990 returns in year 1
 1,665 returns in year 2
 1,880 returns in year 3
 a response rate of 62 per cent a response rate of 59 per cent.

Appendix 2 presents details of the response rates for all three years of the pilot broken down by the instrument type used.

The characteristics of the EPD survey respondents

EPD teacher survey respondents

The characteristics of the EPD teacher survey respondents for all three years of the pilot are presented in Table 6.

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⁵In year 1, the survey involved second year teachers and their mentors only. In years 2 and 3, both second and third year teachers and mentors were included.

Table 6 The characteristics of EPD teacher survey respondents

EPD teachers	Year 1		Ye	ar 2	Year 3		
	(N)	(%)	(N)	(%)	(N)	(%)	
PHASE OF SCHOOL							
Primary	341	55	589	50	685	50	
Secondary	276	45	590	50	678	49	
SEN / PRU	3	1	10	1	10	1	
Total	620	100	1189	100	1373	100	
YEAR OF TEACHING							
Second year	620	100	560	47	710	52	
Third year	1	/	629	53	663	48	
Total	620	100	1189	100	1373	100	
GENDER							
Male	127	21	271	23	1	/	
Female	486	78	900	76	1	/	
Unknown	7	1	18	2	1	/	

Due to rounding, percentages may not sum to 100

Source: EPD evaluation: EPD teacher surveys 2002, 2003 & 2004

As the table shows, the EPD teacher survey sample was for the most part well balanced between primary and secondary respondents, and, in years 2 and 3, the sample was roughly evenly split between second and third year teachers.

In years 1 and 2 of the pilot, the EPD teacher questionnaire contained items covering respondents' characteristics such as age, ethnicity, ITT route, subject specialism, any role in school and, for primary teachers, year group taught. These items were removed in the third and final year of the evaluation in order to make the survey instruments shorter.

Full details of the characteristics of the EPD teacher survey respondents are given in Appendix 3. In brief though, in the first year of the evaluation, the greatest proportion of EPD teachers responding to the survey (44 per cent) was aged 25 years or younger. The year 2 EPD teacher sample was, on average, older, most likely because of the inclusion of third year teachers, with the greatest proportion (38 per cent) aged 26–30. Upwards of 90 per cent of EPD teacher survey respondents were white, with small numbers of Black African, Indian, Black Caribbean, Pakistani, Bangladeshi and Chinese. Both years, the most common route into teaching had been via a PGCE course (for around two-thirds of the samples), with around 20 per cent holding BA/B.Sc with QTS, and around 10 per cent, a B.Ed.

In the first and second years of the evaluation, representatives of all subject specialisms were part of the EPD teacher survey samples. The most common specialism at primary level was literacy, and at secondary level, sciences. Both years, there was a significant difference between primary and secondary teacher respondents in terms of their additional duties in school. Around 90 per cent of the primary teachers held an area of responsibility other than classroom teaching; almost double

the proportion of the secondary teacher sample. For the overwhelming majority of these primary teachers, this involved the coordination of a subject area. In year 2 of the evaluation, when third year teachers became part of the EPD survey sample, a breakdown of the data by year of teaching showed that markedly more third year teachers (80 per cent) than their second year counterparts (67 per cent) held extra responsibilities.

EPD mentor survey respondents

The characteristics of the EPD mentor survey respondents for all three years of the pilot are presented in Table 7.

Table 7 The characteristics of EPD mentor survey respondents

EPD mentors	Year 1		Year 2		Year 3		
	(N)	(%)	(N)	(%)	(N)	(%)	
PHASE OF SCHOOL							
Primary	242	65	278	58	304	60	
Secondary	125	34	192	40	197	39	
SEN / PRU	3	1	6	1	4	1	
Unknown	1	1	1	1	2	<1	
Total	370	100	476	100	507	100	
YEARS IN TEACHING							
2–6	36	10	52	11	42	8	
7–10	60	16	78	16	84	17	
11–20	108	29	145	30	148	29	
over 21	161	44	196	41	214	42	
Unknown	5	1	5	1	19	4	
Total	370	100	476	100	507	100	

Due to rounding, percentages may not sum to 100

Source: EPD evaluation: EPD mentor surveys 2002, 2003 & 2004

Table 7 shows that there were more primary than secondary mentors in the sample. This was not thought to be the result of a bias in the response rates towards primary mentors (after year 1, the response rates were even for primary and secondary mentors – see Appendix 2). Rather, the basis of selection for the mentor sample was to include the mentors of all the teachers in the EPD teacher sample. Therefore, the smaller number of the secondary mentors reflects the fact that mentors in secondary schools worked with a greater number of mentees than their primary counterparts (see section 4.3.2) and consequently, there were fewer overall involved in the survey.

In all three years of the pilot, the mentors in the survey sample had considerable experience in the profession – both in terms of their number of years in teaching and their current roles. As Table 7 shows, around 70 per cent of mentor respondents had been members of the teaching profession for more than ten years; the mean average being 19 years. Furthermore, mentors in primary schools were most often deputy heads or headteachers (around 60 per cent held these roles), whilst those in secondary

schools were most often heads of department (45 per cent of mentor respondents from these schools held this responsibility in year 1, 42 per cent in year 2 and 34 per cent in year 3). In each of the three years, around a quarter of the secondary mentors were deputy heads. In addition, at least four out of five mentors, each year, stated that they had acted as a mentor for colleagues previously, and by the final year of the pilot, three out of five had prior experience of mentoring second and third years teachers as part of the EPD scheme.

As was the case in the EPD teacher survey, in years 1 and 2, the mentor questionnaire survey included items covering respondents' other characteristics such as gender and ethnicity. In order to make the survey instruments shorter in the third year of the evaluation, these items were removed.

Full details of the characteristics of the mentor survey respondents can be found in Appendix 3. In sum, in both year 1 and year 2, three-quarters of mentors overall were female. This was predominately the case in primary schools, less so in secondary schools. In both years, mentors were predominately white (95 per cent or over), with small proportions of Indian, Black Caribbean, Black African and Pakistani.

Survey of a comparative sample of teachers in non-EPD LEAs

Year 2 of the EPD evaluation involved a questionnaire survey of a sample of second and third year teachers in schools outside the 12 EPD pilot LEAs. This afforded the opportunity to compare the attitudes and experiences of those who had experienced EPD and those who had not, thereby pointing to any added value of the EPD scheme.

The comparative teacher survey sample

In order to select the comparative teacher sample, the GTC very kindly gave NFER permission to use its database of teachers. The comparative teacher sample was designed to match the EPD teacher sample as closely as possible. Firstly, all second and third year teachers in England were identified by the date they achieved qualified teacher status (QTS) and from this, 3,000 were selected to the following specification.

- Like the EPD teacher sample, the comparative teacher sample included roughly
 equal numbers of primary and secondary teachers, with both these primary and
 secondary sub-samples then dividing evenly between second and third year
 teachers.
- As was the case with the EPD teacher sample, wherever possible, second and third year comparative teachers were drawn from the same schools as each other.
- The sample of schools from which the comparative teachers were drawn mirrored the schools in the EPD survey sample in terms of: LEA type (Inner London, Outer London, metropolitan, unitary, county); attainment levels (as measured by key stage 2 or key stage 3 national tests); size (number of pupils) and type of management (community, voluntary aided, voluntary controlled, foundation).

The design of the comparative teacher surveys

The comparative teacher questionnaire was a modified, shortened version of the EPD teacher questionnaire. The items in the comparative questionnaire mirrored those in the EPD teacher questionnaire, though as the comparative questionnaire respondents were outside the EPD pilot areas, there was no reference to EPD. Instead, the comparative questionnaire enquired about any professional development activities undertaken over the course of the academic year 2002–03, the same period covered by the questionnaire to the EPD teachers in year 2 of the pilot. Primary and secondary versions of the comparative questionnaire were produced.

Administration of comparative teacher surveys

As with the EPD sample surveys, the comparative teacher survey was administered by NFER's Research Data Services. Over 3,000 questionnaires were despatched in June 2003. Two reminder letters were sent to any non-respondents, one of which included a replacement copy of the questionnaire.

Comparative survey response rate

The above methods produced:

• 1,530 returns a response rate of 50 per cent.

Appendix 2 presents details of the response rate for the comparative teacher survey broken down by the two instrument types used.

The characteristics of the comparative teacher sample

The characteristics of the comparative teacher survey respondents are displayed in Table 8. The comparative survey was undertaken in the second year of the pilot and their responses contrasted with those of the year 2 EPD teacher survey sample (see section 2.4). Therefore, the characteristics of these EPD teachers are also presented in the table to show the degree of similarity between the constituents of the two samples.

Table 8 The characteristics of comparative teacher survey respondents and year 2 EPD teacher survey respondents

	Comparative teachers			eachers ar 2			
	(N)	(%)	(N)	(%)			
PHASE OF SCHOOL							
Primary	657	43	589	50			
Secondary	863	56	590	50			
SEN/ PRU	10	1	10	1			
Total	1530	100	1189	100			
YEAR OF TEACHING							
Second year	857	56	560	47			
Third year	673	44	629	53			
Total	1530	100	1189	100			
GENDER							
Male	330	22	271	23			
Female	1199	78	900	76			
Unknown	1	<1	18	2			

Due to rounding, percentages may not sum to 100

Source: EPD evaluation: comparative teacher survey 2003 & EPD teacher survey 2003

As Table 8 shows, there were some differences in the constituents of the EPD and comparative teacher samples, with the comparative sample comprising a greater proportion of secondary school teachers and second year teachers. Because of these differences, when contrasting the responses of EPD and comparative teachers, statistical tests were conducted to establish whether any variation in the ratings of the two groups was independently associated with participation in EPD rather than being attributable to the differences in the make-up of the EPD and comparative samples (see section 2.4.3).

Like the year 2 EPD teacher questionnaire, the comparative teacher questionnaire contained items covering respondents' characteristics such as age, ethnicity, ITT route, any role(s) in school, year group taught for primary teachers and subject specialism for secondary teachers.

Full details of the characteristics of the comparative teacher survey respondents are given in Appendix 3 next to those of the year 2 EPD teachers. To sum up briefly though, the comparative teacher sample was, on average, slightly younger than the year 2 EPD teacher sample, perhaps because of its higher proportion of second year teachers. The greatest proportion of the comparative teacher sample (40 per cent) was aged 25 or younger (the corresponding proportion for the year 2 EPD teacher sample was 32 per cent). The EPD teachers and the comparative teachers took almost identical routes into teaching, with two-thirds of both samples undertaking PGCEs.

As with the year 2 EPD primary sample, the primary comparative sample included teachers of all year groups. Also mirroring EPD teachers, sciences were the most

common subject specialism⁶ of the secondary comparative sample. A similar proportion of the comparative and EPD teacher survey respondents held extra roles in school (71 per cent and 74 per cent respectively). As was the case in the EPD teacher sample, third year teachers and primary teachers in the comparative sample most often cited additional duties.

1.2.3 Analysis

EPD case-study data

All case-study interviews were recorded and transcribed verbatim or summarised. Analysis was undertaken using MAXQDA, a software package to assist qualitative data analysis.

EPD survey data

To aid comparability over the course of the study, open-ended questionnaire items were coded by the same researcher each year, using coding frames developed in the first year of the evaluation and only modified as necessary to include newly emerging themes in subsequent years. The results were computer entered, and analysed by the project statistician using SPSS.

In the first and second years of the pilot, in the statistical analysis EPD teachers' responses were merged across the two instrument types (the primary teacher and secondary teacher questionnaires), and basic frequencies for the whole EPD teacher sample were produced. This was repeated with the mentor surveys. This allowed the research team to examine firstly the perceptions of all EPD teachers and then all mentors regardless of their phase of school. For the third year of the evaluation, there were just two instrument types (a teacher questionnaire and a mentor questionnaire) so frequencies for the entire EPD teacher sample then mentor sample could be produced without the need to merge instruments.

Following the production of basic frequencies, in each year of the evaluation, the teacher and mentor data were then disaggregated by LEA and by school type (primary, secondary, special) to establish whether the LEA approach or phase of school affected their experience and views of the EPD scheme. In years 2 and 3 of the study, teacher responses were also analysed according to their year of teaching (second or third year).

Correlations and multivariate analyses were used to examine how respondents' personal characteristics and EPD experiences related to the outcomes they derived as a result of their participation in the scheme. These techniques were employed to identify the factors leading to outcomes from EPD for teachers and retention in the teaching profession (Part three), and impacts for mentors (Parts two and three).

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⁶Because of space restrictions in the survey design, only secondary teachers in the comparative sample were asked to state their subject specialism.

In all analyses, the research team compared responses across the three years of the pilot in order to chart any developments in the EPD scheme over that period.

Comparative survey data

As far as possible, the coding frames and analysis procedures used in the analysis of the EPD survey data were used for the comparative questionnaires in order to facilitate comparability.

1.2.4 Structure of the report

Following this introductory section (Part one), there are three further parts to this report, a conclusion and appendices.

Part Two What teachers and schools gained from Early Professional

Development

The outcomes of EPD for teachers early in their careers, for schools, for mentors and for the teaching profession

Part Three Achieving outcomes from Early Professional Development

The factors found to be instrumental in attaining outcomes for second and third year teachers

Part Four Effective practices in Early Professional Development

A discussion of the above factors influential in generating outcomes for teachers, setting out the elements found to work well and any associated issues

Conclusion

Appendices

- A cost-effectiveness analysis of the EPD scheme in the 12 pilot LEAs
- 2. EPD and comparative sample response rates
- 3. Characteristics of the EPD and comparative samples
- Teachers' ratings of the effect of the EPD scheme on themselves in specified areas in each of the three years of the pilot

When percentages are reported in the following Parts, it is the percentage of respondents to the question that is given, unless otherwise stated.

Part Two

What teachers and schools gained from Early Professional Development

Part two of this report considers the impact of EPD as reported by teachers, mentors and school senior managers participating in the scheme, and also by contrasting the responses of EPD teachers with a comparative sample of teachers outside the pilot authorities. It sets out:

- 2.1 The outcomes of EPD for teachers
- 2.2 The outcomes of EPD for schools
- 2.3 The outcomes of EPD for mentors
- 2.4 The outcomes of EPD for the teaching profession

2.1 The outcomes of EPD for teachers

2.1.1 The evidence base

During the course of the pilot, evidence of the impact of EPD on participating second and third year teachers was collected through interviews with teachers in case-study schools and also through the annual surveys of EPD teachers and mentors, which sought to assess the effect on their practices and attitudes in a variety of ways.

In each of the three annual questionnaires -

- 1. Teachers were asked to rate the extent of the overall impact of EPD on their professional practices on a scale of 1 (no effect) to 6 (great effect).
- 2. Teachers were given a list of pre-selected outcomes and required to rate on a similar six-point scale the extent to which EPD had affected their attitudes and practices in these areas. The mentor questionnaires contained the same list of outcomes, and mentors were asked to rate the extent to which EPD had affected their mentees in these areas.

And in the first two annual questionnaires only -

3. Teachers were also asked whether or not the EPD experienced during that school year had had any impact on them. If they responded positively, they were then requested to state what the 'main impact' had been. If they answered negatively, they were invited to explain the reasons why EPD had had no outcomes for them.

The responses to these three survey items as well as the accounts of the case-study teachers are presented below in the following two sections.

Section 2.1.2 The overall impact of EPD on participating teachers

Section 2.1.3 The type of impacts derived from EPD

2.1.2 The overall impact of EPD on participating teachers

Over the three years of the pilot, there was strong evidence that the EPD scheme had a very positive impact for participating teachers. Furthermore, as the scheme became embedded, the levels of reported impact rose year-on-year and the benefits became more widespread throughout the teacher sample.

In the EPD teacher questionnaire, when rating on a six-point scale, 'the extent to which the EPD you have taken part in has affected your professional practices overall' (1 = no effect; 6 = great effect):

- in the first year of the pilot, 61 per cent of teacher survey respondents registered that EPD had impacted on them to a considerable degree, that is, they rated its effect as 4, 5 or 6 out of 6
- in the second year, 74 per cent of teacher survey respondents felt that EPD had had a considerable impact on them
- in the final year, more than three-quarters (77 per cent) of teacher survey respondents regarded EPD as considerably affecting their practices
- thus, from the first to the final year of the pilot, there was a substantial increase of 16 percentage points in the proportion of teachers for whom the impact of EPD had been considerable.

Teachers' responses to a second question in the survey provided further confirmation of the impression that EPD had made on the vast majority of participants. When asked 'Has the EPD you have taken part in had any impact on you this school year?':

- in the first year of the pilot, 77 per cent of teacher respondents answered affirmatively, concluding that EPD had impacted on them in some way
- in the second year of the pilot, 84 per cent answered positively, constituting a rise of seven percentage points in the proportion of teachers offering this response from the previous year.

Thus, the data established that the impact of EPD for participating teachers was substantial and rising, with over three-quarters of teacher survey respondents avowing that EPD had a considerable effect on their professional practices in last year of the pilot.

2.1.3 The type of impacts derived from EPD

Documented above were teachers' perceptions of the overall impact of EPD on themselves, but how exactly were their practices and attitudes affected? This section explores the ways in which they perceived they had benefited from the EPD scheme and also discusses variations in the effects derived, depending upon the characteristics of the teacher (e.g. years in teaching). Firstly though, before embarking on the actual outcomes generated by EPD, it should be acknowledged that some teachers cited as

'impacts', specific elements of their access to and experience of the EPD pilot. These are considered first.

Seeing the provision and experience of EPD as an 'impact'

As highlighted earlier, when asked in the survey, 'Has the EPD you have taken part in this school year had any impact on you?', 77 per cent of teachers in year 1 and 84 per cent in year 2 answered 'Yes'. Those answering affirmatively to this initial question were then invited to explain, 'What has been the main impact of the EPD for you this school year?'. In response to this open enquiry, a substantial proportion of respondents actually identified a component of the EPD scheme itself as a 'main impact'. Half of those responding to this question in year 1 and two-fifths in year 2 cited at least one of the following aspects:

- the opportunity to access additional professional development (e.g. the funding to attend courses, non-contact time, observations, support)
- the freedom to choose the professional development pursued and to follow up areas of personal need and interest
- the opportunity to network professionally
- enjoyment of the provision, mentor support and the opportunity to gain accreditation.

The proportion of teachers citing aspects of their experience of EPD as a 'main impact' decreased over the first two years of the pilot, suggesting that these process impacts were superseded in some cases by the outcomes related to teachers' thinking, practices and careers in the scheme's second year. None the less, the substantial proportion of teacher survey respondents highlighting a constituent of the EPD scheme as a main impact in years 1 and 2 indicates that many saw one of its principal strengths as being the distinct approach that it offered to professional development.

The range of impacts derived from EPD

This section establishes the areas in which EPD was perceived to have had the greatest effects for participating teachers over the course of the pilot. This will be considered by examining teachers' responses to a closed question and an open-ended item in their questionnaire, both of which probed views on the impact of EPD.

In each of the three annual questionnaire surveys, teachers were given a list of possible outcomes and asked to rate on a six-point scale (1 = no effect; 6 = great effect) the extent to which EPD had affected their practice and attitudes for each. This closed question allows us to consider the responses of the whole teacher survey sample over a range of given areas. The percentages of teacher survey respondents registering that EPD had had a considerable effect on them in each area (a rating of 4, 5 or 6 out of 6) are given in Table 9. (The full results of this closed question for each year of the pilot are presented in Appendix 4.)

Table 9 The proportion of teachers registering that EPD had had a considerable effect in specified areas in each of the three years of the pilot (The table shows the percentage of teachers circling 4, 5 or 6 on a six-point scale.)

(Scale: 1 = no effect; 6 = great effect)

Type of impact	Considerable effect 2004 (% of teachers)	Considerable effect 2003 (% of teachers)	Considerable effect 2002 (% of teachers)	Increase from 2002–2004 (Percentage points)
Enhancements to your pupils' learning	78	/	1	N/A
Enhanced willingness to undertake professional development	75	73	65	+10
Contribution to your colleagues and the school	74	72	61	+13
Actual teaching practice	74	72	61	+13
Thinking on how you would like your career to develop	73	72	1	N/A
Understanding as to what constitutes good teaching practice	72	67	63	+9
Enhanced commitment to teaching as your career	70	63	54	+16
Knowledge of subject(s) you teach	64	61	44	+20
Improvements to your morale and wellbeing	63	62	52	+11
Ability to take on leadership roles	62	61	50	+12
Access to resources and materials	61	58	48	+13
Knowledge and skills related to classroom management	57	56	52	+5
Ability to teach different pupils	1	53	45	N/A

Base: 2004 survey: 1312–1320; 2003 survey: 1103–1100; 2002 survey: 568–577

Source: EPD evaluation: EPD teacher surveys 2002, 2003 & 2004

In the questionnaires for years 1 and 2, teachers who had responded positively to the initial enquiry, 'Has the EPD you have taken part in had any impact on you this school year?' were then asked in an open-ended question to state the 'main impact' of EPD for them. This open question gave teacher survey respondents the opportunity to answer freely, if not at length (space restrictions in the design of the questionnaire meant that only two lines were available for responses). Teachers were able to identify up to four 'main impacts' in order to establish their unprompted perceptions of the effects of EPD. Alongside citing aspects of the experience of EPD as 'impacts' (as discussed earlier), teachers nominated a range of actual effects on their professional practices and attitudes as the result of EPD. Table 10 presents the percentage of teacher respondents who nominated each impact the first two years of the pilot.

Table 10 Teachers' nominations of the 'main impacts' of EPD in the first and second years of the pilot (open question)

(The question posed was, 'What has been the main impact of the EPD for you this school year?'. Teacher respondents only answered this if they had answered 'yes' to the prior question, 'Has the EPD you have taken part in this school year had any impact on you?'. Therefore, the percentages shown below are calculated from the number of teachers who had responded affirmatively to this initial enquiry.)

Main impacts	Teachers 2003	Teachers 2002
	(%)	(%)
New teaching practices	33	30
Enhancement of subject knowledge and skills	18	13
Development of the attributes for a new role	18	10
More focused on career planning	14	15
Increased confidence	11	10
Rising standards in pupil performance	8	4
Better awareness of professional development needs	7	9
Making a contribution to the school	6	/
More reflective about own practices	5	6
More resources	4	4
Feel valued	4	4
Increased motivation	3	5
Improved general working practices (e.g. time management)	2	4
Greater awareness of education systems	2	/

Teachers were able to give more than one impact, so percentages do not sum to 100

Base: 2003 survey: 970; 2002 survey: 468

Source: EPD evaluation: EPD teacher surveys 2002 & 2003

Looking first at responses to the closed question and taking the results of the final year of the pilot (2004) as an example, it can be seen in Table 9 that EPD impacted on the greatest number of teacher survey respondents in the following five areas:

• 'enhancements to your pupils' learning' (78 per cent)

- 'an enhanced willingness to undertake professional development' (75 per cent)
- 'contribution to colleagues and school' (74 per cent)
- 'actual teaching practice' (74 per cent)
- 'thinking on how you would like your career to develop' (73 per cent).

'Enhancements to your pupils' learning' was an addition to the year 3 questionnaire and on entry, it took pole position in the rankings, with the highest proportion of teacher respondents of any year rating the impact as considerable (i.e. at 4, 5 or 6 out of 6). Meanwhile, the following three outcomes – 'enhanced willingness to undertake professional development', 'contribution to colleagues and school' and 'actual teaching practice' – were among the top five impacts in each year of the pilot.

As can be seen from Table 9, for all outcomes, the proportion of teachers registering that EPD had had a considerable impact rose markedly over the three years of the pilot. The areas that showed the greatest gains were 'knowledge of the subjects taught' (an increase of 20 percentage points between the first and final years) followed by 'commitment to teaching' (+16 per cent) and 'contribution to colleagues and school', 'actual teaching practice' and 'access to resources and materials' (each +13 per cent).

Turning now to the open-ended question, where teachers were free to nominate what they regarded as the main impact of EPD, Table 10 shows that the outcome most commonly cited was the discovery of new teaching practices. This was volunteered by approximately one-third of all teachers responding to this enquiry in the first two years of the pilot. In year 1, the second most frequently identified 'main impact' was an increased focus on career planning (15 per cent of respondents) followed by the enhancement of subject knowledge and skills (13 per cent). In year 2 of the pilot, these rankings changed slightly, with the development of attributes for a new role and enhancement of subject knowledge and skills sharing second place: each volunteered by 18 per cent of those responding to the question. Both these impacts showed the largest increases in nominations between the first and second year of the pilot, rising by eight and five percentage points respectively. Increased focus on career planning, previously the second most frequently identified 'main impact', took third position in the year 2 survey. In both years 1 and 2, increased confidence was the fourth most commonly cited main impact (alongside the development of attributes for a new role in year 1).

At this point, it is worth reiterating some of the key findings to have surfaced from the surveys of EPD teachers so far. In the final year of the pilot, at least 70 per cent of teacher respondents indicated that the impact of EPD had been considerable in seven out of 12 specified areas. Furthermore, for each of the 12 areas, the majority of teacher respondents in both the second and third years of the pilot awarded considerable effect ratings. It was only in its first set-up year that for three areas, the proportion of teachers citing a considerable effect was below 50 per cent. Thus, the effect of EPD was both substantial and, drawing together the responses from the open and closed questions, extensive, in that it impacted on many facets of teachers' professional experience: participants' confidence, their teaching practice, their career development and learning, and their contribution to their colleagues, the school and pupils. These findings are based on teachers' self assessments of EPD and its impact.

We will now consider whether teachers' evaluations were substantiated by their mentors.

In order to corroborate the impacts reported by teachers, the annual questionnaire to mentors also contained a question where respondents were given the same list of outcomes that appeared in the teacher questionnaire and were asked to rate the extent to which EPD had affected their mentees in these areas. The results are presented in Table 11. With two exceptions (the impact on teaching practice and very marginally, pupils' learning), perceptions that EPD had a considerable effect on participating teachers' practice and attitudes were actually more common amongst the mentor sample than the teachers themselves. This was especially the case in terms of improvements in teachers' morale and classroom management skills. Hence, mentor respondents' perceptions of the impact of EPD on their mentees strongly supported, and indeed exceeded, teachers' own views.

Table 11 The proportion of mentors registering that EPD had had a considerable effect on their mentees in specified areas in each of the three years of the pilot

(The table shows the percentage of teachers circling 4, 5 or 6 on a six-point scale.) (Scale: 1 = no effect; 6 = great effect)

Type of impact	Considerable effect 2004 (% of mentors)	Considerable effect 2003 (% of mentors)	Considerable effect 2002 (% of mentors)
Willingness to undertake PD	83	80	77
Contribution to colleagues & school	78	75	72
Actual teaching practice	71	68	62
Thinking re career development	82	81	/
Understanding of teaching practice	80	76	71
Enhancements to pupils' learning	77	1	/
Enhanced commitment to teaching	76	70	65
Improvements in morale	75	74	69
Ability to take on leadership roles	69	68	67
Subject knowledge	71	68	63
Access to resources & materials	72	65	63
Classroom management	73	67	69
Ability to teach different pupils	1	60	62

Base: 2004 survey: 424–459; 2003 survey: 377–436; 2002 survey: 296–336

Source: EPD evaluation: EPD mentor surveys 2002, 2003 & 2004

How EPD impacted on different types of teacher

Having considered the impacts to emanate for EPD teachers overall, further analysis was undertaken to ascertain whether there were any differences in the reported impacts depending on a teacher's characteristics, in terms of the type of school they taught in, their number of years in teaching and route into teaching.

Whilst ratings for the overall impact of EPD were high across both primary and secondary schools, they were found to be slightly more positive amongst primary teachers responding to the survey in each year of the pilot. For example, in year 3, a larger proportion of primary teachers (80 per cent) than their secondary colleagues (75 per cent) registered that EPD had considerably affected their practices overall.

There were specific areas, too, where there were small but significant differences between the outcomes reported by primary and secondary teacher respondents. An analysis by school type of the impact of EPD over 12 areas (the closed question) showed that in all three years of the pilot, primary teachers gave significantly higher ratings for the impact on their 'knowledge of subjects taught', 'ability to take on leadership roles', 'knowledge and skills related to classroom management' and 'understanding what constitutes good teaching practice'. For example, 60 per cent of the primary teachers rated as considerable the impact of EPD on classroom management, compared with 54 per cent of the secondary teachers.

How can these differences be explained? Firstly, primary teachers were, quite logically, reporting higher impacts in those areas in which they more often focussed their professional development (i.e. teaching literacy, preparing for a managerial role – see section 4.1.2). Another explanation could be the degree of autonomy experienced by primary and secondary EPD teachers. It will be shown in Part three of this report that the more control teachers had over their EPD choices, the greater the impact on their practice and attitudes. And, compared with their secondary colleagues, primary teachers did, in fact, register significantly higher levels of involvement in selecting their EPD.

The impact of EPD was examined further for variation by year of teaching (i.e. second year compared with third year teachers) and by route into teaching (PGCE or BA/B.Sc with QTS or B.Ed or other e.g. Graduate Teaching Programme or overseas qualifications). Over the two years of the study that included both second and third year teachers (2003 and 2004), there were no consistent significant differences in the outcomes reported by the two groups. Similarly, no association was found between participants' route into teaching and the impacts derived from EPD in any year of the study.

To sum up what has been gleaned from the questionnaire data, in the final year of the pilot, three-quarters of teacher respondents deemed that EPD had had a considerable effect on their professional practices overall. In terms of the nature of the outcomes derived, teachers' responses over the three annual surveys signalled that EPD had a substantial impact on them across many aspects of their own working lives, particularly their teaching practice, career development and professional learning, as well as benefiting their colleagues, the school and their pupils' learning. These findings were corroborated by their mentors. Further, the level of reported impact rose over the course of the pilot, with one of the largest increases being participants' commitment to the teaching profession (by 16 percentage points between the first and final year of the pilot). The EPD survey data have therefore shown the extent of impact and the main areas affected by EPD. We will now turn to the case-study data to exemplify the varied character of these impacts.

The range of impacts derived from EPD: case-study illustrations

In assessing the type of impacts to arise from the EPD scheme, a second source of evidence comes from the face-to-face interviews conducted with EPD teachers in the case-study schools over the three years of the pilot. The survey data indicated that amongst the areas to benefit most from EPD were pupils' learning, teaching practice, career development and professional learning, and contribution to colleagues and the school. The impacts for the school and pupils are discussed in section 2.2, therefore this section takes the outcomes for teaching practice and career development and, drawing on the case-study interviews, conveys the various dimensions of these impacts and how they were experienced by participating teachers.

Throughout the discussion, consideration is given to the interaction between effects. In their model of CPD outcomes, Kinder and Harland (1991); Harland and Kinder (1997) proposed that the effects of professional learning were interrelated and that developments in one area often facilitated development in another. Such relationships are examined here by identifying the outcomes that appeared to precipitate or follow the emergence of effects on teaching practice and career development.

Impact on teaching practice

The impact on teaching practice was the most frequently reported main impact of EPD among case-study teachers. Analysis of their accounts showed this impact was experienced in a number of ways. On one level, through the pursuit of EPD, participants had gained confirmation that their existing teaching practice was appropriate and effective at a time when they were lacking confidence in their abilities as a new teacher. In other cases, EPD had stimulated reflection of their existing teaching repertoire and helped them identify areas for development. Then, there were numerous examples of teachers who believed that EPD had, undoubtedly, led to advancements in their classroom practices: through the various professional development activities they had undertaken, EPD teachers spoke of how they encountered new approaches, which were subsequently incorporated into their daily teaching.

Impact on teaching practice: confirmation of practice

It's things like I'm more confident that I'm doing the right thing in my classrooms because I've looked at what I do in classrooms with a whole bunch of other people, plus a tutor there to help you talk about it. So it gave me a lot of confidence that you're doing the right thing and just because you're doing it slightly different to how someone who's been doing it for a long time, doesn't make you wrong (Teacher, secondary, year 3 case-study data).

Impact on teaching practice: reflection on teaching practice

I am developing the schemes for key stage 3 and that has made me think about looking at other sources, and think about different ways to teach a topic and I am bringing variety into my teaching (Teacher, secondary, year 2 case-study data).

Impact on teaching practice: discovery of new teaching practices

A lot of the courses I've been able to go on give you new ideas for teaching, give you new ways of teaching. This year, another course I've done was a differentiation course looking at teaching disabled kids PE, which really opened up my eyes. We've got a few kids in this school who have special needs, and it's really opened my eyes up when I'm teaching them in lessons, how to include them, how to adapt the lesson so that they can be just as much a part as the next person. So it's definitely improved my teaching (Teacher, secondary, year 3 case-study data).

Impact on teaching practice

Definitely with design and technology, I've got a better understanding so ... my teaching of that area has improved, and also giving advice to other year groups, I feel like I'm able to do that more now because I kind of know what I'm talking about. It's definitely helped with my coordinating role (Teacher, primary, year 3 case-study data).

Part four will consider the professional development activities (e.g. courses, observation, etc.) that may have resulted in these enhancements of teaching practice. It is interesting to note, however, that improved teaching practice also appeared to emerge from other effects derived from EPD participation. For example, the testimonies of EPD teachers illustrated how acquiring new resources (e.g. laptops, interactive whiteboards, digital cameras, books) culminated in an enhancement of teaching practice. Not only that, but these benefits were seen to radiate to other teaching staff (thus making this a school outcome) and to their pupils. Interviewees also spoke of having gained a deeper understanding of what constituted good practice and by questioning their existing values, their approach to teaching had developed and their reflection on their practice had deepened. Similarly, exposure to new subject knowledge and skills had the effect of refreshing and enhancing teachers' classroom practice.

Impact on career development

A second major category of effects related to teachers' career development and their professional learning. In the final year of the pilot, 'thinking on how you would like your career to develop', 'enhanced willingness to undertake professional development' and 'commitment to teaching as career' received the highest percentages for great effect i.e. teacher respondents circling 6 on the 1-6 scale (see Appendix 4). Thus, in addition to the immediate benefits of refined teaching practice, EPD also set in motion long-term gains with respect to teachers' future career progression. Again, the case-study interview data allows us to consider the precise ways in which teachers experienced these career-related effects.

Through reading teachers' stories, it is possible to trace a continuum of career impacts, from simply being given the time to contemplate various career options,

through to actual promotions that teachers attributed directly to the opportunities they had pursued through EPD. Taking each in turn, interviewees explained that EPD had increased their awareness or that they had gained advice on career options in terms of the different paths they could potentially follow. Others felt they were in a better position to plan their careers now that they had identified their strengths and weaknesses. Some teachers were already decided on their chosen career path but it was the opportunities provided through EPD that allowed them to move forward and work towards their goals. And finally, in some instances, these goals had already been accomplished and teachers reported actual progression, in terms of promotion or taking on additional responsibilities. For example, the last teacher quoted below believed that the EPD-funded courses he had attended to support his role as subject coordinator had resulted in a promotion.

Impact on career: raised awareness of career options

Definitely one of the most valuable aspects is the fact that it's made me think about my role as a teacher and to focus on it being more as a career and something that you can continue to, like, improve on your own knowledge and learning and your width of expertise really. I think it's helped a lot in terms of telling me these things [career paths] that I can do ... it's given me the chance to go 'I want to do it and I can do it,' so that's been the best thing really (Teacher, secondary, year 3 case-study data).

Impact on career: opportunity to plan career

I think it [EPD] gives you that time out to focus on 'What do I want to do?' and 'How do I see myself in five years?'. So it gives you that time where you can do that rather than just teaching and just getting through your day-to-day teaching. It gives you time to focus on what you want to do (Teacher, primary, year 3 case-study data).

Impact on career: confirmation of career plans

I think because of looking at all aspects [of the teaching profession] through the EPD meetings and so on, and seeing what is the right path for me, looking at the whole career ... it's definitely confirmed to me where my strengths are, and where I'm heading. I mean, the post I'm picking up basically is teaching outreach, four days a week in primary, and I can see within, say five years, I probably should be looking at teaching head of maths at a middle school (Teacher, secondary, year 3 case-study data).

Impact on career: opportunity to develop

I have a firm idea about what I want to do and where I want to go. I know that at some point ... I want to end up being a head of department. I certainly have ideas about where I want to go and what I want to do. And I've had that all along. So it [EPD] hasn't helped me set any targets or anything like that, but it has helped me in that it's given me the opportunity to develop the areas that I need to develop in order to achieve that (Teacher, special school, year 3 case-study data).

Impact on career: career progression

I got a promotion here and that was helped by the subject coordinator stuff [focus of his EPD]. I did a staff meeting on it and that helped, and it also did a lot for my confidence. I applied for jobs elsewhere as well and then they gave me the promotion here for next year. It has helped me understand my options. I came into teaching ... but I really didn't know what the career development was particularly in terms of career paths (Teacher, primary, year 3 case-study data).

On a personal level then, EPD was found to assist teachers in their career planning and development. Benefits were also seen to materialise for the profession as a whole. Survey and case-study data supported the notion that the scheme made a contribution to improving teacher retention, as levels of commitment were boosted by EPD participation (the impact of EPD on retention in the teaching profession is also considered in section 2.4.3).

Impact on career: commitment to teaching

When you're feeling down just because of the job, going to the courses and having the EPD means that you aren't going 'Oh, when am I going to leave teaching?'. You might be saying 'Oh, where am I going to go? Where's the next job?'. But it stays in teaching. I do think it's [EPD] influenced that (Teacher, secondary, year 3 case-study data).

If teacher retention remains an ongoing concern, it is perhaps worth considering how the EPD scheme managed to generate higher levels of commitment amongst participating teachers. We will return to this in Part three, but in terms of the chain of effects arising from EPD, improved morale seemed to act as a precursor to increasing teachers' commitment to the profession. Interviewees who expressed a desire to remain in teaching frequently spoke of feeling valued because of the EPD scheme and this sense of importance and status made them more content in their working lives.

Improved morale and feeling valued > commitment to teaching

Well, I just think that compared to other teachers in their third year of teaching who aren't on an EPD programme, I feel that somebody, somewhere is committed to me staying in teaching and they've actually put money there for me and ... I feel privileged. It makes me feel that there is an investment in my future (Teacher, primary, year 2 case-study data).

Improved morale and feeling valued → commitment to teaching

It has sort of made me feel quite important that I am doing EPD and that somebody is investing some time in helping me think about sort of fast-tracking myself in this career (Teacher, primary, year 2 case-study data).

Closely associated with higher levels of morale was the boost in confidence that teachers could gain from their EPD experiences. As a result of undertaking professional development, teachers felt better equipped with the requisite skills for teaching and, as a result, were more certain that they were in the 'right job'. Moreover, they suggested that this self assurance would help propel them onto the next rung of the teaching career ladder. Hence, the blend of enhanced morale and greater confidence was, for some teachers, positively linked to their personal career development and to their long term commitment to the profession.

Enhanced confidence → career development

It's the confidence thing again, isn't it? You've had the training in this, you've carried out the practice in your classroom, you've got the results and you've got that evidence and basically you wouldn't be afraid to take on that responsibility when it was offered to you (Teacher, secondary, year 2 case-study data).

Enhanced confidence → commitment to teaching

Well, it's [EPD] built my confidence, it's made me feel much better about the teaching profession and it's made me feel that I want to stay in this job and I know that I'm in the right place and I'm doing the right thing (Teacher, primary, year 2 case-study data).

Enhanced confidence → commitment to teaching

I'd say the last year has definitely improved my commitment to teaching. The previous year was very, very difficult. And I was feeling quite disillusioned and a little bit worried about the future. [Is EPD making a difference to your desire to stay in or leave the teaching profession?] It has in that it has boosted me up. It's reassured me about my own skills and my own values as a teacher, so yes (Teacher, primary, year 2 case-study data).

What new findings, then, have been uncovered by this exploration into the effects of EPD, as voiced by case-study teachers? In the first instance, it has demonstrated the

sheer breadth of impacts in a single area – whilst we knew from the survey data that teachers' practice and career development benefited from EPD, through the testimonies of case-study interviewees, the scope of these impacts becomes apparent.

Secondly, as teachers described the impacts, it became evident that certain outcomes were associated with others. For example, the word 'confidence' reverberated throughout the interviews, such that enhanced confidence was often the catalyst to trying out new teaching strategies or pursuing a particular career path. Equally, improvements in teaching practices – which were seen to have a positive impact on pupils' learning or at a whole-school level – resulted in increased confidence and therefore a greater commitment to the profession. Thus, the flow of outcomes was sometimes multi-directional: improved teaching practice leading to heightened confidence, or heightened confidence leading to improved teaching practice. Regardless of the direction of the chain of outcomes, they culminated in teachers feeling they would remain in the profession for some time to come.

Improved teaching practice → enhanced confidence → commitment to teaching

One of the major things I found was that I got a lot more confident. Because I've been able to do a lot of professional development with EPD and my teaching has really improved, I could start to see some changes in the kids, like they were learning more and getting better behaved. I felt a lot better about my job. At the beginning, you don't have that much confidence that you're doing it right, but then I started to get the feeling that I was. Then, I stopped thinking that I couldn't do the job and that I'd made a mistake about being a teacher, and I thought ... 'Well, I think I will stay'. And that's from the confidence, I think (Teacher, secondary, year 3 case-study data).

Enhanced confidence → improved teaching practice → commitment to teaching

Personally, it's given me confidence, enthusiasm and it's also given me power to decide what you want to do. It's very empowering. You're in control of what you want to do. Definitely confidence and enthusiasm, it's made you want to go back into the classroom and see what you can do different, which is what it's all about. [Has EPD had any impact on your commitment to teaching as a profession?] Oh definitely, it's more exciting. If you do things differently all the time, it's more exciting (Teacher, primary, year 2 case-study data).

Effects arising from EPD did not, therefore, exist in isolation but could interact with others to bring about a cumulative impact. Indeed, factor analysis of the 12 specified outcomes listed in the year 3 teacher questionnaire confirmed that the effects were inter-related and that if a teacher rated one effect highly, they were likely to award similar high ratings to other effects. Amongst the most powerful effects, in terms of their correlation with other outcomes from the specified list (see Table 9), was 'commitment to teaching', 'understanding of what constitutes good practice' and 'impact on actual teaching practice'. This means, for example, that if a teacher reported feeling more committed to the teaching profession as a result of EPD, they were very likely to report positive outcomes in all other areas.

EPD teachers who experienced no impact

Whilst the vast majority of teacher survey respondents reported deriving outcomes from participation in the EPD scheme, there was a small proportion of respondents for whom this was not the case. For example, when asked to rate on a six-point scale the overall effect on their professional practices, approximately five per cent of teacher respondents each year gave a rating of 1, indicating 'no effect'. It is worth

highlighting, however, that whilst five per cent registered no effect, 95 per cent were of the view that EPD had, in fact, impacted on their professional practices overall.

In the questionnaires used in years 1 and 2 of the pilot, teachers were also asked whether the EPD experienced during that school year had had any impact on them ('Yes' or 'No'). In the first year, approximately one-quarter of teachers reported no impact as a result of EPD. In the second year, this proportion fell to one-sixth.

At this stage, therefore, we shall consider the reasons why teachers may not have benefited from the scheme. A lack of impact was frequently attributed to difficulties that had hindered full involvement in EPD and therefore the outcomes that could be derived. For example:

- Seven per cent in 2002 and four per cent of teacher respondents in 2003 explained that they had not experienced any EPD provision at the time of completing the questionnaire (most commonly cited by those secondary school teachers registering no impact).
- Seven per cent of respondents in 2002 and three per cent in 2003 mentioned that EPD had not been supported by their school, implying that teachers' access to the provision may have been affected (most frequently stated by the primary teachers who reported no impact).
- Four per cent in 2002 and one per cent in 2003 cited not having met with their EPD mentor.
- Four per cent in 2002 and one per cent in 2003 indicated that the pressures of school life (e.g. taking Year 6, GCSE subjects) had hampered their experience.

Where teachers had undertaken professional development funded through EPD and perceived that it had no impact, they found that they had not been able to follow their own personal professional development needs (five per cent in 2002 and two per cent in 2003), or they had believed that EPD had replaced the CPD they would otherwise have received (under one per cent in 2002 and 2003).

The proportions offering each of the above explanations as to why EPD had had no effect on them were lower in the second year of the pilot than in the first, suggesting that difficulties preventing full participation in EPD and anxieties about the irrelevance of provision were less prevalent in year 2. Indeed, the only reason that was given as frequently in 2003 as it had been in 2002 pertained to the manageability of EPD: in both years, around 2 per cent of teacher respondents believed that the scheme had taken up too much of their time.

The impacts derived from EPD: teacher vignettes

To conclude this examination of the impacts generated by EPD for teachers, three vignettes are presented, relaying the effects that one primary and two secondary casestudy teachers believed had emanated from their participation in the scheme. The vignettes exemplify principal effects to arise from EPD – impacts on teaching practice, impacts on career development and impacts on participants' schools and their pupils. Also apparent is the increase in teachers' confidence as a result of EPD.

Teacher A

Profile: Year 5 teacher and design and technology coordinator

YEAR 1: EPD FOCUS

- meetings with mentor
- observation of an English as an additional language (EAL) teacher
- attended an LEA-run maths course
- completion of a needs analysis exercise

YEAR 2: EPD FOCUS

- meetings with mentor
- attended courses on guided reading and a 14-session design and technology (DT) course
- purchased a laptop
- took piano lessons at a music academy

YEAR 1: EPD IMPACTS

In her first year of EPD (her second year of teaching), the school's involvement in an OFSTED inspection had limited the opportunities that Teacher A had been able to engage in. However, the process of completing a needs analysis exercise and meeting regularly with a mentor were seen as beneficial exercises in themselves. Teacher A regarded the EPD activity she had accessed as extremely useful, noting an almost immediate impact on her practice in the classroom, which, in turn, had enhanced her confidence as a teacher.

Awareness raising

I think that it [EPD] has been really good for my professional development. It helped me to identify my needs.

Impact on confidence

I feel more confident now through the courses I've been on. I also feel more confident for the fact that I can go on the courses, so that is an advantage.

Impact on teaching practice

I wasn't really into it [collaborative work with EAL pupils] because I hadn't observed teachers doing collaborative work to know how it worked and how effective it was. By knowing how effective it is, I have implemented that. I wouldn't have done that if it wasn't for the EPD.

YEAR 2: EPD IMPACTS

During her second year of EPD (third year of teaching), Teacher A was appointed as DT coordinator. She incorporated this subject area into her EPD plan for the year with the intention to improve her leadership of this curriculum area and also benefit her colleagues. Teacher A believed that the courses she attended had a direct impact on her self-assurance and had led to changes in her teaching practice. As well as boosting her confidence and providing new skills for her teaching and coordination role, this teacher's involvement in EPD was perceived to have positive repercussions for her pupils in terms of raising their own standards of performance.

Impact on confidence

I am just thinking that if we didn't have the EPD, I don't think that I would be as confident a third year teacher as I am ... I don't know how people manage without it really.

Impact on the school

Before me, people [teachers in school] hadn't done a lot of DT ... they didn't feel confident with it ... Because I have been on the advanced skills courses, I have been able to show them that it is OK, it does work ... It had a direct impact on what the children did, how confident the teachers felt, and how confident I was in my role.

Impact on pupils

I set targets right at the beginning of the year, and it was to push a group of children who hadn't been doing so well in reading the last few years. I put into practice what I covered on the guided reading course and that has helped them move up a couple of levels [National Curriculum levels].

EPD COORDINATOR/MENTOR COMMENTS

Teacher A's mentor noted: 'I have seen a lot of changes in [Teacher A]. They have become more confident ... it [EPD] has definitely helped [names of EPD teachers] with their development because they had that fund to make use of for themselves ... EPD funding is there to help them with their Performance Management as well, so that helps them with their career path as well.'

OVERALL IMPACT

Teacher A concluded that a positive EPD experience had strengthened her desire to remain in teaching: 'I think it has been really good. Very, very effective, and I think ... it has helped people. I would say that it has helped me to stay in the job really because I feel as though I am actually gaining something from it as well.'

Teacher B

Profile: secondary languages and ICT teacher, with responsibility for evaluating ICT in languages

YEAR 1: EPD FOCUS

- weekly meetings with mentor
- attended courses on oral language examinations behaviour management, motivating low attaining pupils
- purchased software (for designing teaching aids)
- observed another teacher within school
- non-contact time to build up a portfolio for a Postgraduate Certificate

YEAR 2: EPD FOCUS

- · weekly meetings with mentor
- attended courses on maths, including a course on the use of interactive whiteboards in maths
- purchased various resources, including: software licences, books and mini-interactive whiteboards
- · observed teaching in another school

YEAR 1: EPD IMPACTS

Teacher B had found his first year in post very challenging and, on entering his second year of teaching, did not feel fully committed to staying in the profession: 'I am still really just trying out being a teacher... if it doesn't get better, next year I will probably find something else to do'. He saw EPD initially as a much needed way of improving his basic teaching skills. By the end of his second year in teaching, whilst he commented that he was still thinking about his career in the short term, the professional development undertaken through EPD had resolved some of the issues that had caused him to question his retention in post at the end of his first year.

Impact on teaching practice

I have been on courses. I've learnt specific activities, specific strategies for dealing with difficult kids, for dealing with low ability kids (e.g. being sensitive to the moods of pupils and amending lesson plans accordingly).

Impact on career

I am still thinking short-term, yes. I will say though, that after having struggled last year for a lot of it, if I wasn't getting this interactive whiteboard [next year], I would probably have found another school for my third year.

Impact on career

The outcomes are that I have improved in the classroom. It's less stressful. I am performing better. I am enjoying it more and as a result, I am more likely to be staying.

YEAR 2: EPD IMPACTS

During Teacher B's third year in the profession, EPD continued to have an impact on his teaching practice and also enabled him to acquire resources, which were seen as beneficial for his colleagues. By the end of his third year, he felt confident enough to apply for various promotions. He attributed his increased confidence to the opportunities presented through EPD to develop expertise in different subject areas (ICT and maths).

Impact on the school

[The development of] on-line resources, either published on the web or on the school network, has put me in a position where I am supporting colleagues using those resources and sort of integrating them into the scheme of work and slowly taking over.

Impact on career

I trained as a languages teacher because that's all my degree would enable me to train as, but I always wanted to branch into maths and into IT and [EPD] enabled me to do that.

Impact on career

I have applied for heads of year jobs because I quite enjoyed the pastoral stuff that I was doing as part of my accreditation and all my bookwork there. I have gone for a second in languages and second in IT, so I have applied for any promotion that's going really. Equally, I am confident I can do any of those roles.

EPD COORDINATOR/MENTOR COMMENTS

Teacher B's mentor remarked: 'I've known [Teacher B] since he started here as an NQT and he was a disastrous NQT ... but now he has got to the point where he is getting promotion. He's been asked by County Hall to lead a working party on the use of ICT in modern languages, he is doing that on a countywide basis and he is mentoring a much older and more experienced teacher in behaviour management, so that's been excellent to see.'

OVERALL IMPACT

In summing up the overall impact of EPD over the two years of his involvement, Teacher B highlighted the opportunity it had afforded him for career diversification: 'I think I have very successfully branched out into teaching two new subjects. It's given me a complete freedom to develop where I wanted to.'

Teacher C

Profile: secondary geography teacher, head of year 7

YEAR 1: EPD FOCUS

- meetings with mentor every two weeks
- · attended courses on classroom management
- worked on plenaries to improve the endings of lessons
- release time one additional free period once a fortnight.

YEAR 2: EPD FOCUS

- meetings with mentor every two weeks
- attended courses on gifted and talented pupils
- worked with leading teachers on thinking skills and Assessment for Learning to develop schemes of work for gifted and talented and Years 9 and 10 pupils
- release time one additional free period once a fortnight.

YEAR 1: EPD IMPACTS

In her first year of EPD (her second year of teaching), Teacher C decided to concentrate her EPD on improving her weakest areas of teaching practice. With two particularly difficult classes, her EPD activities focussed on improving her behaviour management. Having an EPD mentor was particularly important: 'Having somebody that you can spend 20 minutes or an hour fortnightly, but who is saying to you that you are doing that really well, what you need to look at now is this, somebody who has been and done it, I don't think you could cope without that, to be perfectly honest.'

Planning outcomes

It [EPD] does focus you on what you've got to do. It isn't like waiting till your Performance Management at the end and saying 'Well, those are things that I did'. I feel like I'm working towards them [EPD goals] all the time.

Impact on self

I'm calmer ... after the NQT year where I had lots of problems, well not lots, but I had problems ... [the first year of EPD] was like a learning curve, I tried all sorts of different strategies and now I don't have any [problems] because of all the help I had and all the strategies I was allowed to try and if they failed, it didn't matter.

Impact on teaching practice

I did conquer the classroom management and the behaviour issues and I tried lots of different strategies and went on a course and did those sorts of things... I don't have now any discipline problems at all and I think that was all to do with the support, training and the classroom management that I had and the behaviour training.

YEAR 2: EPD IMPACTS

During her second year of EPD (third year of teaching), Teacher C was appointed head of Year 7. She continued with fortnightly individual meetings with her mentor, although she felt increasingly confident in her own abilities and became less reliant on the mentor. Teacher C continued working on building plenaries into her schemes of work and lessons but felt that she had 'conquered' the classroom management issues and wanted to concentrate 'on specifics' in her second year of EPD. The school was involved in an OFSTED inspection in the spring term and Teacher C believed that EPD had helped her achieve high ratings for her teaching practice.

Impact on self

I feel like I'm valued. I feel like I have made improvements and people know I have. You could be sitting in your classroom quite easily in a school this size and nobody would know the good things that you were doing whereas by having objectives and having somebody to go and meet with, they know if something's worked.

Impact on career

I don't think I would be a head of year if we hadn't have had that [EPD] support.

Impact on teaching practice

It's improved it greatly, I think. And I've seen that with OFSTED with both my GCSE and my top set Year 9, so it's [Assessment for Learning and differentiation in lessons] obviously has had some sort of impact, it's got to have done.

Impact on pupils

I think the Assessment for Learning has been the biggest thing. I've noticed that children can assess their own work ... it's been a real revelation for me, that has. And this all comes through having those as [EPD] objectives. It's worked.

Impact on the school

I think the work that I have done this year will have an impact next year on whoever takes the able students next year because they'll have able and talented activities to build on.

EPD COORDINATOR/MENTOR COMMENTS

Overall, Teacher C's mentor felt: 'The structured approach [of EPD] has enabled [Teacher C] to take a much more positive approach to her Performance Management ... it has helped her with her confidence. I mean now she's got the job of head of year so it's also given her the confidence to actually apply for jobs and to be promoted.'

OVERALL IMPACT

Teacher C felt that support from EPD had resulted in her promotion to head of year. It had helped her to focus and 'develop as a teacher'. She noted: 'I think I am a far better teacher now than I was in my NQT year ... I think it's helped me get two 'ones' in OFSTED.'

2.1.4 Summary

In the first year of the EPD pilot, the level of impact reported by teacher survey respondents was notable, with 61 per cent stating that EPD had affected their overall professional practices to a considerable degree. As the pilot progressed, teachers' assessments of impact became increasingly positive, with the proportions citing a considerable effect climbing upwards each year. By the final year, when asked to score the overall effect of EPD on their professional practices, more than three-quarters of teachers (77 per cent) registered that EPD had impacted on them to a considerable degree. This constituted a substantial rise of 16 percentage points from the first year of the pilot.

In terms of the nature of the outcomes derived, the strongest effects were felt on teachers' teaching practice and their focus on career development. Both of these were frequently cited when teachers were invited in an open-ended question to volunteer the 'main impact' of EPD on themselves in the first and second years of the pilot. Further, in their questionnaire, teachers were given a list of possible outcomes and asked to rate the extent to which EPD had affected their practice in these areas. The top five impacts, as registered in the final year of the pilot, were:

- an enhancement to pupils' learning
- an enhanced willingness to undertake professional development
- actual teaching practice
- the contribution made to colleagues and school
- thinking on career development.

What becomes apparent when looking at this list of highest-rated impacts is that the EPD scheme did not only benefit teachers, but that also the positive effects radiated from the immediate participants to those they taught and worked with.

For all the specified outcomes on which teacher were asked to comment, the proportion registering that EPD had affected their practice considerably rose markedly – on average by around 12 percentage points – between the first and third years of the pilot. When mentors were asked to rate the outcomes of EPD on their mentees, their responses not only confirmed, but exceeded teachers' own assessments of impact.

With assurance, it is possible to establish from the evaluation of the EPD scheme that participating teachers experienced a multitude of effects in key areas of their professional lives, including: impact on teaching practice, impact on career development and commitment to the teaching profession. That these impacts were extensive, rose over the duration of the scheme and were reported by the majority of participants, serves to underline the substantial successes of the EPD scheme in contributing to the professional lives of teachers in the early stages of their careers. The outcome of enhanced confidence that teachers gained from taking part in EPD seemed particularly instrumental in fostering further impacts. Instilled with higher confidence levels, teachers reported having implemented new teaching practices and of being able to pursue their chosen career paths, and these, in turn, helped teachers feel more content in their chosen profession. As well as the benefits experienced by the teachers themselves, this section has also alluded to the impact that the EPD scheme had for the whole school and for pupils' progress. These aspects will be considered in greater depth in the next section.

2.2 The outcomes of EPD for schools

2.2.1 The evidence base

Section 2.1 set out the outcomes that second and third year teachers derived from their participation in the EPD scheme and has already highlighted that, as well as the considerable impact for teachers themselves, the benefits were passed on to their colleagues, their school and their pupils. This section looks more closely at the outcomes for schools and pupils as a result of the development of teachers engaged in professional learning funded through EPD. The discussion draws on interviews with teachers, mentors, CPD/EPD coordinators and headteachers in the case-study schools as well on the questionnaire surveys to EPD teachers and their mentors, which sought to gauge the impacts on schools and pupils in a variety of ways.

In each of the three annual questionnaires -

1. Both teachers and mentors were asked to rate on a six-point scale the extent of EPD teachers' development in 12 specified areas as a result of their participation in the scheme (see section 2.1). One of these areas was their 'contribution to colleagues and the school'.

In the first two annual questionnaires -

2. Mentors were asked whether they had seen any impact of EPD on the school as a whole and, if so, to give details of what the 'main impact' had been or, if not, to explain why.

In the third annual questionnaire -

3. When rating the effect of EPD in the 12 specified areas, teachers and mentors were also asked to score on the six-point scale the extent to which pupils' learning had been enhanced.

The responses to these items as well as the qualitative evidence from the case-study schools are presented in the following sections:

- Section 2.2.2 The overall impact of EPD on schools
- Section 2.2.3 The range of impacts from EPD on schools
- Section 2.2.4 The outcomes of EPD for pupils' learning
- Section 2.2.5 No wider impact of EPD within schools

2.2.2 The overall impact of EPD on schools

In the EPD teacher surveys in the final year of the pilot, almost three-quarters (74 per cent) of teachers circled 4, 5 or 6 on a scale from 1 = no effect to 6 = great effect to register that EPD had considerably affected the contribution they made to their colleagues and the school. It was placed high in a ranking of 12 outcomes by the proportion of teachers registering a considerable effect (see section 2.1). Mentors endorsed teachers' views with more than three-quarters circling 4, 5 or 6 (78 per cent). Longitudinally, the proportion of teachers indicating that EPD had considerably

affected their contribution to colleagues and the school increased over the course of the pilot – from 61 per cent in the first year to 74 per cent in the final year – a sign that as the EPD pilot became more established, its potential wider impact increased. These results provide a valuable first measure of this wider impact of the EPD scheme – demonstrating that the early professional development of teachers could lead them to become more effective members of their school communities.

After the survey results from the first year of the evaluation established that EPD enabled teachers to contribute more fully to their colleagues and the school, the questionnaire to mentors thereafter sought to examine the full range and extent of impacts experienced by schools as a result. In years 2 and 3, mentors were asked, 'To the best of your knowledge, has EPD had any wider impact within the school (i.e. over and above the EPD teacher(s) directly involved)?'. Mentors were able to reply 'Yes', 'No' or 'Don't know'. Overall, half the mentors responding in 2003 (49 per cent) and more than half in 2004 (55 per cent) answered in the affirmative, compared with one-fifth in both years indicating there had been no wider-school impact and one-quarter (one third in 2003) who were unsure.

Both years, almost twice the proportion of mentors in secondary schools than those in primaries replied 'Don't know' to this enquiry (41 per cent compared with 23 per cent in 2003; 33 per cent compared with 19 per cent in 2004), indicating a lack of awareness regarding the whole-school impact resulting from EPD. In general, the secondary schools in the sample were larger than the primaries, conceivably making it more difficult to discern whole-school impacts. In both primary and secondary schools, mentors who were heads or deputy headteachers most frequently stated that EPD had had a wider impact within the school. It seems likely that these mentors, with their whole-school perspective, were well placed to recognise the wider impacts of EPD, and that their views are a particularly useful gauge of the scheme's effect in this area.

Analysis of case-study interviews showed that four out of five coordinators, mentors and headteachers interviewed in years 2 and 3 perceived that the EPD teachers had had at least one positive impact at a whole-school level. The disparity between responses in the interview data and survey data might suggest that the wider impact of EPD teachers on the school was not always immediate and was often more subtle than the impacts on the teachers themselves.

2.2.3 The range of impacts from EPD on schools

In years 2 and 3 of the pilot, the questionnaire survey invited mentors who reported that there had been a wider impact on the school as a result of the EPD scheme to give more details of the effects they had observed. Their responses are summarised in Table 12. Please note that percentages in brackets indicate a combined category – where mentors offered at least one outcome within the overarching theme. For example, overall, 99 per cent of mentors in year 3 of the pilot gave one or more positive impacts, compared with one per cent citing one or more negative outcomes.

The table shows that from mentors' points of view, the impacts of EPD on schools were almost entirely positive, particularly in the final year of the pilot. The small

proportion of negative responses included: envy from other staff; difficulties in finding supply cover; disruptions to the curriculum and impacts on others' workload.

Table 12 Mentors' nominations of the wider impact of EPD on the school in the second and third years of the pilot (open question)

(The question posed was 'What has been the wider impact of EPD within the school?'. Respondents only answered this if they had answered 'yes' to the prior question, 'To the best of your knowledge, has EPD had any wider impact within the school?'. Therefore, the percentages shown below are calculated from the number of mentors who had responded affirmatively to this initial enquiry.)

Impact on the school	Mentors 2004 (%)	Mentors 2003 (%)
POSITIVE	(99)	(97)
Impacts on other teachers	(59)	(43)
EPD teachers' professional learning disseminated to other staff	48	27
Advancements in other teachers' practice	12	26
Impacts on the management and structures of the school	(45)	(41)
EPD teachers taking on additional whole-school responsibilities	20	24
Developments in school systems	25	22
Impacts on EPD teachers' practice, abilities and attitudes	(64)	(33)
Improved classroom practice	11	11
Enhanced confidence	7	8
Enhanced morale	12	6
Enhanced commitment	7	5
Increased skills and knowledge	12	5
Greater willingness to undertake professional development	8	4
Acquisition of qualifications, career progression	7	3
Impacts on professional development within the school	(28)	(26)
Raised awareness of professional development	12	16
Increased professional development for other staff	15	10
Other staff attending EPD training	1	2
Impacts on funding	(6)	(9)
More funding	4	5
More even spread of professional development funding	1	4
Influenced way CPD funded	1	1
Impact on pupil achievement in school	8	6
NEGATIVE	(1)	(3)
No response	1	2

Mentors were able to give more than one impact, so percentages do not sum to 100

The percentages in brackets show the proportion of respondents offering at least one outcome within each overarching category

Base: 2004 survey: 269; 2003 survey: 229

Source: EPD evaluation: EPD mentor surveys 2004 & 2003

As Table 12 sets out, mentor respondents in year 3 reported more outcomes in almost all the positive overarching categories. In year 2 the most common outcomes, each cited by two-fifths of mentors who perceived that EPD had had a wider-school effect, were that the EPD scheme had impacted on other teachers and on the management or structures of the school. In year 3, those reporting impacts on other teachers had increased to three-fifths, with impacts on management or structures cited by approaching half of mentors reporting wider-school impacts. The picture further changed in year 3 as the proportion of mentors citing changes specific to the EPD teachers as a wider-school outcome almost doubled from the previous year to two-thirds of all mentors who had observed a whole-school impact as a result of EPD.

Each broad category of impact shown in Table 12 will now be considered in greater detail, with the qualitative evidence from the interviews in the case-study schools providing illumination regarding the ways in which schools experienced these impacts.

Impacts on other teachers

The impact on other teachers, cited in year 3 by almost three-fifths of mentors reporting a wider-school effect, involved the EPD teacher disseminating what they had learnt from their EPD activities to colleagues, and other teachers having changed their own practice as a result. In 2002, the latter was explicitly stated by more than one-quarter of mentors responding to the question, suggesting that EPD could have a wider-school influence in facilitating developments in classroom practice for a potentially large number of teachers not directly involved in the scheme.

In both years 2 and 3, secondary-school mentors who were headteachers and deputy heads were more inclined to highlight the impact of EPD on other teachers than those who did not hold this level of responsibility. Hence, mentors with the greatest level of responsibility and whole-school perspective, placed most emphasis on the impact of the scheme in terms of developing the practice of other staff.

Interviews conducted in the case-study schools over years 2 and 3 of the pilot provided further evidence of the development in other teachers' practice as a result of the scheme. Overall, half of the interviewees reported an impact in this area. This outcome could be achieved on a small scale with one teacher (as exemplified by the first quotation in the box), or with members of the EPD teacher's department in secondary schools (second quotation), or year group in primaries (third quotation). Crucial to the achievement of this outcome was the dissemination of EPD activities by the participating teacher – the sharing of new skills, knowledge, ideas and resources.

Other teachers' development of their own teaching practice

I'm now teaching four classes in a different way because of that research [on boys' achievement undertaken by EPD teacher] and here I am, a 30-year-in-the-job teacher, learning from somebody who is a good EPD person (Mentor, secondary, year 3 case-study data).

It has definitely benefited my department. Other members in the same department are aware and can take advantage of the ideas [numeracy across the curriculum and low ability groups] that I have contributed. They have learnt quite a bit and find it easier to deal with certain things in the department now (Teacher, secondary, year 2 case-study data).

It's been very nice to help colleagues who have maybe been teaching for a long time and haven't adopted new ways of teaching. So in terms of colleagues that I work with, I think its [accelerated learning] had a big impact on them. And they've actually enjoyed it, which was quite nice (Teacher, primary, year 2 case-study data).

Impact on the management and structures of the school

As Table 12 sets out, the impact on the management and structures of the school was a commonly cited effect of EPD, reported in years 2 and 3 by more than two-fifths of mentors observing a wider-school impact. This overarching category included EPD teachers taking on further whole-school responsibilities and the development of new whole-school systems.

In the 2003 survey, the effect of EPD on the management and structures of the school was mentioned slightly more often by mentors in primary schools. As Part one showed, more primary teachers than their secondary counterparts held additional responsibilities in school, thus providing them with a possible means to effect change at whole-school level.

Analysis of the case-study interviews in the second and third years of the pilot revealed that when this effect was felt within the school, EPD teachers were reported to be more effectively performing leadership or subject coordinator roles, or taking them on for the first time. Further, as part of their involvement in the scheme, EPD teachers were reported to have: implemented new whole-school initiatives such as 'Healthy Schools'; devised new schemes of work or teaching materials, and developed new procedures – e.g. in assessment, ICT and special educational needs; and introduced new extra-curricular activities such as the Duke of Edinburgh Award Scheme, chess club and dance. Thus, as the following quotations exemplify, the EPD scheme gave participating teachers opportunities to enhance directly both academic and pastoral aspects of school life for their colleagues and their pupils.

Impacts on the management and structures of the school

I did three dance schemes, which included all the resource cards, the CDs, all the music and a collection of everything that we needed, to be filed and kept in a proper place. I've also put together exactly the same three schemes of work for our sister school to help them in their department (Teacher, secondary, year 3 case-study data).

At the moment assessment is a key thing for us, and [EPD teacher] has re-done the whole of our assessment policy and timetable so it has had a huge impact (Headteacher, primary, year 3 case-study data).

[The EPD teacher] has taken on the SENCO role [Special Educational Needs Coordinator] and had a huge impact on the school because she is working so closely with every year group now and obviously she is on the senior management team, so that has impacted as well (Mentor, primary, year 2 case-study data).

The types of things we've been looking at have been about these young teachers becoming skilled, knowledgeable subject leaders, leaders of areas in the school. So the school has really benefited from that – being able to develop leadership from the middle (Coordinator, primary, year 3 case-study data).

Changes specific to EPD teachers

As Table 12 shows, despite the question specifically asking for the whole-school effects of EPD, one-third of the mentors reporting a wider-school outcome in year 2, and almost two-thirds in year 3 described changes specific to EPD teachers, suggesting that they felt that the impacts on the EPD teachers (i.e. their improvement) had inevitable 'knock-on' benefits for the school as a whole.

Effects in this area included the EPD teacher becoming a better classroom practitioner, enhancing their subject knowledge and skills, being more confident, motivated or committed to the teaching profession. A consequence of these improvements was that the EPD teacher began to engage with whole-school issues, and to carve a role for themselves beyond their classroom or their department to the wider school.

On the basis of the case-study data, this effect was observed particularly in those schools in which the teachers had had freedom of choice in selecting their EPD activities. Autonomy offered teachers an opportunity to reflect on and plan their career, and spot opportunities — often within their school — for their career development. The outcomes teachers derived from EPD activities increased confidence, improved practice and gave a clearer idea of their preferred career path, which then served as the vital step towards teachers becoming more active within the school and, beyond that, further impacts at a whole-school level. Section 2.1.3 also showed how teachers' increasing confidence was a catalyst for other outcomes. Part four will consider in more detail how effects transpose from the teacher to the school.

Changes specific to the EPD teacher → impact on school

I think [EPD] has given the structure that's ensured that they're becoming more effective and made them seamlessly a part of the whole staff team. It's helped to pull everything together. I think it's given them the kind of professional confidence that you wouldn't always get from teachers at that stage in their careers, which helps them in terms of relationships in school. It gives them the confidence to engage more in whole-school matters (Coordinator/mentor, primary, year 3 case-study data).

I think the people who have been involved [in EPD] are now people who are involved in whole-school issues and who see school as a school rather than as a department. I think EPD gives a confidence and vision for people to actually see a wider role for themselves in school [e.g. becoming international coordinator] (Coordinator, secondary, year 3 case-study data).

Personally, it's given me confidence, enthusiasm and it's very empowering. It's made me want to go back into the classroom and see what I can do different. And also I've taken about four staff meetings on things I've learned from courses, so it's made me a better team player and I have more to give to the whole school (Teacher, primary, year 2 case-study data).

Impacts on professional development within the school

More than one-quarter of mentors indicating a wider effect of the EPD scheme on the school in the year 2 and year 3 surveys, expressed the belief that it had impacted on professional development within the school. Reference was made to the fact that EPD had increased the profile and raised the 'value and importance' of professional development for all staff, not solely those in the early stages of their careers. Further, there was explicit mention of the fact that EPD had been 'a spur' to other teachers who were now thinking more about their own development, and were keener to pursue available opportunities. A small number of mentors in the survey sample also reported that other teachers within the school had accessed training provided for EPD teachers.

In conveying the impact of EPD on professional development in the school, case-study interviewees most frequently highlighted an increase in the profile of professional development for all staff in the school. Interviewees also described how seeing EPD teachers undertake a whole manner of development opportunities had raised awareness about the breadth of activities available to achieve professional development targets, beyond attending courses. This had led to other staff pursuing creative professional development avenues: for example, embarking on research projects; making visits to other schools; or securing non-contact time (for meetings or to work on a particular area of the curriculum/management). Further, the focus through EPD on teachers early in their careers had led school management teams to recognise the issues faced by these teachers and to identify avenues to remedy these.

Professional development in school

One of the EPD teachers will say 'It was really interesting. I went and worked with the ed. psych.' or 'I am going to work with the learning mentor' and things. So other people then begin to think creatively around how they can manage to do that (Coordinator/mentor, primary, year 2 case-study data).

Other people are now saying 'I'd like to do X' and I think it's started them thinking more about their own professional needs. I think they're just considering what they could do more, and they've [EPD teachers] brought awareness to other things that they [other teachers] might not have thought of (Mentor, secondary, year 2 case-study data).

The [EPD] teachers have shared what they're doing and how they're doing it. People in Performance Management, instead of saying 'I want to find out about X, can I go on a course?', have started saying, 'If I used my time like this, or did this...' and broadened their understanding. They're also learning from each other ... So there's more of an awareness of the breadth of professional development opportunities that are there if you make them (Coordinator/mentor, primary, year 3 case-study data).

Having interviews [with EPD teachers], where they identified their challenges and areas they would like to develop, was very useful for us as a leadership group to see what young teachers in this school are facing and where they need additional support (Coordinator, secondary, year 2 case-study data).

In the case-study schools, there were examples where EPD had profoundly influenced the vision and provision of professional development within the school. In one case, a CPD coordinator in a secondary school described the EPD scheme as having 'completely changed my view of the provision of CPD at all levels'. As a result, the school staff development budget had been devolved to all staff within the school – both teaching and support staff. Staff were encouraged to view CPD as an 'entitlement' and to be responsible for how they chose to spend their individual budget (£250 per year). The school's vision was that this model of CPD provision would be radically different, based on personal autonomy yet matching individual with school needs and that, in time, other sources of funding would increase the individual budgets.

In another example, the EPD scheme had led to an ethos where professional learning became embedded in the school. EPD fostered a high priority for, and sense of entitlement to, professional development amongst those teachers who had participated, such that as they moved into their fourth and fifth years of teaching, they proceeded to study for higher degrees or undertake research projects. Further, as these teachers became middle managers, they expected members of their department to pursue their own professional development, thus increasing standards of teaching and learning.

Changing philosophy towards professional development within the school

It's [EPD] completely changed my view of the provision of CPD at all levels. I've seen a model that takes into account the skills of the individual, the fact that it isn't one size fits all, the idea that people can participate, the idea that it's based on trust. It treats people as professionals. It draws out all the good things about teachers because they've taken that risk. And I have been able to take that philosophy and introduce it in the school, and now we've got the CPD budget devolved to individuals (Coordinator/mentor, secondary, year 3 case-study data).

It's [EPD] grown an expectation of development amongst a significant proportion of our teachers. It's carried on in the fourth and fifth year with some of them [former EPD teachers] going on to do MScs or MAs. As many of them have also gone on into middle-management roles, that's their expectation of all other teachers in their department – that they will pursue their own professional development – because they don't know any different. And that's been grown through development channels, rather than an evaluation, assessment and monitoring channel, and I think that's crucial (Coordinator, secondary, year 3 case-study data).

Ethos and community

One area of impact described by case-study interviewees that did not emerge from the survey data, related to changes to the atmosphere within the school. While mentioned by a smaller number of interviewees than the other wider-school effects, it would appear that in some schools EPD had an effect in making the school a more enjoyable environment for all: 'As you walk around school you feel all the positive vibes that are going on and the buzz of enthusiasm, which is brilliant' (mentor, primary, year 2 case-study data). Through mentoring relationships, the raised profile of EPD teachers within schools and the pursuit of EPD activities, staff got to know one another better and this was said to impact on collaboration and therefore enjoyment within the school: 'EPD's had an impact because there's just so many people thinking about others and helping others now' (coordinator, primary, year 3 case-study data).

2.2.4 The outcomes of EPD for pupils' learning

In the year 3 questionnaires, a new item asked both teacher and mentor survey respondents to rate the extent to which the EPD undertaken by participating teachers had affected their pupils' learning. More than three-quarters of teachers and mentors indicated that EPD teachers' pupils' learning had been considerable enhanced (i.e. they circled 4, 5 or 6 out of 6). For teacher survey respondents, this was the highest ranking outcome in 2004 from a list of 12. Further, as Table 12 shows, of those mentors endorsing the wider-school impact of EPD, eight per cent in year 3 (six per cent in year 2) made specific reference to actual improvements in pupils' achievement (e.g. better examination results or progression through National Curriculum levels).

Analysis of the case-study data revealed that impacts on pupils as a result of EPD were very widely recognised by interviewees. Indeed, eight out of ten second year teachers and nine out of ten third year teachers reported outcomes for pupils in both years 2 and 3 of the pilot. The opinions of EPD teachers themselves were substantiated by their mentors, coordinators and headteachers, three-quarters of whom endorsed the impact on pupils' learning.

Pupils' learning was affected in a variety of ways. Most frequently observed by interviewees was an improvement in pupils' learning and their progress as a result of teaching practices refined through EPD. Pupils' actual levels of attainment were said to have risen, too (though, at times, there was also recognition of the difficulty of distinguishing the factors contributing to rising pupil attainment). Interviewees also described enhancements to pupils' engagement and understanding – for example, through new or improved schemes of work devised by EPD teachers, which engaged pupils with their work. Impacts on pupils' enjoyment of school, or of their lessons were also described, as a result of both new teaching practices and new school systems (e.g. extra-curricular activities), developed by EPD teachers. Improvements in the relationship between teachers and their pupils were also cited and often were the result of improved pupil behaviour – through the implementation of classroom management strategies developed by teachers through their EPD activities.

Outcomes for pupils' learning

Learning

The guided reading is going much better. I am much more structured, the children know what I am doing. I am able to keep records of them, whereas before I didn't know where I was going with the class. Now, because I am able to work with each group, it is much easier and that has come through the EPD course (Teacher, primary, year 2 case-study data).

Attainment

We've had very good exam results in geography and in ICT at GCSE level, good AS exam results. This year, I've been on courses about teaching A-level geography and their exams that they sat in January, they were very good results, I'm very pleased with that (Teacher, secondary, year 3 case-study data).

Motivation/enjoyment

I think they've got such a lot out of it [a school garden – a focus of the teacher's EPD]. They're so enthusiastic and motivated to want to do it, it's been so valuable for them because it's addressed all aspects of the curriculum – personal and social. It's developed their cooperating with each other and their science, understanding growth and geography, a sense of places, where things live and how they grow (Teacher, primary, year 2 case-study data).

Behaviour

I've noticed some of the boys are just a lot more well-behaved when I do those activities with them and it's just really nice to see (Teacher, secondary, year 2 case-study data).

Improvements in teachers' skills and knowledge → confidence → impact on pupils

I've noticed that the more confident I am about what I'm teaching them, the clearer I am on the structures and the more variety that I use, the better it is for them and their attainment. And the more confident I am and the more enthusiastic I am, the more engaged they are and my confidence comes from having a vast base, foundation of knowledge of how to do it (Teacher, secondary, year 3 case-study data).

2.2.5 No wider impact of EPD within the school

One-fifth of mentors responding to the survey in 2003 and 2004 registered that EPD had not had any wider impact on the school beyond those directly involved. In explaining why this was the case, the most common theme in mentors' responses related to the status of EPD within the school's priorities. Examples here included a lack of knowledge about the scheme amongst those not participating and an absence of whole-school links. A small number of mentors also suggested that inadequate support from the school's senior management team was an inhibiting factor.

The second most common reason for a lack of wider-school impact was the perception that the scheme was focussed on the individual needs of the teachers involved. However, it may be that these respondents had overlooked the wider possibilities for the school of teachers' individual development. This section of the report has already described how other EPD teachers – who would also have been pursuing their individual areas of need and interest – had been able to take on additional whole-school responsibilities and implement new practices or policies as a result of EPD with far-reaching consequences.

Organisational difficulties, particularly the time constraints of school life, were also cited as reasons for limited school outcomes. Other reasons given included the view that professional development was already well-developed and supported in the school to the extent that EPD had made no perceptible difference, or that it was too early to tell what the consequences of EPD might be, the implication being that whilst

EPD teachers experience outcomes first, whole-school developments may take longer to become established.

2.2.6 Summary

There was strong evidence that the early professional development of teachers had led to them becoming more effective members of their school communities. In the final year of the pilot, three-quarters of teachers surveyed registered that EPD had considerably affected the contribution they made to their colleagues and the school. Mentors concurred, with 78 per cent believing that EPD had had a considerable effect on their mentees' contribution to school life. Longitudinally, the proportion of teachers and mentors indicating that EPD had considerably affected teachers' contribution to colleagues and the school increased over the course of the pilot.

In a further enquiry, over half of the mentor survey sample in year 3 identified a wider impact of EPD within the school, with mentors who were headteachers or deputy heads most frequently expressing this view. Virtually all of the impacts described were positive and included the following.

- EPD teachers' dissemination of their learning to other colleagues, and the advancement of other teachers' practice as a result.
- The adoption of new school systems developed by teachers through their EPD e.g. whole-school initiatives, GCSE courses, schemes of work and teaching materials, extra-curricular activities.
- Consequential impacts of progression in EPD teachers' competencies e.g. better teaching, greater ability to take on leadership roles, improved confidence and commitment.
- The growth of professional development in the school e.g. EPD spurring others to consider more keenly their own development and the opportunities available, or changing systems for provision of professional development within the school.
- Improvements in pupils' progress and school experiences e.g. enhanced learning and understanding, attainment, behaviour, engagement in lessons.

Crucial to the achievement of impacts on other teachers' practice was the dissemination of EPD activities by the participating teacher – the sharing of new skills, knowledge, ideas and resources. Impacts on the management and structures of the school occurred since the pilot gave teachers opportunities to enhance directly both academic and pastoral aspects of school life for their colleagues and pupils. The outcomes teachers derived from EPD activities increased their confidence, improved their practice and gave a clearer idea of their preferred career path, which then served as the vital step towards teachers becoming more active within the school and, beyond that, to further impacts at a wider school level.

The benefits to pupils as a result of their teachers' EPD involvement should not be underestimated. In the year 3 survey, more than three-quarters of teachers and mentors indicated that EPD had considerably enhanced pupils' learning. For teacher survey respondents, this was the highest ranking outcome in 2004 from a list of 12. This is a notable finding and it confirms that EPD was not solely benefiting

participating teachers. Rather, the majority of teachers believed that the effects they experienced were being passed on to their pupils and 'enhancements to pupils' learning' registered the highest degree of effect, over and above every other impact.

2.3 The outcomes of EPD for mentors

2.3.1 The evidence base

Having looked specifically at the wider outcomes of the EPD scheme for schools, the effects on mentors themselves are now the focus of consideration. In addition to the qualitative evidence from the case-study schools, the annual questionnaire survey to mentors sought to gauge the impact on themselves of their involvement in EPD in two ways.

In each of the three annual questionnaires -

1. Mentors were given a list of pre-selected outcomes and asked to rate on a sixpoint scale the extent to which EPD had affected their attitudes and practices in these areas.

And in the first two annual questionnaires only -

2. Mentors were also asked whether or not being an EPD mentor had had any impact on them. If they responded positively, they were then requested to state what the 'main impact' had been. If they answered negatively, they were invited to explain the reasons why EPD had had no outcomes for them.

The responses to these items and the qualitative evidence are presented below in the following sections.

Section 2.3.2 The overall impact of EPD on mentors

Section 2.3.3 The range of impacts derived by mentors

2.3.2 The overall impact of EPD on mentors

In years 1 and 2 of the pilot, in their questionnaire, mentors were asked ('Yes' or 'No) whether they had experienced any impact as a result of undertaking EPD mentoring. Two-thirds of respondents reported an impact, with 80 per cent citing positive outcomes. In addition, in all three years of the evaluation, mentor survey respondents were presented with a list of pre-selected potential outcomes and asked to rate the extent to which they had experienced each as a result of their involvement with EPD. In years 2 and 3, three-quarters registered that EPD had had a considerable effect on their knowledge of other teachers. However, mentors' responses indicated that outcomes could be more limited in other areas e.g. desire to seek promotion, or developments in classroom practice.

Case-study interviews with mentors explored the extent of the impact of their EPD mentoring for them. Almost 80 per cent of mentors reported an impact in the second and third years of the scheme. All reported impacts were positive and, in cases where negative impacts were mentioned, positive effects were also cited.

To some degree, the outcomes experienced by mentors themselves were more variable than those experienced by teachers and, to a lesser extent, schools. This could be explained by the characteristics of the mentoring sample – predominately long-

serving, senior members of staff with previous mentoring experience – and the manageability issues associated with the role.

2.3.3 The range of outcomes derived by mentors

The next section considers the nature of impacts on mentors.

Outcomes for mentors: their development in specified areas

The mentor surveys contained a closed question where they were asked to rate, on a six-point scale from 1 = 'no effect' to 6 = 'great effect', the extent to which being an EPD mentor had impacted on them in several specified areas. In year 1, five areas were identified. In years 2 and 3, this increased – to six, then seven respectively – as new items were introduced based on their frequency of occurrence in response to an open-ended enquiry to mentors on the impact of EPD and citation during the interviews conducted in the case-study schools.

Table 13 sets out the proportions of mentor respondents who selected 1 = 'no effect' and those circling 4, 5 or 6 to indicate a considerable effect, for each of the specified areas in all three years of the pilot. The trend over the three years, where the proportion of mentors reporting 'no effect' decreases for every identified outcome, while the constituents of the mentor sample remained broadly the same (in terms of length of service, roles and responsibilities, the numbers of teachers mentored), reveals that, as time passed, fewer mentors perceived that their EPD role had 'no effect' on them. The proportions of respondents indicating a considerable effect show some increase year-on-year, with the exception of improvements to morale and wellbeing.

Table 13 Mentors reporting a considerable effect or no effect in specified areas in each of the three years of the EPD pilot

(The table shows the percentage of mentors circling '1 = no effect' and those selecting 4, 5 or 6 on the six-point scale where 1 = 'no effect' and 6 = 'great effect' to rate the impact of EPD)

Type of impact	Considerable effect (%)		No effect (%)			
	2004	2003	2002	2004	2003	2002
Development of own classroom practice	32	30	28	32	41	42
Development of management skills	59	57	51	14	16	21
Desire to take on (further) management positions / seek promotion	35	33	28	44	50	53
Enhanced willingness to undertake professional development	48	45	43	25	31	33
Improvements to morale and wellbeing	40	42	43	27	30	33
Better knowledge of others and their needs	80	77	1	4	7	1
Development of mentoring skills	70	/	1	9	/	/

Base: 2004 survey: 450–476; 2003 survey: 431–456; 2002 survey: 342–354

Source: EPD evaluation: EPD mentor surveys 2002, 2003 & 2004

On the basis of this enquiry, the principal impacts for mentors were 'better knowledge of others and their needs' and, in 2004, 'development of mentoring skills'. Neither of these items featured in the first annual questionnaire but both were added in later years since they had been commonly cited responses to the open-ended question on mentor impacts in years 1 and 2 respectively. In accordance with mentors' responses to the open question, 'Better knowledge of others and their needs' was the outcome rated most positively in the closed item, with more than three-quarters in years 2 and year 3 indicating a considerable effect in this area.

In other areas, however, on the basis of this evidence, the effects on mentors were more limited, particularly regarding the 'desire to take on management positions or seek promotion', an area in which around half of the mentor survey respondents derived 'no effect' in each year of the pilot. The ratings for 'development of classroom practice' and 'improvements to morale and wellbeing', with less than half of the mentor sample indicating a considerable effect, also suggest that the impact in these areas could be somewhat limited.

That the outcomes reported by mentors were variable can partly be explained by the constituents of the mentor sample. Mentors were most often experienced members of staff who had been teaching for many years (as Part one relayed, the mean length of service in the teaching profession was approaching two decades). They tended to hold positions of considerable responsibility in their schools, for example, in all three years of the pilot, around a third of mentors surveyed were deputy heads. It is reasonable to suggest that for these mentors, there was less room for development through promotion, as they had already achieved a senior position, or in regard to classroom practice, as they were perhaps spending more of their working day carrying out their management responsibilities. Indeed, statistical analysis established that mentors who

had served longer in the teaching profession consistently rated all seven effects in Table 13 lower than mentors with fewer years' teaching experience.

Issues connected with the manageability of the mentoring role (discussed in section 4.3.3) may also have hindered the extent of the effects derived. However, support for mentoring, through non-contact time and provision of training, did allow mentors to make the most of their role. In the final year of the pilot, mentors who received additional non-contact time to carry out their EPD duties rated the effects more highly in all seven of the specified areas; this difference was significant in all areas with the exception of 'better knowledge of others and their needs'. Alongside this, mentors who had received effective training and guidance rated the effects in each of these areas significantly higher than mentors who had not received such training.

Outcomes for mentors: open responses

In the first two years of the pilot, the survey asked – 'Yes' or 'No' – 'Has being an EPD mentor this school year had any impact on you?'. In both years (2002 & 2003) more than two-thirds of mentors expressed the view that it had (70 per cent in 2002 and 67 per cent in 2003).

Table 14 sets out the outcomes reported by mentors who stated that their role as EPD mentor had had an impact on them. These mentors' descriptions of the effects they had experienced as a result of EPD were grouped into categories developed in the first year of the study, although it was also necessary to add several categories in order to reflect impacts raised in the second year of the pilot that had not been cited in year 1.

Table 14 Mentors' nominations of the 'main impacts' of EPD on themselves in the first and second year of the pilot (open question)

(The question posed was, 'What would you say the main outcomes or impacts of being an EPD mentor are for you?'. Respondents only answered this if they had answered 'yes' to the prior question, 'Has being an EPD mentor this school year had any impact on you?'. Therefore, the percentages shown below are calculated from the number of mentors who had responded affirmatively to this initial enquiry.)

Impact	Mentors 2003 (%)	Mentors 2002 (%)
POSITIVE	(87)	(83)
Knowing others and their needs	(48)	(43)
Knowing EPD teachers' needs	22	25
Knowing others' professional development needs	19	4
Getting to know new/different staff	15	17
Professional networking/meeting others	3	4
Personal satisfaction/attitudes	(28)	(30)
Satisfaction derived from role	26	26
Feeling more motivated	5	2
Feeling more valued	2	6
Whole-school issues	(26)	(10)
Benefit to school	21	6
Awareness of whole-school issues	7	4
Enhancing own professional development	(19)	(25)
Enhancing own professional development	12	21
Development of mentoring skills	8	1
Actual career progression	5	1
Taking on more responsibility	2	4
Enhancing own teaching practices	17	19
NEGATIVE	(20)	(21)
Too much time	14	13
Too much work	5	8
Causes frustration	1	1
No response	3	1

Mentors were able to give more than one impact, so percentages do not sum to 100

The percentages in brackets show the proportion of respondents offering at least one outcome within each overarching category

Base: 2003 survey: 314; 2002 survey: 248

Source: EPD evaluation: EPD mentor surveys 2002 & 2003

As Table 14 shows, in both years, the vast majority of outcomes described by mentors were positive, although one-fifth of those responding did mention at least one negative outcome. The negatives related primarily to workload – that the role had taken too much time, or resulted in too much additional work. In the first year of the scheme, this was a particular problem for mentors with long careers in the teaching

profession, who might be expected to have held more responsibilities. In the second year, this was of particular concern to mentors in secondary schools.

The impacts raised by mentors in the case-study interviews also fell into the categories displayed in Table 14. This section will now use mentors' survey responses and their case-study data to explore further the impacts of EPD on themselves.

Knowledge of others and their needs

As Table 14 presents, 'Knowing others and their needs' was the theme attracting the greatest number of references, highlighted by almost half of the mentors who experienced any impact in the second year of the pilot and increasing from the first year. As shown in Table 13, this was also the most frequently endorsed outcome in the closed item in the questionnaire in years 2 and 3, and was the most frequently cited outcome in the case-study data.

In the survey data, specific reference to 'knowing others' professional development needs' showed the greatest increase, cited by four per cent of mentors reporting an impact in year 1 to 19 per cent in year 2. In 2002 and 2003, almost twice the proportion of mentors who had considerable experience in the teaching profession (more than 21 years) highlighted outcomes related to this category than those with fewer than six years' experience. Therefore, it would seem that this outcome would be particularly beneficial for long-established teachers who worked as mentors – those who were also more likely to hold more senior management roles.

'Knowing others and their needs', as well as being the most commonly cited impact, appeared to be a crucial effect, or step, leading to impacts in other areas, and in particular, leading to impacts on the school at a wider level. Analysis of the case-study interviews highlighted that for mentors with less experience within the teaching profession (i.e. those who had been teaching for less than ten years) and those with a large teaching timetable, gains made through working with EPD teachers included a revitalisation of enthusiasm for teaching, new ideas and reflection on their own classroom practice. These impacts had potential benefit for their pupils' learning, and ultimately for the school.

Knowing others and their needs → benefit to pupils and school

Working with new young teachers, I have enjoyed that, seeing things from their side, staff coming in who are new to the profession. I think that does make you think a little bit again, to reflect on your own practice and your way of doing things (Mentor, secondary, year 3 case-study data).

Having a formal time when I talk to them about their specific training and their specific needs has been very useful and I've learnt a lot about them as people, outside school. It's good because some of the things that they've learnt and shown me that they're interested in, I may not have found out about, and it's then fed back into the department as a whole and the schemes of work we can now offer to the pupils (Mentor, secondary, year 3 case-study data).

Further, for other more experienced mentors (i.e. not necessarily with previous experience of mentoring, but with more than ten years' experience of teaching), particularly those coordinating professional development within their school, mentoring kept them 'up-to-date' with the needs of teachers early in their career and allowed them to consider how the school could best meet those needs. This, then, had the potential to lead to further impacts both on teachers with regard to their

professional development, and eventually on the school in terms of enhancing their area of responsibility and own role within the school.

In addition, for some mentors, through knowing the EPD teachers and their needs, they were able to capitalise further on the areas of interest and expertise of their EPD teachers so as to then benefit teaching and learning within the school at a wider level.

Knowing others and their needs → benefit to school as a whole

I have got a better understanding of what the teachers need and I actually have more of an oversight of younger members of staff and how they feel about things, which I wouldn't necessarily have if I wasn't doing the role. It has contributed to me in some way wanting to do the continuing professional development across the whole school (Coordinator/mentor, secondary, year 3 case-study data).

I think it's allowed me to continue my professional relationship with the teachers involved. The impact on me is in terms of managing them and a continual relationship with them. It's also kept me informed of who they are as people and where they want to go as teachers. It's enabled my ideas about training teachers. It's impacted on me in terms of what are the priorities for us as a school in terms of teaching and learning. It's helped me to focus and to clarify my role a lot more (Coordinator/mentor, secondary, year 2 case-study data).

Knowing others and their needs → benefit to teachers → to school as a whole

I get to know members of staff better, I get to know their weaknesses and strengths better and I get to know their possible contributions to the school better, not just the science department but the wider school (Mentor, secondary, year 2 case-study data).

It was very clear to me that she had aspirations to be a key stage manager ... so I have got an excellent key stage manager. There's been a high turnover of staff before I came so what it's done is settled the staff because somebody who knows the children, who knows the school, who knows the community has actually now been given promotion within the school and is going to be an excellent key stage manager. So the impact on the school has been great in that sense (Coordinator/mentor, primary, year 3 case-study data).

Impacts on the mentor: impacts on the school

As Table 14 shows, when asked in their questionnaire about the impacts of the EPD mentoring on themselves, mentors both in years 1 and 2 cited outcomes related to the school. Furthermore, in the second year of the pilot, the proportion of mentor respondents highlighting wider-school effects in answer to this question increased from one in ten in the first year, to one in four in the second year.

Akin to this, when case-study mentors were asked about the impacts on themselves, they often referred to the development of their mentee, or their mentee's impact on the school: 'The impact on me is the positive influence that [teacher's name] has had around school' (Mentor, primary, Year 2 case-study data). That mentors chose to highlight outcomes for the school when they had actually been asked about the impact of EPD on them as mentors, perhaps reflects the priorities of mentors, many of whom held positions of responsibility within the school. It also suggests the interconnectedness of outcomes for the EPD scheme, from teacher to mentor to whole school, as was also evidenced in the above discussion on 'knowledge of others and their needs', which highlighted the linkage between mentors acquiring a greater understanding of their mentees' needs and impacts at a wider-school level.

Personal satisfaction

The second most commonly cited overarching outcome for mentors – derived from the responses to the open-ended question in the year 1 and year 2 questionnaires – was the personal satisfaction that they gained from performing the role. The interview data revealed that case-study mentors reported this outcome less frequently than an effect on their professional development, but it remained within the top three effects for these mentors.

From the comments of the mentors interviewed in the case-study schools, personal satisfaction was mostly derived from watching the teacher they were mentoring develop, and from having helped in that development. In addition, mentors cited the 'buzz' they got from mentoring teachers, the sense of excitement that they derived from the mentoring relationship, and from the activities that the teacher was pursuing: 'giving people the confidence to do something rather more exceptional'. There was an impact on the motivation and morale of those mentors who felt they had done 'a good job', felt proud of their mentee or were pleased to have been approached to carry out the role.

Further, mentors with substantial experience in the teaching profession enjoyed their new relationships with younger colleagues, which resulted from the outcome 'knowing others and their needs' discussed above, and liked to 'give something back' – for many, this was the main outcome, being in a position to pass on their experience.

Personal satisfaction: seeing and helping in EPD teachers' development

Just really feeling that you're giving them something that's helping them develop and that you're actually helping them to focus on their career and not just coming in and opening the classroom door and teaching, but actually you're thinking about it as a whole package and that they're a part of a much bigger machine (Mentor, primary, year 3 case-study data).

A sense of excitement really because it has worked, I have seen the teachers, their growth of different things that they've been doing [as part of EPD] and a sense of excitement (Mentor, primary, year 2 case-study data).

Personal satisfaction: giving something back

I've had the chance to pass on any gems of wisdom I might have. I've passed on my own experience (Mentor, primary, year 3 case-study data).

If you can be involved and keep people [teachers] optimistic about what they're doing in the classroom, get them to see it through and work out strategies to help them in the classroom, I think that is one of the most rewarding things in teaching (Mentor, secondary, year 3 case-study data).

Enhancements to mentors' professional development and teaching practices

Finally, enhancements to their own professional development and to their teaching practices were each cited by around one-fifth of the mentors surveyed who reported that EPD had had an impact on them. In both years, these effects were more commonly conveyed by mentors with fewer years' experience in the teaching profession. In the case-study schools, this was the second most commonly cited outcome for mentors. Their comments suggested that the mentors who reported experiencing an enhancement to their professional development were those who spent more time in the classroom, rather than those who had advanced through the management hierarchy.

The survey data suggests that the development of mentoring skills and actual career progression as a result of undertaking the mentoring role were more prominent outcomes in 2003 compared with the first year of the pilot. This may perhaps highlight an increase in the status of mentoring within schools over the course of the EPD pilot.

For the case-study mentors citing outcomes related to the development of their mentoring skills, the effects were both extensive and various. Mentors discussed the enhancements of general communication and mentoring skills, the ways in which mentoring teachers enabled reflection on their role as a manager, which led to refinements in practice. For others, the mentoring role had been an opportunity to take on a new focus or responsibility, and had raised their profile within the school.

As Table 14 shows, 'actual career progression' was cited as an outcome of EPD by a number of mentors surveyed in 2003. The case-study interviews revealed that career progression took many forms. Within the school, mentors were able to develop their role as CPD coordinator, induction tutor, or extend their mentoring (e.g. to NQTs). Beyond the school, mentoring offered further opportunities: one mentor was able to use the experience to pursue a professional qualification, another was invited to undertake a consultation role within the LEA regarding CPD. Such developments were not limited to those mentors lower in the management hierarchy – headteachers also spoke of career development opportunities as an outcome of the EPD scheme.

Mentoring as a career development opportunity

It was a career opportunity – to do something outside the remit of my own headship (Coordinator, primary, year 3 case-study data).

I recently did my NPQH and part of that is monitoring and bringing people on and developing ideas with them. So it enabled me to complete that as well (Mentor, special school, year 3 case-study data).

For me, I would quite, in the future, like to move into the tutoring, mentoring side, it's shown me that that's what actually I really want to do (Mentor, primary, year 2 case-study data).

No impact on mentors

Mentors who responded to the questionnaire open-ended item by indicating that they had not experienced any impact as a result of EPD, predominantly gave the reason that they had previous experience of mentoring. In addition, in the first year of the pilot, mentors who had not been affected by EPD explained that they had not carried out any mentoring activities. In the second year, other reasons stated for reporting no impact included being mentor to a teacher who did not require support, and a lack of training or information about the role. The minority (one in five over years 2 and 3 of the pilot) of case-study mentors who believed that EPD had had no impact on them tended to view mentoring as part of their overall role, such that being a mentor for the EPD scheme specifically did not have a separate impact.

The case-study mentors citing no effect had not received training for their role as an EPD mentor. All were more senior members of staff, often line-manager to the teacher they mentored and, while the number of teachers that they mentored varied, all had previously mentored. Thus, it may be unrealistic to seek extensive effects on many mentors in these areas. Case-study data indicated that the motives for

undertaking the role could be various and it was not necessarily the case that mentors had expected impacts on themselves.

Mentoring: 'just part of the job'

It's just part and parcel of my job that I would be working with staff anyway. I'm totally committed to staff training so it hasn't had an impact because it's what I believe in anyway (Coordinator/mentor, primary, year 3 case-study data).

I don't think it's impinged on my professional development at all. But it's hard to sit back and say whether it has, or maybe whether it ought to have had (Mentor, secondary, year 3 case-study data).

I'm used to being a mentor and I think if I'd never done it before, I would feel quite 'Ooh that's quite nice I've got that new role' – but it's part of what I do (Mentor, primary, year 2 case-study data).

2.3.4 Summary

Over two-thirds of mentors in the survey sample believed that their mentoring role had had an effect on them, and four out of five mentors in the case-study schools described an impact from EPD on themselves. The vast majority (over 80 per cent) of the impacts cited by mentors in response to an open-ended enquiry in the survey were positive and included: getting to know EPD teachers' and others' professional development needs; deriving satisfaction from undertaking the role; a general benefit for the whole-school which they, in turn, experienced; and enhancement of their own professional development.

The questionnaire also contained a closed item that invited mentors to rate the effect of EPD on themselves in six given areas. Knowledge of other teachers and their needs was again the most prominent outcome, with four out of five mentors experiencing a considerable effect. However, in response to this question, mentors indicated that other outcomes had been more limited: for example, in their classroom practice and their desire to seek further promotion. This was largely owing to the characteristics of the mentor survey sample – predominately long-serving, senior members of staff with previous mentoring experience. A further factor to have inhibited the generation of outcomes for mentors related to the manageability of the role. However, there was evidence that non-contact time and effective training for mentors increased their perception of the number and extent of impacts on them.

Whilst the outcomes mentors reported for themselves may have been variable, the benefits of the mentoring relationship for EPD teachers, particularly those in the second year of their career, has been found to be crucial for teachers' outcomes (see Part three) and for school outcomes. In particular, in many schools, the mentor played a vital role in the transposition of improvements in the teacher to benefits for the wider school community.

2.4 The outcomes of EPD for the teaching profession

2.4.1 The evidence base

So far, Part two of this report has set out the substantial impact of EPD on participating teachers, their schools and pupils. However, were the effects of EPD attributable to the particular approach of the scheme or were they simply what would ordinarily be achieved through any professional development opportunity? It is to this issue that we shall now turn by contrasting the responses of the EPD teachers and a 'comparative' sample to determine the extent of any added value brought by EPD. The unique contribution of the scheme will be determined by examining two key areas – firstly, the outcomes of professional development for EPD and comparative teachers and secondly, whether these two groups varied in their intentions to remain in teaching long term.

In the second year of the EPD evaluation, a postal survey was administered to a sample of second and third year teachers outside the pilot LEAs, the purpose of which was to compare the experiences of and attitudes towards professional development of teachers who had not been part of the EPD pilot with those who had participated. As Part one explained, the teachers in this comparative group were drawn from schools that mirrored the schools in the EPD survey sample in terms of: type of LEA (Inner London, Outer London, metropolitan, unitary, county); attainment levels; school size; and type of management (community, voluntary controlled, voluntary aided etc.). In the questionnaire despatched to teachers in these comparative schools, questions referring to EPD were substituted with matched items referring to their CPD generally over the school year 2002-03.

- 1. EPD and comparative teachers were asked to rate on a six-point-scale the extent of the overall impact of EPD / professional development on their professional practices.
- 2. Both the EPD and comparative teachers were asked to indicate, on a five-point scale, the likelihood that they would be working in teaching in five years' time.

The findings are presented in the following two sections:

- Section 2.4.2 The outcomes of professional development for EPD and comparative teachers
- Section 2.4.3 The impact of EPD on retention in the teaching profession

2.4.2 The outcomes of professional development for EPD and comparative teachers

Section 2.1 presented the responses of EPD teachers when they were asked to rate the scheme's effect on their practice in 12 given areas. In order to ascertain some measure of the additional benefit, if any, of EPD, this list of outcomes was also included in the 'comparative' questionnaire to teachers outside the EPD LEAs. These teachers were asked to rate the extent to which the professional development activities they had

undertaken over the school year had affected their practices. The proportions of EPD⁷ and comparative teachers reporting a considerable impact in each area (i.e. rating the effect on their practice and attitudes at 4, 5 or 6 out of 6) are presented in Table 15.

As Table 15 shows, the results of the comparison of EPD and comparative teachers can be summed up as follows.

- For all areas, more EPD teachers reported deriving greater outcomes than comparative teachers. The differences between the proportions were statistically significant.
- In particular, there were very high levels of statistical significance between the EPD and comparative teachers' ratings of: improvements to morale and wellbeing; thinking regarding career development; willingness to undertake professional development; and commitment to teaching. For these all affective, motivational and career-related impacts around 15 per cent more EPD teachers than comparative teachers cited a considerable effect.
- There were also very strongly significant differences between the appraisals of the two samples for the ability to take on leadership roles, access to resources and materials and contribution to colleagues and the school. For example, almost half of EPD teachers (46 per cent) but nearer a third of comparative teachers (34 per cent) rated the impact on their contribution to the school at 5 or 6 out of 6 the two highest levels.
- Irrespective of school type, EPD teachers reported greater outcomes than the comparative sample. Indeed, some of the biggest differences of all were observed between the responses of secondary teachers in the EPD sample and secondary comparative teachers, especially in terms of: their willingness to undertake professional development; thinking regarding career development; their morale; commitment to teaching; and the contribution made to colleagues and their school.

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⁷Because the comparative survey was conducted in the second year of the evaluation, the results for this sample are compared with the responses of EPD teachers to their questionnaire in year 2.

Table 15 EPD teachers' ratings of the effect of EPD and comparative teachers' ratings of the effect of their professional development activities

(The table shows the percentage of teachers circling 4, 5 or 6 on a six-point scale.) (Scale: 1 = no effect; 6 = great effect)

Type of impact	EPD teachers	Comparative teachers	Difference	
	Considerable effect (% of teachers)	Considerable effect (% of teachers)	Percentage points	
Access to resources and materials	58	50	+8	
Understanding as to what constitutes good teaching practice	67	66	+1	
Improvements to your morale and wellbeing	62	44	+18	
Enhanced willingness to undertake professional development	73	57	+16	
Contribution to your colleagues and the school	72	65	+7	
Knowledge of the subject(s) you teach	61	56	+5	
Knowledge and skills related to classroom management techniques	56	50	+6	
Ability to take on leadership roles	61	52	+9	
Actual teaching practice	72	69	+3	
Ability to teach different pupils	53	47	+6	
Enhanced commitment to teaching as your career	63	49	+14	
Thinking on how you would like your career to develop	72	54	+18	

Base: EPD sample: 1103–1110 Comparative sample: 1497–1501

Source: EPD evaluation: EPD teacher survey 2003, comparative teacher survey 2003

In a further enquiry, the EPD sample was asked to indicate the extent to which their EPD and any other CPD received had affected their professional practices overall. The comparative survey contained a parallel question inviting respondents to give an overall rating for the effect of their professional development on their practices. Again, EPD teachers rated the overall effect of all their professional development significantly higher than comparative teachers. In terms of the usual demarcation of 4. 5 or 6 out of 6 – indicative of a considerable effect on practice – there was a difference of around 20 percentage points between the two groupings. However, this, in some ways, disguises the true magnitude of the contrast between the EPD and comparative teachers. For example, taking only the figures for the highest rating (number 6), just five per cent of the comparative sample felt that their professional development opportunities had had a 'great effect' on their professional practices. The corresponding proportion of EPD teachers was more than three times higher, at 18 per cent. Further, taking the top two ratings (5 and 6), 27 per cent of comparative teachers graded the overall effect on their professional practices thus, compared with more than double this proportion of EPD teachers -63 per cent.

The endorsement of EPD continued when both samples were invited to assess the extent to which they felt their professional development needs had been met over the school year. Two-thirds of the EPD sample (65 per cent) felt that their professional development needs had been met 'quite a lot' or 'a great deal' compared with fewer than half of the comparative teachers (45 per cent).

Thus, in whatever way the effects on the EPD and comparative samples were measured – across 12 given areas, in terms of the overall impact on professional practice or regarding the extent to which professional development needs were met – it was the EPD teachers who consistently responded more positively.

2.4.3 The impact on retention in the teaching profession

In section 2.4.2 above, it was noted that when the comparative sample rated their professional development activities and the EPD sample assessed their EPD-funded opportunities, there was a most marked difference between their ratings of the impact on their commitment to teaching as a career. To take this further and to try to determine whether EPD could impact on retention in the teaching profession, both the EPD and comparative samples were asked directly about the likelihood of their staying in teaching. This section will consider their responses.

Retention in the teaching profession: the intentions of EPD and comparative teachers

In their questionnaires, both the EPD and comparative teachers were asked to indicate on a five-point scale (1 = very unlikely; 5 = very likely): 'How likely is it that you will be working in teaching in five years' time?'. The results are presented in Table 16.

Table 16 EPD and comparative teachers' own assessments of their likelihood of working in teaching in five years' time

Likelihood of remaining in teaching	Rating 1 (%) Very unlikely	Rating 2 (%)	Rating 3 (%)	Rating 4 (%)	Rating 5 (%) Very likely
EPD teachers	5	6	18	23	47
Comparative teachers	7	11	22	22	37

Due to rounding, percentages may not sum to 100 Base: EPD sample: 1126; comparative sample: 1513

Source: EPD evaluation: EPD teacher survey 2003, comparative teacher survey 2003

As can be seen from the above figures, EPD teachers were much more inclined to report that they were 'very likely' to be working in teaching in five years' time. The difference between the two groupings' ratings was highly statistically significant. On the five-point scale, 70 per cent of the EPD teachers circled 4 or 5, the top two ratings, compared with 59 per cent of the comparative sample. Therefore, 11 per cent more EPD teachers than comparative teachers registered a strong likelihood that they would be members of the teaching profession in five years. Considered in terms of the 420,000-strong teacher workforce or in terms of the 96,000 teachers in the early stages of their career in England (DfES, 2003), then this difference of 11 percentage points might be seen to represent a sizeable number.

Further analysis showed that regardless of year of teaching (second or third year) or school type (primary or secondary), EPD teachers consistently replied with greater certainty than the comparative sample that they would be in the teaching profession five years from now – in both these analyses the differences between EPD and comparative teachers' ratings were strongly significant.

When the responses were examined according to the type of LEA in which teachers worked (Inner London, Outer London, metropolitan, unitary, county), without exception, the differences between the ratings of the EPD and comparative samples were marked and highly statistically significant. In each case, EPD teachers registered a stronger likelihood that they would remain in teaching. In particular, the most striking differences between the views expressed by EPD and comparative teachers were evident in metropolitan authorities, and also in London – a notable finding given the higher 'wastage' levels (loss of teachers from the maintained sector) from schools in the capital as reported by Smithers and Robinson (2003). Indeed, the divide between the proportions of EPD and comparative teachers giving the top rating (number 5 – denoting 'very likely' to stay in teaching) was greatest in Inner London.

The above findings show that EPD teachers – overall and irrespective of phase of school, year of teaching and LEA type – rated the likelihood of their remaining in teaching in five years more certainly than the comparative sample. However, how safely can we conclude from this that their access to the additional professional development opportunities made available through EPD had contributed to these more positive outlooks? As stated earlier, in order to make any comparisons as accurate as possible, the schools from which the comparative sample was drawn were originally chosen to mirror those in the EPD survey sample. When the survey returns were

received, the samples remained well matched in terms of LEA type, an important factor in any consideration of retention given the higher 'wastage' rates in London. There were some differences in the actual characteristics of the teachers forming the EPD and comparative samples however, with the comparative sample comprising a greater proportion of secondary school teachers and second year teachers. However, multivariate analysis established that ratings showing a greater likelihood of remaining in teaching were independently associated with EPD, and were not the result of differences between the make-up of the EPD and comparative samples. Therefore, these findings do show that EPD has potential to impact on commitment to the profession.

Decisions regarding staying in or leaving the teaching profession

In their questionnaires, both EPD teachers and those in the comparative sample were asked to state, 'What are the main factors that will affect your decision to remain in or leave the teaching profession?'. For both groups, workload was the most frequently cited factor (by 42 per cent of EPD teachers and 45 per cent of comparative teachers responding to the question). In the comparative sample, this was followed by issues of personal finance (31 per cent), factors related to professional development (26 per cent) and issues relating to the level of professional support they received (23 per cent). In the EPD sample, the other most frequently cited factors influencing their decision were the fact they felt they had a good job and working conditions (25 per cent), issues of personal finance (24 per cent) and factors related to professional development (21 per cent).

The teachers in the comparative sample generally listed a larger number of negative factors (i.e. dissatisfactions that may influence them to leave the profession) than those in the EPD sample. Specifically, they were significantly more likely to cite issues related to salary and personal finance, opportunities for professional development, lack of support from within and outside their school, and excessive bureaucracy and paperwork than EPD teachers. This may suggest that the positive effect of EPD extends to a generally enhanced perception of the teaching profession and less dissatisfaction on the part of teachers involved with the scheme in comparison with others at a similar stage in their careers.

2.4.4 Summary

The substantial impact of EPD on participating teachers was documented in section 2.1 of this report. However, taken in isolation, it was uncertain whether the extent of the reported effects was attributable to the particular approach of EPD or was simply that ordinarily gained from professional development opportunities. When the attitudes and experiences of EPD teachers were contrasted with a comparative sample of non-participating teachers outside the pilot areas, the added value of the scheme was revealed – both in terms of its effect on participants' practice and their longer-term commitment to the profession.

 Over a range of 12 outcomes, EPD teachers consistently reported a higher level of impact, with statistically significant differences between their ratings and those of the comparative teachers.

- In particular, when contrasted with comparative teachers, EPD was most influential in terms of its impact on: improvements to morale and wellbeing; thinking regarding career development; willingness to undertake professional development; commitment to teaching; and the contribution made to other colleagues and the school.
- EPD teachers responded with much greater certainty than the comparative sample that they anticipated being members of the teaching profession in five years' time irrespective of phase of school (primary/secondary), year of teaching (second/third year) or LEA type (Inner London/Outer London/metropolitan/unitary/county). The difference between the two samples' responses was highly statistically significant, with 70 per cent of the EPD teachers registering a strong likelihood that they would remain in teaching compared with 59 per cent of the comparative sample. Considered in terms of the 96,000 teachers early in their careers in England (DfES, 2003), then this difference of 11 percentage points demonstrates EPD's potential to impact on commitment to the profession.

Concluding comment

Part two of this report has set out the effects for teachers, mentors, schools and the teaching profession as a result of involvement in EPD, and with much confidence, it is possible to testify to the substantial successes of the EPD scheme. Based on samples more than 1,100-strong in the second and third years of the pilot, three-quarters of the teachers felt that EPD had impacted on their professional practices and attitudes to a considerable degree. Principal among the outcomes they experienced was the effect on their teaching practice and focus on career and professional development. The outcomes reported by teachers were corroborated by their mentors; indeed, mentors' ratings of the impact of EPD on their mentees actually exceeded teachers' own estimations in all three years of the pilot. The impact on the school was established, with more than 70 per cent of teachers and their mentors acknowledging the considerable effect that EPD had had on teachers' contribution to their colleagues and their school. Furthermore, the benefit to pupils was a chief outcome: enhancements to their learning became the top-rated effect of EPD in the final year of the pilot. Lastly, the potential of EPD to aid retention in the teaching profession was underlined when EPD teachers expressed their conviction that they would remain in teaching in greater numbers than a control group of second and third year teachers outside the pilot areas.

Part Three

Achieving outcomes from Early Professional Development

Part three of this report identifies the factors central to the EPD experience that accounted for the range and depth of the outcomes set out in Part two. By distinguishing the key elements of EPD that were pivotal to its success, the experience of the pilot can contribute to thinking and future practices in professional development.

In order to establish the features of EPD instrumental in achieving impacts, three forms of analyses were undertaken:

- an examination of EPD teachers' survey responses to determine the experiences under the scheme that were statistically related to the effects derived
- scrutiny of the case-study interviews with EPD teachers to ascertain the aspects of EPD to which they themselves attributed the outcomes they had attained and
- a comparison of the experiences of EPD teachers and the comparative sample to throw light on the distinct features of EPD.

The results of these analyses are presented in three sections:

- 3.1 Identifying factors instrumental in achieving outcomes: analyses of the teacher survey data
- 3.2 Identifying factors instrumental in achieving outcomes: case-study teachers' views
- 3.3 Identifying factors instrumental in achieving outcomes: contrasting the experiences of the EPD and comparative samples
- 3.4 A summary of factors instrumental in achieving outcomes

3.1 Identifying factors instrumental in achieving outcomes: analyses of the teacher survey data

Using EPD teachers' survey responses, this section presents analyses examining which teacher experiences under the scheme were associated with the positive effects derived by teachers. The analysis was conducted using the pre-selected outcomes from the teacher survey (as discussed in section 2.1), and hence sought to identify the inputs and experiences that were related to achieving impacts in the following areas:

- actual teaching practice
- knowledge of the subject(s) taught

- ability to take on leadership roles
- classroom management knowledge and skills
- enhanced willingness to undertake professional development
- contribution to colleagues and the school
- access to resources and materials
- improvements to morale and wellbeing
- understanding as to what constitutes good teaching practice
- enhanced commitment to teaching as a career
- thinking about career development (years 2 and 3)
- ability to teach different groups of pupils (e.g. age groups, SEN) (year 2)
- enhancements to pupils' learning (year 3)
- overall effect of the EPD scheme on professional practices.

The section examines whether EPD teachers' individual experiences predict their appraisals of their development in the areas listed above. Firstly, we focus on the links between mentoring and the outcomes, then multivariate statistical techniques are employed to examine which other aspects of the teachers' experiences independently contribute to these effects.

3.1.1 Effects of mentoring on teacher outcomes

In each year of the pilot, analyses of the teacher survey data showed a link between having a mentor and experiencing more positive effects for each of the above outcomes. This was particularly the case for second year teachers. In year 1 of the pilot, when the teacher survey sample comprised solely second year teachers, those with mentors gave higher ratings for the effects of EPD across all areas listed above. Then, in years 2 and 3, for second year teachers, mentoring was significantly correlated with the vast majority of these outcomes. Considering the results from across the three years of the pilot, particularly strong effects of mentoring for second year teachers were seen in the areas of:

- the overall effect of EPD on their professional practices
- their understanding as to what constitutes good practice
- their knowledge and skills related to classroom management techniques
- an enhanced commitment to teaching as their career
- an enhanced willingness to undertake professional development.

For third year teachers, the effect of mentoring was positive, though there were fewer outcomes for which the association reached statistical significance. For example, in year 3 of the pilot, there were significant correlations between having a mentor and four of the 13 outcomes for third year teachers, whereas for second years, mentoring had linked with 11 outcomes. Whilst fewer in number, none the less the areas where having a mentor affected the outcomes for third year teachers shows the continued value of this relationship: their commitment to the profession; willingness to undertake professional development; the overall effect of EPD on their professional practices and improvements in their morale and wellbeing.

Whilst both groups appreciated the sense of support and nurture mentoring can bring, the change in outcomes with which mentoring was associated reflects the

development of teachers' learning needs in the early years of their careers. Mentoring brought most practical benefits to second year teachers in terms of its effect on their teaching practice, especially classroom management, as well as strengthening their commitment and professional development. For third years, mentoring was less influential in terms of its impact on teaching practice yet it continued to be significant in terms of how they related to teaching as a career: their commitment, their morale, their desire to continue to develop professionally. This is further corroborated by the responses of the case-study teachers who were interviewed as part of the research – these shall be considered in section 3.2.

3.1.2 Other predictors of outcomes on teacher practice

In addition to mentoring, associations between a number of other factors relating to the EPD teachers' experience and the 13 outcomes were examined using univariate and multivariate statistical analyses. Whilst univariate analyses identify straightforward associations between teachers' experience and outcomes, multivariate analyses — which take into account the effects of several different factors simultaneously — eliminate spurious associations that are due to intercorrelations between variables. Thus, this method of analysis could establish the elements of teachers' experience that were independently associated with the outcomes derived from EPD.

To this end, the following factors were hypothesised to be potential predictors of high levels of effects on teachers and were included in the analysis in order to ascertain those that were influential over and above the others⁸:

- perceptions of the extent of their school's support for their professional development over the past year
- perceived effectiveness of ITT
- perceived effectiveness of professional development during the induction year
- teachers' involvement in selecting their own EPD programme
- type of professional development opportunity.

In order to verify the results, multivariate analyses were conducted in each year of the pilot using the teacher questionnaire data from that year. The following factors emerged as those independently influencing teachers' ratings of the outcomes of EPD: school support, teacher involvement in selecting EPD and, to a lesser extent, the effectiveness of the induction year. Each will now be discussed in greater detail.

Perceptions of the extent of school support for professional development

In the second and third year of the pilot, EPD teachers were asked to indicate on a five-point scale how far they felt that their school had supported their professional development over the past year. In both years, the majority felt that their school had

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⁸ Numbers of participants without mentors were too low in most LEAs for the effects of mentoring to be reliably examined in a multivariate analysis, but whether participants had a mentor or not was included as a control factor in the model to ensure that significant results found in this analysis were not due to variation in levels of mentoring. Year of teaching and involvement in specific EPD activities were also incorporated in the model as control factors.

been supportive, with 64 per cent of teachers in year 2 and 68 per cent of teachers in year 3, giving a rating of 4 or 5 out of 5. In the multivariate analyses of both the year 2 and year 3 data, school support was significantly and independently associated with each of the 13 outcomes examined, with higher levels of perceived school support leading to stronger outcomes. Of all the factors considered, school support had some of the strongest associations with the outcomes of EPD, particularly with regard to career-related effects and those linked to the teacher's role and impact in school: enhanced commitment to teaching as a career; ability to take on leadership roles and contribution to colleagues and the school.

This suggests that the degree of support that teachers received from their school was an important factor in allowing them to gain the most from EPD, and that school support can facilitate teachers' development in a range of areas, including their commitment to the teaching profession.

Teachers' involvement in selecting their own EPD programme: teacher autonomy

Teachers' involvement in selecting their own EPD was also a strongly significant predictor of teacher outcomes, with those more involved in the selection of their EPD registering higher ratings for effects. In each year of the study, the multivariate analyses showed that teachers' role in determining their EPD significantly predicted each of the outcomes examined, independently of the effect of other predictors. In particular, the influence was especially strong for impacts on their knowledge of subjects taught, pupils' learning and actual teaching practice. Thus, involving teachers in the planning of their professional development and allowing them to take a directive role with respect to their own programme – teacher autonomy – reaps benefits both for the individual teacher's practice and their pupils in particular and also their schools.

Effectiveness of professional development during the induction year

Examination of the multivariate models showed that the effectiveness of the induction year was strongly associated with perceptions of schools' support for professional development in the past year. This might be expected, as most teachers would still have been in the same school as they were in their induction year, and schools that support their NQTs well are also likely to support their early career teachers well. In the multivariate analyses, given the association with school support (a more influential predictor of EPD outcomes), the effectiveness of professional development in the induction year emerged less strongly.

Nevertheless, in the second year of the pilot, ratings for the effectiveness of the induction year were independently related to developments in teachers' classroom management skills. And, in the third year, the effectiveness of the induction year remained a significant predictor in this area, in addition to a range of career-related outcomes such as EPD teachers' ability to take on leadership roles, an enhanced willingness to undertake professional development, thinking on how they would like their career to develop and an enhanced commitment to the teaching profession.

Despite the association between school support, the results of the multivariate analysis of year 3 data does suggest that a positive experience of the NQT year alone could facilitate effects on EPD teachers in a range of areas. This finding thus provides some support for the notion that a coordinated, coherent approach to the support and professional development of teachers early in their careers is important.

To sum up briefly so far, using the teacher survey data, the EPD experiences that teachers reported have been examined against the outcomes they cited in order to determine which of these experiences were statistically associated with the outcomes derived. Employing univariate and multivariate techniques, it emerged that the effects of EPD were significantly associated with: mentoring, the level of school support for professional development and teachers' degree of involvement in selecting their EPD (teacher autonomy). School support and teacher autonomy were particularly influential — both independently predicting outcomes. To a lesser extent, the effectiveness of the induction was associated with the outcomes.

3.2 Identifying factors instrumental in achieving outcomes: case-study teachers' views

To investigate further the elements of EPD that were instrumental in achieving outcomes, the interviews with teachers in the case-study schools were examined in order to ascertain the aspects of EPD that they believed accounted for the impacts derived. It is to the results of this analysis that we now turn.

During the interviews in the case-study schools, teachers were asked what they regarded as the main impact of EPD. As Part two conveyed, case-study teachers cited improvements related to their teaching practice primarily and also their career development. After identifying the main impact of EPD, they were asked what aspect of EPD had led to this impact. In this section, the aspects cited in relation to improvement in teaching practice are considered first, followed by those which teachers linked with career development.

3.2.1 Case-study teachers' views of the aspects of EPD leading to teaching impacts

From case-study teachers' comments, it emerged that the aspects of EPD, or forms of professional development influential in achieving outcomes, differed depending upon the precise nature of the impact on their teaching practice. For example:

- Across the three years of the study, interviewees for whom the main impact of EPD had been the improvement of their teaching practice, the acquisition of new ideas to feed into their practice or the enhancement of their subject knowledge and skills most often attributed these to courses they had attended.
- In contrast, interviewees who felt that EPD had resulted in them being able to reflect on their teaching practice identified their freedom to choose their EPD programme, the mentoring they received, EPD funding and additional non-contact time.
- Those reporting the confirmation of their teaching practice as the main impact of EPD most often felt that expert advice, networking, observations and visits to other schools had led to this.
- Improved classroom management was most commonly seen to be the result of observing others and mentoring.

Thus, in addition to highlighting influential features of EPD (freedom of choice, funding, mentoring), teachers' comments offer potentially useful guidance on the types of professional development to pursue in order to address particular needs. For instance, on the basis of this evidence, it could be suggested that for those teachers with the desire to improve their classroom management skills or reflect on or confirm their teaching, they should be guided to seek 'in-house' advice from mentors or observe other teachers, rather than attend courses.

Teacher autonomy → improved teaching practice

To me, [involvement in selecting my EPD] has been absolutely fantastic because I've actually got what I wanted and that's made all the difference. I go to a course going 'Wow, this is something I'm excited about. This is something I really want to do' rather than 'Oh, there's a maths course, go and do it'. It may be good or it may not be, but you don't go with that attitude of 'This is exactly what I want to do. I'm excited, I'm ready to learn'. (Teacher, primary, year 2 case-study data).

Non-contact time → reflection on teaching practices

It's just made me a better teacher because I've had the time to sit back and think about my own teaching in, not only maths, but in other areas and have the chance to look at other teachers and learn from them ... You can book yourself a half day to actually sit down and think 'Right, what have I learnt? Do I need to take this on and talk to somebody about it? What has it done for me?'. So, time, I think, has been brilliant out of all of it (Teacher, primary, year 2 case-study data).

3.2.2 Case-study teachers' views of the aspects of EPD leading to career impacts

Across the three years of the pilot, those case-study interviewees for whom career-related impacts had been the primary outcome of EPD most often attributed these to the existence of the scheme itself as a whole. Thus, the EPD initiative could be said to have raised the profile and to have provided teachers with the opportunity to focus on their career development more than other CPD opportunities available. Interviewees specifically citing their enhanced commitment to teaching as the main impact of EPD attributed this to the freedom to choose their professional development programme and the EPD funding available. The additional monies and the autonomy to spend it made these teachers feel valued and led them to reflect on how they wished to proceed in their careers. In addition, among those teachers regarding commitment to teaching as the main EPD impact, a number related this to EPD-specific input on career development led by their LEA or convened by their LEA and led by a local HEI.

In addition to the EPD scheme as a whole, in all three years of the study, mentoring was commonly regarded as contributing to career-related impacts for case-study teachers. A number of teachers who felt that the main impact of EPD was that it had enabled them to think about their career, obtain advice, gain ideas about progressing, and had assisted in actual career progression and promotion were more likely to attribute this to mentoring. The statistical analysis of the teacher survey data also established a link between mentoring and achieving career-related outcomes, suggesting that those looking to aid teachers' career development should consider introducing mentors as a way of assisting teachers in this area.

The existence of the EPD scheme → think about career

[EPD] makes you well aware that although you have learnt an awful lot at college, you've still got to keep developing and keep learning. It really nudges you into thinking about that. ... If EPD wasn't there to say you've got to continue your professional development, I feel that would slide by the wayside quite severely in a lot of schools' (Teacher, primary, year 3 case-study data).

Teacher autonomy → commitment to teaching

I think if it [EPD] was within every LEA, it would be brilliant. It would really encourage people to stay in [teaching] because you can develop, you can choose a path for development of something that you are really interested in. If you are doing something you're interested in, you're bound to, not necessarily excel at it, but you want to excel at it, and it will be a bonus for the school because they've got enthusiastic teachers (Teacher, primary, year 3 case-study data).

EPD-specific input from LEA/HEI → commitment to teaching

It helped me to focus on where I wanted to go, really. On the course, our tutor, was actually quite good at showing us different paths we could take in teaching in the form of a career. And it's driven us a bit more and helped me. I've now got a four-year, five-year plan. So, I'm now thinking more ahead, about where I want to go professionally whereas before, because I'd just had my NQT year, I was just on the level of in the classroom. It helped me to look broader (Teacher, primary, year 3 case-study data).

Mentoring →advice about career planning

I think the biggest impact is being able to make a decision about where I'm actually going with my career, and what is right for me and what's not right for me. I've been through a full circle in a way, which has been greatly supported and [mentor] has been very good at putting questions to me that made me think about lots of different things, which you wouldn't necessarily have. So I think the mentoring side of it has had the biggest impact (Teacher, secondary, year 3 case-study data).

3.3 Identifying factors instrumental in achieving outcomes: contrasting the experiences of the EPD and comparative samples

So far in this examination of the factors influential in generating the outcomes of EPD, analysis has concentrated on the responses of participants in the pilot. The comparative survey to teachers in matched schools outside the pilot areas allows us to contrast the experiences of the EPD and comparative samples. Any differences between the two samples then assists in throwing further light on the distinguishing features of EPD.

As Part two showed, participants in the EPD scheme consistently reported far greater outcomes from their EPD than the comparative sample registered gaining from their professional development opportunities. Further, EPD teachers responded with much more certainty that they anticipated being members of the teaching profession in five years' time. As part of the analysis to establish the elements of EPD central to achieving outcomes, the experiences of EPD and the comparative teachers were first contrasted to ascertain where any differences between the two samples lay. Secondly, in order to examine specifically why EPD teachers had registered stronger intentions to stay in the teaching profession, analysis examined associations between ratings of the likelihood of remaining in teaching and aspects of their current experience.

3.3.1 Factors associated with the outcomes of professional development for EPD and comparative teachers: differences in the experiences of the two samples

Certainly, a primary difference between the EPD and comparative teachers was the funding available as part of the pilot. The extra funding brought by the EPD scheme had enabled double the proportion of EPD teachers than comparative teachers (36 per cent and 18 per cent respectively) to engage in possibly more costly professional development activities: for example, to undertake research qualifications; purchase resources; 'buy' supply cover then use the additional non-contact time to develop their role in school. And, as Part four will document, these types of activity were highly rated for their relevance and impact on practice.

Furthermore, EPD teachers were able to spend more time on their professional development. However, were the more positive impacts derived by EPD teachers solely attributable to this additional time or were there other influential features inherent in the EPD experience? To explore this, multivariate analysis techniques were employed to establish the factors which were independently associated with the overall impact of professional development reported by the EPD and comparative teachers. Factors included in the analysis were:

- year of teaching (second or third year) and school type (primary or secondary) as controls
- total time spent on professional development over the school year (for the comparative sample) / time spent on EPD-funded professional development (for the EPD teacher sample)
- whether the respondent was part of the EPD or comparative teacher sample.

It emerged that whilst the amount of time spent on professional development was related to a high impact on teachers' overall practice (in particular the time spent at courses and also undertaking observations of other colleagues), involvement in the EPD scheme *per se* was also an independent predictor of impact. This possibly signals that over and above the additional time spent on professional development by EPD teachers, there were other specific characteristics of the EPD experience that were contributing to the greater outcomes generated for participants. Funding would have been a key area but how else did the experience of EPD and comparative teachers differ? Analysis lent further weight to the centrality of teacher autonomy and school support (already identified as key by the multivariate analysis of the EPD teacher survey data) as there were found to be differences between the EPD and comparative samples in these areas. These are discussed below.

Autonomy over professional development

The degree of control over their professional development was a principal difference between the EPD and comparative teacher samples. When asked to indicate on a five-point scale (1 = not involved at all; 5 = closely involved) their level of involvement in selecting their EPD / professional development (comparative), three-fifths of the EPD teachers selected the highest rating of 5 out of 5 compared with around one-fifth of the comparative sample.

Section 3.1 has already highlighted the value of teacher autonomy and has shown that among EPD teachers, the more involvement they had in selecting their EPD, the greater the impact on their practices and attitudes. Therefore, the greater autonomy of the EPD sample as a whole, compared with the comparative teachers, seems likely to be one of the factors contributing to the higher outcomes derived by the EPD teachers.

The role of school support

A further difference between the EPD and comparative samples was seen in the extent to which teachers perceived that their school had supported their professional development needs and interests. Both the EPD and comparative surveys included a question which asked respondents to indicate on a five-point scale how far they felt their school had supported their professional development over the past year. Close to two-thirds of EPD teachers (64 per cent) but one-half of the comparative sample (49 per cent) felt their schools had been supportive and gave a rating of 4 or 5 out of 5. In particular, third year EPD teachers were considerably more likely than third year comparative teachers to report feeling supported by their school.

Section 3.1 already documented the value of school support, and has showed that, among the EPD sample, this was a very strong predictor of the outcomes of EPD. Similar analysis on the comparative questionnaire data further corroborated the need for school support, revealing that, within the comparative sample, perceived school support was associated with a higher overall impact of professional development. Therefore, the higher level of school support discerned by the EPD sample as a whole

⁹Because the comparative survey was conducted in the second year of the evaluation, the results for this sample are compared with the responses of EPD teachers to their questionnaire in year 2.

compared with the comparative teachers would be likely to be a factor in the greater outcomes they derived from their professional development.

These higher ratings for school support among the EPD sample may have been associated with the extra funding brought by EPD which allowed their schools the financial means to support these teachers' professional development. Alternatively, as section 2.2 conveyed, a proportion of the mentor sample averred that EPD had raised the profile of professional development at wider-school level (a point of view validated by the LEA personnel interviewed), and it may be that this advancement was also reflected in the stronger school support perceived by EPD teachers than the comparative sample.

Further factors

There were two further features of EPD that might also help explain the greater outcomes derived by participants: contact with the LEA and mentoring. The comparative questionnaire did not include items probing comparative teachers' experience of these. Therefore, the extent to which these were 'added' by the EPD experience cannot be established with complete certainty. However, the LEA role and mentoring were such central features of EPD that it is likely that they played a more prominent part in participants' experience than would have been the case without the scheme.

The role of the LEA

Because of LEAs' role in the management of EPD, teachers and their mentors were brought into contact with the officers responsible for the scheme. These officers provided a font of expertise and guidance on professional development matters, awakening participants to the fact that this amounted to 'more than just courses'. LEAs piloting the scheme held sessions or produced materials to acquaint teachers with the variety of ways in which their EPD funds could be allocated and to extend their thinking on professional development possibilities. And, amongst the many other roles performed, these LEA officers acted as brokers if a school did not support teachers' needs, and as an instigator of links with higher education institutions and accreditation opportunities.

Mentoring

In terms of mentoring, over three-quarters of the whole EPD teacher sample reported that they had a mentor. And, as the analysis in section 3.1 revealed, having a mentor was of considerable value in enabling teachers, especially those in the second year of their careers, to derive positive outcomes from EPD.

To sum up briefly so far, multivariate analysis showed that the higher level of impact reported by EPD teachers compared with the comparative sample was not solely attributable to the extra time they had been able to spend on professional development. In addition, there were other differences between the experiences of the two samples to account for the greater effects generated by EPD, in particular EPD teachers' greater degree of control over their professional development and the level

of support they felt they received from their schools. A primary difference between the EPD and comparative samples was also the funding available as part of the pilot. Other potentially influential features of the EPD experience were mentoring and increased contact with LEA personnel.

3.3.2 Factors associated with retention in the teaching profession for EPD and comparative teachers

In order to illuminate further the key characteristics of EPD, specific analysis was undertaken to try to pinpoint why EPD teachers had registered stronger intentions to remain in teaching. This analysis was conducted separately for the EPD teachers and the comparative sample. The results are presented and compared below.

Factors associated with retention: the EPD sample

In order to establish which factors were linked with the intention to stay in the teaching profession amongst EPD teachers, analysis was undertaken to examine associations between their ratings of the likelihood of remaining in teaching in five years' time and aspects of their current experience. The factors involved in this analysis were as follows¹⁰:

- perceptions of the extent of their school's support for their professional development over the past year
- the extent to which they felt that their professional development needs had been met over the past year
- the overall impact of EPD on their professional practices
- their involvement in selecting their own EPD programme
- the extent to which managing their general teaching workload had been an issue in their involvement in EPD
- perceived effectiveness of their initial teacher training
- perceived effectiveness of professional development during their NQT year.

Multivariate techniques were used in order to establish which of these factors were independently associated with EPD teachers' intention to remain in teaching, taking into account any intercorrelations between these variables. Two main factors, discussed below, emerged from this analysis as independent predictors of the intention to remain in teaching.

1. The extent to which teachers felt that their professional development needs had been met over the past year

This was the strongest predictor of the expectation of staying in teaching, such that the more a teacher felt that his or her needs had been met in the past year, the more likely they were to expect to stay in teaching.

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¹⁰ Also included in the analysis as control factors were: year of teaching, whether teachers had a mentor, and involvement in specific professional development activities.

2. The overall impact of EPD on teachers' professional practices

The fact that this emerged as a significant predictor in its own right – even after the extent to which professional development needs had been met was taken into account – suggests that successful EPD has a value that went beyond meeting teachers' professional development needs.

Factors associated with retention: the comparative sample

Further analyses were carried out to examine whether similar factors predicted the expectation of staying in teaching among those in the comparative sample. As far as possible, the analysis replicated that reported above, only omitting the item relating to manageability which did not have an equivalent in the comparative survey, and substituting questions referring to EPD with matched items referring to CPD generally. Thus, the items included in the comparative analysis are listed below¹¹:

- perceptions of the extent of their school's support for their professional development over the past year
- the extent to which they felt that their professional development needs had been met over the past year
- the overall impact of professional development on their professional practices
- their involvement in selecting their own professional development programme
- perceived effectiveness of their initial teacher training and
- perceived effectiveness of professional development during their NQT year.

In these multivariate analyses, only the overall impact of professional development on comparative teachers' practices, and the perceived effectiveness of the support they received in their NQT year were significantly associated with the intention to remain in teaching. The extent to which their professional development needs had been met in the past year was not a significant independent predictor, as it had been in the EPD sample analysis.

A possible explanation of this difference between the comparative sample and the EPD sample was that, for EPD teachers, their involvement in the scheme has brought them additional benefits that went beyond meeting their professional development needs, meaning that both these factors – the overall impact of EPD and the extent to which their professional development needs were met – make independent contributions to their intention to stay in teaching. Meanwhile, for those teachers not involved in the EPD scheme, the impact of their professional development and the extent to which their needs have been met are more closely related concepts, resulting in them not both being independent predictors in this comparative sample.

Therefore, what is this additional benefit of EPD beyond its capacity to meet teachers' professional development needs? What else was EPD offering which made teachers more positive about their future in the teaching profession? Analysis of the survey and case-study data suggested that the 'additional benefit' brought by EPD might be the surge in wellbeing felt by EPD teachers because of the attention and support targeted specifically at their development in the profession. As relayed in section 2.4, some of the biggest differences between EPD and comparative teachers were evident in their

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¹¹ Control variables in this analysis were year of teaching and involvement in specific professional development activities.

ratings for improvements in morale. Further, as shown in section 3.2.2, teachers in the case-study schools, for whom the main impact of EPD had been enhanced commitment to teaching as a profession, related this to how valued they felt that funding had been made able for them to invest in their development in the profession.

Feeling valued because of EPD

When I've spoken to other EPD teachers, they all found it inspiring. They felt like they were worth something, and we felt people were investing in us because we were worth investing in and we mean something (Teacher, primary, year 2 case-study data).

It shows that we are valued and that there is funding for us to develop. Although generally the pay is not considered very high, they have made funding available for the important things, which is why we are in education – to further the children's development. By giving us the money to pursue something which we are interested in, rather than just pay us a bit more in wages, in a way it has sort of shown their value in our role as a teacher (Teacher, primary, year 2 case-study data).

You feel very valued, I think, because somebody is saying 'You are not just here to teach, you are here to develop as a professional as well', and somebody is going to give you the money to do that and ... you have a say in what you are doing ... I think it's great, definitely (Teacher, special, year 2 case-study data).

It's made you feel that we are appreciated. I know it sounds a bit naff, but it makes you feel that someone's appreciating you (Teacher, secondary, year 2 case-study data).

Having the opportunity to choose for yourself, which then increases levels of motivation and enthusiasm and thinking about where you want to be going in the future, it does make you feel valued and it gives you a sense of ownership, which has provided me with all these opportunities that I wouldn't normally have (Teacher, secondary, year 3 case-study data).

I think that it's certainly made me feel much more valued than if I hadn't had the money. They want me so they're going to make it good for me. I'm not just someone to be put away in a drawer somewhere with the thought that she's a teacher now, let's let her get on with it (Teacher, secondary, year 3 case-study data).

I've got a feeling that as a teacher, I'm being valued where, as a teacher, I mightn't have had that feeling before ... I've a feeling that once you're a teacher, you're not valued anymore... And then this EPD comes along and yes, you are valued, yes they want you to progress within the profession (Teacher, secondary, year 3 case-study data).

3.4 Summary

Part three has sought to set out the features of EPD that were instrumental in achieving the range and depth of outcomes conveyed in Part two: in short, its purpose has been to identify the inputs that led to the impacts. To this end, the following three forms of analysis were undertaken:

- using the teacher survey data from each year of the pilot, the EPD experiences that
 teachers reported were examined against the outcomes they cited in order to
 determine which of these experiences were statistically associated with the effects
 derived
- the interviews with EPD teachers in the case-study schools were scrutinised in order to establish the aspects of EPD that teachers themselves believed had accounted for the outcomes they attained
- the experiences of EPD teachers and a comparative sample outside the pilot areas were compared in order to throw into relief the distinct features of EPD.

By distinguishing the key elements of EPD that were pivotal to its success, the experience of the pilot can contribute to the thinking of, and future practices regarding professional development. Combining the findings from each of the above strands of analysis, the following factors emerged as key characteristics in generating teacher outcomes.

Mentoring

Analysis of the EPD teacher survey data found that having a mentor was significantly associated with the majority of outcomes over a range of 13. The link between mentoring and the impacts derived was particularly strong for second year teachers, with the effects of having a mentor particularly influential in terms of teaching practice outcomes and career development. For third year teachers, the relationship was less influential though remained valuable in terms of how teachers related to their careers: their commitment, their morale, their desire to develop professionally.

Interviews conducted with teachers in the case-study schools reinforced the importance of mentoring, especially in contributing towards improvements in classroom management and career development. Teachers in the case-study schools for whom the main impact of EPD had been an improvement in their behaviour management skills or reflection on their teaching practices most often attributed these outcomes to the mentoring relationship. In addition, those citing the career guidance they had received as the principal impact of EPD and those who had earned promotions and had progressed in their careers, attributed these developments to having a mentor.

Teacher autonomy

In multivariate analyses of each year of EPD teacher survey data, teachers' degree of involvement in selecting EPD activities emerged as a factor independently related to each of 13 outcomes, such that the greater teachers' level of involvement, the greater the outcomes they derived. Thus, over and above other aspects of teachers' EPD

experiences, teacher autonomy was influential in the outcomes attained. Whilst autonomy predicted all 13 of the outcomes analysed, its influence was particularly strong in terms of enhancing subject knowledge, pupils' learning and actual teaching practice. In addition, case-study interviewees for whom the main impact of EPD had been their enhanced commitment to the profession related this to the freedom to choose the form and focus of their professional development (and the monies to pursue it).

Furthermore, in their survey responses, EPD teachers registered much greater involvement in directing their professional development than the comparative sample of teachers outside the pilot LEAs. And, considering the independent associations between selecting EPD and the outcomes derived as evidenced from EPD teachers' survey responses, and given the highly positive endorsements from case-study teachers in favour of autonomy, it would appear likely that this difference in experience accounted, at least in part, for the greater outcomes that EPD teachers gained from their professional development compared with the comparative sample.

School support

The support of the school for professional development emerged as one of the strongest predictors of the outcomes derived from EPD from the multivariate analyses of the teacher survey data. As was the case with autonomy, school support predicted all 13 outcomes analysed, though the strongest associations were with career-related effects and those related to the teacher's role and impact in school: enhanced commitment to teaching as your career; ability to take on leadership roles and contribution to colleagues and the school. The degree of school support was also an area where the experience of EPD teachers differed from that of the comparative sample, with EPD teachers recording significantly higher ratings for the level of school support extended to them than the comparative sample.

The funding provided by the EPD scheme, as well as the involvement of the LEA, were also distinguishing features of EPD. Thus, in addition to these, across the three types of analysis undertaken, the elements of EPD that emerged as instrumental in achieving outcomes were: mentoring, teacher autonomy and school support.

In addition to establishing the above as the facets that contributed overall to the impacts of EPD, the analysis presented here has also shown where the influence of each of these was strongest in generating effects. For example, in terms of impact on teaching practice, the influence of teacher autonomy was very strong along with mentoring for second year teachers, particularly in improving classroom management. Teacher autonomy was also especially important for impacts on pupil learning. For their contribution to the school, the support of the school was particularly significant and, as section 2.3 showed, so was the role of the mentor. The support of the school was very strongly associated with career-related outcomes as were autonomy and the advice of mentors, LEA and HEI personnel.

Concluding comments

Thus, the experience of the EPD pilot reveals some key elements of professional development that were instrumental in achieving the outcomes. And given the strength of the outcomes from the pilot, these show what can be achieved for the individual, the school and the profession if the teacher takes a directive role in their professional development with support from a mentor, their school and also their LEA. In short, it shows the benefits of a collaborative grassroots approach to professional development. Thus, the experience of EPD offers valuable lessons to inform thinking on professional development at school and LEA-level.

None the less, it is important to acknowledge that, as well as the philosophy behind EPD (autonomy, mentoring, school support, LEA support), the actual existence of the EPD scheme itself was an important feature in the outcomes derived. The evidence would suggest that this feature was particularly important for commitment and retention. Granted, school support and autonomy were important, as well as the mentoring relationship. Those case-study interviewees for whom the main effect of EPD had been the impact on their career development or commitment most often related this to the scheme as a whole, with reference to how valued they felt that time, thought and funding had been targeted at their professional development. Furthermore, analysis of the EPD and comparative sample suggested that this could be a factor in the greater likelihood of EPD teachers remaining in the profession.

That said, as stated above, the philosophy behind EPD can contribute to thinking on professional development. Although the scheme itself was ending, a number of the case-study schools were planning to maintain aspects of it e.g. by providing all teaching staff with a mentor or making an allocation of the professional development budget available to each staff member for them to determine its use. Therefore, Part four of this report will consider how autonomy, mentoring, school support and LEA support worked in practice.

Part Four

Effective practices in Early Professional Development

Part four of this report relays how the factors found in Part three to be instrumental in achieving outcomes from EPD operated in practice. In doing so, this highlights elements found to work well and any associated issues. The discussion centres around:

- 4.1 The experience of the teacher
- 4.2 The role of the school
- 4.3 The role of the mentor
- 4.4 The role of the LEA

4.1 The experience of the teacher

As Part three conveyed, teachers' involvement in selecting their professional development activities was a key feature that enabled them to achieve high outcomes from EPD. This section first explores the idea of 'autonomy' in more depth to understand how it worked in practice within the scheme and how teachers made decisions regarding their professional development – to what extent, for example, did they consider the needs of the school as well as their individual needs? Following this, the section goes on to examine the type of activities undertaken by teachers and their perceptions of their effectiveness, thereby highlighting the forms of professional development that second and third year teachers deemed to have had the greatest relevance to and impact on their practice.

The discussion is presented in the following sections:

Section 4.1.1 Teacher autonomy in EPD

Section 4.1.2 The form and focus of professional development undertaken by EPD teachers

4.1.1 Teacher autonomy in EPD

In the context of the EPD scheme, 'autonomy' refers to the extent to which teachers were able to control the use of their EPD funding and thus, direct their own programmes of professional development. This section begins by reporting on overall levels of autonomy across the sample. The benefits of teacher autonomy are then examined by looking at how teachers subsequently rated the provision they experienced, in terms of its relevance and whether it met their professional development needs. Having explored the relationship between autonomy and effective

experiences of professional development, the section concludes by highlighting the advantages of autonomy as articulated by case-study teachers.

Teacher autonomy in practice

In all three years of the study, respondents to the teacher surveys generally indicated that they had been involved to a high degree in selecting their own programmes of EPD (for example, with an average rating of 4.14 on a five-point scale in the year 3 survey). This was substantiated by teachers in the case-study schools, in that the vast majority felt they had sufficient involvement in deciding how they would spend their EPD funding. Furthermore, only four out of 97 teachers interviewed in 2004 reported any dispute over their chosen activities (requests for laptops were turned down and one teacher encountered some resistance to attending a course because of the class disruption it might cause).

Case-study interviews provided an avenue through which to explore how teacher autonomy worked in practice. In the vast majority of cases, the EPD teacher and their mentor or school had been jointly responsible for planning and refining professional development activities. In a smaller number of cases, the EPD teacher had been entirely self-directed, without significant input from their school. Nevertheless, EPD coordinators frequently referred to the fact that the EPD teachers' needs overlapped with the schools', explaining that the EPD teachers had tended to focus on an aspect of professional development that was beneficial to both parties. Thus, allowing teachers their autonomy did not appear to have been of detriment to schools, rather, EPD teachers were mindful of school needs, and ensured that their professional development activities would also profit their colleagues and their school.

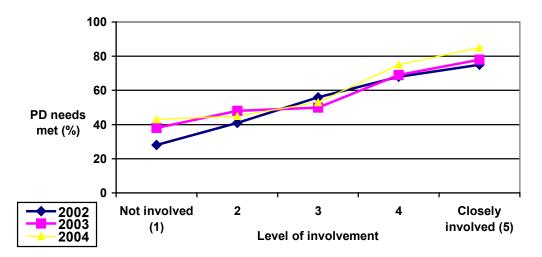
The relationship between autonomy and effective experiences of professional development

Part three of this report relayed that teacher autonomy was a key factor that enabled teachers to achieve high outcomes from EPD. Further analysis also found that teacher autonomy was very strongly associated with positive experiences of professional development, as follows.

- Relevance of EPD activities Teachers who had been more closely involved in
 choosing their own EPD activities were found to give higher ratings for the
 relevance of the specific activities in which they had participated. For all
 activities reported in the 2004 survey, participants who had more involvement in
 selecting their own EPD gave significantly higher ratings of the relevance of the
 provision to their own needs.
- Meeting teachers' professional development needs Teachers' involvement in selecting their own EPD was very strongly associated with their professional development needs being met. As Chart 1 shows, the more involvement EPD teachers reported, the more likely they were to give high ratings of the extent to which their needs had been met

Chart 1 Percentage of teachers giving high ratings of the extent to which their professional development needs had been met, by involvement in selecting their EPD activities

(Results for the three years of the pilot (2002, 2003, 2004))



Source: EPD evaluation: EPD teacher surveys 2002, 2003 & 2004

The benefits of autonomy

Analysis of the teacher survey data has therefore demonstrated that those teachers who experienced a high degree of personal control over their EPD programmes were more likely to report positive outcomes and to feel that the provision in which they participated was both relevant and met their professional development needs.

Further evidence regarding the effect of autonomy can be obtained from teachers' summing up of EPD and what they considered to be the most valuable aspect of the scheme. In the final year of the pilot, over 40 per cent of the case-study teachers chose to nominate an aspect that was in some way associated with autonomy. This was, in fact, the most frequently commended element of the scheme. Teachers spoke of how they were given the responsibility and freedom to decide what types of activity would best meet their professional development needs. They placed emphasis on the fact that EPD empowered them to address their personal professional development priorities first, rather than having to prioritise the needs of the department or whole school (although, as stated above, there was overlap).

Free choice and responsibility

[Most valuable aspect of EPD?] Having that freedom to use it in whatever way, as individuals, we felt would benefit us. Having that funding there to be able to use and we have a choice in how that money is spent, I'd say that was the strength in it (Teacher, primary, year 3 case-study data).

Individual professional development

The county can't develop 5,000 individuals because they don't know them individually, so rather than the line of best fit and thinking '2,000 people need to brush up on their IT skills – we'll whack 'em on a course', you get more responsibility to develop as an individual rather than a clone and you value it a lot more as well because it gives you some control over what's going on (Teacher, secondary, year 2 case-study data).

Three important outcomes appeared to stem from this form of self-directed professional development. Firstly, case-study teachers relayed that because of dedicated funding and because they were given control over its usage, they were more likely to value the professional development opportunities created. Teachers were aware of the costs involved and because they had chosen activities of personal relevance to them, they spoke of feeling more committed to them. Secondly, freedom of choice meant that the professional development could be individually tailored – teachers were able to link need with provision, increasing the likelihood of a successful outcome. This could contrast, for example, with training offered to all school staff, from which teachers may or may not extract some value. Thirdly, a number of interviewees pointed out that greater autonomy had widened the parameters of professional development activity – teachers were given the chance to think more creatively about how they could best address their needs, rather than following more traditional types of professional development.

Positive outcomes derived from personally tailored provision

I think if it comes from your own interest, it's more valuable to you and I think you will get more out of it if you're positive to begin with about wanting to learn something. I mean, a lot of the time there must be a lot of courses where people are sitting there thinking 'Why am I here and what does this do?' and this year I haven't. All of the courses were great (Teacher, primary, year 3 case-study data).

Innovative approaches to professional development

Ownership – being in control of your own thoughts and your own commitments – it gives you a sense of fulfilment, satisfaction, drive. And it gives you an opportunity to think outside the box and to not feel guilty for exploring and trying things out and looking to different areas to keep your satisfaction and drive going (Teacher, primary, year 3 case-study data).

This [EPD] has been a unique opportunity to kind of pursue more adventurous, more creative ways of enhancing their teaching and learning as people, that they would not normally ever, ever have the opportunity to do (EPD coordinator, primary, year 2 case-study data).

4.1.2 The form and focus of professional development undertaken by EPD teachers

This section goes on to examine the type of activities undertaken by teachers and their perceptions of their effectiveness, to give a flavour of how EPD funding was utilised and to highlight the forms of professional development that second and third year teachers deemed to have greatest relevance to their individual needs and impact on their practice.

Main areas addressed as part of EPD

In their questionnaire, teachers were asked, 'In the EPD you have experienced this school year, what are the main areas that have been covered?'. When responses were classified using a coding frame that grouped together similar replies, it was apparent that the focus of EPD for teachers covered a very wide range of the different aspects of teaching, though the main topics of focus in all three years of the pilot were very similar. 'Improving subject knowledge' and 'preparing for a managerial role' were the two most frequently cited topics, noted by around one-quarter of teacher survey respondents each year. These and other commonly reported areas can be seen in Table 17.

Table 17 Main areas addressed by teachers as part of EPD over the three years of the pilot

Main areas addressed	2002 (%)	2003 (%)	2004 (%)
Improving subject knowledge	21	26	30
Preparing for a managerial role	24	26	22
Developing knowledge of teaching & learning styles	18	16	12
Improving behaviour management skills	15	11	11
Developing ICT skills	11	12	13
Career planning	11	9	7

Base: 2002 survey: 620; 2003 survey: 1,189; 2004 survey: 1,373 Source: EPD evaluation: EPD teacher surveys 2002, 2003 & 2004

There were few differences in the focus of EPD between second and third year teachers, but over the three years of the pilot, differences between primary and secondary teachers were notable. Each year, substantially more primary teachers than secondary teachers described developing literacy teaching skills and preparing to adopt a managerial role as part of their EPD experience. Areas addressed more by secondary teachers included: preparing pupils for examinations, preparing their own career paths and teaching disengaged pupils.

Involvement in professional development activities

This section uses the survey data from all three years of the pilot to examine the ways in which participating teachers addressed the areas of focus discussed above. Teachers were asked whether the EPD they had experienced over the past school year had included each of six specified professional development activities:

- attendance on courses designed specifically for EPD teachers
- attendance on courses open to all teachers
- professional networking
- having their own lessons observed
- observing other teachers
- any other professional development activities.

The types of activities undertaken by second and third year teachers in all three years of the pilot were compared. The percentages of teacher survey respondents involved in each of the professional development activities can be seen in Table 18.

Table 18 Teachers' involvement in EPD activities: comparing participation over the three years of the pilot

	2 nd years 2002 (%)	2 nd years 2003 (%)	3 rd years 2003 (%)	Overall 2003 (%)	2 nd years 2004 (%)	3 rd years 2004 (%)	Overall 2004 (%)
EPD-specific courses	56	59	46	52	55	43	49
Courses open to all teachers	73	74	77	76	78	79	78
Professional networking	46	50	47	48	54	53	54
Own lessons observed	58	61	51	56	66	61	64
Observing others' lessons	48	48	47	47	51	51	51
Other development activities	21	37	40	38	43	41	42

Base:

2nd years 2002: 572–620 2nd years 2003:511–560; 3rd years 2003: 558–586

2nd years 2004: 660–710; 3rd years 2004: 595–628

Source: EPD evaluation: EPD teacher surveys 2002, 2003 & 2004

When the activities of second and third year teachers were compared, second year teachers were significantly more likely to report attending EPD-specific courses: this was evident in analysis of both the 2003 and 2004 data. This may, in part, reflect the fact that second year teachers in many of the pilot LEAs would have attended meetings at the start of their involvement with EPD to explain the initiative to them, and some respondents may have recorded these introductory meetings as 'EPDspecific courses'.

Each year, teachers were given the opportunity to report any 'other' professional development activities in which they had participated over the course of the school year as part of their EPD programme. The range of 'other' activities highlighted by EPD teachers responding to this question was very broad and the frequency varied over the course of the pilot. Frequently cited 'other' professional development activities were as follows.

- MA / own research in all three years, carrying out research and/or studying for an MA was one of the most frequently cited 'other' professional development activities and the proportion of teachers engaged in this was seen to increase yearon-year. In year 1, three per cent of the entire teacher sample reported carrying out research and/or studying for an MA; by the final year, this had increased to nine per cent.
- **School visits** appeared among the top five 'other' activities pursued in year 1 and 2, reported by six and seven per cent respectively.

- Shadowing/discussions with specialist teachers was in the top five most frequently cited 'other' activities in year 1 and year 2, reported by four and five per cent of EPD teachers respectively.
- **Cultural visits** in year 3, cultural visits appeared in the top five for the first time, reported by eight per cent of the entire teacher sample.
- Developing school role
- Purchasing resources
- Non-contact time

In years 2 and 3 of the pilot, twice the proportion of EPD teachers cited 'other' activities than had done in the first year. It may be that, as the EPD scheme progressed, it contributed to a broadening awareness of the range of possibilities for teachers' professional development and the benefits of programmes tailored to the needs of individuals.

Relevance of EPD activities and impact on practice

For each of the professional development activities in which they had engaged as part of EPD, teacher survey respondents were asked to indicate how relevant that activity had been to their individual needs and to what extent the activity had impacted on their practice. Responses were recorded on a five-point scale such that a higher rating indicated a higher perception of relevance/greater impact on practice. These results give an indication of the types of professional development opportunities most useful to teachers in the early stages of their careers. The ratings for each activity are shown in Table 19.

Table 19 Professional development activities carried out by teachers as part of EPD: teachers' ratings of their relevance and impact on practice

(The table shows the mean score, then the percentage of teachers engaged in each activity type who circled 4 or 5)
(Scale: 1 = was irrelevant to my individual needs/has no effect on my practice; 5 = relevant to my individual needs/has actually changed my practice)

	Relevance (rating of 4 or 5) % of teacher respondents					Changed practice (rating of 4 or 5) % of teacher respondents						
	2002		2003 2004		04	2002		2003		2004		
	Mean score	(%)	Mean score	(%)	Mean score	(%)	Mean score	(%)	Mean score	(%)	Mean score	(%)
Courses specifically for EPD teachers	3.6	57	3.8	65	3.9	70	3.3	46	3.6	57	3.6	56
Courses open to all teachers	4.3	84	4.4	87	4.3	84	4.0	74	4.0	74	4.0	75
Professional networking	4.0	72	4.0	75	3.9	69	3.6	54	3.7	60	3.6	56
Own lessons observed by another teacher	3.9	68	3.9	69	3.9	70	3.7	64	3.7	62	3.8	65
Observing another teacher's lessons	4.2	79	4.1	78	4.1	81	3.9	71	3.9	70	4.0	74
Other activities	4.6	93	4.6	93	4.7	96	4.2	76	4.3	82	4.3	83

Source: EPD evaluation: EPD teacher surveys 2002, 2003 & 2004

Examining the ratings for relevance first, all listed activities were rated towards the higher end of the scale and received a mean score that indicated that the majority of teachers had found them to be relevant to their individual needs. There was, however, some variation between activities. In all three years of the pilot, the highest ratings of relevance were given to 'other' activities such as non-contact time to develop a school role, conducting research (e.g. MA studies) and purchasing resources. Of the specified activities, courses open to all were thought to be most relevant to the individual needs of EPD teachers. Around 85 per cent of teachers rated these at 4 or 5 out of 5 in all three years of the pilot.

As Table 18 showed, observing others' lessons was the least commonly reported activity of the five specified in the questionnaire. However, those who did partake in this activity gave it a high relevance rating, with over three-quarters of teacher survey respondents awarding this a 4 or 5 out of 5. There was a significant difference in the perceived relevance of observations between primary and secondary teachers, with primary teachers scoring relevance higher.

EPD-specific courses received the lowest level of endorsement for relevance by teachers in 2002 and 2003 and one of the lowest ratings in 2004. Notwithstanding, by the end of the pilot, overall ratings of these EPD-specific courses had risen more than the ratings for other forms of professional development.

Table 19 reveals a similar discrepancy in teachers' perceptions of the impact of courses on their practice. In all three years of the pilot, participating teachers rated courses open to all highly in terms of their effect on practice. Three-quarters of teachers who attended these reported an actual change in practice, whereas those that were specifically designed for EPD teachers achieved lower ratings.

This pattern in the data may be related to the issues of autonomy, value congruence and teachers' ability to tailor the provision to their particular needs. In some LEAs, EPD-specific courses were voluntary; however, pilot authorities adopting a more centralised approach required or recommended that teachers attend these courses (see section 4.4.2). Such courses, although focusing upon general areas of interest to second and third year teachers, may not necessarily meet the requirements of each attendee. Therefore, where teachers could select courses themselves, as opposed to attending generic courses for EPD teachers, their choice would more likely reflect their personal professional development needs and values – hence the more positive ratings for effect.

Three further possible reasons exist for the discrepancy between EPD-specific courses and those open to all teachers. Firstly, some teachers may have responded to the survey item about EPD-specific courses but actually had briefing meetings about the scheme in mind. Secondly, whereas courses open to all teachers may have been refined over many years, courses specifically designed for the EPD scheme were more likely to have been staged for the first time over the course of the pilot and might need to develop over time. Indeed, such courses did achieve higher ratings for impact on practice in the second and third years of the pilot than they had done in its first year. Thirdly, EPD-specific courses were, at times, designed to have a longer term impact on practice – for example, when teachers prepared for threshold – rather than the immediate impact measured here.

Table 19 shows that of the other specified activities, the vast majority of teacher survey respondents (over 70 per cent each year) also felt that opportunities to observe other colleagues teach had led to a change in their own practice. Comparatively lower ratings were given to professional networking and being observed by a colleague, although well over half of teachers who had taken part in these activities still rated them highly in terms of the effect on their practice.

As had been the case for their relevance, 'other activities' (outside the five specified in the questionnaire) again attracted the highest ratings in terms of impact on practice. Around 80 per cent of teachers in each year of the pilot who had engaged in these activities believed that they had actually changed their practice.

4.1.3 Summary

Teachers' involvement in selecting their professional development activities was a key feature of EPD that enabled them to achieve high outcomes for their practice and attitudes (as documented in Part three). This section explored how teacher autonomy worked in practice. Analysis of the case-study interviews showed that in the vast majority of cases, the EPD teacher and their mentor had together planned the professional development activities. In a smaller number of cases, the EPD teacher had been entirely self-directed, without significant input from their school. Nevertheless, EPD coordinators frequently referred to the fact that the EPD teachers' needs overlapped with the schools', explaining that EPD teachers had tended to focus on an aspect of professional development that was beneficial to both parties. Thus, allowing teachers their autonomy was not of detriment to schools, rather, EPD teachers were mindful of school needs, and ensured that their professional development activities would also profit their colleagues and their school.

The focus of EPD development activities was very similar in all three years of the pilot, with 'improving subject knowledge' and 'preparing for a new role in school' being the most frequently targeted areas. There was evidence of an increased awareness of the more varied possibilities for professional development activities as the EPD scheme progressed, as substantially more teachers reported involvement in less traditional forms of professional development in years 2 and 3 than was the case in year 1. Such activities included: carrying out research, purchasing resources, shadowing or discussions with specialist teachers, 'buying' non-contact time and using the additional time to develop a role in school. In terms of their relevance and their effects on practice, teachers rated these activities very highly. In all three years of the EPD pilot, teacher respondents also rated courses open to all and opportunities to observe other practitioners as particularly relevant to their individual needs and effective in terms of the impact on their practice.

4.2 The role of the school

As Part three conveyed, the support of the school was a key feature of EPD that enabled teachers to achieve high outcomes. This section examines the influence of the schools in which participating teachers worked, in determining the effectiveness and outcomes of the EPD scheme. It begins by considering the characteristics of schools in the survey sample that were identified as 'high-scoring' in terms of outcomes. Following this, it explores in more detail schools' approaches to professional development generally, and specifically towards the EPD scheme. Throughout, it seeks to highlight examples of good practice from the EPD scheme, which may prove valuable to schools in terms of providing or supporting professional development for teachers early in their careers or, more broadly, for all teachers.

The discussion is presented in the following sections:

- Section 4.2.1 Characteristics of 'high-scoring' schools
- Section 4.2.2 Outcome routes: the transposition of effects from the teacher to the school

4.2.1 Characteristics of 'high-scoring' schools

The findings of the EPD teacher surveys in years 2 and 3 were analysed in order to identify schools within the sample that were 'high scoring' in terms of the overall effect of EPD reported by the teachers. A school was deemed to be 'high scoring' if all of the teachers in the school indicated that EPD had had a 'considerable effect' on them overall – i.e. gave a rating of 4, 5 or 6 out of 6¹². In addition, in year 3, schools where all of the teachers gave high ratings for impacts on their pupils and on their contribution to colleagues and the school as a whole, were also identified.

The schools where all teachers had rated EPD highly were compared with others in the survey sample in terms of their:

- level of free school meals eligibility
- levels of English as an additional language
- overall attainment levels
- school size
- LEA type.

In addition, the rating of teachers within these schools of school's support for their professional development, NQT induction procedures and level of involvement in choosing their own EPD were examined.

On the whole, 'high-scoring' EPD schools did not differ significantly from other schools in the sample in terms of their social, demographic, geographical and administrative characteristics. In 2004, the only characteristic by which schools scoring highly for the overall effects of EPD on teachers differed from the remainder was the size of the school and this was true only of secondary schools. Case-study interviews in large secondary schools suggested that supporting large numbers of

¹² Schools with only one EPD teacher were omitted from this analysis.

eligible teachers to participate fully in the scheme could be a challenge, particularly if this involved releasing several teachers from the classroom at the same time.

Rather than a school's characteristics, attitudes towards professional development were a more decisive factor in determining high outcomes for all the teachers, the school and the pupils. In both years 2 and 3 of the pilot, EPD teachers in high-scoring schools were significantly more likely than other teachers to rate their NQT induction period as having been effective; to record a high level of involvement in selecting their EPD; and feel that their school had strongly supported their professional development.

The results further highlighted that having a mentor was important in determining the outcomes of EPD for schools as a whole. In schools where all teachers rated the impact of EPD on their contribution to the school highly, EPD teachers were significantly more likely to have a mentor. That the mentor played a vital role in the transposition of teacher effects to the school as a whole, was discussed in section 2.3 of Part two. Further issues related to mentoring are addressed separately in section 4.3.

Thus, the value of school support for EPD and of the school's attitudes or approach to professional development generally, emerged as important factors for teachers whose schools benefited from the EPD scheme. These aspects will now be considered in more detail in order to try to understand the philosophies and practices underlying the approaches to professional development that were instrumental in achieving high outcomes for EPD. In particular, we will attempt to examine the approaches to professional development and to EPD in the case-study schools achieving high levels of impact for teachers, for pupils and for the wider school community.

Attitudes and practices related to professional development

As Part two made plain, outcomes from EPD were high across the board, for teachers and pupils especially, but also for schools. More detailed analysis of the interview data from case-study schools sought to ascertain the contextual factors — i.e. not specifically related to the EPD pilot itself — that may have been significant in contributing to the success of the scheme in delivering outcomes. Against the backdrop of the survey returns from the case-study schools identified as 'high scoring', researchers scrutinised the case-study interviews for comments relating to the impact of EPD on the school as a whole and further classified schools as 'high scoring', based on the numbers of comments from all interviewees. This identified a cohort of case-study schools that could be seen as being at the top-end of an already successful sample — the 'highest-scoring' schools.

In considering the interview data from the whole case-study sample and through more detailed analysis of data from the highest-scoring schools, the research identified three contextual factors, in particular, that appeared to be instrumental in delivering outcomes for teachers, pupils and schools. These were:

- the schools' approach to professional development
- the ways in which schools balanced their needs with teachers' needs
- the systems schools had in place for supporting teachers' involvement in EPD.

This section will go on to provide a discussion of the ways in which these factors affected the outcomes of EPD in the case-study schools in general and in the highest-scoring schools in particular.

Schools' approach to professional development

On the whole, case-study interviewees recognised attitudes and practices towards professional development in their school to be positive. Comments to the effect that it was 'really important', 'highly regarded' or seen as 'a very high priority' were commonplace. In looking at the implementation and experience of the EPD scheme in case-study schools, it was evident that, in the majority of cases, positive experiences of EPD were apparent in those schools where there were clear examples of positive attitudes and practice.

When asked to describe aspects of good practice in terms of professional development in their school, many interviewees focused on the traditional route of attending external training courses. However, amongst some more senior interviewees, partly in response to financial limitations, there was a recognition that providing supply cover for this purpose was not necessarily the most cost-effective option, rather there was a move towards professional development activities delivered within and by the school themselves, such as: internal professional development days; opportunities for observation; team teaching; and peer mentoring. In some cases, these had been developed on the basis of schools' experiences during the EPD scheme and might signal the role of EPD as an impetus for schools becoming professional learning communities.

Indeed, the highest-scoring schools commonly held a spirit of innovation regarding professional learning. They were further characterised by an ethos of shared values and vision that prioritised a collective responsibility for pupils' learning. There was frequently a culture of reflective professional inquiry, of collaboration and the promotion of group, as well as individual, learning. In addition, these schools were all active in pursuing professional learning beyond the school, through links with other schools, the LEA and various HEIs.

Teachers in the highest scoring schools described an environment in which they were expected to take responsibility for their professional learning and felt supported and encouraged to do so. They also described a leadership team who were quick to recognise developing interests and capitalise on them for the benefit of the school: for example, through creating a leadership role, or promoting further development opportunities. In the highest-scoring schools, the member of staff with responsibility for professional development was said by colleagues who were interviewed to be passionate about professional learning.

Professional development - a high priority

We regard the professional development of staff very highly. The Governors support putting a great deal of the school's budget to develop teachers because they know that to be a successful school, you have to have skilled people (Headteacher, primary, year 3 case-study data).

Collective responsibility for pupils' learning

We see the children's success and the school's success as being highly tied in with all staff development (Coordinator, special school, year 3 case-study data).

Taking responsibility for your own professional development

They're very much encouraging teachers not to stagnate, always to improve and become that little bit better and improve pupils' learning (Teacher, secondary, year 3 case-study data).

They are always very interested in teachers who want to get on. So, to say 'I'm not interested' is just not the ethos of the school (Teacher, secondary, year 3 case-study data).

Reflective professional inquiry → monitoring and evaluating → improving

We share, we learn and we move on and we reflect on what worked and what didn't and we refine things (Coordinator, primary, year 3 case-study data).

Learning together →sharing and reflection

Professional development's not just going on courses, it's about 'What worked well? Why did it work well? How can we go about sharing that and discussing it and debating it and talking about it?' That's our attitude. We work in teams and they bounce ideas off each other, so it's like the core that runs up through the school (Coordinator, primary, year 3 case-study data).

Organisation

I think the strength is in the organisational skills of the leadership team. Something like professional development has to be planned in. That organisation needs to be there, especially in terms of observations where people need cover (Coordinator, primary, year 3 case-study data).

Looking beyond the school

The school is used widely by the LEA, we've also got two leading English teachers here so we work with other schools and they come into this school as well. [The headteacher] is a consultant head and we work with three other schools. We have very close links with the school development service as well (Coordinator, primary, year 3 case-study data).

Balancing the needs of the teacher and of the school

EPD coordinators in the case-study schools were asked about the extent to which they had sought to balance the needs of the individual teachers and those of the school as a whole, and about mechanisms by which such a balance had been achieved. The views expressed by EPD coordinators implied that the majority of schools had accepted the principle of EPD focusing on individual teachers early in their careers.

Coordinators often referred to the fact that the EPD teachers' needs had overlapped with the schools'. They explained that the EPD teachers had tended to focus on an aspect of professional development that was beneficial to both parties. Discussions occurring as part of the performance management process were thought to have encouraged this dovetailing of individual and school professional development needs. The overlapping of teacher and school needs was particularly prevalent in the highest scoring schools. Since the majority of these schools were characterised by their ethos of collective responsibility for pupils' learning, shared vision and communication of goals, interviewees expressed the view that, by trusting the staff, anything that staff members chose to pursue as professional development, would bring benefit to the school. Consequently, in the highest-scoring schools, the level of autonomy EPD

teachers had in selecting development activities, echoed the approach they took with their staff as a whole.

In addition, there was widespread recognition amongst the cohort of highest-scoring schools that allowing teachers to pursue their interests was, in the longer term, more beneficial to the school. There were schools in the case-study sample in which the agenda for EPD activity was determined by the school itself. For these schools, institutional outcomes were high and EPD brought great benefit to the school. However, the teachers themselves reported a less significant effect on themselves, their career development and their commitment to teaching as a career. In the highest-scoring schools, where there was a choice between the needs of the teacher and those of the school, tipping the balance towards the teacher was regarded as the more advantageous option as benefits to the school went beyond school systems, to a skilled and effective teaching staff.

The benefits of shared vision and collective responsibility

We haven't had a situation where anyone's come up with something that doesn't fit in with it [school needs] but we don't make it something they have to do. To be honest, most people in our school identify things that totally fit in with the school vision anyway. So it's a case that it's just so much part of the school, that their interests are the things that are the school interests anyway (Coordinator, primary, year 3 case-study data).

Balancing the needs of teacher and school in the highest-scoring schools

Everything a teacher does for their growth and expertise has a knock-on positive effect for the school. So even if it was something we wouldn't have planned as a school on our own, such as the visit to New York to find out how children learn there, it has an impact on that teacher's teaching and understanding of how children learn, what other ways there are to do things. And that, shared with other staff, helps to open up professional debate and learning can only benefit (Coordinator, primary, year 3 case-study data).

They have just linked in. If a member of staff feels that this is what they need then it's going to benefit the school. It can't not because they're part of the school and if it's going to give somebody that extra confidence in an area that they've identified then it should be done. It's part of the school self-evaluation, and they [the staff] evaluated them. So, even if somebody chose something that seems completely bizarre, as far as I'm concerned, if they've got a rationale behind it: 'This is how it's going to help me, this is why I want to do it' then I think they should do it (Coordinator, primary, year 3 case-study data).

I think that the key feature of this school is happy teachers make good teachers and I think the happiness of teachers is taken really, really importantly. It's a very important feature of the success of our school and we have made it a primary mover to ensure that staff at all levels are given the opportunity to allow them to develop as individuals and as classroom practitioners (Mentor, secondary, year 3 case-study data).

There was some evidence that experience of the EPD scheme had impacted on the extent to which schools took the development needs of their teachers into account. Indeed, a number of EPD/CPD coordinators suggested that, in future, the school would consider more carefully individual needs. Schools seeking outcomes for their institution could benefit by recognising the developments that can be made by schools, as professional learning communities, by focussing, at least to some extent, on the individual professional development needs and interests of the teachers and other staff of which it is comprised.

Schools' support for the EPD scheme and professional development more generally

In years 2 and 3 of the evaluation, the survey asked EPD teachers to indicate, on a five-point scale, the extent to which they felt their school had supported their professional development needs and interests. Both years, more than three-fifths of those answering gave a rating of either 4 or 5, indicating considerable levels of school support.

Teachers responding to this question from secondary schools, however, gave significantly lower mean ratings for the extent of school support than those from primary schools. There were also differences between LEAs, with two, in particular, registering lower mean ratings. In one of these LEAs, the lower ratings might be related to a high concentration of teachers in large secondary schools - already identified as presenting potential challenges for schools in supporting their teachers' involvement in professional development activities. In the other of these LEAs, EPD incorporated a substantial centralised component convened by the LEA for participating teachers. Section 4.4 will relay that the EPD scheme, at its most successful, achieved appropriate levels of involvement from the teacher, the school and the LEA. Where one aspect was out of alignment, e.g. insufficient teacher autonomy, results were still positive though not quite as strong. The experience of this LEA may underline the importance of maintaining sufficient input from each party. Here, the centralised component of EPD might be overtaking school support, at least in teachers' perceptions, thus disturbing the balance and affecting teachers' responses. That said, there was evidence (in the case-study data) that a centralised LEA component to EPD could be beneficial in circumventing local contextual issues that might affect the amount of support that a school could provide (e.g. schools in special measures), such that high outcomes from EPD were assured.

The case-study data suggested that there was a considerable level of support for the EPD scheme in schools, with at least one interviewee in every case-study school giving an example of supportive practice. Practical examples of how support for the scheme was managed in schools included assigning a mentor who was able to provide sufficient time and support to the teachers. In some cases this was possible because the LEA had stipulated that a certain proportion of EPD funding be assigned for a mentor in order for them to carry out their duties. In other schools, mentors had non-contact time that they could use for the purpose, or schools had systems in place for example, regular visits from a supply teacher, which meant that non-contact time was available to those who needed it.

Guaranteed non-contact time for teachers to pursue their EPD activities was also cited as an example of supportive practice in schools and, as with mentoring, schools had systems in place to support release time and supply cover and through good organisation that time could be protected. Further examples of supportive practice offered by interviewees in schools included supporting EPD teachers' autonomy and being enthusiastic, as a school, about their interests and ideas.

Support systems for professional development more generally

I think we have really good systems in place to support professional development. The performance management system's in place and there's a constant review of what teachers are doing and observations, specific teaching observations, book audits, observing planning and team planning (Mentor, primary, year 3 case-study school).

Ensuring non-contact time

There's a supply teacher who goes round and does every class and she's a permanent supply so she's in every week and every teacher gets the same. We can use the time as we want to, putting it towards our management roles (Teacher, primary, year 3 case-study school).

Capitalising on interests

The headteacher is very interested in the continuing professional development of staff, if she sees you have a strength and she is able to support that, then she's interested in that. The head doesn't want to lose staff because they've become dissatisfied or despondent in terms of where their career is, she'll look at what they're interested in and develop routes for them. So that's quite important, particularly for some of the younger members of staff, in seeing openings for them (Coordinator, secondary, year 3 case-study data).

The highest-scoring schools had these systems in place to support, not only their EPD teachers, but all staff in the school. They also differed slightly in terms of the level of integration of the EPD scheme with the schools' CPD model. For the most part, EPD was highly integrated, dovetailed with performance management targets and all the support systems in place in the school for CPD more generally were extended for the EPD scheme.

In the larger secondary schools in which it has been recognised that supporting large numbers of teachers' involvement was more difficult, two models of practice that supported teacher involvement in EPD/autonomy emerged. In the first, the member of staff undertaking the coordination role had a clear understanding of the scheme and its aims. There was also support from senior management. The school had in place central support for departments to support teachers, with heads of department being given time to do this. The heads of department were assigned as mentors to the participating teachers and information flowed through this system, with teachers also having the opportunity to approach the coordinator directly. The mentors facilitated supply cover, non-contact time and professional development activities; teachers felt that their mentors were interested in their ideas for professional development and would support those ideas.

In the second model, there was no middle layer, and the member of staff responsible for the coordination of the scheme also undertook a mentoring role. In this case the scheme was less well-known in the school as a whole, however, participation in the scheme could be facilitated by just one person. Since the coordinator was generally also a member of the senior management team, the teachers' views and ideas could be represented to them as necessary. In this model, teachers felt supported by their coordinator/mentor and that they were able to follow their own path, with less involvement from their department: as one teacher explained: 'People's ideas have been listened to and that is so crucial.'

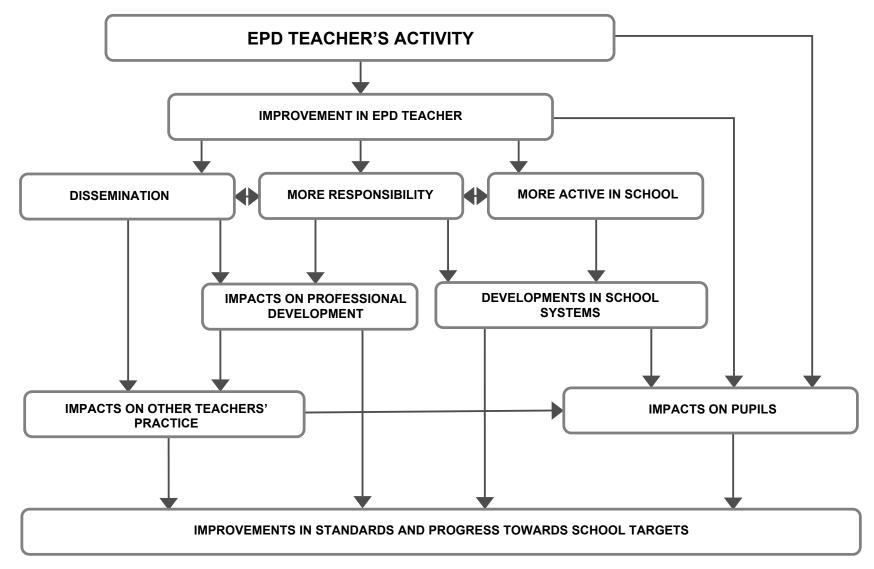
In sum, as well as particular school circumstances and systems, an essential factor for schools' support for teachers' involvement in professional development activities appeared to be the attitude towards professional development held by the senior management, and the priority they were willing to place on the EPD scheme.

4.2.2 Outcome routes: the transposition of effects from the teacher to the school

Whether a teacher's EPD activities addressed the development needs of the individual or the development needs of the school itself, as section 2.2 revealed, it was frequently the case that outcomes emerged in many areas – both for the teacher and the school. Moreover, it appeared that, beginning with the EPD teacher's activity and the subsequent improvements in the EPD teacher, other effects emerged such that a chain of outcomes developed.

Chart 2 attempts to map out the ways in which such a chain of outcomes can develop, from the EPD teacher, their improvement and any enhancements in their role in the school (through dissemination, increased responsibility or simply playing a more active part) through to wider impacts on the pupils and the institution as a whole. It is followed in the text by two vignettes that illustrate how such a process develops – again, beginning from the activities undertaken by the EPD teacher, to the range of outcomes that proliferate. In both cases, significant changes in practice within the school as an institution were derived from the EPD scheme, but only after a chain of outcomes had developed.

Chart 2 The transposition of effects from the teacher to the school



Teacher A

Profile: Primary teacher, ICT spokesperson and network and website supervisor.

EPD ACTIVITY → IMPROVEMENTS IN KNOWLEDGE

When appointed as a Reception teacher in her third year of teaching, this teacher used EPD funding to pay for herself, and the head teacher, to attend a Reggio Emilio conference in Italy as part of her research into the role of play in early years' learning. This was also one of her performance management targets at that time: 'I wanted to find out more about learning through play and as I researched, I found out information about an approach to education that was developing in a place called Reggio Emilio in Italy so I was very interested in finding out more about that'. The visit involved a four-day conference attended by over 1500 educational researchers and practitioners. Many of those attending the conference had considerable educational experience, which was felt to have been particularly beneficial for the teacher's development: 'It was great for me because I learnt so much'. Furthermore, the opportunity to work closely with the headteacher, and to share each others' experiences was appreciated: 'We could both learn from each other and learn from the situation.' There was also the opportunity to visit a school to meet the teachers and parents and to explore the activities and learning environment.

DISSEMINATION & TEACHER MORE ACTIVE IN SCHOOL → IMPACTS ON OTHER TEACHERS' PRACTICE → IMPACT ON PROFESSIONAL DEVELOPMENT → IMPACTS BEYOND THE SCHOOL

From this experience, several impacts on other colleagues and the school itself emerged. Information gained during the trip was disseminated within the school: 'We brought back lots of information from the trip, which has been used to run INSET in school', which, as noted by one colleague, had led to a change in her own teaching practice: 'I'm teaching differently now, because of that [INSET training] in part ... it makes you reconsider.' Similarly, the headteacher experienced an impact on her approach to managing professional development, for example: 'It's opened my eyes to all the ranges of opportunities and the value of critical reflection time before and after an activity to make that activity very valuable and worthwhile.'

Through sharing the experience, the outcomes had also impacted on the professional development of other staff members within the school: 'The tag line "Learning from each other and learning from what works", it really is what it's all about and that's what they're doing', as well as their approach towards it: 'They're not waiting to be told which course, they're not inactive in the whole thing, they've become pro-active and committed.' In addition, the outcomes had extended to other schools within the authority: 'We're running a seminar at a CPD conference ... and are also planning to run INSET next year for other schools.' These dissemination activities were also of some financial benefit to the school such that, the funds raised through delivering the training at other schools were to be used to provide future development opportunities for other teachers.

IMPACT ON PUPILS

The EPD experience was also considered to have changed this teacher's thinking regarding teaching practice and, in particular, the teaching environment, such that: 'It's made me think that actually the classroom needs to be a place where people are motivated to learn and where people have fun i.e. the children can direct their own learning.' Moreover, it was felt that this had directly impacted on her teaching practice, where the knowledge and skills acquired had been applied within the classroom: 'I've been delivering the curriculum in a more child-led and child-initiated way. One of the things I learnt through the Reggio Emilio approach.' Such outcomes were also considered to have had an impact on pupils' learning, where the shared experiences had extended to other teachers within the school and led to the teachers being 'more open to new ideas' particularly, with respect to changing their approach to learning. For pupils, this had enabled them to make their own choices and decisions and improved learning: 'I think because they have had more ownership over what goes on in the classroom they've enjoyed their learning more.' It was also felt that this approach had provided opportunities for the pupils to follow 'their own lines of enquiry', and thus to learn 'outside' the focus of specific activities.

Teacher B

Profile: Secondary teacher, deputy head of English

EPD ACTIVITIES → IMPROVEMENTS IN SKILLS AND KNOWLEDGE

Owing to her recent promotion to deputy head of English, this teacher's EPD activities were designed to develop her skills and experience in this new role. In this way, EPD funding was used to: attend courses (e.g. Improve writing at Key Stage 3); develop knowledge of the Key Stage 3 Literacy Strategy; and increase access to materials (e.g. guided reading and writing materials) to support this. The focus of the EPD activities were felt to have linked particularly well with the teacher's performance management targets for her role within the department: 'It's just building up my knowledge for what is needed as a second in department and as a person in charge of Key Stage 3 in English'. In addition, an amount of the EPD funding was used for personal development activities to promote confidence and wellbeing.

DEVELOPMENTS IN SCHOOLS SYSTEMS ightarrow DISSEMINATION ACROSS SCHOOL ightarrow IMPACTS ON OTHERS' TEACHING PRACTICE

The personal and professional development opportunities were felt to have improved this teacher's knowledge, skills and confidence, following which, she became more active in both her role within the classroom, 'I am much more energised than I used to be', and within the whole school where she became involved in team teaching to share what had been learnt across other departments: 'I am going to team teach with the science teachers to improve the literacy in science.' Similarly, the materials and resources purchased with EPD funding were accessible to other colleagues: 'Some of the materials I have bought have been things like starter kits for Year 7, 8 and 9 which are photocopiable so that I can make them [other teachers] part of it, so that it is of benefit to them as well.' In addition, it was felt that the knowledge gained through the courses attended had had a direct impact on teaching practice, where information regarding the literacy strategy had been applied in the classroom: 'Through the courses that I've gone to I have experienced different techniques, which I am applying in my classroom.' Furthermore, it was noted that this knowledge had been disseminated throughout the school so as to contribute to the professional development of other staff, 'I'm now able to share that knowledge with other people ... that's the impact it's had.'

IMPACTS ON PUPILS → IMPACTS ON SCHOOL STANDARDS

The impact of both the teacher's personal and professional development as well as the ways in which those outcomes had extended to other staff and the whole school had several impacts for pupils. In particular, the 'foundation of knowledge' developed was felt to have increased understanding and confidence and thus affected teaching practice and pupil learning: 'The more confident I am about what I am teaching and the more clear I am on the structure, and the more variety I use, the better it is for them [the pupils] and their attainment.' Moreover, where this knowledge had been disseminated to other staff i.e. through team-teaching, the impact had been extended to pupils in other departments within the school. The impact of this on pupil attainment was also noted: 'It looks as if their attainment has come on and they are hitting their targets so that might indicate that I'm becoming more secure in my teaching and therefore it's affecting them.'

IMPACTS ON TEACHERS' CAREER ASPIRATIONS \rightarrow OUTCOME FOR THE TEACHING PROFESSION

For this teacher, the impacts of the EPD experience had also led to a more definitive commitment to the profession. Furthermore, increased personal and professional confidence led to ambitions for future career development: 'I have a firm idea about what I want to do and where I want to go. I know at some point I'm going to move on and know that I want to end up being a head of department', thus being of benefit to the teaching profession as a whole.

The outcome routes described in these vignettes led from changes specific to the EPD teachers to further developments for other teachers and changes within the school as a whole. In addition, it was possible to pursue that chain beyond the school. For example, in vignette A, the training developed by the teacher would be delivered to other schools in the LEA, and thus had the potential to impact on the practice of teachers in other schools.

As Part two has shown, it is evident that benefits for the pupils and school accrued through the activities of many EPD teachers. However, a number of contextual factors appeared to be instrumental in taking impacts beyond the improvements in the EPD teacher to the school as a whole. The first of these relates to the EPD teacher – their ability to recognise a potential for their professional learning to reach an audience beyond the classroom and their capability to take initiative in developing a wider role for themselves within the school.

The second relates to the attitude of the school. As discussed in Part three, for teachers to recognise career development opportunities, progress in their career and contribute to their colleagues and the school, the factors of having a mentor and support of the school were significant. Further, schools needed support systems to be in place in order to encourage the teacher to grow into a particular role, whether it be to disseminate or take on an area of responsibility. Where there was a senior management team who recognised the interests of their teachers, observed the developments in their teacher, the potential for impact on the school and were able to pursue and facilitate it – the outcome route penetrated beyond the participating teacher to the wider school.

4.2.3 Summary

Schools where all teachers had rated the effects of EPD on themselves highly, were compared with others in the survey sample in terms of their:

- level of free school meals eligibility
- levels of English as an additional language
- overall attainment levels
- schools size
- LEA type.

In addition, the ratings of teachers within these schools of school's support for their professional development, NQT induction procedures and level of involvement in choosing their own EPD were examined. On the whole, school demographic, geographical, administrative and social characteristics were not associated with the extent to which they were able to facilitate 'successful' EPD experiences (defined as programmes leading to positive outcomes for all their teachers). Rather, there was evidence that schools in all circumstances could maximise the benefits of EPD if they demonstrated a commitment to meeting the professional development needs of their teachers.

Through more detailed analysis of case-study interviews and in particular, data from the highest-scoring schools, certain contextual factors were found to have been

significant in contributing to the success of EPD in delivering outcomes for teachers, pupils and the school. These were:

- the schools' approach to professional development
- the ways in which schools balanced their needs with their teachers' needs
- the systems that were in place for supporting teachers' involvement in professional development activities.

In general, attitudes and practices towards professional development were good across the case-study schools, with CPD taking 'a very high priority' in schools. Amongst the cohort of highest-scoring schools, professional development activities were frequently delivered within and by the school themselves. In other case-study schools, there was a move towards this, attributed to schools' experiences of the EPD scheme. This was thought to signal the ability of the initiative to act as an impetus for schools to develop as professional learning communities.

Schools that achieved the highest levels of outcomes for teachers, pupils and the school were all characterised by the level of autonomy they allowed their teachers (both EPD and in general) in selecting development activities. Further, and related to experiences of EPD, there was widespread recognition that allowing teachers to pursue their interests brought longer-term benefits to the school.

Having support systems in place to facilitate professional development activities were also found to be important in generating outcomes for those involved. The systems reported in the highest-scoring schools included:

- assigning a mentor
- providing non-contact time for the mentor to perform duties
- providing non-contact time for teachers to pursue EPD activities
- supporting teachers' autonomy
- having enthusiasm, as a school, for teachers' interests and ideas.

Further, as well as particular school circumstances and systems, an essential factor for schools' support for teachers' involvement in professional development activities appeared to be the attitude towards professional development held by the senior management and the priority they placed on the EPD scheme.

Whether a teacher's EPD activities addressed the development needs of the individual teacher, or of the school itself, it was frequently the case that outcomes emerged in many areas, beginning with improvements to the teacher, such that a chain of outcomes developed. A number of contextual factors appeared to be instrumental in taking impacts beyond the teacher. These included:

- the teacher's ability to recognise the potential for their professional learning to reach an audience beyond the classroom
- the teacher taking the initiative in developing a wider role for themselves
- the leadership team recognising the interests and developments in their teacher
- the support systems being in place for the teacher to impact on the school.

Thus, both the teacher and the school play a vital role in transposing effects from one to the other. In schools already working effectively as professional learning communities, the chain of outcomes developed naturally, for those schools on the journey, a commitment to supporting professional development was crucial.

4.3 The role of the mentor

The benefit to be gained by second and third year teachers having a mentor – in terms of the increased outcomes they derived as a result of their EPD opportunities – has already been discussed in Part three. This section looks specifically at this influential component, exploring issues surrounding teachers' experiences of mentoring, and the practicalities of its provision.

The discussion is presented in the following sections:

Section 4.3.1 The prevalence and benefits of mentoring

Section 4.3.2 The mentoring relationship

Section 4.3.3 The manageability of mentoring

Section 4.3.4 Mentor training

4.3.1 The prevalence and benefits of mentoring

The teacher surveys revealed that mentoring was an integral part of the EPD scheme for the majority of teachers. In the first year, 86 per cent of teacher survey respondents reported having a mentor. Over the following years, the proportion of teachers with a mentor declined somewhat, though in the final year it remained slightly more than three—quarters.

When asked, one of the most common reasons given by EPD teachers for not having an official mentor was that they had an informal mentoring relationship. This was the most common response in an LEA where mentoring was optional and therefore least prevalent. Another frequently cited reason was that no mentor had been offered. The proportion of EPD teachers who cited colleagues being too busy as a reason for not having a mentor declined steadily over the course of the pilot. This may signal that mentoring gained in status and was more able to compete with other demands for time.

The majority of those teachers who did not have a mentor, or who experienced very little mentoring, believed that they might have benefited to some extent from the additional support that a mentor could have provided. One EPD teacher summed up the general perception – that having a mentor '... would have been nice because, as a new teacher, you don't know all aspects of what there is to know. You just know a little bit and if there was someone else who could guide you and say 'You can't do this, you can't do that', that would've been lovely' (Teacher, primary, year 1 case-study data).

Part three has already outlined the positive relationship between having a mentor and the outcomes experienced as a result of the EPD scheme, particularly for teachers in the second year of their careers. Further analysis of the survey data revealed that when EPD teachers were asked, 'How helpful have you found having an EPD mentor this year for your professional development?', around three-quarters responded positively each year – indicating they had found mentoring either 'fairly' or 'very helpful'.

In each year of the pilot, having a mentor and the extent to which mentoring was considered helpful by the EPD teachers were both found to be significantly associated with teachers' feeling that their school had supported their professional development and that their professional development needs had been met. This would further suggest that mentoring had a very positive role to play in supporting EPD teachers and, in turn, helping them to gain maximum benefit from professional development opportunities.

In case-study schools, the EPD teachers interviewed were also, on the whole, positive about the concept of mentoring and their experiences of it. Their description of the benefits it brought them fell into four main categories.

- Having a mentor had had a positive effect on teachers' morale and wellbeing through providing them with a channel of support (reported by more than half of all case-study teachers each year).
- Mentors helped teachers to recognise their professional development needs, gave advice and helped them to plan their careers.
- Mentors gave practical assistance in identifying and arranging suitable EPD opportunities for teachers. (In a small number of cases, mentors played a role in liaising between teachers and others in the school and LEA).
- Through their mentor, teachers had a more experienced member of staff to learn from in developing their role in school and their professional practices.

The quotations below illustrate the advantages of the mentoring relationship.

Benefits of mentoring

Having someone who is there for you, who can give you a lift and you can talk to when you don't feel you're doing well and who can give you guidance, there's nothing better than that (Teacher, primary, year 2 case-study data).

[Working with mentor has] given me the experience I need to expand my career... which I think has helped me to gain this new promotion. It's been a real learning curve and I've gained the experience I needed to get to that stage (Teacher, secondary, year 2 case-study data).

It's been useful in the sense that she's [mentor] pointed me some directions to go in. She actually looked on the internet for me and found something that I had had trouble finding, and she found it just straightaway. It was useful to have direction and also to have somebody saying 'Yes, spend it. Yes, go on. Yes, that's great' (Teacher, primary, year 1 case-study data).

It's fair to say that without it [mentoring], I would not have done a number of things that I would call good practice in the classroom. There is a lot of good practice out there and it's difficult to discover it and invent it for oneself, so learning from someone else has been superb. The mentor setup has been the setup through which I've learned most of my techniques (Teacher, secondary, year 3 case-study data).

Although none of the case-study teachers believed that mentoring had had a negative effect on them, a small minority of teachers each year did suggest that having a mentor as part of the EPD scheme had had little impact on them, with four main reasons being proposed.

- Some teachers felt that they had not particularly needed the support their mentors had given. (A few objected to the idea that having satisfied the requirements of their induction year, they still required the support of a mentor).
- Other teachers felt that the benefits had been limited because they would have received a similar level of support within their school without the scheme.
- A few teachers felt their mentor was not an appropriate person owing to their role or their lack of physical proximity within the school.
- A small number of EPD case-study teachers indicated that they would have found more contact with their mentor to be of benefit. For example, time set aside for formal meetings on a regular basis to provide increased levels of support.

To sum up, based on the benefits reported, it would appear that providing teachers in the early stages of their careers – and indeed perhaps all teachers – with additional mentor support could enable them to maximise the outcomes from the professional development activities in which they participate. In turn, this may result in teachers developing their role in school and advancing further and more quickly within the teaching profession (Part three reported the link between mentoring and career-related outcomes for teachers).

Having considered the many benefits of mentoring, we now move on to look at the practicalities of the mentoring process within the EPD scheme, in order to identify the key features of effective practice.

4.3.2 The mentoring relationship

This section discusses several dimensions of the mentoring relationship, such as its organisation and management, and teachers' experience of mentoring and concludes by considering what characterises a successful mentoring approach.

The organisation and management of mentoring

Across the 12 pilot authorities, different arrangements were found for the selection of mentors and the number of teachers allocated to each mentor.

Selection of mentors

In all but one of the 12 LEAs, responsibility for the provision and management of EPD mentors was delegated to individual schools. In one case where mentors were recruited directly by the LEA, the opportunity was advertised in schools and mentors were appointed after a written application. Initial mentor training was provided through the EPD scheme and a small financial incentive was offered (money from the EPD teachers' funds was top-sliced for this purpose and also for the provision of mentor training). In this authority, EPD teachers were deliberately assigned mentors who were in different schools and several EPD teachers were allocated to each mentor with the intention that joint meetings between the mentor and all of the teachers would allow the sharing of good practice and the provision of mutual support. There were mixed feelings, however, about these arrangements. Interviewees in this LEA

felt the benefits were that mentors were able to be more focused on the needs of the teacher rather than those of the school; that they added a different perspective to that of the EPD teacher; and that it gave EPD teachers valuable contact with another school. Drawbacks were mainly associated with issues of communication, the lack of day-to-day support and the difficulty of arranging meetings.

Turning now to those LEAs where the arrangement of mentoring fell to schools, in the first year of the EPD pilot, the most common method by which mentors had come to take on the role was following an approach from the school senior management team. Although this largely continued to be the case, in year 2 and year 3 mentors would often simply carry on with their role from the previous year (rather than new mentors being appointed).

When teachers were asked in the survey to rate the extent of their involvement in selecting their mentor, fewer than one-fifth of EPD teachers each year indicated that they had been closely involved in the decision. Moreover, this proportion decreased slightly over the course of the pilot. This is a notable finding, given that each year there was a significant association between EPD teachers' involvement in the selection of their mentor and the extent to which they perceived the mentoring relationship to have been helpful for their professional development. To take year 3 as an example, as Table 20 shows, just over half of those who were closely involved in selecting a mentor found their mentoring to be very helpful, compared with less than one-quarter of those who were not involved at all. This finding suggests that the effects of mentoring could have been maximised if teachers had had greater input in the selection of their mentor.

Table 20 Helpfulness of mentoring by teachers' involvement in selecting their mentor in the third year of the pilot

	Number of respondents	Not helpful (%)	Fairly helpful (%)	Very helpful (%)
High involvement in selecting mentor (Rating: 5 out of 5)	(132)	8	39	52
Low involvement in selecting mentor (Rating: 1 out of 5)	(685)	29	49	22

Due to rounding, percentages may not sum to 100 Source: EPD evaluation: EPD teacher survey 2004

Allocation of mentors to teachers

Of the mentors in the survey sample, around half each year were responsible for one EPD teacher, and around 20 per cent mentored two. Overall, around 90 per cent were responsible for four teachers or fewer. The mean average number of EPD teachers per mentor rose from two in the first year of the study to three in the final year. Mentors in secondary schools were found (on average) to mentor more teachers (three) than mentors at primary level (two).

In the first year of the study, a multivariate analysis on a matched sample of EPD teachers and their mentors revealed that a teacher experienced greater outcomes from the scheme where their mentor was responsible for fewer teachers in total. That said, the number of EPD teachers mentored was found to be significantly correlated with some of the outcomes of the EPD scheme that mentors experienced: those who mentored more teachers experienced greater gains in terms of their 'knowledge of other teachers and their needs', 'enhanced willingness to undertake professional development', 'improvements to morale and wellbeing' and the 'desire to take on (further) management positions / seek promotion'. However, an important corollary of this was that those who mentored more EPD teachers also experienced greater difficulties in terms of finding the time to meet with them and the impact on their own workload. This highlights the challenge of balancing EPD teacher and mentor outcomes and the manageability of the scheme for mentors.

It is clear from the evaluation that managing the practicalities of providing mentors for teachers early in their careers can have considerable benefits for teachers. Having dealt with aspects related to the general management of mentoring, the following section examines mentoring as experienced by teachers.

Teachers' experience of mentoring

Interviews in the case-study schools revealed that the most common mechanism by which mentors had provided support for EPD teachers was through meetings. Thus, in this section, the frequency of these meetings is addressed first, followed by consideration of the additional duties that the mentors performed as part of their role.

The frequency of meetings between teachers and mentors

In the case-study schools, the majority of EPD teachers described a two-tiered approach to mentoring whereby they had occasional formal meetings backed up by more frequent informal discussions and support. Others' mentoring experience was characterised almost entirely by the latter – particularly in instances where the teacher and mentor worked in close proximity within the school. There were also indications that discussions relating to EPD were sometimes combined with other meetings or professional development activities (such as Performance Management reviews).

The questionnaires asked both teachers and mentors, 'How many dedicated EPD-related meeting(s) have you had on average, per term?'. The most common responses each year, from both teachers and mentors, were either one or two meetings per term. However, in the teacher survey, the mean average (one) decreased year on year, and in the final year of the evaluation one in four teachers stated they had met their mentor bi-annually or annually rather than termly.

The number of dedicated EPD-related meetings that a teacher reported having with their mentor was found to be significantly associated, in each year of the pilot, with the extent to which they rated mentoring as helpful for their professional development. Each year, more than 60 per cent of those who reported two or more meetings per term indicated that mentoring had been 'very useful' for their professional development, compared with less than five per cent of those who met their mentor less than once a term. The clear message here is that in general terms,

EPD teachers appreciated the additional support of regular meetings with their mentor.

The focus of EPD mentoring

The case-study interviews provided considerable detail about the specific focus and style of guidance that the EPD teachers had received from their mentors. Three main spheres of mentor support were apparent.

• Facilitating teachers' involvement in EPD and CPD opportunities

Mentors could provide support that was very closely associated with teachers' participation in the EPD scheme. Often, meetings between EPD teachers and their mentors focused heavily on formulating plans for spending the EPD funds – including identifying EPD teachers' professional development needs, and exploring and advising on the most effective means by which their needs could be addressed. Mentors also sometimes took responsibility for identifying and booking courses, or making practical arrangements. Mentors who were also the CPD/EPD coordinator often provided this type of support. They were generally well informed about the scheme and its operation, but were not necessarily teachers within the same year group (primary) or subject area (secondary).

• Practical support for teachers' professional roles

A number of EPD mentors directly delivered professional development and supported teachers' professional practice – either within the classroom or within the school as a whole. This type of support was provided through discussion, lesson observations, and practical help with elements of teaching including classroom management, lesson planning and assessment. Those performing this type of mentor role were often more experienced teachers working in the same subject area or year group as the teacher they mentored, and with whom the EPD teacher could work closely, on an ongoing and often informal basis

• Encouragement and emotional support

Focussing heavily on the pastoral element of caring for the EPD teachers and supporting their emotional and psychological welfare, many mentors were able to act as friend and confidante, providing EPD teachers with moral support, encouragement and often a 'confidence boost'. This type of mentoring relied on EPD teachers and their mentors being able to develop a close working relationship where both parties were able to be open, and often involved frequent informal discussions. In one example where this was the case, an EPD teacher described mentoring as 'more like a friendship rather than a professional relationship, in a way' (teacher, primary, year 3 case-study data).

The case-study data also revealed mechanisms by which EPD teachers were able to compensate for types of support that were not adequately provided by their mentor. For example, where mentoring focused on practical support for the EPD teacher's professional practice, the role of facilitating their involvement in the scheme might be provided by the school CPD coordinator. This points to the shared responsibility that can be taken by schools, and members of staff within schools, to support the professional development of teachers early in their careers.

Characteristics of effective mentoring

To conclude this discussion of the mentoring relationship, this section outlines the views put forward by interviewees in the case-study schools about the main features that characterised an effective mentor. Responses from both EPD teachers and mentors themselves fell into three overarching categories – the duties mentors performed as part of their mentoring role, their personal characteristics, and finally, their experience.

With reference to the duties mentors performed as part of their role, interviewees felt that a mentor who was able to make time for teachers and prioritise the mentoring relationship amongst their other duties within the school was an effective one. Further, mentors who timetabled regular meetings and monitored their teachers' progress were also felt to be effective.

In terms of the mentors' personal characteristics, more than three-quarters of the case-study teachers agreed that approachability was a key attribute. Teachers also spoke of a mentor who should listen, be empathetic, positive and enthusiastic, and be able to guide the teacher to a solution, rather than tell them what to do. In terms of temperament, interviewees talked about good mentors being 'flexible' and 'open'. Interviewees also discussed the personal skills that 'good' mentors would have developed: these included characteristics such as discipline, organisational skills, efficiency, being practical and prepared to find answers.

Finally, interviewees identified the mentors' position in the school, their experience as a teacher and their experience of being a mentor as important characteristics. However, unlike the first two categories, there was variation in teachers' responses. In secondary schools, the majority of case-study teachers preferred that their mentor be a member of their department, since they understood the issues they were facing, and had experience of teaching their subject. However, there were also teachers who would rather have a mentor outside their department – not their line manager – who they could approach on a less hierarchical basis, and who they felt could give them a 'fresh' perspective on issues they were encountering. Given the variation in interviewees' responses here, this possibly underlines the earlier finding that the effects of mentoring could be maximised if teachers had greater input in their selection. In primary schools, the mentor's experience as a teacher was felt to be important, as one teacher relayed: 'If your mentor has a lot of experience, you respect them and look up to them and think "They actually know what they're talking about."' (teacher, primary, year 2 case-study data).

The following section now moves on to discuss the issue of manageability, in terms of how mentors coped with any demands of the role.

4.3.3 The manageability of mentoring

In the second and third years of the pilot, mentor survey respondents were asked to estimate how much time they had spent on their EPD duties, on average, per term. Results ranged from 'none' to 90 hours (the equivalent of approximately 13 days per

term or one day per week as nominated by one respondent each year). However, the average time spent was similar in both these years: on average, ten and nine hours were spent per term in the second and third years of the study respectively (the equivalent of around 40 to 45 minutes per week).

In the second and third years of the pilot, mentors were also asked if they had received any additional non-contact time specifically for undertaking their EPD duties. In these respective years, 85 per cent and 87 per cent had not. Amongst the minority who had, the average non-contact time received was six and a half hours and five hours per term in the second and third years of the study (around 30 minutes and 23 minutes per week respectively). In both these years, mentors receiving non-contact time spent an average of 12 hours per term on their EPD duties. Thus, mentors who received non-contact time spent longer on their role, on average, than other mentors, and contributed time over and above the non-contact time received (particularly in the third year of the study). With the provision of non-contact time, mentors were therefore investing an amount of their own time in the role.

Receiving non-contact time enhanced perceptions of outcomes for mentors, and as described in section 2.3.3, in the final year of the pilot this was significantly associated with effects in all seven of the areas specified in the mentor questionnaire, with the exception of 'better knowledge of others and their needs'. However, these mentors did not, as might perhaps be expected, experience fewer difficulties with managing their involvement. Because they continued to undertake some of their duties in their own time, manageability remained an issue.

Overall, very few teachers received any additional responsibility points or payment for their role as a mentor. This question was asked in the mentor questionnaire in the second year of the pilot only, with four per cent of mentor survey respondents reporting having received additional payment of some kind. The majority of these teachers were within one LEA where this was part of their approach to EPD. Given that the EPD scheme itself made no formal financial provision to support mentoring (outside any LEA or school decision in this matter), the extent to which mentors found the role manageable alongside their other commitments was particularly important.

The survey sought to determine the extent of any difficulties with manageability experienced by mentors in three specific areas. Mentors were asked to rate their experience of each on a scale ranging from 'not at all' to 'a great deal'. There was very little difference between the results in each of the three years of the evaluation. Taking the results for the final year as an example, these are presented in Table 21.

Table 21 Managing EPD – issues experienced by mentors in the third year of the pilot

	Not at all	A little	Quite a lot	A great deal (%)	Not sure/ NA (%)
	(70)	(/0)	(70)	(70)	(70)
Workload involved in being an EPD mentor	23	42	20	8	8
b. Finding the time to meet with EPD teachers	12	30	31	23	5
c. Difficulties with finding supply cover	38	17	10	12	22

Due to rounding, percentages may not sum to 100

Base: a. 485; b. 489; c. 482

Source: EPD evaluation: EPD mentor survey 2004

In each of the three years of the pilot, upwards of seven out of ten mentors had experienced some degree of difficulty with the time or workload involved in undertaking their EPD mentoring role (ratings between 'a little' and 'a great deal'), with 'finding time to meet with the EPD teachers' being the most commonly experienced issue. Of the three issues considered, the potential difficulty of arranging supply cover was least frequently faced by mentors – in each of the three years, around two-fifths had not experienced it as a problem at all.

Difficulties associated with the workload involved and finding the time to meet were generally experienced most keenly by mentors with greater numbers of EPD mentees. There was some evidence to suggest that four mentees represented the maximum number under which mentors' experience remained reasonably manageable.

Although the scheme became more established over its three-year duration, difficulties with time and workload remained for those undertaking the role of mentor. Thus, in terms of the long-term sustainability of mentoring as a means of providing support for teachers, the aspects of time, arrangements for meetings, and workload management for mentors to undertake their duties, might need further consideration.

4.3.4 Mentor training

Having covered mentors' views on the overall manageability of their role, this section looks at the training offered to assist mentors in their role. It will report on the uptake of training offered, the source and content of this training and will finish by conveying mentors' opinions on the effectiveness of the training they received.

Uptake of training

The numbers of mentors accessing training was found to decline over the three years of the pilot; from 71 per cent of mentor survey respondents in the first year, to 42 per cent in the second year and 31 per cent in the final year. The reduction in the prevalence of mentor training may be explained by the high proportions of mentors who had performed the role previously – either generally, or specifically within the

EPD scheme, and the numbers who continued to perform the role from one year to the next. (Indeed, the results from the second year survey revealed that those who had performed the role in the first year of the scheme were significantly less likely to have attended training than those new to the role.)

Of those who had not accessed training, a substantial proportion would have appreciated some support of this type: 75 per cent, 60 per cent and 58 per cent of these respondents indicated thus in the first, second and third years of the survey respectively. Desire for training was expressed by both mentors new to EPD and those who had performed the role previously. Mentors' length of time in the teaching profession, and previous experience of mentoring (within or beyond the EPD scheme) were not found to be significant factors in affecting desire for training. Thus, despite an embedding of a scheme over the three years and the familiarity that this might bring to those involved, there remained substantial numbers of mentors for whom some training or guidance would have been appreciated.

Sources of training and areas covered

Much of the training reported in the annual mentor surveys was provided by LEA personnel, with a smaller proportion provided by staff in the mentor's own school. Survey data revealed that the focus of training could include: guidance on: the EPD scheme itself; mentor skills (such as, evaluation, feedback and observation); EPD paperwork (including exemplar materials); and mentor knowledge (such as, teaching advice, career planning). Several areas of desired training input were also highlighted, with mentors recommending further coverage to outline the expectations of mentors/mentees and more opportunities to meet with other mentors and mentees.

Given the lower uptake of mentor training in the latter years of the pilot, and yet the substantial proportion of mentors who would have welcomed some training in these years, it may be important to make available appropriately targeted, ongoing training as mentors become more experienced.

Effectiveness of training

Over the three years of the pilot, increasing proportions of mentor survey respondents rated the training they received as 'effective' or 'very effective'; indicated by 62 per cent of these respondents in the final year of the pilot, compared with 54 and 43 per cent in the second and first years respectively. There was no difference between the ratings given by mentors who were new to the role and those who had been involved in the scheme previously, the implication being that despite previous experience as mentors, those who accessed training still regarded it as beneficial.

Receiving training was significantly related to enhanced effects in a number of outcome areas for mentors, and moreover, where that training was deemed effective, greater development was perceived in all seven outcome areas (see section 2.3). Indeed, in all three years of the pilot, the more effective training was deemed to be: the greater the outcomes mentors derived from their role; and the greater the ease with which they managed the work involved.

4.3.5 Summary

Mentoring was an integral part of the EPD scheme for the majority of teachers. In all three years of the pilot, around three-quarters of teacher survey respondents reported having a mentor.

As Part three illustrated, mentoring was significantly associated with the outcomes teachers derived from EPD and comments from the case-study teachers suggested that this was largely due to the feeling of being well supported and having someone to approach for practical help in their professional lives. This included having a more experienced member of staff to learn from, having someone to recognise their professional development needs and help them to plan their careers and, on a practical level, having someone to assist with the arrangement of suitable professional development opportunities.

Teachers' perceptions of the value of mentoring were very strongly associated with the extent to which they had been involved in selecting their mentor. However, teachers' involvement in choosing who was to take on a mentoring role for them was low, and declined over the three years of the pilot. In addition to this, the number of dedicated EPD-related meetings that a teacher reported having with their mentor was significantly associated with the extent to which they rated mentoring as helpful for their professional development, with those who reported two or more meetings per term most often indicating that mentoring had been 'very helpful'. The clear message here is that in general terms, EPD teachers should have considerable involvement in choosing their mentor and have the additional support of regular meetings to get the most out of their experience.

Despite this, the manageability of the role was a central issue for mentors each year. Seven out of ten mentors reported experiencing some degree of difficulty with the time or workload involved in undertaking their role. A minority of mentors received additional non-contact time in which to undertake the role. However, it was found that these mentors continued to perform mentoring duties in their own time, hence increasing the total amount of time that they actually spent on the role. These mentors derived greater positive outcomes from their mentoring role than those who did not receive any non-contact time. One factor that did reduce EPD mentors' manageability difficulties and amplified the positive outcomes they gained from their involvement, was the effectiveness of any training they had received for the role. Effective training clearly had important benefits for mentors, both personally and in terms of enabling them to undertake the EPD mentoring role more efficiently; thus reinforcing the value of professional development for all.

Case-study teachers felt that there were certain characteristics of an effective mentor. As well as being approachable, empathetic, and flexible, mentors should be suitably experienced and able to prioritise the mentoring relationship. In particular, teachers felt that 'good mentors' were those who had the ability to guide teachers in following their own professional development needs.

4.4 The role of the LEA

This section focuses on the role of the LEA within the EPD scheme and considers the relative effectiveness of the different approaches they adopted. To begin with, the level of impacts across all 12 LEAs is reported, as well as any change in impact over the three years of the pilot. Variations in impact are then examined with reference to how LEAs choose to operate the scheme, in particular their interaction with other key contributors – namely, the schools and the participating teachers. The section ends by compiling a typology of the specific functions performed by the participating authorities.

The discussion is presented in the following sections:

Section 4.4.1 The impact of EPD across the pilot LEAs

Section 4.4.2 Identifying the effective components of LEA approaches

4.4.1 The impact of EPD across the pilot LEAs

Across the 12 pilot LEAs, there was notable variation in the scale of impact experienced by EPD teachers in all three years of the scheme. For example, in year 3, 89 per cent of teachers responding to the survey in one authority reported that EPD had affected their overall professional practices to a considerable degree. In another LEA however, 57 per cent of surveyed teachers adjudged that this was the case. Thus, some LEAs were able to function relatively more effectively in terms of the effects cultivated through EPD. Taking more of an overview, it should be noted that, comparing figures from the first and final years of the survey, every single LEA achieved an increase in teacher effect ratings (with the largest gain being 28 per cent). Hence, despite some variations in the extent of impact, over the course of the pilot all LEAs were seen to progress in terms of reports of positive impacts on EPD teachers.

For now though, we are concerned with explaining why some approaches to EPD appeared to work more successfully than others. To this end, it may be enlightening to look at those LEAs that performed consistently well with regards to teachers' ratings of EPD effects. Over the course of the pilot, there were three authorities that frequently occupied a top three position in terms of the perceived effects registered by surveyed teachers. The approach to EPD in these three authorities, therefore, would seem to be particularly advantageous. At the other end of the spectrum were two LEAs that, despite some improvements during the second year of the scheme, were at the bottom of the effects rankings in both the first and final years of the pilot. In comparing the approaches of these LEAs, it may be possible to tease out the factors that either promoted or hindered the emergence of EPD outcomes. The next section will identify which types of approach yielded the most positive outcomes.

4.4.2 Identifying the effective components of LEA approaches: achieving an optimal configuration

The EPD scheme relied principally on the combined contributions of three key players – the LEA, the schools (and within them, mentors) and the participating teachers. It would appear that the highest results for teacher effects were obtained

where the various constituents achieved appropriate levels of involvement. Taking each partner in turn, this section will discuss how LEAs chose to manage their interaction with schools and teachers, highlighting those configurations that appeared to be most beneficial.

Teacher autonomy

Over the course of the pilot, very broadly speaking, LEAs chose to conceptualise the initiative in one of two ways.

- A centralised approach where there was an LEA-specified component or curriculum that would form an integral part of EPD for participating teachers in that locality (though in other elements of EPD, these participants had individual choice).
- A non-centralised approach where there was no such universal LEA curriculum or component that EPD teachers were required to follow.

Additionally, in the first year of the pilot there was a midway approach which comprised some free choice for teachers but also aspects that were strongly centrally recommended; or where teachers were required to concentrate upon a range of areas, but had the freedom to choose how to cover these. This third approach eventually disappeared as the LEAs concerned moved towards a more non-centralised form of implementation. Also, over the course of the pilot, the centralised models incorporated more scope for teacher choice.

We will now compare the two principle approaches to EPD in terms of the outcomes reported. In the pilot's first year, it was found that when teachers rated the overall effect of EPD on their professional practices, authorities adopting a non-centralised approach (where there was no universal LEA curriculum or component) generated the highest scores. What then are the distinguishing features of a non-centralised LEA? Firstly, as already indicated, teachers were given considerable leeway to follow their preferred professional development pathways. Furthermore, of the non-centralised LEAs, those producing the highest scores of all in terms of teachers' ratings of the overall effect of EPD, had specifically tied the monies to the teacher or had created a philosophy where the funds were regarded as the teacher's money.

Meanwhile, centralised pilots (where there was an LEA-specified element) tended to be associated with the lowest ratings. Under this approach, the LEA retained some control over an aspect of a teacher's EPD programme: for example, participants might attend courses with a pre-determined focus. Whilst observations showed that this type of provision was well designed and delivered, it cannot be guaranteed that it would meet the needs of every single teacher involved. Therefore, teacher effect ratings of generic programmes tended to be lower than those given by teachers who experienced more individualised packages of EPD provision.

Even so, by the second year of the pilot, there was far less distinction between the extent of the effects teachers reported in the non-centralised and centralised approaches. Between year 1 and year 2, centralised approaches witnessed the greatest gains in teacher effect ratings (e.g. in one case, from 38 per cent of teachers recording

a considerable impact on overall professional practices in the first year, to 67 per cent in the second year). Along with the increased emphasis on the voluntary dimensions of their programmes in year 2, this suggests that centralised approaches needed more than the first year of the pilot to develop. Because this approach often incorporated newly devised courses specifically for EPD teachers, these might quite legitimately have required longer than one year to achieve their fullest potential. Indeed, teachers' ratings of these courses in terms of relevance to their individual needs and impact on practice were found to increase across the three years of the pilot. Furthermore, centralised approaches scored highly in the area that was the focus of the centralised part of the experience. For example, in one authority, strong outcomes were seen in the area of career development, and another pilot area produced high ratings for the effect of EPD on teachers' ability to teach different pupil types – these had been a focus for these particular LEAs.

Despite the progress made by centralised pilots, in the final year of the scheme, these centralised approaches showed slight declines in the proportion of teachers registering a considerable effect on overall professional practices, such that they returned to the bottom of the rankings. On reflection then, centralised approaches, with lower levels of teacher autonomy on the whole, tended to fare less well in teachers' assessments of overall impact.

Provision of LEA support

Allowing teachers a high degree of control over their EPD programmes was thus found to be associated with positive EPD outcomes. Equally important, however, was the amount of support and guidance also provided by the LEA. As well as mentoring if deemed desirable, in two top-scoring LEAs, teachers also benefited from the input and advice of other professionals. For example, one authority appointed local 'lead tutors' to help teachers identify their strengths and weaknesses, to locate suitable professional development courses or to act as an intermediary if any disputes arose between the teacher and the school. In the second authority, primary school teachers had access to designated local headteachers who would provide training, advice and promote networking amongst the EPD participants. At secondary-level, teachers were supported by consultants. For an approach with little central stipulation to work most successfully, therefore, it appeared necessary that the teachers were well supported by the LEA as well as their school, and given the required assistance to make optimal use of their EPD funding.

More generally, the contribution of the LEA in ensuring the effectiveness of EPD should not be underestimated. In the final year of the scheme, five LEAs showed a slight drop in the proportion of teachers registering that EPD had considerably impacted on their overall professional practices. Personnel from two of these LEAs admitted that their focus on the scheme had diminished somewhat since they had been informed of its imminent demise and they had perhaps invested less effort in its coordination. In the case of one authority, this meant that they dropped out of the top three LEAs for effect ratings, having been the highest ranking LEA in both the first and second year of the scheme. Thus, this experience underlines the instrumental role played by the LEA in promoting and driving forward programmes of this nature. The next section continues this theme, by looking at the contact between LEAs and participating schools.

The involvement of the schools

Part of the LEA's role within EPD involved disseminating information to eligible teachers and securing the commitment of schools to the initiative generally. Where this was done successfully, teacher effects ratings were seen to benefit, as illustrated by two of the 'top scoring' LEAs. Both LEAs made a more concerted effort to increase the involvement of, and communication with, schools during the course of the EPD pilot (e.g. through more face-to-face meetings with teachers, posters advertising the scheme in schools). Following these changes, participants' effects ratings rose quite noticeably. Similar trends were witnessed in other LEAs – effects ratings were greater during years where LEAs described having invested more in the dissemination of the scheme to schools, and where problems with communications were reported, ratings fell. A proactive involvement with schools and their teachers thus helped elevate the profile of EPD and was positively associated with EPD outcomes.

To sum up this section, the value of achieving an optimal configuration between the teacher, the school and the LEA can be illustrated by examining the evolution of EPD within a particular authority. Originally categorised as operating a 'mid-way approach', this LEA included EPD-specific courses that were strongly recommended to participants in the first year of the scheme. In year 2, these courses still existed but were presented as optional; indeed, the LEA coordinator explained how they had encouraged teachers to be 'a bit more risk-taking, more creative and more adventurous, and do less of the courses and so on'. Then, in the final year, there were changes in how the funding was allocated. Monies had initially been retained centrally by the LEA and schools were required to invoice the LEA to reimburse EPD expenses used by teachers. In year 3, funding was fully devolved to schools' budgets, though was ringfenced for EPD teachers. Thus, it might be said that the roles of the teacher, the school and the LEA became more aligned over the course of the pilot: LEA contact with EPD teachers was consistently high; levels of teacher autonomy increased from year 2 and the degree of school involvement rose in year 3. These changes perhaps explain the marked shifts in the effect ratings in this authority. Between the first and third year of the pilot, teachers' ratings of the overall impact of EPD on their professional practices rose markedly from 66 per cent of teachers giving a considerable effect rating, to 89 per cent. This meant that in year 3 of the EPD pilot, this LEA scored highest, over all other authorities, whereas previously it had lingered outside the top three LEAs.

The chart overleaf collates the various roles and tasks undertaken by the 12 LEAs to support the EPD initiative. These roles included: the conceptualisation of EPD and the design of the scheme; dissemination of information about the initiative; the promotion of professional development; provision of advice and guidance to individual teachers and schools; monitoring and brokering to ensure eligible teachers were fully included in the scheme; funding administration and management; providing/convening professional development opportunities for EPD teachers; providing/convening training and professional development activities for EPD mentors; evaluation; and the selection of EPD mentors.

A typology of the roles undertaken by LEAs to support the EPD scheme

Conceptualisation of EPD	The thinking and consultation within an LEA to formulate and design their approach to EPD and the philosophy underpinning it.
Dissemination	Informing teachers and schools about the EPD scheme. The evidence suggested that such dissemination raised the profile of the initiative and furnished participants with the information necessary to facilitate their involvement. This might be achieved via letters, the production of documentation (e.g. newsletters, posters), the LEA intranet or organised events (e.g. introductory conferences). Meetings, which brought together teachers and mentors from different schools, were regarded by school-based interviewees as particularly valuable opportunities for professional networking and the sharing of ideas on how best to use EPD funds.
Promotion of professional development	This could involve the following.
	• The LEA amassing details of the different professional development opportunities available and making links with partners and providers (e.g. HEIs offering MAs), and then the communication of this information to participating teachers and mentors (e.g. through folders and brochures).
	• The LEA acting as a bridge between individual teachers and sources of professional development (e.g. putting individuals in touch with colleagues in Beacon schools etc.).
	• The LEA establishing links with awarding institutions so that courses undertaken as part of EPD could count towards accreditation.
	• The LEA requiring that participating teachers complete action plans, needs analyses or portfolios to help them and their mentors to focus on areas for development.
Advice and guidance to individual teachers and schools	A role undertaken by LEA officers and/or personnel specially selected by the LEA to assist schools/mentors/teachers (e.g. 'lead tutors', seconded school staff, designated headteachers, consultants). It could incorporate visits, telephone or e-mail communication with schools and teachers on an individual basis to help them to take full advantage of EPD e.g. to encourage them to think more widely about professional learning opportunities or to identify an individual's areas for development.
Monitoring and brokering	Ensuring that those entitled to take part in the scheme were able to participate. This could involve working to elicit schools' and teachers' full support for the initiative, including monitoring EPD funds to ensure they were used for the professional development of second and third year teachers.

Funding administration and management	The administration of the scheme (e.g. the compilation of a database of participating teachers and mentors), and the allocation of EPD funds to schools/teachers. This could incorporate the following items.	
	• The distribution of EPD funds into school budgets on receipt of details of the number of teachers eligible for the scheme, the submission of action plans or invoices.	
	Holding funds centrally and making payments to or on behalf of schools on receipt of teachers' invoices for the professional development undertaken.	
	 Arranging payments to EPD teachers who were to receive allowances for attending EPD-specific activities or meetings in their own time. 	
Provider/convenor of professional development opportunities for EPD teachers	This provision might be staged by the authority's own personnel, or the LEA may have arranged for external bodies (e.g. HEIs) to provide this. It could incorporate the following items.	
	• Provision (e.g. professional development courses) laid on by LEAs as part of their wider work, which teachers could use EPD funds to access.	
	• Provision specifically designed for EPD teachers – optional – teachers could choose whether to take up the opportunity or not.	
	 Provision specifically designed for EPD teachers – obligatory or strongly recommended – an integral part of teachers' experience of EPD in the locality. 	
Provider/convenor of professional development opportunities for EPD mentors	Predominately training to enable mentors to undertake their EPD mentoring role, possibly leading to accreditation. Either provided by the LEA's own personnel, or convened by the authority with inputs led by external bodies.	
Evaluation	Undertaking or commissioning research into the experience and outcomes of EPD in their locality to inform future development.	
Selection of EPD mentors	In one LEA in particular, where interested teachers applied to and were selected by the authority to undertake the mentoring role. These mentors then liaised with EPD teachers from other schools who worked in the same key stage/year group or subject area as themselves.	

4.4.3 Summary

From this discussion, it is apparent that, where EPD was particularly successful, LEAs took an inclusive approach – involving schools and teachers so that they felt fully informed about the scheme. Additionally, these LEAs gave participants access to support networks and a degree of control over what their programmes entailed. Where the configuration between the LEA, schools and teachers was less well aligned, programmes were still successful but not to the extent of the highest performing LEAs. Nevertheless, although there was some variation in the extent of the outcomes teachers derived across the 12 pilot authorities, it is important to put the overall impact of the EPD scheme into perspective. In every LEA – both centralised and noncentralised approaches – the EPD experience was positive. In year 2, when asked in an open-ended question to specify, 'Which element of EPD have you found most valuable this school year?', surveyed teachers praised the initiative highly: one of the top responses in every LEA was to state simply: 'Everything is valuable about EPD'. The conceptualisations and commitment of the LEA personnel administering the initiative within their authorities must explain a substantial part of the success of the EPD pilot scheme.

Conclusion

This evaluation has confidently established that the Early Professional Development pilot scheme generated a plethora of effects spanning teachers' classroom practice, career development, commitment to teaching, their pupils' learning as well as impacts at whole-school level.

The EPD scheme made available ringfenced funding for the purpose of meeting the professional development needs of second and third year teachers. There were other essential ingredients. A mentor, school backing and further assistance from the LEA served as a three-pronged support network. Teachers' freedom of choice (teacher autonomy) regarding the use of EPD funds meant that teachers were able to focus on their areas of need, or to pursue avenues of personal interest. The subsequent professional development undertaken was, therefore, very much targeted at the needs and priorities of individual teachers and as a result, their confidence levels were elevated and teaching practice improved. From these effects sprung forth benefits for pupils in terms of their enjoyment of learning, motivation and progress. From undertaking development opportunities as part of EPD, teachers had an enhanced repertoire of professional skills, were imbued with greater confidence and registered greater commitment to teaching as a long-term career. Hence, as well as the personal gains for participating teachers, the EPD scheme nurtured teachers who were in a better position to contribute to the school as a whole and who expressed a greater likelihood that they would remain in teaching for some years to come. Having traced the emergence of EPD effects in this way, it is possible to appreciate the potential of a grassroots approach to professional development. The transmission of effects starts with the immediate recipient of EPD, the teacher, before transferring to their pupils, their colleagues, the school and also to the wider teaching profession.

In cases where EPD did not capitalise fully on its potential, it would seem that problems were encountered where the constituent elements of EPD – the teacher, the school (including the mentor) and the LEA – were out of alignment. For example, LEA approaches that restricted teachers' control over their professional development activities meant that the provision was less likely to address teachers' personal needs. Equally, total autonomy in the absence of any support meant that teachers would struggle to navigate their way through the range of options available to them. Schools needed to be factored into the equation – both to provide support to teachers and to capitalise on the professional progress made by these staff. Appropriate involvement by all key players was, therefore, critical in maximising the impact of EPD – where it functioned most effectively, teacher, schools and the LEA all contributed to its implementation.

The EPD scheme as documented in this report was discontinued after the three-year pilot. This was due to changes in the funding arrangements for CPD and a shift in emphasis to building schools' capacity for effective CPD. Looking into the future, however, it is possible to extrapolate some very valuable lessons from the experience of the pilot for increasing the impacts of professional development for teachers early in their careers. Participants commended highly the levels of autonomy offered

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through EPD and the opportunity to direct their own professional learning. Additionally, where teachers received support from a mentor and the school, the impact of the scheme was boosted further. The potential contribution that LEAs can make to teachers' professional development also needs to be recognised – LEA personnel not only offer a font of expertise in this area, but can help raise the profile and extend understanding of the multitude of development activities available through communications with schools and teachers directly. These, then, might be seen as the transferable features of the EPD scheme, which having been identified, could be utilised in future professional development activities.

What should not be overlooked though, is that the EPD scheme, as a concept, did offer something unique. During interviews, teachers would frequently praise the extra investment and thought in their professional development that the EPD pilot represented. This had made them feel valued and empowered. Furthermore, analysis of the EPD and comparative sample suggested that this could be a factor in the greater likelihood of EPD teachers remaining in the profession. Indeed, a key difference between the EPD teachers and those in the comparative sample, drawn from schools outside the pilot LEA, was the level of morale reported. Thus, the very existence of a dedicated, funded scheme specifically for the professional development of second and third year teachers was, in itself, crucial to the outcomes derived from EPD.

To conclude, this evaluation has chronicled the success of the EPD pilot scheme. Given its discontinuation, it is important to consider what lessons might be carried forward to inform subsequent policies and practices aimed at supporting teachers at the outset of their careers and – given the strength of the outcomes to emerge from the pilot – perhaps all teachers. Based on the experience of the EPD scheme, amongst the key factors associated with effective professional development were: autonomy for teachers, mentoring, a school ethos that embraces the professional development of its staff and an LEA role in support and promotion. In the absence of the scheme itself, these are the attributes that would perhaps benefit from particular attention, so the philosophy of EPD can be used to nurture and develop new cohorts of teachers entering the profession.

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Appendix 1

A cost-effectiveness analysis of the EPD scheme in the 12 pilot LEAs

Introduction

Appendix 1 conveys the results of the cost-effectiveness analysis (CEA) of the EPD pilot scheme. The objectives of the analysis were to compare the relative cost-effectiveness of the approaches undertaken by each of the 12 LEAs involved in the pilot and to account for differences in cost-effectiveness. It was not the objective to conclude whether the EPD scheme as a whole offers value for money. This outcome would require a cost-benefit analysis to be undertaken, in which the benefits of EPD would have to be measured in monetary terms.

There are four main sections in Appendix 1. The first outlines the methods used to undertake the CEA, including the data collection methods for both costs and effectiveness. The second section reviews the expenditure patterns of the 12 LEAs with respect to the EPD pilot. The third section presents the results of the CEA. Finally, the fourth section aims to account for differences in cost-effectiveness between LEAs. This section also highlights that care must be taken when interpreting the findings reported here.

Owing to the confidential nature of the data presented in Appendix 1, the LEAs have been anonymised. The letters A-L are used to identify the authorities, but the alphabetical sequence does not reflect any particular ordering of the LEAs.

Cost-effectiveness analysis: method

CEA is 'the evaluation of alternatives according to both their costs and effects with regard to producing some [predetermined] outcome' (Levin and McEwan, 2000, p. 10). In applying CEA in a comparison of different pilot approaches, the aim is to identify the approach that offers the best value for money (i.e. the maximum effectiveness per pound of expenditure) so that, if desired, work can begin on implementing the most cost-effective scheme across the entire population for which it is intended.

As the name suggests, CEA requires that data be collected on both costs and effects. In the current study, both costs and effects data refer to the second year of the EPD pilot i.e. the 2002–03 academic year. Data on costs was collected at LEA-level, through interviews with the key LEA personnel and analysis of supporting documentation. Such data collection may appear unnecessary as the EPD scheme allocated an identical amount for each second and third year teacher in each LEA and detail on these allocations had been provided to the research team by the DfES. However, there are a number of reasons why LEA-level data collection was necessary:

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- 1. A number of LEAs had utilised funds from other sources to 'top-up' the EPD funding and this additional expenditure needs to be taken into account in a CEA. These funds generally came from other budget centres within an LEA although one LEA used money from a community initiative.
- 2. Similarly, some LEAs had benefited from 'levered-in' resources, such as the time of those managing EPD at LEA level, for which no cost was incurred. It is essential to include the value, or 'opportunity cost', of such levered-in resources in a CEA in order to reflect the 'true' cost of facilitating EPD.
- 3. Owing to circumstances beyond their control, LEAs may not have allocated all of their EPD funding in the current academic year (e.g. when the number of actual eligible teachers fell short of projected numbers), and there were funds to carry over to the following year. Any surplus because of such underspends must be excluded from the current year's CEA.
- 4. Actual teacher numbers within LEAs showed some variation from provisional numbers used by the DfES in their allocations of EPD funding. This issue affected LEAs in both possible directions. Some LEAs (seven) had more funding than teachers to allocate this to, while others (two) had more teachers than were accounted for in their funding allocation. In order to ensure the validity of the results, actual teacher numbers should be used in the CEA.
- 5. Finally, collecting data on costs at LEA level allows an analysis of expenditure patterns to be undertaken. This analysis may help to account for some of the differences in cost-effectiveness between LEAs. Data have therefore been collected on both income and expenditure for each LEA.

Two measures of effectiveness were applied as outcomes in the CEA. Both of these were taken from items in the year 2 questionnaire returned by a sample of 1,189 teachers spread across the 12 EPD pilot LEAs.

- The first measure of effectiveness was teachers' estimation of the extent to which EPD had impacted on their overall professional practices. For this, teacher survey respondents were asked to rate on a six-point scale (1 = no effect; 6 = great effect) '... the extent to which the EPD you have taken part in this year has affected your professional practices overall?'.
- The second was teachers' assessment of the likelihood that they would be part of the teaching profession in five years' time. Here respondents to the teacher survey were invited to indicate on a five-point scale (1 = very unlikely; 5 = very likely): 'How likely is it that you will be working in teaching in five years' time?'.

The CEA itself requires that the data on costs and effects be merged to provide two measures of cost-effectiveness, one for each outcome (i.e. one for the overall impact of EPD on professional practice and one for the likelihood of remaining in teaching). The approach taken here was to calculate the level of effect attained per £1,000 of

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expenditure. 13 The higher the cost-effectiveness ratio, the greater the value for money afforded by the LEA approach in question.

Expenditure patterns

This section reports inter-LEA differences in how the EPD funding was allocated in 2002/03. The basic DfES allocation intended that £2,100 was available for each second year teacher, £1,050 for each third year teacher with an additional £100 per teacher to cover the management and administration costs of the LEA. Five of the twelve LEAs made the full teacher allocation available to EPD teachers, while the remaining seven LEAs top-sliced a proportion of the teacher allocation for example, to provide LEA-funded training for mentors or LEA-funded EPD opportunities and activities for participating teachers. Table 22 provides a summary of how the LEAs managed their allocations.

Table 22 LEA management of EPD funding

LEA	Amount top-sliced per 2 nd year teacher	Amount top-sliced per 3 rd year teacher	Distribution of top-sliced funds	
A (programme run over 2 years)	£1,350 over 2 years		Courses for EPD teachers (and supply), mentor training and supply costs for mentors.	
B (programme run over 2 years)	£1,980 over 2 years if teacher accredits EPD, £1,380 otherwise		Provision of central EPD for year 2 teachers (and supply), accreditation fees/course fees if accrediting, payments to schools for coordination and management of EPD and contribution towards mentors' time.	
С	NIL	NIL	N/A	
D	£600	£300	Payments to mentors, mentor training, induction session for teachers (and supply), funding MAs and part-funding EPD courses, videos and evaluation.	
E	NIL	NIL	N/A	
F	£100	£50	Twilight sessions for teachers, mentor training, videos.	
G	£100	£50	Introductory seminar for teachers, consultants.	
Н	NIL	NIL	N/A	
1	NIL	NIL	N/A	
J	£600	£50	EPD briefing sessions for teachers (and supply), consultants to lead sessions.	
K	£150	£50	Induction session for teachers, mentor training, LEA management.	
L	NIL	NIL	N/A	

¹³Cost-effectiveness is often calculated as the effect per £1 of expenditure. However given the relatively high sums of money involved and the scale used to measure effectiveness (determined by the response options 1-5 or 1-6 rather than the lack of effects *per se*), it was decided to calculate effect per £1,000.

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It is also useful to consider how LEAs managed their budgets in practice. Actual expenditure patterns are shown in Figure 1. This figure shows the percentage of total expenditure accounted for by each of five following categories.

- 1. LEA central costs (LEA): costs associated with management and administration of EPD such as salaries, general office expenses and LEA-level evaluations. The value of any levered-in time (i.e. time given by those managing the scheme at LEA level, additional to that funded through the LEA allocation received from the DfES) is included in the figures.
- 2. Provision of EPD opportunities to teachers/mentors by the LEA (Training): training funded either from LEA central funds or from money retained from teachers' allocations, which mentors and teachers did not pay to attend. Therefore, this category includes the majority of the activities listed in Column 4 of Table 22, including the provision of videos and employing consultants.
- 3. Payments to schools to coordinate EPD (Schools): payments to reimburse schools and coordinators for time spent administering and managing EPD (usually supply cover costs).
- 4. Payments to mentors (Mentors): three LEAs made payments to cover the time costs of mentors. These payments were either made to the mentor's school to pay for supply cover or were paid direct to the mentor.
- 5. Payments for teachers (Teachers): teachers' EPD allocation to cover professional development activities undertaken.

The word in parentheses for the five categories above is used as a category label in Figure 1. Comparisons between LEAs based on Figure 1 should be made with caution given that each LEA managed their own financial accounting processes. Some data was provided already categorised and it was not always possible to check whether the LEA-imposed categories matched those of the research team. However interview data was used to collaborate financial data and thus any differences in categorisation will be minimal.

Expenditure patterns shown in Figure 1 were somewhat indicative of the level of centralisation employed by each LEA in their EPD scheme i.e. LEAs providing a common curriculum or component (e.g. a central course), which participating teachers were required/recommended to follow, compared with those with no central stipulation as to what should form EPD teachers experience. The more centralised approaches (LEAs A and B) had, by a small margin, the highest allocations to 'training' as a component of total expenditure, funded by top-slicing money from the teachers' EPD allocations.

The expenditure patterns in some LEAs require clarification. As Table 22 shows, LEA J topsliced teachers' EPD allocations to fund teacher briefing sessions. However, the majority of the top-sliced funds were paid back to teachers to cover their supply costs for attendance at the sessions. Hence, there was no significant 'training' cost, since the actual costs of providing the training were low.

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LEA G top-sliced a small amount of teachers' allocations, yet had a relatively small proportion of total expenditure accounted for by LEA costs. The LEA reported a surplus that comprised these top-sliced funds, suggesting that the top-slicing had not been necessary.

On the other hand, LEAs H and I had a relatively large proportion of total expenditure accounted for by LEA costs, yet these LEAs did not top-slice any teacher allocations. LEA H had fewer teachers than the DfES provided funding for and thus did not allocate all of their 'teacher' allocation. The LEA indicated that it did not have any surplus funds and it had to be assumed from this that the LEA had spent the surplus allocation on their own management and administration costs.

LEA I had higher central costs than could be met by their management allowance and this was funded through levered-in time by LEA staff. In addition, not all of the teacher allocation was claimed, resulting in a teacher surplus to be carried forward to 2003/04.

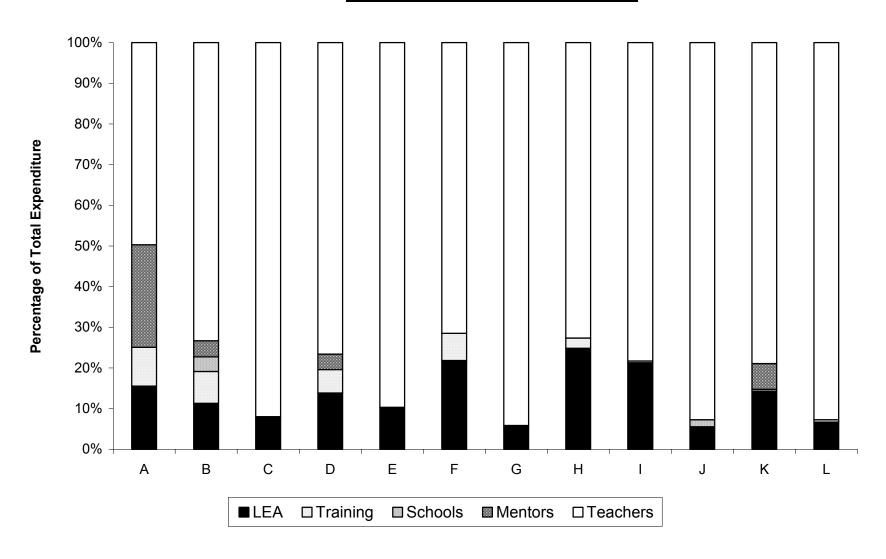
It might be expected that LEAs that did not top-slice any of their teacher allocation would show the same percentage of funds being allocated to teachers. However, they do not. There are three main explanations for this. The first and primary explanation is that there were differences in the value of levered-in time inputs across LEAs. Secondly, there were differences in additional resources or surpluses (because of the shortfalls in the predicted and eventual number of EPD teachers) between LEAs. Finally, differences in the proportion of second and third year teachers has an effect since LEAs were allocated a fixed £100 for their management costs, regardless of whether the teacher was in their second or third year. In figures, 95 per cent of the total £2,200¹⁴ (the second year teacher allocation of £2,100 + the LEA management allocation of £100) allocation for second year teachers was the 'teacher' allocation, compared with 91 per cent¹⁵ of that for third year teachers.

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 $^{^{14}}$ £2,200 = the second year teacher allocation of £2,100 + the LEA management allocation of £100.

^{15£1,150 =} the third year teacher allocation of £1,050 + the LEA management allocation of £100.

Figure 1: Expenditure Patterns by LEA



Cost-effectiveness analysis results

The LEAs have been compared in terms of cost-effectiveness for the two outcome measures in Tables 23 (impact of EPD on professional practices overall) and 24 (likelihood of remaining in teaching in 5 years' time). As stated above, the ratios reflect the average effect per £1,000 of expenditure.

It is important to state that the ratios reported here can only be used for comparative purposes. To assist in making comparisons, columns 3, 4 and 5 in each table provide further information on a theoretical maximum overall, of costs and of effectiveness.

Column 3 in each table calculates each cost-effectiveness ratio as a percentage of the 'theoretical maximum' cost-effectiveness ratio. The theoretical maximum cost-effectiveness ratio assumes that in an LEA with 100 second and 100 third year teachers, the full teacher allocation and management/administration allowance is spent. As a maximum, this cost-effectiveness ratio also assumes that each teacher gave the maximum effectiveness rating on the survey. It is not possible to conclude whether or not EPD is cost-effective overall from these percentages as there is no comparative intervention that has the same objectives as EPD. Nonetheless, the tables do appear to report some satisfactory results.

LEAs would show negative deviations from the theoretical maximum cost-effectiveness ratio (i.e. have a percentage score less than 100 per cent) if they had less than the maximum effectiveness scores (which they all do), or if LEAs benefited from levered-in funding that increased the cost of providing EPD above the DfES allocation. LEAs would show a positive deviation from the theoretical maximum ratio (with a score higher than 100 per cent) if they did not spend all of their DfES allocation in the 2002/03 academic year. ¹⁶ The actual percentages reported in Tables 23 and 24 reflect the net effect of the positive and negative deviations. ¹⁷

To provide further insight into the percentage scores in Tables 23 and 24, the final two columns provide models based on the possible positive and negative deviations from the theoretical maximum cost-effectiveness ratios.

Column 4 shows the percentage of the theoretical maximum cost-effectiveness ratio that would have been achieved given the actual LEA costs, but with the maximum possible effectiveness scores. With effectiveness held constant, this column shows the 'cost effect'. Scores above 100 per cent occur where LEAs reported an underspend. Scores under 100 per cent occur where LEAs had benefited from levered-in resources.

Column 5 shows the percentage of the theoretical maximum cost-effectiveness ratio that would have been achieved given actual LEA effectiveness scores, but assuming full expenditure as in the overall theoretical maximum model. In this model, costs are held constant. Thus, the column reports the impact of effectiveness differences only.

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¹⁶ Surpluses because of underspends are excluded from the CEA and imply that LEAs have achieved their effectiveness scores with a lower funding allocation than that used for the theoretical maximum. Surpluses therefore increased the percentage scores shown in Tables 2 and 3.

¹⁷ For example, an LEA achieving a mean effectiveness score of 4/5 would show a negative deviation from the theoretical maximum while an LEA with a cash surplus of £1000 would show a positive deviation. *Ceteris paribus* if these events were both to occur in the same LEA, the positive and negative deviations would be set against each other to provide a net effect (which could be zero).

All scores are below 100 per cent as no LEA achieved the maximum possible effectiveness score from all respondents to the survey.

It may be expected that the two percentages in columns 4 and 5 could be summed to provide the net effect shown in column 3. However, the net effect (or overall theoretical maximum percentage) is the product of the cost and effects models.

It is important to note that the cost-effectiveness ratios in Table 23 will be higher and more varied when compared with those in Table 24. This is because the item in the teacher survey on the effect of EPD on teachers' professional practice was answered on a 6-point scale while the item on the likelihood of remaining in teaching was answered on a 5-point scale. The results of these two outcomes can, however be compared by looking at the percentage of the theoretical maximum cost-effectiveness ratios.

Table 23 Cost-effectiveness ratios: impact of EPD on overall professional practice per £1,000 of expenditure

C. 1	Column 2	Column 3	Column 4	Column 5
LEA	Cost- effectiveness ratio	% of theoretical maximum overall	% of theoretical maximum costs	% of theoretical maximum effectiveness
L	3.207	89.5	122.1	73.3
J	2.729	76.2	101.4	75.2
K	2.605	72.7	98.0	74.2
В	2.358	65.8	101.0	65.2
С	2.278	63.6	86.5	73.5
F	2.198	61.4	90.0	68.2
D	2.133	59.6	85.9	69.3
E	2.070	57.8	90.1	64.2
G	1.997	55.8	91.9	60.7
	1.875	52.3	85.1	61.5
Н	1.740	48.6	73.8	65.8
Α	1.490	41.6	66.9	62.2

Source: EPD evaluation 2003

Table 24 Cost-effectiveness ratios: likelihood of remaining in teaching per £1,000 of expenditure

C. 1	Column 1	Column 2	Column 3	Column 4
LEA	Cost- effectiveness ratio	% of theoretical maximum overall	% of theoretical maximum costs	% of theoretical maximum effectiveness
L	2.901	97.2	122.1	79.6
В	2.431	81.4	101.0	80.6
J	2.408	80.7	101.4	79.6
K	2.406	80.6	98.0	82.2
F	2.247	75.3	90.0	83.6
С	2.241	75.1	86.5	86.8
G	2.146	71.9	91.9	78.2
D	1.974	66.1	85.9	77.0
Е	1.952	65.4	90.1	72.6
I	1.890	63.3	85.1	74.4
Н	1.880	63.0	73.8	85.4
Α	1.566	52.4	66.9	78.4

Source: EPD evaluation 2003

Tables 23 and 24 show that four LEAs appear to have been the most cost-effective in the provision of EPD: LEAs L, B, J and K, with LEA L showing particularly high cost-effectiveness. Three of the four LEAs with the highest cost-effectiveness ratios were those where teachers rated the effectiveness of EPD overall most highly (i.e. they had the highest effectiveness scores). The results reported here thus indicate that these LEAs do not achieve their effects by spending more than others. Thus, combined with high effectiveness scores, the models employed at these LEAs appear particularly efficient.

That these effective LEAs do not achieve their effects by spending more money than others demonstrates the importance of CEA, especially in the light of the potential for LEA spending to vary, either positively or negatively, from the DfES allocations (e.g. gaining additional funding from levered-in resources or effectively reducing funding by carrying forward a surplus to 2003/04). Using only their effectiveness results (i.e. their teachers' ratings for the effect of EPD on their overall practices), it could be argued that LEAs L, K and J achieved these results by spending more than other LEAs. The results shown here indicate that this is not the case, since this would be reflected in lower cost-effectiveness ratios. Hence, these LEAs were efficient at resource allocation.

LEA B did not have such high effectiveness scores (particularly with respect to the effect of EPD on professional practice), and the relatively high cost-effectiveness ratio is suggestive of cost-efficiency within this LEA. However, the provider of the centrally-run EPD course for this LEA received a subsidy, and it was not possible to ascertain the extent of this subsidy, hence it is not included in the results. This means that LEA B benefited from levered-in resources that were not accounted for in the CEA, which possibly made the LEA appear more cost-effective than it actually was.

Three LEAs, I, H and A, appear to have been the least cost-effective in the provision of EPD. Further, LEA I had relatively low effectiveness scores. This suggests that money, while not being optimally allocated, may not be being wasted. However, the 'cost effect' reported in column 4 of the tables suggests that this LEA did spend more per teacher than the DfES allocation although this difference is not substantial.

Of concern is LEA H, which had a high effectiveness score for 'likelihood of remaining in teaching' but relatively low cost-effectiveness. Column 4 of the tables suggests that this LEA spent considerably more per teacher than the DfES allocation. The expenditure patterns of LEA H were discussed above: it was noted that this LEA did not have as many teachers participating in the scheme compared with their funding allocation, yet the LEA did not indicate that they had an underspend.

Column 4 of the tables also shows that LEA A spent considerably more per teacher than the DfES allocation. This was due to an underspend from 2001/2002, carried-forward to 2002/2003. Part of the surplus was spent on paying mentors for their time – Figure 1 illustrated that 25 per cent of total expenditure was allocated to mentors. The analysis suggests that in the case of this LEA, payments to mentors did not increase the effectiveness of the scheme for teachers.

Tables 23 and 24 both show a range of about 45 percentage points in the theoretical maximum cost-effectiveness ratio. This is quite substantial and indicates that it is important to identify reasons for the different cost-effectiveness ratios. Possible reasons are discussed in the next section.

Factors affecting cost-effectiveness

A number of factors are identified in this section as determinants of the relative cost-effectiveness of different approaches to EPD. Also included are comments relating to the care with which the results should be interpreted.

• Data quality and quantity

It is important to note that the 12 LEAs were not provided with a costs collection instrument designed specifically for the evaluation. This was because it was assumed that the LEAs would already have their own financial accounting procedures and systems established, and that the completion of an additional instrument would require a significant amount of repetition and hence would be inefficient. As such, the research team relied on the key personnel at the LEA to provide the costs data required for the CEA. Both the quantity and quality of the data varied across the LEAs. Such variations mean that comparisons between the LEAs in terms of cost-effectiveness must be made with extreme care.

• Response bias in questionnaire

The effectiveness measures used in the CEA may be affected by response bias in terms of the teachers who chose to respond to the questionnaire, particularly if this varied across LEAs. For example, teachers in one LEA may have used the questionnaire to vent their frustration over a problem with the scheme while in another only teachers with positive experiences may have responded. However, it

is not possible to determine the extent of any response bias, nor the direction in which such bias affects the actual effectiveness of the pilot.

• Exclusion of set-up costs

As the CEA refers to the second year of the EPD scheme, costs incurred in setting-up the schemes are not included. While this provides a more accurate CEA for the long-term, the effect of differences in investments in the set-up of the EPD scheme across LEAs cannot be determined.

• Effects of expenditure patterns on cost-effectiveness

There do not appear to be any effects of expenditure patterns (as reported in Figure 1) on cost-effectiveness. For example, LEA A had relatively low cost-effectiveness while following a centralised approach (top-slicing EPD teachers' funding to provide a central course recommended/required for all participating teachers) with less funding available to teachers for them to allocate as they chose. In comparison, LEA B also follows a fairly centralised approach to EPD, but had relatively high cost-effectiveness. With only LEAs A and B following a centralised approach in 2003/04, it is not possible to determine any significant effects of centralisation on cost-effectiveness.

Similar expenditure patterns are reported in Figure 1 for LEAs F and H, with both LEAs having a relatively high proportion of LEA-level expenditure. However, cost-effectiveness is fairly high at LEA F but relatively low at LEA H. Again, it is not possible to explain variations in cost-effectiveness through LEA expenditure patterns alone.

Economies of Scale

It is anticipated that the larger LEAs (in terms of teacher numbers) will have benefited from economies of scale in the management of the EPD scheme. In many respects, management costs (e.g. the time taken to prepare paperwork) are fixed and, as such, it can cost almost as much to manage an EPD scheme in an LEA with 50 teachers as it does in an LEA with 200 teachers. As the funding for the management of the scheme was paid as a fixed rate of £100 per teacher, smaller LEAs may appear to have been less cost-effective. An example of a large LEA (with over 300 EPD teachers) is LEA G which had an underspend from savings made at LEA level, indicating the possibility of economies of scale. LEA I is an example of a small LEA. Using actual teacher numbers, there were 96 EPD teachers in this LEA in 2002/03, compared with an average of 276 teachers across the 12 LEAs in the pilot. LEA I had a relatively large proportion of total expenditure accounted for by LEA costs and this, too, suggests that larger LEAs may be benefiting from economies of scale. This may explain why LEA I appeared relatively cost-ineffective compared with the other LEAs.

The other two small LEAs (in terms of EPD teacher numbers) were LEA E (with 81 EPD teachers) and LEA D (with 117 EPD teachers). The cost-effectiveness of these LEAs may also be affected by the lack of economies of scale. In addition, LEA E reported that they had to use some of their LEA allocation to for teachers' EPD funding as they had under-estimated their teacher numbers and subsequently did not receive sufficient funding from the DfES. This explains why the

proportion of total expenditure accounted for by LEA costs was fairly low at this LEA.

• The opportunity costs of EPD teacher/mentor/coordinator time

The costs data reported above includes an assessment of the value of any time 'levered-in' by LEA personnel (i.e. time given by those managing the scheme at LEA-level, additional to that funded through the LEA allocation received from the DfES). This varied from zero (LEA C) to 8 weeks (LEA D). However, it was not possible to include similar costs for the time commitments of teachers, mentors and coordinators over those funded by EPD monies. Teachers will have given up their own time to participate in EPD, and the opportunity cost of this time is not included here. The main reason for this is that it was impossible to ask all EPD teachers to record all of their EPD activities. The study involved visits to 36 casestudy schools (three per pilot LEA) and interviewees (EPD teachers, their mentors and the 'EPD coordinator' - the member of staff with an overview of EPD in the school) at these schools, were asked to estimate the amount of time they had spent on EPD over the year. However, as these estimates varied so widely within LEAs (at one LEA the variation was between 12 and 300 hours for teachers and between 12 and 210 hours for mentors), it was not reliable to include an estimation of this time as a cost in the CEA. It may be the case that investments of time in EPD by teachers impacted on their assessments of the effectiveness of the scheme.

Financial management and accountability

The financial accountability schemes employed by the LEAs varied considerably. Seven LEAs paid their teacher allocations direct to schools (LEAs A, C, E, H, K and L) while a further two LEAs (LEAs D and J) would reimburse teachers and/or schools on receipt of suitable claims. A middle-way between these two approaches, employed by the remaining four LEAs (B, G, F and I), required that an action plan be submitted to the LEA before funding was released.

Given the financial hardship of some schools, it was possible that some of the money paid directly to schools may not have been sufficiently ring-fenced to the teacher to whom it was allocated. If schools had been 'siphoning off' EPD monies, lower cost-effectiveness would be anticipated. From interviews conducted with the 'EPD coordinator' in each of the 36 case-study schools in 2003, there was evidence from a small minority to suggest that some siphoning may have occurred, although this depended on the attitude of the school as well as the LEA accountability policy. It is not possible to include the monetary value of any siphoning in the CEA.

There was also evidence from the 'EPD coordinator' interviews that a minority of schools used their own funds to 'top-up' EPD monies. For example, one teacher received a laptop which was part funded by EPD and part from the school budget. Again, it was not possible to quantify any additional funding and include this in the CEA.

Comparing the financial accountability policies of the LEAs with the costeffectiveness results did not reveal that a particular payment policy resulted in high or low cost-effectiveness. However, it may be the case that siphoning at an

individual school level did occur in some LEAs and that the effectiveness reported by these teachers was lower than that at other schools in the same LEA.

• Second/third year teacher split

There were no significant differences between second and third year teachers in the two effectiveness measures used in the CEA. To an extent, this goes against the theory of cost-effectiveness: second years had twice the per-teacher allocation of third years (ignoring the management/administration allowance paid to LEAs) and it would be expected that second years would therefore report higher effectiveness. In theory, second years 'need' to report higher effectiveness for a cost-effectiveness analysis to determine that the additional allocation to second years is worthwhile. However, it can also be argued that third years had more experience at selecting EPD opportunities and were therefore more cost-effective at exploiting these. Furthermore, in the survey item asking teachers to rate the impact of their overall professional practices, teachers were asked to rate the *quality* of their EPD rather than the *quantity*. In the survey is the second of their exploiting these is a second of their overall professional practices, teachers were asked to rate the professional practices.

The four LEAs highlighted above as having the largest (C and G) and smallest (D and F) proportions of second year teachers showed similar cost-effectiveness ratios in Tables 23 and 24. It would be expected that LEAs C and G would have had relatively low cost-effectiveness owing to the increased proportion of second year teachers (and vice-versa for LEAs D and F). Hence, there must be other factors that determine cost-effectiveness. For LEA C, this may be the nature of the EPD system, where only interested schools participated. This was likely to serve to increase effectiveness, canceling out the second year effect noted here.

• Primary/secondary teacher split

Over all of the LEAs there were no significant differences between primary and secondary teachers in the two effectiveness measures used in the CEA. However, at four LEAs (A, E, H and I) primary teachers gave higher effectiveness scores for the item on impact of EPD on professional practice than secondary teachers, and this was also the case in two LEAs (A and E) for the item on likelihood of remaining in teaching. At LEA A there was a higher proportion of secondary teachers who responded to the survey (56 per cent), and the lower effectiveness scores of the secondary teachers therefore biases the effectiveness and cost-effectiveness downwards.

LEAs E, I and H had a higher proportion of primary teachers responding to the survey. However, the case-study part of the EPD evaluation identified issues relating to the management of EPD within secondary schools at these LEAs (for example some coordinators reported that it was not possible to release all their

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¹⁸ In an exaggerated example, LEA X has 100 second year teachers (and no third year teachers). It spends all of its DfES allocation and its teachers return a mean effectiveness score of 4/5. LEA X has a cost-effectiveness ratio of 1.818. Meanwhile LEA Y has 100 third year teachers (and no second years). It also spends all of its DfES allocation and again its teachers return a mean effectiveness score of 4/5. LEA Y has a cost-effectiveness ratio of 3.478.

¹⁹ For these reasons it was not considered feasible to conduct separate cost-effectiveness analyses for second and third year teachers.

²⁰ Ceteris paribus, a high proportion of second year teachers implies more funding but, as noted above, no significant differences in effectiveness scores.

EPD teachers for training activities owing to the implications for cover at the school). Secondary teachers therefore reported lower effectiveness scores and even with the higher proportion of primary teachers responding to the survey, these had a negative impact on cost-effectiveness.

Given the quality of the data provided, it would not be possible to separate costs between primary and secondary teachers and conduct separate cost-effectiveness analyses.

• Replacement of CPD by EPD

While not an explicit cause of variations in cost-effectiveness, it is possible that schools used the EPD funding as an alternative to their usual CPD funding from the Standards Fund. Two points are of note here. First, replacement means that EPD was not *additional* to CPD for the EPD teachers. Second, non-EPD teachers in the school may have benefited from having a greater CPD allocation per head as a result. There was evidence for and against replacement effects in the interviews conducted with 'EPD coordinators' in the 36 case-study schools. Most coordinators acknowledged that EPD funding freed-up CPD monies for other teachers. This was partly due to the cuts in the school funding in financial year 2003-4 reported by many coordinators.

Summary

The objectives of Appendix 1 were to produce a cost-effectiveness analysis of the 12 LEAs involved in the EPD pilot and to consider the determinants of cost-effectiveness. For reasons associated with data quality and quantity, the results presented here should be interpreted with caution, particularly with respect to making comparisons between the 12 LEAs.

Two outcome measures were applied in the cost-effectiveness analysis: the effect of EPD on teachers' overall professional practices and the likelihood of remaining in teaching. For the first outcome measure, the LEAs achieved between 42 per cent and 90 per cent of the theoretical maximum cost-effectiveness ratio. This increased to a range of 53 per cent to 97 per cent for the second outcome measure. Four LEAs achieved relatively high cost-effectiveness ratios for both outcome measures, and three had relatively low cost-effectiveness ratios for both.

An analysis of the potential determinants of the variations in cost-effectiveness did not reveal an overall determinant of cost-effectiveness. This implies that it was the net effect of a combination of determinants that influenced the cost-effectiveness ratio achieved by each LEA. In addition, the results may have been affected by intangible determinants of cost-effectiveness, such as the way in which the scheme was marketed to teachers or the usefulness of topics covered in training events.

There was some evidence that the most cost-effective LEAs achieved both high effectiveness scores and relatively low costs. This suggests that the amount of money spent on EPD was not the key determinant of effectiveness – what is important is how the money was managed and distributed. Hence, it would appear that features of the EPD scheme, such as teacher autonomy, the availability of appropriate activities, the attitudes and practices of the school, in particular, schools' support and having a

mentor were important in determining its effectiveness. Thus, Appendix 1 needs to be read in conjunction with the detailed analysis set out in Parts three and four of this report, which highlight the determinants of the effectiveness of EPD.

Appendix 2

EPD and comparative sample response rates

EPD sample response rates

Table 25 presents the response rates for the EPD samples for all three years of the pilot, broken down over the four instrument types used in years 1 and 2 (primary teacher, secondary teacher, primary mentor and secondary mentor) and the two instruments in year 3. For all three years, the response rate was calculated after a number of withdrawals were made. These withdrawals included recipients of the questionnaire whom it later emerged had left the survey-sample schools, were not currently in school (e.g. on maternity leave or on long-term sick leave) or had never been involved with EPD. Also removed from the sample were non-respondent mentors in two LEAs where mentoring was optional (for all teachers in one case and for third year teachers in the other). In despatching the questionnaires, it was assumed that all EPD teachers in these authorities might have a mentor. Consequently, a mentor questionnaire was sent out with every teacher questionnaire for the EPD teacher to pass on. However, the case-study fieldwork confirmed that, because mentors were not compulsory, minimal numbers were involved. Hence, this was accounted for in the response rate.

Table 25 The response rate by questionnaire type: EPD sample

Questionnaire type	Total originally despatched (N)	Total after withdrawals (N)	Total returned (N)	Overall response rate (%)
YEAR 1 – 2002				
Primary teacher	515	488	344	70
Secondary teacher	467	447	276	62
Primary mentor	393	323	245	76
Secondary mentor	285	207	125	60
Total	1660	1465	990	68
YEAR 2 - 2003				
Primary teacher	1007	930	599	64
Secondary teacher	997	944	590	63
Primary mentor	695	494	284	57
Secondary mentor	545	337	192	57
Total	3244	2705	1665	62
YEAR 3 – 2004				
Teacher	2542	2320	1373	59
Mentor	1587	882	507	57
Total	4129	3202	1880	59

Source: EPD evaluation: EPD teacher and mentor surveys 2002, 2003 & 2004

Comparative sample response rates

Table 26 shows the response rate for the comparative teacher survey sample, broken down over the two instrument types used (primary teacher, secondary teacher). As with the EPD sample, this response rate was calculated after a number of withdrawals were made, including incidences where the recipient had left or had never worked at the school, was absent from school (maternity leave, sickness) or was not a second or third year teacher.

Table 26 The response rate by questionnaire type: comparative sample

Questionnaire type	Total originally despatched (N)	Total after withdrawals (N)	Total returned (N)	Overall response rate (%)	
Primary teacher	1512	1414	667	47	
Secondary teacher	1839	1663 863		52	
Total	3351	3077	1530	50	

Source: EPD evaluation: comparative teacher survey 2003

Appendix 3

Characteristics of the EPD and comparative samples

Appendix 3 provides details of the characteristics of the EPD teachers and mentors responding to the surveys each year. The characteristics of those second and third year teachers outside the EPD pilot LEAs who responded to the comparative survey are also presented.

Year 1 (2002) - EPD teacher survey respondents

Presented below are the characteristics of the 620-strong EPD teacher survey sample in the first year of the evaluation. This sample comprised second year teachers only.

Phase of school 341 (55 per cent) taught the primary age range, 276 (45 per cent) were

secondary teachers and three (1 per cent) worked in special educational

needs (SEN) schools or pupil referral units (PRUs).

Gender Overall, 78 per cent were female (90 per cent of teacher respondents from

primary schools and 66 per cent of respondents from secondary schools

were women).

Ethnicity Predominately white (93 per cent) with small numbers of Black African,

Black Caribbean, Indian, Bangladeshi, Pakistani and Chinese.

Age The greatest proportion (44 per cent) were 25 years of age or younger; with

28 per cent aged 26–30, 21 per cent between 31–40, and 8 per cent over 41.

ITT PCGEs were held by 65 per cent of the overall teacher sample (including 85

per cent of secondary teacher respondents and 49 per cent of the primary teacher sample). Overall, 22 per cent of teachers had a BA/B.Sc with QTS and 11 per cent held a B.Ed. Three per cent of the sample had undertaken other qualifications, such as the Graduate Teaching Programme (GTP)

qualification or overseas accreditation.

Subject specialism Representatives of all subjects were included. The top five at primary level

were literacy (24 per cent), sciences, art, numeracy and history. At secondary level, the top five were sciences (17 per cent), English, languages,

RE and PE.

Year group The primary sample included teachers of all year groups, with the highest

proportions taking Year 1 (25 per cent) or Year 4 (22 per cent). Around 10

per cent each were teaching Year 2 or Year 6.

Roles in school There was a significant difference between primary and secondary teacher

respondents in terms of the additional duties they performed in their second year of teaching. Eighty-eight per cent of the primary teachers compared with 51 per cent of the secondary teacher sample held an area of responsibility in school other than their classroom teaching. For 90 per cent of these primary teachers, this involved the coordination of a subject area. No role was so prevalent in secondary teachers' responses. However, the most commonly undertaken (by 26 per cent of those stating they held additional duties) involved a particular responsibility within a subject area

e.g. ICT in maths.

Year 2 (2003) - EPD teacher survey respondents

Presented below are the characteristics of the 1,189-strong EPD teacher survey sample in the second year of the evaluation.

Phase of school 589 taught the primary age range (50 per cent), 590 were secondary teachers

(50 per cent) and ten (1 per cent) worked in SEN schools or PRUs.

Year of teaching 560 (47 per cent) were in the second year of their careers and 629 (53 per

cent) were in their third year.

Gender Overall, 76 per cent were female (88 per cent of teacher respondents from

primary schools and 66 per cent from secondary schools were women).

Ethnicity Predominately white (91 per cent), with small numbers of Black African,

Black Caribbean, Indian, Bangladeshi, Pakistani and Chinese.

Age Probably because of the inclusion of third year teachers, the EPD teacher

sample was older, on average, in the second year of the evaluation compared with the first. The greatest proportion (38 per cent) was aged 26–30; with 32 per cent aged 25 or younger, 20 per cent at 31–40 and 10 per cent over 41.

ITT PGCEs were held by 66 per cent of the teacher sample (including 82 per

cent of secondary teacher respondents and 50 per cent of the primary teacher sample). Twenty per cent of teachers had BA/B.Sc with QTS, and nine per cent a B.Ed. Very small numbers (four per cent) had undertaken school-based training e.g. GTP or SCITT, or possessed overseas accreditation.

Subject specialism Representatives of all subjects were included, with the top six at primary

level being literacy (22 per cent), science, PE, history, art and numeracy; and at secondary level, sciences (16 per cent), English, maths, history, PE

and languages.

Year group The primary sample included teachers of all year groups, with the highest

proportion (23 per cent) taking a Year 1 class and 18 per cent each taking Year 3 or Year 4. Around 15 per cent each taught Year 2 or Year 6 - a

higher proportion than in the first year of the evaluation.

Roles in school As had been the case in the first year of the evaluation, substantially more

primary teacher respondents (92 per cent) than secondary teachers (56 per cent) held an area of responsibility in school other than their classroom teaching. For 85 per cent of these primary teachers, this involved the coordination of a subject area. The most commonly undertaken role at secondary level involved a particular responsibility within a subject area. Markedly more third year teachers (80 per cent) than their second year

counterparts (67 per cent) held extra responsibilities in school.

Year 3 (2004) – EPD teacher survey respondents

Presented below are the characteristics of the 1,373-strong EPD teacher survey sample in the third year of the evaluation. Additional characteristics were not sought in year 3.

Phase of school 685 (50 per cent) taught the primary age range, 678 (49 per cent) were

secondary teachers and ten (1 per cent) worked in SEN schools or PRUs.

Year of teaching 710 (52 per cent) were in the second year of their careers and 663 (48 per

cent) were in their third year.

2003 - Comparative sample of teachers in non-EPD LEAs

The characteristics of the 1,530-strong comparative teacher sample are summarised below. Any similarities and differences in the constituents of the comparative and the Year 2 EPD teacher samples are also highlighted.

Phase of school 657 (43 per cent) taught the primary age range, 863 (56 per cent) were

secondary teachers and ten (one per cent) respondents taught in SEN schools or PRUs. The EPD teacher sample was evenly split between primary and

secondary respondents.

Year of teaching 857 (56 per cent) of comparative teachers were in the second year of their

careers and 673 (44 per cent) were in the third year. The year 2 EPD teacher sample contained a higher proportion of third year teachers (53 per cent).

Gender Overall, 78 per cent of the comparative sample was female compared with

76 per cent of the EPD sample.

Age Perhaps because of the higher proportion of second year teachers, the

comparative sample was, on average, slightly younger than the EPD sample. The greatest proportion of the comparative sample (40 per cent) was aged 25 or younger (the corresponding proportion for the EPD teacher sample was 32 per cent). Thirty-three per cent of the comparative teacher sample was aged 26–30, with 17 per cent aged between 31–40 and ten per cent over

41.

ITT The EPD teachers and the comparative teachers took almost identical routes

into teaching. The majority of both samples had completed first degrees and then a PGCE, with 66 per cent of the EPD teachers and 68 per cent of the comparative following this route. In both the comparative and the EPD teacher samples, 82 per cent of secondary respondents and 50 per cent of the primary respondents held a PGCE. Around 20 per cent of each sample held

a BA/B.Sc with QTS, whilst around eight per cent held a B.Ed.

Year group As with the EPD teacher sample, primary comparative teachers most often

taught Years 1, 3 or 4. Fifteen per cent taught a Year 2 class (as was the case for EPD primary teacher respondents) whilst ten per cent taught a Year 6

class compared with 14 per cent of EPD primary teachers.

Subject specialism²¹ The top six subject specialisms of the secondary teacher respondents in the

comparative sample mirrored those of the EPD secondary teacher sample:

sciences (16 per cent), English, PE, languages, maths and history.

Role in school A similar proportion of comparative and EPD teachers held extra roles in

school (71 per cent and 74 per cent respectively). As was the case in the EPD teacher sample, the third year teachers (76 per cent) and primary teachers (90 per cent) in the comparative sample most often cited additional

duties.

²¹Because of space restrictions in the survey design, only secondary teachers in the comparative sample were asked to state their subject specialism.

Year 1 (2002) - EPD mentor survey respondents

Presented below are the characteristics of the 370-strong mentor sample in the first year of the evaluation.

Phase of school 242 (65 per cent) taught the primary age range, 125 (34 per cent) were from

secondary schools and three (one per cent) worked in SEN schools or PRUs.

Years in teaching The majority of mentor respondents had considerable teaching experience:

44 per cent had been in the profession for 21 years or more, while 29 per cent had between 11–20 years of service. Newer staff were also acting as mentors at both primary and secondary level: 10 per cent had 3–6 years of experience and 16 per cent had been teachers for 7–10 years. (One per cent

= unknown).

Role in school In primary schools, mentoring was frequently performed by very senior

staff: 59 per cent of primary mentors were deputy heads or headteachers. Reflecting the different staffing structure in secondary schools, the mentoring role here was performed most often by heads of department (45 per cent of mentor respondents from these schools held this responsibility).

Twenty-three per cent of secondary mentors were deputy heads.

Gender Overall, 75 per cent were female (in secondary schools, 45 per cent of

surveyed mentors were male compared with 13 per cent in the primaries).

Ethnicity Mainly white (97 per cent) with small numbers of Black African, Black

Caribbean, Indian, Bangladeshi, Pakistani and Chinese.

Year 2 (2003) - EPD mentor survey respondents

Presented below are the characteristics of the 476-strong mentor sample in the second year of the evaluation.

Phase of school 278 (58 per cent) taught the primary age range, 192 (40 per cent) were from

secondary schools and six (1 per cent) taught in SEN schools or PRUs.

Years in teaching Forty-one per cent of surveyed mentors had been in the profession for 21

years or more, while 30 per cent had between 11–20 years of service. At both primary and secondary level, 11 per cent had 3–6 years of experience and 16 per cent had been teachers for 7–10 years. (One per cent =

unknown).

Role in school In primary schools, 62 per cent of mentor respondents were deputy heads or

headteachers. In secondary schools, the mentoring role was performed most often by heads of department (42 per cent of mentor respondents from these schools held this responsibility). Twenty-seven per cent of secondary

mentors were deputy heads.

Gender In all, 76 per cent were female (in secondary schools, 38 per cent of mentors

were male compared with 15 per cent in primary schools).

Ethnicity Mainly white (95 per cent), with small proportions of Indian, Black

Caribbean, Black African and Pakistani.

Year 3 (2004) - EPD mentor survey respondents

Presented below are the characteristics of the 507-strong mentor sample in the third year of the evaluation. Details on mentors' gender and ethnicity were not sought in year 3.

Phase of school 304 (60 per cent) taught the primary age range, 197 (39 per cent) were from

secondary schools and four (1 per cent) taught in SEN schools or PRUs.

(One per cent = unknown).

Years in teaching The majority of surveyed mentors had considerable teaching experience: 42

per cent had been in the profession for 21 years or more, while 29 per cent had between 11–20 years of service. Newer staff were also acting as mentors at both primary and secondary level: 8 per cent had 2–6 years of experience and 17 per cent had been teachers for 7–10 years. (Four per cent

= unknown).

Role in school In primary schools, mentoring was frequently performed by very senior

staff: 58 per cent of primary mentors were deputy heads or headteachers. In secondary schools, the mentoring role was performed most often by heads of department (34 per cent of mentor respondents from these schools held this responsibility). Thirty per cent of secondary mentors were deputy heads.

Appendix 4

Table 27 Teachers' ratings of the effect of the EPD scheme in 11 specified areas in the first year of the pilot (2002) (closed question)

(The table shows the mean score and then the percentage of teachers circling each number on the six-point scale to rate the impact of EPD) (Scale: 1 = no effect; 6 = great effect)

Type of impact	Number of teachers responding	Mean score	Rating 1 (%) No effect	Rating 2 (%)	Rating 3 (%)	Rating 4 (%)	Rating 5 (%)	Rating 6 (%) Great effect
Access to resources and materials	571	3.3	25	10	18	19	19	10
Understanding what constitutes good teaching practice	570	3.7	15	8	15	25	27	11
Improvements to your morale and wellbeing	573	3.4	22	8	18	21	17	13
Enhanced willingness to undertake professional development	571	3.9	18	5	13	17	29	18
Contribution to your colleagues and school	570	3.7	16	7	16	24	25	12
Knowledge of the subject(s) you teach	577	3.1	29	11	16	19	18	8
Knowledge and skills related to classroom management techniques	574	3.4	18	10	20	25	20	7
Ability to take on leadership roles	572	3.4	22	11	17	18	21	10
Actual teaching practice	575	3.6	14	9	16	28	25	8
Ability to teach different pupils	572	3.1	22	13	20	21	18	6
Enhanced commitment to teaching as your career	568	3.5	24	9	14	19	20	14

Due to rounding, percentages may not sum to 100 Source: EPD evaluation: EPD teacher survey 2002

Table 28 Teachers' ratings of the effect of the EPD scheme in 12 specified areas in the second year of the pilot (2003) (closed question)

(The table shows the mean score and then the percentage of teachers circling each number on the six-point scale to rate the impact of EPD.) (Scale: 1 = no effect; 6 = great effect)

Type of impact	Number of teachers responding	Mean score	Rating 1 (%) No effect	Rating 2 (%)	Rating 3 (%)	Rating 4 (%)	Rating 5 (%)	Rating 6 (%) Great effect
Access to resources and materials	1107	3.7	15	9	19	21	21	16
Understanding what constitutes good teaching practice	1104	3.9	10	7	16	28	27	13
Improvements to your morale and wellbeing	1103	3.8	14	9	16	23	22	17
Enhanced willingness to undertake professional development	1106	4.2	11	4	12	21	29	23
Contribution to your colleagues and school	1104	4.1	9	6	13	26	31	16
Knowledge of the subject(s) you teach	1110	3.7	17	9	13	25	23	14
Knowledge and skills related to classroom management techniques	1106	3.5	17	9	19	27	21	8
Ability to take on leadership roles	1105	3.8	16	8	16	19	28	14
Actual teaching practice	1105	4.0	8	6	14	32	29	11
Ability to teach different pupils	1108	3.5	17	10	20	26	18	10
Enhanced commitment to teaching as your career	1106	3.8	15	7	15	24	23	16
Thinking on how you would like your career to develop	1105	4.2	11	6	12	19	27	25

Due to rounding, percentages may not sum to 100 Source: EPD evaluation: EPD teacher survey 2003

Table 29 Teachers' ratings of the effect of the EPD scheme in 12 specified areas in the third year of the pilot (2004) (closed question)

(The table shows the mean score and then the percentage of teachers circling each number on the six-point scale to rate the impact of EPD.) (Scale: 1 = no effect; 6 = great effect)

Type of impact	Number of teachers responding	Mean score	Rating 1 (%) No effect	Rating 2 (%)	Rating 3 (%)	Rating 4 (%)	Rating 5 (%)	Rating 6 (%) Great effect
Access to resources and materials	1319	3.8	11	9	19	24	21	16
Understanding what constitutes good teaching practice	1319	4.1	8	6	14	28	31	14
Improvements to your morale and wellbeing	1313	3.9	12	9	16	24	22	17
Enhanced willingness to undertake professional development	1320	4.3	7	5	13	21	33	21
Contribution to your colleagues and school	1318	4.2	7	6	13	29	30	16
Knowledge of the subject(s) you teach	1316	3.9	13	8	15	21	27	16
Knowledge and skills related to classroom management techniques	1315	3.6	12	10	21	25	24	7
Ability to take on leadership roles	1312	3.8	13	9	16	21	27	14
Actual teaching practice	1320	4.1	7	5	14	31	30	13
Enhancements in pupils' learning	1319	4.2	6	5	11	28	35	15
Enhanced commitment to teaching as your career	1314	4.1	10	6	14	23	28	19
Thinking on how you would like your career to develop	1318	4.3	8	6	13	21	28	24

Due to rounding, percentages may not sum to 100 Source: EPD evaluation: EPD teacher survey 2004

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