



## Report

Final Report for the  
TDA

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# Evaluation of Starting Out

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# Executive summary

## Introduction

Commencing in July 2009, the Training and Development Agency for Schools (TDA) funded 'Starting Out' – a two-year mentoring pilot programme for science and mathematics teacher trainees and early career teachers delivered by the Learning and Skills Network in three regions (East of England, London and West Midlands). NFER conducted an evaluation of Starting Out which explored the quality and effectiveness of the models of mentoring support being piloted, and the impact on mentees' personal, professional and career development.

## About the evaluation

The evaluation employed a mixed methods design (qualitative and quantitative), and included telephone interviews, proformas, Computer-assisted Telephone Interviewing (CATI) and online surveys, case studies, and using existing project monitoring data, as well as secondary data on the teaching workforce. In addition to ongoing telephone and face-to-face discussions with LSN, a range of participants took part in the research in a variety of ways, as highlighted in the table below.

Research participant type	No.
Mentors	76 training evaluation forms 44 proforma responses 5 telephone interviews 12 face-to-face qualitative interviews
Mentees	25 face-to-face qualitative interviews 115 responses to CATI survey 133 responses to online survey
Advisory Group members	13 proforma responses (as well as NFER attendance at Advisory Group meetings)
Regional coordinators	4 telephone interviews (as well as NFER attendance at a regional coordinator keep-in-touch meeting)
Providers of ITT or other school, or ITT, support	5 face-to-face qualitative interviews

## Programme management and implementation

Overall, the programme management of Starting Out has been effective and responsive to issues and challenges as they emerge. This flexibility and responsiveness to the need for modifications to the programme management is reflected in positive impacts such as the higher level of mentee participation in Starting Out following the introduction of a revised mentee marketing approach. The mentor recruitment process worked well, producing a substantial cohort of experienced mentors with diverse expertise, and initial marketing materials were appropriate and effective in engaging mentors' interest and provided early information as to the nature of the programme and mentoring role.

The overall effectiveness of the revised mentee marketing approach is reflected in the large increase in the levels of mentees who subsequently joined the programme. Key features of this revised approach included a clearer focus on the benefits of the programme and on more direct forms of communication in addition to building more relationships with key individuals (in ITT institutions, schools and local authorities).

**823** early career teachers were recruited to the programme during the course of its delivery, exceeding the target number of 800 mentees expected to participate in the programme. Mentees were generally open regarding the content and focus of the support they required (in terms of the kinds of topics in which they required support) rather than narrowing it down to a specific aspect of their professional development.

#### Mentee characteristics (as at June 2011)

Region	No. (% of total)
London	262 (31.8%)
West Midlands	361 (43.9%)
East of England	200 (24.3%)
Teaching Phase	No.
PGCE/ITE	544 (66.1%)
NQT	242 (29.4%)
Year 2 teacher	37 (4.5%)
Subject specialism <sup>1</sup>	%
Biology	31.5
Chemistry	28.6
Physics	17.6
Mathematics	39.7
General Science	28.4
Mentoring type	No.
Subject mentoring	90 (10.9%)
E-mentoring	291 (35.4%)
Network mentoring	442 (53.7%)
Months support received	No.
1 month or less	7 (0.9%)
2 to 5 months	33 (4%)
6 to 11 months	332 (40.3%)
12 to 23 months	450 (54.7%)
24 months or more	1 (0.1%)

Source: LSN mentee database June 2011 (N = 823)

#### Programme delivery

Three different levels of support were offered by the pilot programme: subject mentoring, e-mentoring and network mentoring. The type of mentoring support

<sup>1</sup> Proportions based on data from the LSN mentee database supplied in October 2010. Proportions do not sum to 100% as mentees could report more than one subject specialism.

mentees chose tended to be based on an understanding of their own need, specifically:

- subject mentees' reasons usually centred on the in-depth and personal nature of the support
- network mentees reported that the opportunity for group contact was a key reason for selecting this type of support.
- e-mentoring mentees were attracted by the convenience and ease that this level of support offered them.

Mentees and mentors were generally in contact between once a month and once a fortnight (depending on mentees' needs). Typically, they communicated by email, although almost all mentees had some face-to-face contact with their mentors (at least initially), irrespective of the type of mentoring support they received.

Mentees involved in both the case studies and the survey were overwhelmingly positive about the value of the programme in addressing their individual needs and aiding their professional development. Mentoring relationships, across all types of support, have developed positively and in response to mentees' needs, as mentees have become more comfortable with: discussing problems openly (in the case of subject mentees) and more confident in the quality of advice and information offered by their mentor (in the case of network mentees), or as both mentee and mentor have developed a mutual understanding of how best to work together (in the case of e-mentoring).

Whilst usage of the Starting Out website increased as the programme developed, there was little positive change from mentees' and mentors' initial limited views and use of the online features of the programme (despite general enthusiasm for the potential of this feature to support the programme's delivery). Mentees made several suggestions to improve this aspect of the programme:

- the site could be easier to navigate
- more help could be offered in using the website
- email alerts could be sent when the website is updated
- more mentees could be encouraged to use the websites
- aspects of the website could be integrated into websites such as Facebook
- the site could be populated with a greater number of resources
- the website could be adapted for use on an Apple Macintosh computer.

Dilemmas and inquiries were considered effective if they were perceived, by both mentors and mentees, as relevant and sufficiently responsive to mentees' specific circumstances i.e. mentees were clear about the practical value and real-world application of the outcome of the dilemmas and inquiries in their professional development. Mentees' view of the ways in which dilemmas and inquiries could be



improved centred on: tailoring them to mentees' needs perhaps by suggesting their own scenarios; enabling mentees to jointly discuss common dilemmas and inquiries, using them after mentees' initial issues had been addressed; and narrowing their focus, perhaps reflecting the topics covered in mentees' PGCE courses.

Overall, the majority of mentees indicated that they would recommend Starting Out to other early career teachers and anticipated considerable future need for this type of mentoring support. Key aspects of support which featured most prominently in mentees' rationales for recommending Starting Out included: the opportunity to receive support from an experienced teacher who could offer additional and subject-specific advice and provide a practical perspective on issues and concerns raised by mentees; the value placed on receiving independent, impartial support which was not connected to any assessment of the mentee's teaching ability; and access to support via peer-to-peer networks.

### Lessons learned

Key lessons learned from Starting Out, which could be taken into account when developing or delivering a mentoring programme for early career teachers in science and mathematics in future, are detailed below:

- **Training for mentors** - provide initial training for mentors supported by a mentoring specialist who can produce bespoke mentoring training materials specifically tailored to the nature and scope of the programme. This training must equip mentors to offer support in using any online aspects of the mentoring programme, where these are part of the support provided to mentees,
- **Mentee recruitment** - direct, personal communications from a trusted source support successful recruitment. Mentees are more likely to consider joining a mentoring programme if they receive information and encouragement in a more personalised and direct way from sources such as their ITT tutors, representatives of the mentoring programme and school colleagues.
- **Mentoring relationship** - foster the development of a positive mentoring relationship relevant to mentees' needs. The development of a positive mentoring relationship is critical to ensure mentees' needs are identified and support is tailored to meet these needs. Irrespective of the type of mentoring support provided, a flexible approach and personalised forms of communication such as face-to-face or telephone support are necessary (particularly in the initial stages) to establish a foundation for the relationship. Aspects important to the ongoing development of the relationship are regularly discussing mentees' development needs, providing subject-specific guidance and mentors identifying, and recommending, resources.
- **Mentoring relationship** - consider independent support as key to the development of positive mentoring relationships. The mentoring relationship should maintain a focus on the value of specialist mentoring support provided independently of a mentee's school. Mentors' provision of personalised advice and guidance, as experienced, independent professionals, offers mentees support which is complementary to that which they might receive in school. Mentors are valued as an alternative source of support with whom mentees can raise alternative queries or issues which they may be less able, or inclined, to discuss with their line manager or colleagues in their school.

### Outcomes and impacts

The support provided to mentees made a difference to their personal, professional and career development in a range of ways such as making them feel more supported as an early career teacher and expanding their repertoire of ideas and activities for teaching science or mathematics. However, the most consistent positive change for mentees was their view that the mentoring support had better equipped them for a career in teaching. The programme also had some beneficial effects for the children and young people taught by the mentees, reflected in their observations that there have been increases in their pupils' interest in, or enjoyment of, science and mathematics.

### Value for money of the pilot

Overall, the Starting Out programme has offered good value for money, with the benefits it has generated outweighing its costs. In other words, every £1 spent on the programme has produced £1.63 in benefits. However, these benefits were primarily due to the recruitment impact of the programme, as the retention impact of the programme was found not to be cost-beneficial. This suggests that there is less of a value for money case for including NQT and 2<sup>nd</sup> year teachers in any future delivery of similar support. However, this assessment includes one-off set-up costs and so if the programme were to continue (and produce similar levels of impact in future) the economic case for including NQT and 2<sup>nd</sup> year teachers could be expected to improve as the cost of delivery per mentee reduced.

### Concluding comments

Mentees at all stages of their early career in teaching were unanimous in their view that there is considerable future need for this form of mentoring. Its most valued features were the impartiality of the support and advice provided, offered independently of the schools in which mentees were based, as well as its provision of additional support which focused on subject-specific knowledge, resources and approaches to teaching.

The evidence base from this pilot programme, which shows that a mentoring programme targeted at early career teachers of science and mathematics can reduce the risk/impact of new teachers leaving the profession, can also provide a useful platform from which to develop a more detailed understanding of this type of intervention in the future

# 1. Introduction

## 1.1 About Starting Out

Commencing in July 2009, the Training and Development Agency for Schools (TDA) funded 'Starting Out' – a two-year mentoring pilot programme for science and mathematics teacher trainees and early career teachers delivered by the Learning and Skills Network in three regions (East of England, London and West Midlands).. Through subject-specific mentoring, Starting Out aimed to increase trainees' and teachers' awareness and use of subject materials and resources, and their engagement in subject learning communities. The programme also aimed, ultimately, to increase recruitment to the profession and support the greater retention of science and mathematics trainees and teachers.

The pilot was delivered by the Learning and Skills Network (LSN) in three regions – London, East of England and the West Midlands. The programme operated on a rolling basis, with no stipulations on the minimum or maximum duration of support. This enabled trainees and teachers to join the programme at any point during the academic year and to access support at any time during their first three years of teaching. The pilot programme ran until July 2011.

## 1.2 About mentoring support

Mentees registered for one of the different levels of support offered by the pilot programme, originally set out as three distinct models:

- subject mentoring – where one mentor supported a small number of mentees individually (approximately five) through termly face-to-face meetings and online support
- e-mentoring – where, following an initial meeting, one mentor supported approximately ten mentees, largely online
- network mentoring – where one mentor supported a larger number of mentees (up to 25) through local events and group meetings, providing opportunities for mentees to meet colleagues in a similar role, and some online support.

We refer to these three models where appropriate throughout the report, although, since March 2010, a 'light-touch' version of the e-mentoring support was also offered, partly in response to the feedback from the first cohort of mentees which suggested that there could be different calibrations of e-mentoring support depending upon mentees' needs. As well as direct support through the mentee-mentor relationship, Starting Out also involved the following key elements in which mentees were encouraged to participate:

- using ‘dilemmas’ – these were typical problems (such as how to differentiate lessons for different abilities) faced by new teachers of science and mathematics. They were presented as scenarios with various solutions, and mentees were encouraged to discuss with their mentor and mentees how these problems would be tackled
- carrying out ‘inquiries’ – small-scale ‘action-research’ projects carried out by mentees, supported by their mentor (e.g. developing a new scheme of work or lesson plan and reflecting on the experience and making changes before implementing it again)
- engaging with the Starting Out online community – mentees were encouraged to post at least once a month on the community (either to their mentor or to other mentees); resources could also be accessed via the online community
- reflecting and evaluating – mentees could keep an ongoing reflective diary, and mentors supported mentees with CPD action planning, identifying aims and objectives for the mentoring, and reviewing progress
- attending Starting Out Network regional workshops - introduced as a key extra source of support during Year 2 of the pilot, the main focus of these workshops was to reflect and explore issues which mentees identified as key areas in which they required most, or more, support, such as classroom management and assessing pupil progress (based on feedback from mentees received by the programme deliverer, LSN).

We refer to these key elements of the Starting Out programme where appropriate throughout the report.

### 1.3 Evaluation methodology

The evaluation explored the quality and effectiveness of the models of mentoring support being piloted, and the impact on mentees’ personal, professional and career development. The aim of the evaluation was to explore the following questions:

1. How effective has the design, implementation and delivery of the pilot programme been?
2. How effective are the different models of mentoring support being piloted?
3. What is the impact of the mentoring support on mentees’ personal, professional and career development?
4. What other impacts are there from the mentoring pilot (e.g. on pupils)?
5. What evidence is there to suggest that a national mentoring programme would support science and mathematics trainees and early career teachers to stay in the profession? (i.e. retention)

In the latter part of the evaluation, the following question was included as part of the evaluation aims:

6. How do the costs of delivering this mentoring pilot programme compare to the benefits which it provides? (i.e. value for money)

The evaluation employed a mixed methods design (qualitative and quantitative), and included telephone interviews, proformas, Computer-assisted Telephone Interviewing (CATI) and online surveys, case studies, and using existing project monitoring data, as well as secondary data on the teaching workforce. In addition to ongoing telephone and face-to-face discussions with LSN, a range of participants took part in the research in a variety of ways, as highlighted in the table below.

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Providers of ITT or other school, or ITT, support	5 face-to-face qualitative interviews

Appendix 1 sets out the full list of evidence collected and used over the course of the evaluation.

## 2. Programme management and implementation

This section explores how the Starting Out programme has been managed and implemented including the roles of the LSN central team managing Starting Out and of the regional coordinators; the recruitment and training of mentors; the recruitment of mentees, and their subsequent participation in the pilot over the lifetime of the mentoring programme.

### 2.1 Programme management

#### **Role of LSN**

A central team at the LSN managed the overall delivery of the pilot. The management structure of the pilot included:

- a Starting Out programme manager at LSN
- two development advisers
- two lead consultants (specialists in mentoring)
- a central administration team at LSN led by an operations manager
- three Starting Out regional coordinators
- an Advisory Group (consisting of some 25 members from national and regional bodies).

Research participants<sup>2</sup> were complimentary about the role of LSN in administering the pilot, and the efficiency of the central administration team in responding to queries: 'the level of support from the administration central team is excellent'. However, in Year 1, some issues were raised around the technical efficiencies of the Starting Out online community, and around the mentee application process (these are covered in more detail in Sections 3.4 and Appendix 3 respectively).

Initial recruitment to the scheme was slower than expected at the beginning of Year 1 of the pilot. A revised marketing and recruitment strategy was developed by the TDA team and introduced by LSN in February 2010, with the aim of increasing applications to the programme. Towards the end of Year 1, LSN's monitoring data showed a marked rise in the numbers of mentees taking part in the programme and, at the beginning of Year 2, the programme had recruited more than three quarters of the target number of mentees expected to receive mentoring support during the lifetime of the programme (further details in Section 2.5). And, by the end, the programme had recruited more than its target of 800 mentees.

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<sup>2</sup> Regional coordinators, mentors and mentees.

## Role of regional coordinators

In Year 1 of the pilot, the role of regional coordinators was described as quite challenging (partly due to the extra demands of setting up the pilot and the lower levels of mentee recruitment), although regional coordinators responded flexibly as new directions and foci emerged. From their perspective, the regional coordinators considered that the sharing of learning, practice and ideas between all three of them, which took place through monthly keep-in-touch (KIT) meetings, was essential, and especially beneficial when conducted face-to-face.

The background and experience of the regional coordinators was reported to be an asset to the programme. All three regional coordinators:

- had existing experience of working with LSN in various capacities and on various programmes (e.g. on LSN's Triple Science Programme)
- had experience (previous and current) of providing STEM support within education through consultancy and similar capacities, including for example providing CPD for teachers, organising enhancement and enrichment activities for young people, and coordinating workforce training in the regions
- had various existing links within the regions (e.g. through work with regional Science Learning Centres, with local universities, and with other regional programmes).

The regional coordinators were a widely used source of support by mentors, through individual meetings as well as at regional meetings for mentors. Mentors were particularly positive about this support and, when asked about their views of the ongoing support and communication within the Starting Out programme, most mentors indicated that they considered it effective or very effective: 'I have found the regional and central support to be responsive and able to get back quickly to my enquiries. They have explained themselves clearly and have been supportive' (Mentor, East of England).

At the beginning of Year 2, the scope of the regional coordinators' role was reviewed and a revised job description was developed, to take into account the lessons learned from Year 1. As a result, the focus of the regional coordinators' role developed a stronger emphasis on the need for quality assurance during the delivery of the pilot in Year 2 and regional coordinators were more able to focus on providing support for the mentor-mentee relationship.

## 2.2 Recruitment and training of mentors

This section considers the effectiveness of the approach adopted to the recruitment of mentors including the mentor application process, the initial information provided to mentors on Starting Out and the training which all mentors received prior to commencing the role.

## Recruitment process

Regional coordinators and the LSN programme manager indicated that the recruitment of mentors was conducted in two ways. Firstly, there was a national advertising campaign led by the LSN central team. Secondly, particular organisations, networks and individuals were specifically targeted as potential sources of mentors on the basis of local intelligence and advice from regional coordinators, the Starting Out Advisory Group and other LSN contacts and consultants (e.g. through other programmes run by LSN). Mentors' applications to the programme were then reviewed and scored on a range of criteria. The highest scoring applicants, incorporating a suitable spread of subject expertise, were invited to a two-day training event to finalise the selection, and assess the suitability, of mentors and ensure they were equipped and prepared to deliver the mentoring support as part of the programme. In addition to the formal qualifications required of the mentor, the LSN programme manager outlines the essential qualities required for a Starting Out mentor:

*For mentors, we're looking for fairly flexible people who understand the ambiguities and difficulties of people working in a school environment. This is a development project ... so we're looking for flexible people.*

LSN programme manager

Sixty-three mentors were recruited to the Starting Out programme. Seventeen of these were recruited to support mentees in the West Midlands; 18 in the East of England; and 28 in London. Regional coordinators felt that the mentor recruitment process had resulted in a population of quality mentors with the appropriate expertise and experience to support the delivery of the programme, as the comment from one regional coordinator exemplifies below.

*The quality of this programme rests with the quality of the mentors we recruit. I am quite humbled by the experience and quality of the mentors we have. They are very experienced in their own fields and have an awful lot to offer.*

LSN regional coordinator

However, an issue was noted around the challenge of recruiting sufficient mathematics specialist mentors.

The majority of mentors indicated that the initial recruitment information had provided them with sufficient understanding as to what the mentoring role would involve (to enable them to make a decision about their suitability and appropriateness for the role). A small proportion of mentors were slightly less positive about the initial information with some isolated comments being made in relation to: a lack of clarity in the information regarding, for example, the requirements of dilemmas and inquiries; the time commitment associated with e-mentoring; and the lack of time to understand the initial information prior to recruitment.



## Effectiveness of mentor training

Prior to being assigned to mentees, mentors participated in a two-day training programme facilitated by a specialist in mentoring and supported by a training handbook developed specifically for the programme. The vast majority of mentors found the training 'very effective' or 'effective' in preparing them to support mentees. A number of mentors noted that the training left them with enthusiasm and confidence to take on the mentoring role:

*The training left me with a great deal of enthusiasm for the project and provided a lot of opportunity to think through many of the issues.*

Mentor, West Midlands

*The training provided a clear outline of the role, as well as activities that boosted my confidence and contacts with other mentors that proved helpful.*

Mentor, London

## 2.3 Recruitment of mentees

This section explores the effectiveness of the mentee recruitment process.

### Mentee recruitment

The initial marketing strategy (pre-February 2010) used to recruit mentees included: a large-scale, multi-segmented advertising campaign to every school in each of the three regions and to ITT institutions; direct advertising to LSN contacts and key stakeholders; and regional coordinators directly promoting the mentoring programme within their regions using existing regional networks and contacts within HEIs, schools and LAs (see Appendix 3 for more details on mentee recruitment and application processes).

Two aspects of this initial approach to recruitment were considered to be particularly effective: the high quality of the LSN promotional materials for the scheme and the direct promotion of the scheme to particular institutions and contacts and, wherever possible, direct promotion with potential mentees themselves.

However, there were some early issues and challenges with the overall effectiveness of this initial marketing approach, as expressed by mentors, regional coordinators and Advisory Group members (see Appendix 3 for detail). Evidence from the initial evaluation findings identified that the three main challenges were:

- time delays in recruiting mentees prior to the start of the school, or academic, year. It became harder to recruit mentees once they had started studying, or working in school, because by this point potential mentees were often too busy, had learned to cope without additional support or did not want to signal their need for additional support

- negative perceptions/misconceptions of the programme. For example, some schools, HEIs and LAs felt that there was sufficient support in place already and there was some reluctance on the part of mentees to signal their interest in taking part in the programme in case it was interpreted as weakness, an inability to cope or an indictment of the existing school support
- a 'top-down' approach whereby the perception was that initial programme information directed at potential mentees' senior colleagues, and at local authorities, may not always have been communicated effectively within institutions and local authorities (LAs). The view was that direct contact with potential mentees would work better.

Evidence from mentees', mentors' and regional coordinators' experiences of recruitment (in these early stages of the pilot) identified a number of ways to improve the process, including:

- timing recruitment to occur earlier, when potential mentees were still in Initial Teacher Education
- targeting key stakeholders and organisations, which had more direct, personal contact with potential mentees
- targeting initial marketing information more directly at potential mentees
- making minor revisions to initial marketing materials to describe the programme more clearly in terms of, for example, its benefits and the nature of the three levels of mentoring.

A revised marketing and recruitment strategy, designed by the TDA team and introduced in February 2010, addressed many of these early concerns and reflected feedback gathered from the initial stages of the programme. The revised marketing strategy focused more on the benefits of the programme, on more direct forms of communication and building more relationships with key individuals (in ITT institutions, schools and LAs) (see Appendix 3 for more detail).

Evaluation evidence gathered subsequently, illustrated some of the effects of this strategy as mentees indicated that the most common routes by which they found out about the programme were through a person from Starting Out (most likely a member of staff from LSN) or through mentees' own ITT tutors and in-school mentors. When mentees were asked whether they had received encouragement to join the programme, the most common response was that they had engaged with the Starting Out programme of their own volition i.e. nobody in particular had encouraged them to join the scheme. This suggested that mentees' awareness of the programme alone, and what it would offer them, was a considerable motivation for engagement. However, others received encouragement from their ITT tutors, from Starting Out representatives, and from school colleagues. Therefore, the value of personal recommendations and direct contact with mentees should not be underestimated (see tables A3.1 and A3.2 in Appendix 3 for more details).

## 2.4 Mentees' reasons for participating in Starting Out

The most common way in which mentees expected to benefit from their participation in Starting Out was through the general support offered by the programme. This indicated that mentees were relatively open about the content and focus of the support they would like to receive, rather than being specifically focused on any one aspect of their professional development. Mentees perceived that they would benefit from generic advice and support in relation to classroom management, placing much importance on mentors' own teaching experience and the opportunity this offered them to gain ideas and strategies for how to manage and engage pupils.

Other key ways in which mentees expected to benefit from the programme included:

- enhanced knowledge of teaching methods and skills - mentees felt that it would be beneficial to have a different source of support which could help them find out about new approaches, techniques and ideas perhaps not known about within school
- support in developing professional networks - mentees anticipated the value of the opportunity for peer support and networking, particularly via the Starting Out online community and network mentoring option
- support from a mentor external to the school - many mentees cited the opportunity for a source of non-judgemental and impartial advice, reflection and support from outside of their school setting
- enhanced subject knowledge - mentees highlighted the importance of subject-specific mentoring support based on subject experts providing them with creative ideas and resources for teaching particular topics they were perhaps less confident with and strategies for delivering a particular concept
- access to subject-specific resources and classroom equipment - the potential to have access to new and different resources (both through the online community and their mentor) was particularly attractive to the mentees.

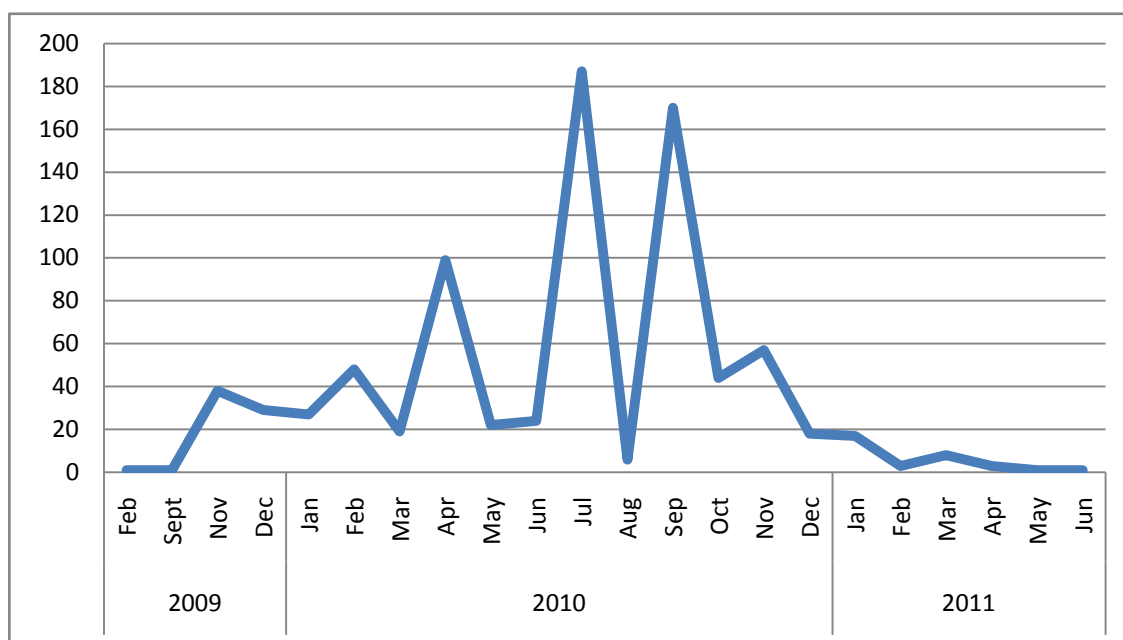
## 2.5 Profile of mentee participation

As highlighted in Section 2.3 above, the numbers of mentees participating in Starting Out were low in the early stages of the programme but sustained increases in numbers were made following the introduction of the revised marketing strategy in February 2010.

In total, 823 early career teachers were recruited to the programme during the course of its delivery, exceeding the target number of 800 mentees expected to participate in the programme.

Figure 1 below illustrates the change in mentee participation in Starting Out throughout the lifetime of the programme, based on the month in which mentees joined the programme. It reflects the increases in numbers of mentees following the new marketing and recruitment strategy put in place in February 2010.

**Figure 1: Change in mentee participation in Starting Out, 2009-2011**



Source: LSN mentee database, June 2011 (N=823)

Table 2.1 below shows the key characteristics of the total number of mentees who participated in the programme. Participation was highest in the West Midlands and the majority of mentees joined Starting Out as PGCE/ITE students. Network mentoring was the most common form of support provided to mentees.

**Table 2.1:** Mentee characteristics (as at June 2011)

<b>Region</b>	<b>No. (% of total)</b>
London	<b>262</b> (31.8%)
West Midlands	<b>361</b> (43.9%)
East of England	<b>200</b> (24.3%)
<b>Teaching Phase</b>	<b>No.</b>
PGCE/ITE	<b>544</b> (66.1%)
NQT	<b>242</b> (29.4%)
Year 2 teacher	<b>37</b> (4.5%)
<b>Subject specialism<sup>3</sup></b>	<b>%</b>
Biology	31.5
Chemistry	28.6
Physics	17.6
Mathematics	39.7
General Science	28.4
<b>Mentoring type</b>	<b>No.</b>
Subject mentoring	<b>90</b> (10.9%)
E-mentoring	<b>291</b> (35.4%)
Network mentoring	<b>442</b> (53.7%)
<b>Months support received</b>	<b>No.</b>
1 month or less	<b>7</b> (0.9%)
2 to 5 months	<b>33</b> (4%)
6 to 11 months	<b>332</b> (40.3%)
12 to 23 months	<b>450</b> (54.7%)
24 months or more	<b>1</b> (0.1%)

Source: LSN mentee database June 2011 (N = 823)

## 2.6 Key findings

Overall, the programme management of Starting Out has been effective and responsive to issues and challenges as they have emerged. This flexibility and responsiveness to the need for modifications to the programme management is reflected in positive impacts both in terms of the higher level of participation in Starting Out and the refocusing of the regional coordinator role on the support for the of the mentee/mentor relationship in the second year of the pilot.

The findings suggest that the mentor recruitment process worked well, producing a substantial cohort of experienced mentors with diverse expertise, and that initial marketing materials were appropriate and effective in engaging mentors' interest and provided early information as to the nature of the programme and the mentoring role.

The overall effectiveness of the revised mentee marketing approach is reflected in the large increase in the levels of mentees who subsequently joined the programme.

<sup>3</sup> Proportions based on data from the LSN mentee database supplied in October 2010. Proportions do not sum to 100% as mentees could report more than one subject specialism.

Key features of this revised approach included a clearer focus on the benefits of the programme and on more direct forms of communication in addition to building more relationships with key individuals (in ITT institutions, schools and local authorities).

**823** early career teachers were recruited to the programme during the course of its delivery, exceeding the target number of 800 mentees expected to participate in the programme. Participation was highest in the West Midlands and the majority of mentees joined Starting Out as PGCE/ITE students. Network mentoring was the most common form of support provided to mentees. Mentees reported a variety of different reasons for their initial involvement in Starting Out although the most commonly cited reason was the opportunity to access to general support, suggesting openness about the focus and content of the support they would like to receive, rather than it being specifically focused on any one aspect of their professional development.

## 3. Programme delivery

In this section, mentees' experiences of the different aspects of programme delivery are considered. It begins by exploring the level and nature of support provided to mentees, including the type of communication used for mentee/mentor contact. The substance of the mentoring support and the mentee/mentor relationship is then covered. The section goes on to consider the mentees' and mentors' experience of the online components of the Starting Out programme and their views on the use of dilemmas and inquiries. It concludes with an explanation of the perceived future need for this type of mentoring support and any issues to consider in its delivery.

### 3.1 Type and level of support received

Mentees were asked about the type and level of support they had received, including the reasons for choosing their chosen mentoring programme as well as the frequency, and modes, of their contact with their mentors.

#### Reasons for chosen mentoring programme

In the initial stages of the programme, mentees who had a good awareness of the different types of mentoring had generally chosen the mentoring option they wanted to pursue in response to an understanding of their own needs and the time they felt they could invest into the programme:

*I chose [subject mentoring] because with other levels, I might forget about it, or not take it very seriously... Having someone actually come and visit would make sure I engaged with the programme.*

Mentee, subject mentoring, East of England

*I really didn't feel that I needed proper mentoring, and meeting up all the time. I find it easier to email.*

Mentee, e-mentoring, West Midlands

*To meet NQTs in different schools and share ideas. This is why I went for the network one.*

Mentee, network mentoring, East of England

At this stage, mainly because of the smaller than expected numbers in the e-mentoring and network groups, some mentees had received a more individualised level of support than expected. Although appreciative of this opportunity for more personal support, these mentees also expressed a hope that a stronger group dynamic would eventually form:

*I'd much rather sit in a room with [my mentor] one-to-one than with 20 others! However, if we had a few more people from different [teacher training providers], then that would make it stronger in a different way.*

Mentee, network mentoring, London

Towards the end of Year 1 of the programme, when surveyed, mentees' most commonly reported reason for their chosen type of mentoring was because other programmes were already full. However, whilst this may give some indication of the respective popularity of the other two types of mentoring, it should be borne in mind that a considerably higher number of mentees who responded to the survey were involved in the e-mentoring option. By type of mentoring, mentees' other main reasons, for choosing a particular type of mentoring, closely reflected those expressed by the mentees at the preliminary stages of the evaluation:

- subject mentees' reasons usually centred on the in-depth and personal nature of the support
- network mentees reported that the opportunity for group contact was a key reason for selecting this type of support.
- e-mentoring mentees were attracted by the convenience and ease that this level of support offered them.

### Frequency and modes of contact

Typically, mentees reported being in contact with their mentor between once a month and once a fortnight. This frequency of contact varied according to the different types of mentoring mentees received (with mentees on subject mentoring likely to have more intensive and frequent contact) and/or the level of a mentee's need (contact becoming more frequent if mentees required support on a specific issue or concern e.g. a forthcoming difficult lesson).

Overwhelmingly, mentees' contact with mentors was most commonly by email. Face-to-face contact was the next most common method, albeit for a much smaller proportion of mentees. A very small proportion of mentees reported using the online facilities provided by the Starting Out online community, for example its message or live 'chat' functions. Irrespective of the level of mentoring support they received, almost all mentees reported that they had had some face-to-face communication with their mentor, whether as a single meeting (including individually or collectively as in the case of mentees on e-mentoring and network mentoring) or as a regular part of ongoing support to establish an effective working relationship or to clarify the mentor's role.

*I've had two face-to-face meetings with my mentor. We've also had some contact back and forth through the Starting Out website, but we ended up just talking through regular email. It was easier than trying to open up another whole set of things.*

Mentee, network mentoring



[During my mentor's first visit] *we went through loads of stuff... the school was not in session so we were in an empty classroom and he literally demonstrated to me how you can get students' attention, where you can position yourself so that everybody notices you – a lot of tips, he gave me a lot of coaching on how to push my lessons to outstanding. So he was very helpful in that initial visit, brilliant.*

Mentee, e-mentoring

## 3.2 Nature of support

Mentees and mentors were asked about the nature of support they received through Starting Out, both in terms of the frequency and helpfulness of the kinds of support they had received, as well as the types of activities they had engaged in with their mentor.

### Frequency, helpfulness and type of support

Mentees cited three broad areas in which mentoring support was most frequently provided: help with subject knowledge and subject-specific resources; support with wider pedagogical and classroom management skills; and broader professional advice. Mentees receiving subject knowledge support were particularly appreciative of their mentor's input in this area. For example, one mentee felt that exploring subject knowledge was easier with a mentor external to the school:

*I feel less embarrassed asking [my mentor] questions I don't understand, whereas at school, it's maybe like 'well maybe I should know the answer', so... [I had better not ask]. It's nice to have someone out of the loop of the school.*

Mentee, NQT, East of England

These early reports were consistent with evaluation findings towards the end of Year 1 when mentees' views of the frequency and helpfulness of activities (captured in a survey and case studies) indicated that the support activities they most frequently participated in centred on three main areas which all involved direct contact with their mentors. These were:

- discussing their development needs
- using resources identified by their mentors
- receiving guidance on subject knowledge from their mentor.

When asked about the helpfulness of support, those activities which were most frequently undertaken were also considered, by mentees, to be the ones which were most helpful.

The least frequent activities related to use of the online components of the Starting Out programme. This included: accessing resources on the Starting Out website;

reading and participating in online forums; and using 'live chat' with their mentor and other mentees.

### Types of activities undertaken

The types of activities which mentees and mentors undertook within the above, broad areas, were explored in more depth through case studies towards the end of Year 1. Mentees received a wide range of support from their mentors as part of the Starting Out mentoring programme, which covered four main groups of activities:

1. **planning and delivering lessons** – this covered: support with teaching a range of subjects (for example mentees commonly sought support with teaching skills in relation to global warming); skills for engaging and motivating pupils; planning differentiated activities for a range of pupil abilities; and engaging pupils with special educational needs. Mentors also: helped mentees review lesson plans; sent them resources and links to useful websites; and provided advice by email. As one mentee commented: *'So if I've got some lessons in physics and I was stuck for ideas then I would fire an email off to him but give him enough notice to do it, and he'd come back to me. He was really good at coming back and giving me websites and things like that that I could look up or he'd got his own ideas.'* (Mentee, subject mentoring)
2. **job applications and career planning** – mentors provided some mentees with support by reviewing their job application forms; offered help to plan sample lesson activities; and advised mentees on pensions and 'golden hellos'. As one mentor explained: *'[My] mentee asked for my advice and ideas on the delivery and content of a short sample lesson. I sketched out for her one way of doing it, but with several asides, variations on a theme ... what she's actually doing is looking to show that she's friendly, that she keeps children working, and that she has a hands on practical. The perfect show off interview lesson would have all these things.'* (Mentor, subject mentoring)
3. **behaviour and classroom management** – mentees received advice from mentors on how to deal with inappropriate behaviour from particular pupils; and practical tips on approaching these issues, as well as emotional and moral support with mentees' individual concerns. One mentee commented on the value of such support stating that: *'When you're dealing with behaviour management you need practical support and emotional support. I feel I've had both from my Starting Out mentor.'* (Mentee, network mentoring)
4. **time management and finding a work-life balance** – this type of support was sought by a small number of mentees and included using dilemmas to explore these issues, as well as mentors providing advice and resources to help mentees deal with their workload. In the view of one mentor *'[My mentee] said that the support had really helped her. I think one of the things about the Starting Out Programme as someone who is doing their PGCE is trying to get everything sorted out, and the time management side of it, you know she was working every hour God sends her.'* (Mentor, e-mentoring)

### 3.3 Mentoring relationship

Mentees and mentors were consistently very positive about the development, and effectiveness, of the mentoring relationship as the Starting Out programme progressed.

Mentees involved in subject mentoring reported becoming progressively more comfortable with their mentor and better able to discuss problems more openly, as time went on. Many perceived this to be a result of the enthusiasm and support of their mentors. Subject mentors echoed this view, however some were more cautious about the development of their mentoring relationship partly because of the limited feedback they had received from mentees about whether their input had supported their mentees' professional development. One mentor suggested that the relationship could potentially be improved by further development of a framework for identifying mentees' needs and that they may benefit from targeted support in areas other than those in which they (the mentees) had identified themselves.

Network mentors were also positive about the development of the mentoring relationship which was characterised by one as more dependent on both trust and the growing confidence on the part of the mentee in the quality of advice and information offered by the mentor. Two mentors commented:

*She [the mentee] is happy to fire away with an email when she needs something. I think she's happy that what I come back with seems to hit the spot.*

Mentor, network mentoring

*[My mentee] tends to go straight to the point and, because it's written contact rather than a dialogue through online talk or face-to-face, it tends to be fairly business like and fairly brief... a polite but focused approach.*

Mentor, network mentoring

Similarly, from the perspective of those involved in e-mentoring, the development of the mentoring relationship was positive overall and based more on developing a mutual understanding of how the relationship would work best for both as illustrated by the following mentors' accounts:

*Right from the start, we've gotten on well. It takes two to make it work. [My mentee] has been fantastic as she has been prompt in responding and has made the most of the programme. I'm looking forward to carrying on.*

Mentor, e-mentoring

*I think obviously at the beginning there was a bit of uncertainty as to what the relationship would be. But, because you are given this opportunity to have a mentor, you just have to work it out ... fairly quickly we realised what was in it for us.*

Mentee, e-mentoring

### 3.4 Online community

At the beginning of the programme, mentees indicated that their use of the Starting Out website and Virtual Learning Environment (VLE) was low. Most mentors felt that the VLE was 'not very effective' or 'not at all effective'. Various reasons for this negative perception were given by both mentees and mentors and included: technical glitches with the live 'chat' function and 'alerts' system; relatively little activity on the online forums; a perception that the discussion area of the site was 'not the lively ongoing discussion board that it might be' (according to one mentor); and the difficulties encountered when navigating the website, making it more time consuming than expected. These issues with the online components of the programme were perceived to have contributed to the adoption of alternative modes of communication (between mentees and mentors) such as email and telephone.

Irrespective of these early 'teething problems', mentees and mentors alike were generally very positive about the concept and potential of the online aspects of the Starting Out programme with a number of mentors recognising that, once initial problems had been addressed, the VLE had the potential to be very effective.

As the programme progressed, evidence of the usage of the Starting Out website indicated that, between November 2009 and September 2010, there was a general increase in the number of visits to the website, suggesting that mentees used the site on a regular basis during this period (see Appendix 4 for more details). The bounce rate of the Starting Out website (the percentage of visitors who viewed only a single page without visiting any other pages on the website) remained relatively stable between November 2009 and September 2010, with approximately two-thirds of website users choosing to visit additional pages.

When asked about the effectiveness of the VLE towards the end of Year 1, a small number of the mentees who responded reported that they valued: chatting with their mentors online; getting help online from an outside perspective; and using the website resources. They felt that the resources were well organised and that the components were quick and easy to use.

However, almost half of the mentees who responded to the same question indicated that the VLE and the online components of the Starting Out website were only 'somewhat' or 'not at all' effective. Similarly, data from the mentees and mentors involved in the case studies indicated that the use of the online aspects of the programme had not been particularly successful, with most attributing their view to the technical difficulties associated with using the website. A small number of

mentees from the survey and the case studies remained unaware of the online components of the Starting Out mentoring programme. As two mentees commented:

*When we first started looking at the [Starting Out] website, it wasn't very easy to use. You'd click on something once and it wouldn't work ... responding to some of the dilemmas, I'd written about three responses, pressed save, and a box came up saying that I'd logged out. I'm not going to be bothered again ... it's really frustrating.*

Mentee, e-mentoring

*There are so many things to look at, and you're wondering where the buttons are to press. So it was a little bit hard to use, but not awful.*

Mentee, e-mentoring

Explanations given by mentees and mentors, for their limited use, or success, of the VLE or online community included: a preference for other forms of technology; the perception that the online components were not relevant to their needs; the difficulty in using the site for networking when so few mentees used the site; the desire for more guidance on what was required from the dilemmas and inquiries; and the lack of time to make full use of the resources available online.

Mentees suggested the following ways to improve this aspect of the programme:

- the site could be easier to navigate
- more help could be offered in using the website
- email alerts could be sent when the website is updated
- more mentees could be encouraged to use the websites
- aspects of the website could be integrated into websites such as Facebook
- the site could be populated with a greater number of resources
- the website could be adapted for use on an Apple Macintosh computer.

### 3.5 Dilemmas & inquiries

At the beginning of the programme, reports from mentees and mentors indicated that use of the dilemmas and inquiries was quite low, although those who had engaged with the dilemmas were generally positive about the experience, finding them relevant to real-world situations, helpful for career development and useful to prompt reflection.

Towards the end of Year 1, when mentees were asked about the relevance of the dilemmas and inquiries to their work as an early career teacher/trainee teacher, views were mixed with almost equal proportions finding them 'relevant' or 'very relevant' compared to those finding them 'somewhat' or 'not at all' relevant to their work as an early career teacher.

Those mentees who found them relevant, or very relevant, considered them useful for a range of reasons including being able to:

- implement some of the strategies considered successful in the classroom
- receive good advice from the mentor about solving problems
- seek out information about how other teaching professionals had solved similar problems.

Several accounts from mentees and mentors involved in the case studies, and who had used the dilemmas and inquiries, indicated that they were particularly useful for teaching and learning (see Appendix 4 for examples of the dilemmas and inquiries used). For example, one mentee had developed a pupil progress recording system in response to working on a dilemma and another mentee had undertaken an inquiry to explore the implications of conducting first-hand practical work for interpreting results in coursework and projects.

Mentees who felt that the dilemmas and inquiries were only 'somewhat' or 'not at all' relevant commented that they could be improved in the following ways:

- dilemmas and inquiries could be made less 'one size fits all'
- mentees could suggest their own dilemmas and inquiries
- groups of mentees could meet to share common dilemmas and inquiries
- dilemmas and inquiries could be made compulsory for NQTs
- dilemmas and inquiries could be introduced later in the programme, to enable mentees to address more immediate issues from the outset
- dilemmas and inquiries could thematically reflect the topics covered during mentees' PGCE courses
- dilemmas and inquiries could be more narrowly focused to reduce the area the mentor has to cover.

Amongst case study mentees and mentors, there were also some who reported either not having used the dilemmas and inquiries or not knowing about them at all. Mentors' explanations for this highlighted the considerable pressure which mentees were under already, particularly PGCE students, and, as a result, the lack of time available to them to engage in dilemmas and inquiries. A small number of mentors had not used the dilemmas and inquiries with their mentees as they did not consider them especially relevant. In one case, this was because the mentee was already engaged in inquiries as part of studying for a Masters degree.

### 3.6 Future need for such mentoring support and issues to consider

Towards the end of Year 1, mentees involved in the case studies were asked whether they anticipated an ongoing need for the type of support provided by the Starting Out programme, either for themselves, as they progressed to the next stage of their teaching career, or for other early career teachers.

Mentees anticipated considerable future need for the type of mentoring support they had received because it was perceived to provide additional and complementary support to other forms of professional development, offering mentees a valuable source of external and impartial advice and support. The overwhelming majority of mentees indicated that they would recommend Starting Out to other trainee and early career teachers (some had already done so):

*I think it's fantastic. I think it's a really good scheme, and I think as the year goes on it will come into its own for me personally. And I think for other people starting out in teaching as well, it will be a really useful, helpful scheme for new teachers.*

Mentee, e-mentoring

*I definitely would [recommend Starting Out to trainee teachers, NQTs and early career teachers]. It's having the time to reflect that's quite important, and being able to brainstorm some ideas with other teachers. And if you're in a school and you haven't got a lot of support, I think it's especially beneficial.*

Mentee, subject mentoring

These views were corroborated by the online survey of mentees conducted at the end of the programme (to which 133 mentees responded), in which 84 per cent of mentees said that they would recommend Starting Out to other teacher trainees, NQTs and second year teachers. Mentees' explanations for this view covered a variety of rationales however three key reasons emerged:

The first of these was the opportunity to receive support from an experienced teacher who could offer additional and subject-specific advice, be a sounding board for ideas and provide a practical, 'real-world' perspective on issues and concerns raised by mentees:

*It provides the back-up of an experienced teacher to lend some perspective to concerns, advice for applications, lesson ideas, finding resources, and stress/time management.*

*It helped me deal with issues that I could only read about, having someone to relay problems to and discuss them is of great importance.*

*It is great having an expert in the subject and general teaching field at the end of an email or telephone.*

Several mentees reported not using the Starting Out support very much, or at all, as often their in-school support was sufficient. However, most of these mentees still indicated that it had been important to know that the support was available to them, if they needed it, and felt it would have been critical if they had not had such a supportive environment in their school. Although mentees at different stages in their teaching career raised this, those in their first or second year of teaching were more likely to be of this opinion. As several mentees commented:

*I was lucky enough to have excellent support in my school...although my mentor was excellent and I know he would be an enormous help to someone who was not as lucky as I was with my school support.*

*Although I did not use this facility as much as I could have, I am glad the support was available.*

*It was good to feel that I had extra support outside school, however I was well supported by the school and so I did not really need to make use of the Starting Out mentoring scheme.*

*It was nice to know it was there as a safety net, but my school support was excellent.*

Secondly, mentees indicated that they would recommend Starting Out because of the value they placed on receiving independent, impartial advice and guidance, from someone external to the mentee's school, which was not connected to any assessment of the mentee's teaching ability:

*The Starting Out programme gives teachers the opportunity to seek impartial and unbiased guidance and advice from a 'mentor', a real education professional, not linked to the school. The fact that there was no link to the school was really beneficial to me.*

*It's another type of support – but it has no vested interest in your ITT outcome.....The university want you to pass, the school want you to teach well, the Starting Out mentor wants you to be a good teacher, if it suits you.*

*It was beneficial to be supported by an individual external to my own school*

*Having a friendly and enthusiastic mentor on an informal basis ...has allowed me to be more honest and open about any problems I've had and allowed me to discuss any ideas for lessons and projects that I've had without the pressure of giving the right impression at work.*



Finally, the importance of access to support via peer-to-peer networks was highlighted by mentees, typically by those who had begun receiving support when they were in training (in ITE):

*It was good to meet other students and discuss real scenarios.*

*It was a huge help and a great place to share ideas, stories and techniques.  
It was like a little support group in the first year of teaching.*

*More needs to be made out of the 'networking' opportunities with other locally based NQTs.*

### 3.7 Key findings

Mentees' choice of mentoring support was usually based on an understanding of their own needs and the amount of time they had to invest in the programme. Mentees and mentors were typically in contact between once a month and once a fortnight (depending on mentees' needs). Typically, they communicated by email, although almost all mentees had some face-to-face contact with their mentors (at least initially), irrespective of the type of mentoring support they received.

Mentees involved in both the case studies and the survey were overwhelmingly positive about the value of the programme in addressing their individual needs. In this respect, case-study mentees were also universally positive about the value of the support they had received in aiding their professional development. Mentoring relationships, across all types of support, have developed positively and in response to mentees' needs, as mentees have become more comfortable with: discussing problems openly (in the case of subject mentees) and more confident in the quality of advice and information offered by their mentor (in the case of network mentees), or as both mentee and mentor have developed a mutual understanding of how best to work together (in the case of e-mentoring).

Whilst usage of the Starting Out website increased as the programme developed, there was little positive change from mentees' and mentors' initial, more negative, views on, and use of the online features of the programme (despite general enthusiasm for the potential of this feature to support the programme's delivery). Although a small group of mentees reported positive experiences of using the VLE and other online components of the programme, their experiences were outweighed by those who had either not found this aspect helpful in meeting, or relevant to, their needs.

Dilemmas and inquiries were considered effective if they were perceived, by both mentors and mentees, as relevant and sufficiently responsive to mentees' specific circumstances i.e. mentees were clear about the practical value and application of the outcome of the dilemmas and inquiries, in their professional development.

Overall, the majority of mentees indicated that they would recommend Starting Out to other early career teachers and anticipated considerable future need for this type of mentoring support. Key aspects of support which featured most prominently in mentees' rationales for recommending Starting Out included: the opportunity to receive support from an experienced teacher who could offer additional and subject-specific advice and provide a practical perspective on issues and concerns raised by mentees; the value placed on receiving independent, impartial support which was not connected to any assessment of the mentee's teaching ability; and access to support via peer-to-peer networks.

## 4. Outcomes and impacts

This chapter explores the outcomes and impacts of the Starting Out Programme on mentees and pupils. A distinction has been made, in this report, between the outcomes for mentees (which are defined here as the immediate, shorter-term effects of participating in the programme) and the impacts for mentees (which are defined here as the longer-term, more quantifiable results of participating in the programme).

### 4.1 Outcomes for mentees

The programme was found to have impacted positively on aspects of mentees' personal, professional and career development. Mentees responding to the online survey conducted at the end of the programme were asked whether they agreed that Starting Out had impacted on a number of areas related to their personal development. The findings are presented in Table 4.1 below.

**Table 4.1:** Mentees' views on whether Starting Out had impacted on the following areas related to their personal development

Item	Yes %	No %	N
Increased your feelings of being supported as an early career teacher	80	20	128
Increased your capacity to reflect on your approaches to teaching	61	39	127
Increased your morale as a teacher	59	41	127
Increased your confidence in teaching	57	43	127
Reduced your feelings of stress	54	46	125
Increased your job satisfaction	42	58	125
Increased your enjoyment of teaching	39	61	125

Percentages may not sum to 100 due to rounding

Source: NFER online survey of Starting Out mentees, 2011

Table 4.1 shows that:

- the area where the programme has had the greatest impact is in making mentees feel supported as an early career teacher (80 per cent agreed)
- the majority of the mentees also agreed that Starting Out had: increased their capacity to reflect on their teaching approaches; increased their morale; increased their confidence; and reduced their feelings of stress
- although a smaller proportion of mentees agreed that Starting Out had increased their job satisfaction and increased their enjoyment of teaching, this is a very positive result given that these kinds of outcomes are much less likely to be observed in a programme focused on professional development

and when there are many other factors which could contribute to a mentee's job satisfaction or enjoyment of teaching.

In addition to the most recent findings reported above, the case-study evidence collected earlier in the evaluation corroborated the finding that mentees felt better supported as a result of participating in the Starting Out Programme. In addition it revealed that mentees had experienced increased confidence and morale, and reduced feelings of stress.

Mentees responding to the online survey were asked whether they agreed that Starting Out had impacted on a number of areas related to their professional development. The findings are presented in Table 4.2 below.

**Table 4.2:** Mentees' views on whether Starting Out had impacted on the following areas related to their professional development

Item	To a great extent %	To some extent %	Not at all %	N
Increased your repertoire of ideas and activities for teaching mathematics or science	30	45	25	128
Helped you to make progress towards becoming a better teacher	33	41	26	128
Increased your awareness of how to access teaching resources	33	39	29	126
Increased your range of approaches to engaging and motivating pupils	30	35	35	128
Improved your classroom and/or behaviour management skills or approaches	17	38	45	128
Improved your ability to differentiate learning	14	40	46	128
Broadened your mathematics and/or science subject knowledge	20	31	50	127

Percentages may not sum to 100 due to rounding

Source: NFER online survey of Starting Out mentees, 2011

Table 4.2 shows that:

- overall, at least half (and in most cases the majority) of the mentees responding agreed that Starting Out had impacted on all of the areas listed above 'to a great extent' or 'to some extent'
- the three areas where mentees reported that Starting Out had made the biggest impact on their professional development 'to a great extent' or 'to some extent' were: increasing their repertoire of ideas and activities for teaching mathematics or science (75 per cent); helping to make progress towards becoming a better teacher (74 per cent); and increasing their awareness of how to access teaching resources (72 per cent)

- mentees were more divided on the impact of the programme in three of the areas listed above. Half (51 per cent) reported that the programme had helped them to broaden their mathematics and/or science subject knowledge, while similar proportions reported that the programme had improved their ability to differentiate learning (54 per cent) or improved their classroom and/or behaviour management skills or approaches (55 per cent).

Earlier survey findings largely confirm the pattern of responses reported above, with the main impacts reported by mentees clustering around: increased confidence in the use of varied learning and teaching strategies; increased likelihood that they will remain in the teaching profession; enhanced pedagogy or repertoire for teaching mathematics or science; and awareness of how to access teaching resources.

Case-study evidence in relation to the difference Starting Out made to mentees' professional practice identified seven key outcomes resulting from the programme. In descending order of importance mentees reported that the programme had:

1. facilitated their transition from trainee to NQT
2. increased their range of teaching techniques or styles and approaches to engaging and motivating pupils
3. improved their repertoire of ideas and activities for teaching mathematics or science
4. supported improvements in classroom or behaviour management skills
5. provided all round support with general professional development as a teacher
6. increased their likelihood of remaining in teaching
7. offered an additional source of subject specific support or teaching resources.

Mentees responding to the online survey were also asked to what extent they agreed that they were better equipped for a career in teaching as a result of the mentoring support they had received through Starting Out. The findings are presented in Table 4.3 below.

**Table 4.3:** Extent to which mentees felt they were better equipped for a career in teaching as a result of Starting Out

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
%	%	%	%	%
23	40	21	10	6

N=127

Percentages may not sum to 100 due to rounding

Source: NFER online survey of Starting Out mentees, 2011

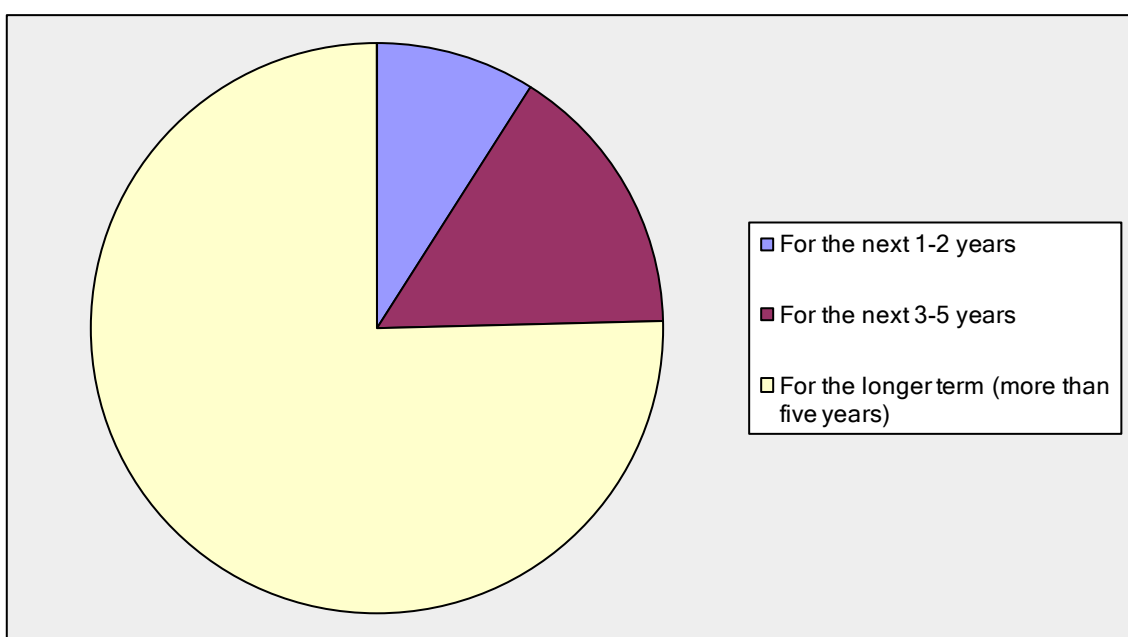
Almost two-thirds (63 per cent) 'agreed' or 'strongly agreed' that they were better equipped for a career in teaching as a result of Starting Out. A minority (16 per cent) 'disagreed' or 'strongly disagreed'. Further analysis revealed that a slightly greater

proportion of those mentees in their first or second year of teaching ‘agreed’ or ‘strongly agreed’ that Starting Out had better equipped them for a career in teaching than those in their ITE year at the time of joining the programme (64 per cent and 56 per cent respectively).

## 4.2 Impacts on mentees

There is evidence to suggest that the programme has been successful in increasing both the number of trainee teachers recruited into the profession and the number of science and mathematics teachers retained in the profession. In response to an online survey of mentees conducted after the programme had ended, 99 per cent of mentees surveyed reported that they planned to stay on in teaching. Of these, three quarters (75 per cent) said they planned to stay on in teaching for six years or more (see Figure 4.1 below).

**Figure 4.1** Proportion of time teachers planning to stay on in teaching after completing the Starting Out Programme



N=112

Source: NFER online survey of Starting Out mentees, 2011

In order to benchmark the impact of Starting Out on recruiting and retaining teachers compared with the national picture, NFER undertook a comparative analysis of LSN management information and General Teaching Council data (see Appendix 6 for more details). This analysis revealed that more science and mathematics teachers were recruited into and retained in the profession than would have been the case in the absence of the programme. Specifically, we found that:

- an additional 26 Starting Out participants were recruited into the teaching profession as a result of participating in the programme

- an additional four Starting Out participants were retained in the teaching profession as a result of participating in Starting Out.

While the findings from the impact analysis reported above suggest that the programme had a greater impact on teachers in their training year compared to those in their induction or second year of teaching, mentees' responses to the online survey suggest the programme had a broadly similar impact on their decisions to stay in teaching. Sixty-seven per cent of those in Initial Teacher Education (ITE) and 59 per cent of those in their first or second year of teaching (at the time of joining the programme) reported that they planned to stay in teaching. Of these, 24 per cent of those in their training year and 22 per cent of those in their first or second year of teaching reported that Starting Out had influenced their decisions about their teaching career.

Open responses to the online survey provided further evidence that the mentoring support provided by Starting Out had encouraged some mentees to join, or stay in, the profession:

<i>The Starting Out mentoring programme has supported me in continuing teaching for the first year and the support has been very valuable.</i>	Mentee
<i>The extra support and meetings has helped give some perspective on the general stresses and problems that are typical in the teaching profession. It has definitely helped me stay focussed on the teaching and learning rather than getting stressed out by all the workplace politics.</i>	Mentee
<i>It has slightly influenced my decision to stay on because I received advice and guidance that made the job easier...and I was in touch with an experienced Head of Science who clearly enjoyed his job.</i>	Mentee
<i>[The programme] has reaffirmed that I made the right decision to change professions [and to enter teaching] after 15 years in industry.</i>	Mentee

### 4.3 Outcomes for pupils

Mentees responding to the online survey were asked to what extent they agreed that their involvement in Starting Out had impacted on their pupils in a number of areas. The findings are presented in Table 4.4 below.

**Table 4.4:** Extent to which mentees agreed that Starting Out had impacted on pupils in the following areas

Item	To a great extent %	To some extent %	Not at all %	Don't know %	N
Your pupils' enjoyment of science and/or mathematics activities	15	42	30	12	125
Your pupils' interest in science and/or mathematics	11	44	33	13	126
Your pupils' behaviour in mathematics and/or science lessons	7	43	37	13	127
Your pupils' confidence in science and/or mathematics	10	37	39	14	127
Your pupils' attainment in science and/or mathematics	13	31	38	18	126
Your pupils' practical skills in science and/or mathematics	9	34	43	14	127

Percentages may not sum to 100 due to rounding

Source: NFER online survey of Starting Out mentees, 2011

Table 4.4 shows that:

- the three areas where mentees reported that Starting Out had made the biggest impact on pupils 'to a great extent' or 'to some extent' were in increasing their: enjoyment of science and/or mathematics activities (57 per cent); interest in science and/or mathematics (55 per cent); and behaviour in science and/or mathematics (50 per cent).
- a smaller proportion (43 per cent) reported that pupils' practical skills in science and/or mathematics had increased as a result of the programme.

Mentees and mentors alike reported that mentees' range of teaching techniques or styles had improved as a result of their participation in Starting Out and that this had benefited pupils. Specifically, both groups reported that, as a result of Starting Out, mentees were better able to develop a rapport with their pupils and were better equipped to develop and adapt lessons to engage and motivate them.



*When I did my PGCE last year, you get a certain number of techniques to use. The [Starting Out] scheme is increasing the number of techniques that I can use in a classroom so knowing that other people have used them successfully I'll then go away and use them.*

Mentee, network mentoring

*...some of the science subjects can be pretty dry and it's really difficult to get pupils engaged, a lot of my questions have been around how to engage pupils....*

Mentee, network mentoring

*I always felt it was difficult to come in at the start of the lesson and get everybody to want to get involved – so my mentor is very good for trying to suggest...little things I could start off a lesson to make it interesting and that made the whole lesson easier, not just the beginning.*

Mentee, subject mentoring

*...I remember the [Starting Out mentor] said to me, they [pupils] are not interested in school, they don't care about coming to school but it is your responsibility to provide an environment that can stimulate them and make them interested in learning....so he really helped, he really helped me understand this is a different culture, you have to do this, you have to do that.*

Mentee, e-mentoring

*I'd hate to take the full praise for having achieved it, but certainly after our meeting I sent him an email of what we discussed, and his reply was okay he's decided that he's going to give up this Mr Angry bit, because it's not him. He's going to start to relate to children in a way that suits his personality,....because he was going to enjoy teaching under that basis.*

Mentor, e-mentoring

*[Starting Out] has helped to develop his professional teaching skills, I think that he would have had more difficulties if he hadn't had the time from me and the support I've been able to give. I'm quite positive that has helped.*

Mentor, network mentoring

*Taking on board ideas, how to get pupils more engaged in work, how to order concepts in a series of lessons to avoid misconceptions.*

Mentor, e-mentoring

#### 4.4 Key findings

In summary, the support provided to mentees has made a difference to their personal, professional and career development in a range of ways such as making them feel more supported as an early career teacher and expanding their repertoire of ideas and activities for teaching science or mathematics. However, the most

consistent positive change for mentees was their view that the mentoring support had better equipped them for a career in teaching. Benchmarking the impact of Starting Out against national trends, in the recruitment and retention of teachers, revealed that more science and mathematics teachers entered, or remained in, the teaching profession compared to what could have been expected to happen without the programme. The programme also had some beneficial effects for the children and young people taught by the mentees, reflected in their observations that there have been increases in their pupils' interest in, or enjoyment of, science and mathematics.

## 5. Value for Money of the pilot

### 5.1 Analytical approach

In order to consider the Value for Money offered by the programme, a cost-benefit analysis was conducted to compare its setup and running costs with the benefits it generated<sup>4</sup>. This focused on the effectiveness of the programme in supporting early career teachers across the recruitment and retention transition phases (i.e. to enter or remain in the teaching profession, respectively), building on the analysis of impact (see Section 4.2).

The analysis was based on a Logic Framework (see Appendix 5) which describes the underpinning rationale for the Starting Out programme and how it is designed to deliver its intended results. It identifies a number of inputs (resources such as money, staff, and equipment), activities/outputs (such as work activities, programmes and processes), outcomes (the consequences of delivering the outputs) and impacts (the ultimate impacts arising from the programme). The cost-benefit analysis focuses on the costs of the inputs of the programme and the monetised benefits generated from its outcomes/impact.

#### Costs

Cost estimates were based primarily on data provided by the programme deliverer, LSN, together with separate recalculations of the costs paid to mentors (conducted by NFER). As set out in the Logic Framework, costs have been grouped into:

- costs relating to the set-up and development of the programme (e.g. time spent developing the concept, the learning platform and the handbook);
- costs associated with running the programme (e.g. programme management and other staff costs)
- the value of time required from participants to engage in the programme.

#### Benefits

A variety of benefits were considered, including impacts on mentees (e.g. more early-career teachers choosing to enter or continue in the profession), impacts on pupils (e.g. improved performance in mathematics and science), and impacts on the wider education sector (e.g. better quality teaching and learning). However, due to data availability, we were only able to quantify (and hence monetise) the impacts on mentees described in Section 4.2. These were valued based on the savings from

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<sup>4</sup> Note that this is different to a process evaluation, which would consider in detail the economy and efficiency with which the programme has been set up and managed; and it is not a business case for the future of the programme in the pilot areas or elsewhere, although it may share some characteristics with each of these approaches.

not having to train a new teacher to replace those lost at the recruitment and retention transition phases.

Based on these calculations (see Appendix 6 for more details) we estimated net present values (net C/B) and benefit-cost ratios (BCRs) for Starting Out. These calculations form the 'central case'. As part of the analysis, sensitivity testing was also conducted. This tests the robustness of the findings by varying some of the key parameters in our calculations to explore the impact they have on the conclusions. Note that all costs and benefits have been assumed to occur during the life of the programme from 2009 to 2011, and are reported in nominal prices.

## 5.2 Results of cost-benefit analysis

The costs of the programme were estimated as totalling £1.7 million, an average cost of £2,085 per mentee supported. This figure includes both financial costs (costs actually paid from a budget) and economic costs (costs to individuals or institutions that you do not have to pay for).

In order to place a value on the benefits of the programme (savings from not having to replace teachers lost to the profession) teacher training costs to the tax payer were estimated as £13,500 per teacher. This included estimates of the average unit of funding per trainee per year to HEIs, and of the average bursary paid to mathematics and science teacher trainees.

An overview of our calculations for the programme as a whole can be found in Table 5.1. Overall, the benefits outweighed the costs, suggesting that Starting Out represented good value for money: for every £1 spent, it produced £1.63 in benefits.

**Table 5.1:** Calculation of costs and benefits (nominal prices)

<i>Financial costs</i>		
Programme setup and development	£201,189	
Running costs	£1,139,610	
Total financial cost of programme	£1,340,799	A
<i>Economic costs</i>		
Mentees' time	£375,195	
Total wider economic costs	£375,195	B
<b>Total cost of programme</b>	<b>£1,715,994</b>	<b>A+B</b>
<i>Programme benefits</i>		
Teacher training savings	£2,789,571	
Improved teaching	(not monetised)	

<b>Total benefits of programme</b>	<b>£2,789,571</b>	<b>C</b>
Net present value (NPV)	£1,073,577	C-(A+B)
Benefit: Cost Ratio (BCR)	1.63	C/(A+B)

We also considered the recruitment and retention elements of the programme separately (see Table 5.2). The net present value at the recruitment transition point is positive, suggesting this part of the programme was cost-beneficial. However, the net present value at the retention transition point is negative; suggesting this part of the programme was not cost-beneficial.

**Table 5.2:** Comparison of costs and benefits

Transition point	Cost in £millions	Benefits in £millions	Net C/B in £millions	Benefit-cost ratio (BCR)
Recruitment	1.13	2.61	+1.47	2.3
Retention	0.58	0.18 <sup>5</sup>	(0.40)	0.3
<b>Overall programme</b>	<b>1.72</b>	<b>2.79</b>	<b>1.07</b>	<b>1.6</b>

Note:  
A positive Net C/B value means the option is cost-beneficial.  
The larger the BCR the better the value for money.

Note that this analysis is based on range of assumptions and limitations, documented in more detail in Appendix 6. In particular, it is dependent on the underlying assumptions of the impact analysis, also described in Appendix 6. Furthermore, the LSN participant tracking and programme costs data were assumed to be accurate and complete. The full costs of replacing a teacher lost to the profession are also likely to be higher than assumed here, resulting in programme benefits being underestimated. For example, the advertisement and recruitment costs for new trainees have not been included; in addition to costs associated with new hires including administration, training, and possible costs to student learning which may arise from having new teachers coming in to a school. The Logic Framework also identifies a number of other expected impacts of the programme, but which it was not possible to quantify or monetise.

Nevertheless, sensitivity testing revealed that these findings are robust to reasonable variation in the underlying assumptions. Indeed, under three of the scenarios considered (where science and mathematics teachers are less likely to be recruited or retained compared to all subject teachers, where only financial costs are considered, or where the cost of training a teacher is calculated to be more) the BCRs would be even higher. More details can be found in Appendix 6.

<sup>5</sup> This figure is based on extrapolating the estimated impact of Starting Out on retention to all NQT and 2nd year teachers who participated in Starting Out.

### 5.3 Key findings

Overall, the Starting Out programme has offered good value for money, with the benefits it has generated outweighing its costs. In other words, every £1 spent on the programme has produced £1.63 in benefits. However, these benefits were primarily due to the recruitment impact of the programme, as the retention impact of the programme was found not to be cost-beneficial. Indeed, given that there is very little difference between the Starting Out and national retention rates, there appears to be less of a value for money case for including NQT and 2<sup>nd</sup> year teachers in the programme. Moreover, given that there is already a relatively high rate of retention at the national level (as defined in Appendix 6), there is a limited amount of impact that programmes like Starting Out could be expected to make.

Finally, this assessment considers the value for money of Starting Out as a one-off stand-alone programme. Assuming its impact could be replicated more widely, should the programme be extended or replicated over a longer time period, one would anticipate that the cost-benefit case would be more favourable. This is because the set-up costs are one-off and have already been incurred, and so the cost of delivery per mentee would be lower in future.

## 6. Lessons learned

The following section considers the overall lessons learned from the Starting Out programme, focusing on what has worked well, and less well, in delivering effective mentoring support.

The Starting Out programme had a number of strengths and effective features; some of these were identified early in the programme (and continued to support its effectiveness) and others emerged as the programme developed or as a result of modifications to address issues raised earlier in the evaluation.

The main lessons learned, to take into account in developing or delivering a mentoring programme for early career teachers in science and mathematics in future, are detailed below:

- **Programme management** – effective programme management depends on a strong, responsive central team overseeing the programme’s implementation combined with regional levels of support, in the form of regional coordinators, as demonstrated by this programme. This structure ensures that a coherent, specialist package of mentoring support can be developed and helps to ensure effective communications between all those engaged in delivering the mentoring programme.
- **Regional support** – regional support needs to be provided by experienced specialists with established networks of contacts and existing relationships with ITT providers, schools and local authorities. The model should make provision for, and encourage, these regional coordinators to share their learning and good practice between themselves through regular keep-in-touch meetings and informal communications.
- **Training for mentors** – mentors need to be provided with initial training which is supported by a mentoring specialist who can produce bespoke mentoring training materials specifically tailored to the nature and scope of the programme. This training must equip mentors to offer support in using any online aspects of the mentoring programme, where these are part of the support provided to mentees,
- **Mentee recruitment** - direct, personal communications from a trusted source supports successful recruitment. Mentees are more likely to consider joining a mentoring programme if they receive information and encouragement in a more personalised and direct way from sources such as their ITT tutors, representatives of the mentoring programme and school colleagues.
- **Mentoring relationship** – it is important to foster the development of a positive mentoring relationship relevant to mentees’ needs. It is critical that mentees’ needs are identified and support is tailored to meet these needs. Irrespective of the type of mentoring support provided, a flexible approach and personalised forms of communication such as face-to-face or telephone support are necessary (particularly in the initial stages) to establish a foundation for the relationship. Aspects important to the ongoing development of the relationship are regular discussion around mentees’ development needs, mentors providing subject-specific guidance and identifying, or recommending, appropriate resources.

- **Mentoring relationship** - independent support is considered key to the development of positive mentoring relationships. The mentoring relationship should maintain a focus on the value of specialist mentoring support provided independently of a mentee's school. Mentors' provision of personalised advice and guidance, as experienced, independent professionals, offers mentees support which is complementary to that which they might receive in school. Mentors are valued as an alternative source of support with whom mentees can raise queries or issues which they may be less able, or inclined, to discuss with their line manager or colleagues in their school.
- **Use of online technologies** - there are a number of factors to take into consideration, and steps which can be taken, to ensure that the potential for online technology to supplement mentoring provision is successful. Firstly, mentees and mentors need a clear understanding of the various online features of a mentoring programme, and how to use them, whilst recognising that familiarity with these modes of communication will vary amongst both groups. Initial training for mentors could be supplemented by short, refresher courses to update them on any new features or recap on existing functions. Mentees need active encouragement to use the online community which includes providing them with clear information in the initial stages and, on an ongoing basis, demonstrating its value and relevance to their professional development throughout the period of their participation. Mechanisms which highlight the value and relevance of the online community as a resource for mentees/mentors and increase its accessibility can also support its successful use. For example, it is helpful to consider including email alerts to make mentors and mentees aware of any updates or additions of resources to the website; integrating the online platform into websites such as Facebook and adapting its use on different platforms (e.g. an Apple Macintosh computer, iphone apps etc).



## 7. Concluding comments

### 7.1 Effectiveness of the pilot programme

Overall, the Starting Out pilot programme has delivered a flexible package of subject-specific mentoring underpinned by strong regional support and a range of experienced, independent mentors. Targets for the number of trainees and early career teachers engaged in the programme were exceeded despite the lower levels than expected of mentees joining the programme in its early stages.

The delivery of mentoring support, across all models, has worked particularly well when it has offered mentees an opportunity to discuss their development needs, provided them with subject-specific knowledge and helped them identify relevant resources. Face-to-face and personalised forms of communication have been important aspects of developing a positive mentoring relationship, for mentees receiving each type of support.

The support provided to mentees made a difference to their personal, professional and career development in a range of ways such as making them feel more supported as a trainee or an early career teacher and expanding their repertoire of ideas and activities for teaching science or mathematics. However, the most consistent positive change for mentees was their view that the mentoring support had better equipped them for a career in teaching. The programme also had some beneficial effects for the children and young people taught by the mentees, reflected in teachers' observations that there had been increases in their pupils' interest in, or enjoyment of, science and mathematics.

Benchmarking the impact of Starting Out against national trends, in the recruitment and retention of teachers, revealed that more science and mathematics teachers entered, or remained in, the teaching profession compared to what could have been expected to happen without the programme. Based on this impact, the whole programme offered good value for money in the sense that for every £1 spent on it, it produced £1.63 in benefits.

### 7.2 Future delivery of similar support

Mentees at all stages of their early career in teaching were unanimous in their view that there is considerable future need for external mentoring support. Its most valued features were the impartiality of the support and advice provided, offered independently of the schools in which mentees were based, as well as its provision of additional support which focused on subject-specific knowledge, resources and approaches to teaching.

A closer look at the programme's value for money in terms of trainee teachers compared to those in their NQT or 2<sup>nd</sup> year of teaching shows that the benefits do not outweigh the costs of providing such support to the latter group. This suggests that there is less of a value for money case for including NQT and 2<sup>nd</sup> year teachers in any future delivery of similar support. However, this assessment includes one-off set-up costs and so if the programme were to continue (and produce similar levels of impact in future) the economic case for including NQT and 2<sup>nd</sup> year teachers could be expected to improve as the cost of delivery per mentee is reduced.

Notwithstanding the consideration of which groups of early career teachers this type of mentoring support should be targeted at, the learning from this programme could usefully inform the design of any similar mentoring programme, should one be delivered in the future. Any such programme should take account of the need for a strong central programme management team with experienced, specialist regional support. Training for the mentors should be designed and developed using mentoring expertise which can produce a learning programme tailored to the type of teachers being targeted. The timing and methods used to engage potential mentees are crucial and the successful (and efficient) delivery of distinct types of mentoring support relies on achieving a critical mass in the numbers of participating mentees.

## Appendix 1: Evidence used for this evaluation

### Evidence used for first report

The first interim report focused on the first two aims of the evaluation, and in particular what could be learnt from the early stages of the pilot in terms of its design and implementation, and participants' experiences of the mentoring support on offer. In addition, this report also highlighted some of the early benefits for mentees (i.e. addressing aim 3).

To inform this report, the following data were drawn upon:

- an initial telephone interview with the LSN programme manager (August 2010), followed by attendance at Advisory Group meetings and a regional coordinator 'keep-in-touch' meeting
- 76 mentor training evaluation forms (completed in summer 2009)
- proforma responses (quantitative and qualitative) from 44 Starting Out mentors (completed in February 2010) (Table A1.1 provides details about the mentors who completed these proformas)
- telephone interviews with LSN regional coordinators from the three pilot regions (conducted in February/March 2010)
- qualitative interviews with 13 mentees, on their early experiences of the pilot (conducted in March 2010) (Table A1.2 provides details about the mentees who participated in these interviews)
- follow-up phone calls with five mentors to discuss in more detail issues and themes arising from their proformas responses (conducted in March 2010).

The report also drew upon monitoring data supplied by the LSN (e.g. mentee recruitment figures), an LSN-commissioned mentor survey report (drafted by Andrew Miller February 2010), and ongoing LSN documentation including a revised marketing and communications strategy for the pilot (produced February 2010).

**Table A1.1:** About the mentors who completed proformas

<b>Region</b>	
<b>London</b>	16
<b>West Midlands</b>	12
<b>East of England</b>	16
<b>No. of mentees assigned</b>	
<b>None</b>	18
<b>One</b>	12
<b>Between two and five</b>	14
<b>Mentoring type provided*</b>	
<b>Subject mentoring</b>	17
<b>E-mentoring</b>	8

<b>Network mentoring</b>	6
<b>Subject specialism of mentor*</b>	
<b>Science</b>	36
<b>Mathematics</b>	7
<b>Other</b>	2
<b>Total</b>	<b>44</b>

Source: NFER Mentor proformas, 2010 (N = 44)

\*Multiple response questions (hence totals can sum to more than 44)

NB proformas were sent to the 60 mentors recruited to the programme as at February 2010.

**Table A1.2:** About the mentees who participated in our interviews

<b>Region</b>	
<b>London</b>	4
<b>West Midlands</b>	3
<b>East of England</b>	6
<b>Phase</b>	
<b>Training (PGCE/ITT)</b>	3
<b>NQT</b>	6
<b>Second year teacher</b>	4
<b>Mentoring type</b>	
<b>Subject mentoring</b>	6
<b>E-mentoring</b>	3
<b>Network mentoring</b>	4
<b>Subject</b>	
<b>General science</b>	5
<b>Mathematics</b>	3
<b>Physics</b>	1
<b>Chemistry</b>	2
<b>Biology</b>	2
<b>Total</b>	<b>13</b>

Source: NFER Mentee qualitative interviews, 2010 (N = 13)

NB – At the time of data collection, there were 87 mentees recruited to the programme. We were commissioned to interview up to 15 at this stage. As at April 2010 there were now 276 mentees recruited to the programme and allocated mentors.

## Evidence used for second report

To inform this report, we drew on the following data:

- a CATI survey (conducted in May/June 2010) of mentees' views of their reasons for participating in Starting Out, their experiences of the programme, emerging outcomes and effective features and areas for development (see outline profile provided below).
- 12 qualitative case studies (conducted in June-August 2010) including interviews with mentees on their experiences of the pilot, interviews with their mentors and, in five case studies, interviews with providers of other school or ITT support.
- a face-to-face interview with the LSN programme manager for Starting Out and a telephone interview with a regional coordinator from one of the three pilot regions in addition to attendance at Advisory Group meetings (conducted in Sept/Oct 2010)
- proforma responses (quantitative and qualitative) from 13 Starting Out Advisory Group members (completed in February 2010).

We also drew on monitoring data supplied by LSN (e.g. mentee recruitment figures) for the period to end of October 2010, a report of a mentee survey and focus group conducted by LSN, and ongoing LSN documentation including an action plan for year 2 of the pilot (produced August 2010).

The CATI survey achieved a response from 115 mentees representing a cross section of mentees in terms of: their phase of early career status; geographic region; the type of mentoring received; and their specialist subject. At the time of their interview, the majority of survey respondents had been involved in the pilot for five months or less. In the CATI survey, mentees were also asked whether they would be willing to participate in a follow-up survey in a year's time, as part of the ongoing evaluation of Starting Out. Almost all mentees agreed to take part in such a follow-up survey, 106 of the 115 mentees responded to say they would be happy to do so.

The profile of case study participants included mentees, mentors and providers of other ITT/school support from all three pilot regions, although there were slightly higher numbers from the East of England. The breakdown of mentees participating in the case studies was evenly spread in terms of subject and mentoring type with the numbers of NQT mentees being slightly higher than those in ITT or their second year of teaching.

## Evidence used for third report

In measuring the impact of the Starting Out Programme and in undertaking the cost-benefit analysis we drew on a number of different data sources. These are summarised in the tables below.

**Table A1.3** Sources drawn on to support the impact analysis

Source	Purpose
Programme retention records (LSN, 2011)	To calculate the numbers of mentees receiving support
Annual Digest of Statistics 2008-09, 2009-10 and 2010-11, General Teaching Council	Used to conduct the comparative analyses to: <ul style="list-style-type: none"> <li>- identify national samples of teachers for comparison with the sample of Starting Out participants</li> <li>- calculate recruitment and retention rates amongst the national population of science and mathematics teachers in England</li> </ul>
Analyses of Annual Digest of Statistics 2010-11, conducted by General Teaching Council on request of TDA/NFER	Used to conduct the comparative analyses to: <ul style="list-style-type: none"> <li>- identify national samples of teachers for comparison with the sample of</li> </ul>

	<p>Starting Out participants</p> <ul style="list-style-type: none"> <li>- calculate recruitment and retention rates amongst the national population of science and mathematics teachers in England</li> </ul>
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**Table A1.4** Sources drawn on to support the cost-benefit analysis

Source	Purpose
The recruitment and retention figures presented in Section 4 of this report (NFER, 2012)	To help calculate the additional numbers of teachers recruited and retained by the Starting Out Programme, above the national norms.
LSN costing document (LSN, 2011)	To provide estimates of programme set-up and running costs
Programme retention records (LSN, 2011)	To help calculate staffing costs for mentors and to estimate the 'economic' cost of mentees' time
LSN calculations of mentor costs (LSN, 2011)	To help calculate staffing costs for mentors and to estimate the 'economic' cost of using mentees' time
The funding manual for mainstream initial teacher training for academic year 2011/12 (TDA, 2011)	To help estimate the cost of training a teacher. Specifically, costs for the unit of funding per trainee per year to HEIs (secondary priority high cost - PG/UG standard - ITT providers outside London) were used.
Funding for postgraduate teacher training (TDA, 2011)	To help estimate the cost of training a teacher. Specifically, the bursaries paid to physics, chemistry and mathematics trainees were used.

## Evidence used for fourth report

Evidence from all three previous interim reports was used as the basis for this final report. Additionally, data from an online survey conducted with mentees at the end of the programme, during August 2010, were included in this final report.

The profile of mentees who responded to this final, online survey is as follows:

**Table A1.5** About the mentees who responded to the online survey

<b>Region</b>	
London	61
West Midlands	32
East of England	40
<b>Phase (when joined Starting Out)</b>	
Initial Teacher Education (e.g. PGCE, Graduate Teacher Programme)	71
First year teacher (induction year)	55
Second year teacher	6
Third year teacher	0
Other	1
<b>Subject</b>	
General science	65
Mathematics	54
Physics	44
Chemistry	49
Biology	40
<b>Total</b>	<b>133</b>

*Source:* NFER online survey of mentees, August 2011. Note that mentees could report more than one subject specialism, hence these figures do not add to 133.

## Appendix 2: Additional notes on the management of the pilot programme

The overall role of the three regional coordinators was to work within the regions at strategic-, school- and individual- levels to manage the flow of mentees onto the programme. The role also involved supporting mentors in their region, informing mentee/mentor allocation, and facilitating relationships.

The development phase of the programme included focus groups with some of the universities from the regions (e.g. Kings College, UEA, Birmingham and Wolverhampton).



## Appendix 3: Mentee recruitment processes

### Initial marketing strategy

The initial marketing strategy to mentees included:

- a large-scale, multi-segmented advertising campaign (e.g. flier, poster and booklet), coordinated by the LSN central team, to every school in each of the three regions (e.g. directed to the Deputy Head and subsequently Head of Department) and to ITT institutions (e.g. ITT tutors)
- direct advertising to LSN contacts and key stakeholders (e.g. LA contacts, contacts via other LSN programmes and Advisory Group contacts)
- regional coordinators directly promoting the scheme within their regions using existing regional networks and contacts within HEIs, schools and LAs (e.g. running presentations on the programme at regional subject meetings, National Strategies meetings, as part of ITT lessons and in particular schools e.g. National Challenge schools).

**Further detail on the issues and challenges identified in terms of the initial marketing strategy is presented below.**

Mentees, mentors, Advisory Group members and regional coordinators were asked about their perceptions of the effectiveness of the marketing to mentees. (Note that their comments relate to the initial marketing strategy applied prior to February 2010.)

Generally, **mentors felt that there had been some lack of effectiveness in the marketing to mentees** (particularly given the significant under achievement in relation to projected targets to recruit 600 mentees) (e.g. half of mentors rated the marketing to mentees as 'not very effective' or 'not at all effective'). The Advisory Group members were slightly more uncertain about how effective the marketing to mentees had been, often stating that they did not know. Regional coordinators also felt there were some issues with the initial marketing to mentees. From across these perspectives, the following issues and challenges with the initial marketing to mentees can be summarised:

- **timing** – early expressions of interest did not turn into subsequent applications as mentees became discouraged by the lengthy wait for a mentor to be assigned. Most of the timing issues, however, were around delayed recruitment prior to the start of the academic year. Once into the academic year, potential mentees were often too busy, learned to cope without additional support and did not want to identify the need for additional support, particularly where they were school based. Initially, ITT institutions wanted to wait until the second teaching practice to promote the programme with students.
- **negative perceptions/misconceptions of the scheme** –some schools, HEIs and LAs felt there was sufficient support in place already; some potential

mentees were reluctant to highlight their need to join the programme for fear of admitting weaknesses and inability to cope and/or implying the school's support was inadequate; some schools were concerned that mentees participation in the scheme might take up too much time; there was some lack of clarity about the role of the programme and fit with current mentoring provision and the potential value of participation; in some cases the workload demands of the programme were off-putting (e.g. dilemmas and inquiries).

- **issues with a 'top-down' approach** – targeting initial information at potential mentees' senior colleagues (e.g. Deputy Heads) and at local authorities is reliant on those personnel endorsing the scheme and passing on the information effectively. There was a sense that often this information did not get communicated effectively within institutions and LAs. Mass mail-out information can also be overlooked; more personal and direct contact with potential recipients and advocates of the programme was felt to work better.
- **low awareness amongst key stakeholders** – in some cases there was low awareness and promotion of the programme via key organisations and representatives e.g. LA advisors, HEIs, subject associations, such as ASE, and other programme consultants and stakeholders in contact with the target population.
- **low awareness amongst mentees** – low awareness of the programme amongst potential mentees. There was not widespread awareness of the programme, suggesting information did not always get passed to potential mentees via key stakeholders and gatekeepers in a systematic way.
- **issues with rolling recruitment for network mentoring** – e.g. it proved difficult to organise meetings and provide group support with different mentees joining at different stages.

### Mentee application and selection process

Mentees were asked to submit a detailed application form to apply for a place on the Starting Out programme. The application form asked for background information (e.g. current role, subject etc.) as well as their preference for a particular type of mentoring and reason for this choice. On the basis of this information, LSN then allocated the mentee to a suitable mentor based on pen-portrait information for each mentor.

In the initial stages of Year 1, the majority of mentees were positive about the application process although several reported that: the overall process was quite lengthy; there was a lack of clarity about how much information and detail was required; and it had taken a long time to hear whether or not an application was successful. The application process was subsequently streamlined to take account of these concerns.

The success of these changes is demonstrated by evidence gathered towards the end of Year 1. When mentees were asked about the ease of application to join Starting Out, the vast majority of mentees reported that the application form process to join the programme was moderately or very easy to complete. This indicated that there was little necessity for development in this area.

## Improving the effectiveness of marketing to mentees in the future

The following recommendations for improving the marketing of the programme to mentees were identified:

- **timing of recruitment** – recruitment to the programme could be maximised by marketing to potential mentees early in the transition from PGCE training to an NQT position. Marketing at this earlier phase helps to promote parity of access to the scheme (i.e. seen as professional support mechanism for all early career teachers, not just those facing challenges) and offers continuity of support in the transition to a teaching post to help new teachers to feel confident and secure in their early career. A further consideration is to recruit several months following the beginning of the academic term to allow potential mentees to establish their new role and need for additional support. The time between receiving a mentee application and beginning mentoring support also needs to be minimised
- **target key stakeholders and organisations** – stakeholders and organisations coming into contact with the target population are in a position to promote the scheme and pass the information to mentees. Qualitative evidence from mentees (discussed below) suggests that mentees have often joined the scheme following a recommendation from a colleague within their HEI, school or LA
- **target information direct to potential mentees** – make the marketing materials readily available to mentees directly and limit the layers through which information has to be passed
- **minor revisions to the initial marketing materials** – although there was generally a sense that the initial marketing materials available to mentees were of a good quality, it was thought that there was scope to improve further by: providing further clarification of the programme (e.g. the specific potential benefits, the nature of the three levels of mentoring, distinctiveness to other mentoring support and appropriateness to teachers in different phases of their early career) and limiting the requirements/workload associated with participation in the scheme (e.g. dilemmas and inquiries promoted as optional and as integrated aspects of the mentoring process).

## Revised marketing and recruitment strategy, introduced in February 2010

It emphasised the following strategies:

- continue to maximise utilisation of regional coordinators (and some mentors) directly contacting schools and Initial Teacher Training Institutions
- raise the profile of the Starting Out programme on the internet, with opportunity for self-referral directly from mentees (e.g. Wikipedia)
- build relationships with, and promote the programme directly amongst, key individuals in ITT institutions and with Heads of Science and Mathematics in schools (e.g. workshops for trainees)
- maximise the utilisation of promotion of the programme amongst Advisory Group contacts and within the STEM community (e.g. key stakeholders, associations)

and professional bodies, such as ASE, SSAT, contacted directly about the programme)

- build relationships with and promote the programme directly with LA contacts (e.g. school improvement advisors, subject advisors and National Challenge advisors)
- promote the benefits of the programme directly with teachers (with particular emphasis on Year 2 teachers) (e.g. promotion at NQT regional/LA events and conferences)
- promote the programme directly with SCITT/Teach First programme coordinators.

Promotion of the programme should focus more on identifying the specific benefits of the support available likely to be most salient to the particular recipient. For instance, a key benefit for schools will be the potential impact of participation in the programme on attainment amongst pupils taught by trainees and early career teachers.

### Mentees sources of information regarding Starting Out

The tables below present findings from the CATI survey of mentees conducted in May /June 201.

**Table A3.1: How mentees found out about the programme**

	%
Person from Starting Out	37
ITT tutor/university	30
Head of Department/ in-school mentor or coordinator	14
Attendance at a conference	8
Leaflets, fliers and the media, emails or Starting Out website	5
LA advisor/consultant	3
Unspecified visitors to school	2
Fellow ITT students	2
N = 115	

*Source: NFER CATI Survey (N=115)*

**Table A3.2: Encouragement to join the programme**

	%
Nobody in particular	30
ITT tutor	26
Person from Starting Out	23
School colleagues	19
LA advisor/consultant	3
Attendance at a conference	2
Leaflets, fliers or the media	1
Fellow ITT student	1

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N = 115

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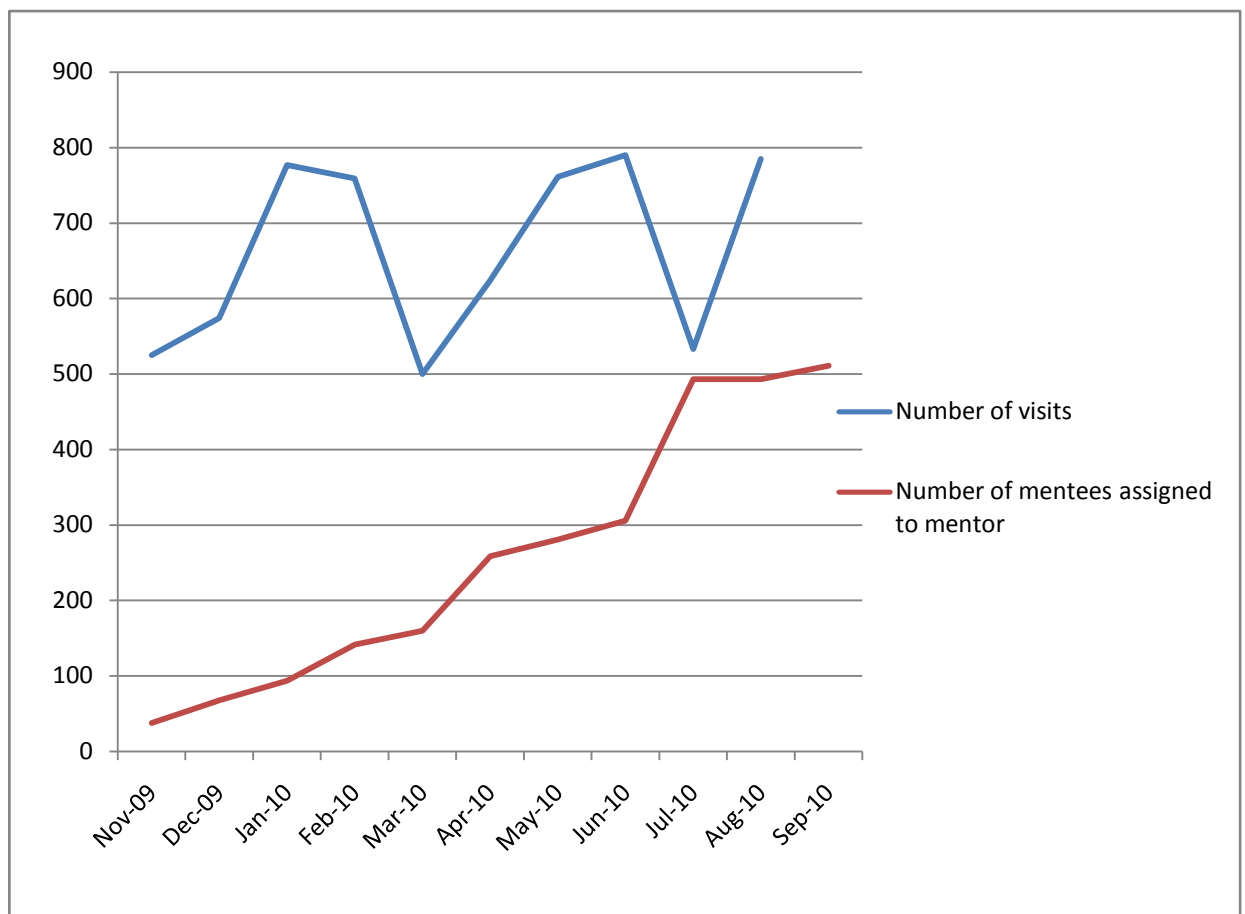
*Source: NFER CATI Survey (N=115)*

## Appendix 4: Additional details on programme delivery

### Usage of the Starting Out website

The findings from Google Analytics reports detailing usage of the Starting Out website indicate that between November 2009 and September 2010, there was a general increase in the number of visits to the website. As Figure A3.1 below shows, the number of visits increased from 532 visits in November 2009 to 785 in September 2010. The site received most visits during July 2010 and, concurrent with the Easter summer holiday periods, received fewer visits in April and August 2010. These figures suggest that mentees used the site on a regular basis.

**Figure A3.1:** Number of visits to Starting Out website compared to number of mentees involved in the programme



### **Dilemmas and inquiries**

Examples of dilemmas and inquiries used included:

- the mentee being a teacher who had received an email from a Deputy Head saying that the parents of a pupil were coming in that afternoon and the Deputy Head wanted some precise information about how the pupil was doing in their subject. The focus of this dilemma was to prepare a recording system for pupils' marks and grades that was regularly updated and could quickly flag up the performance of each individual pupil
- a dilemma about 'teaching beyond the specification'. The focus on this was about planning a series of lessons for a top set in Key Stage 4 that included work that was beyond GCSE level, so that the pupils were interested and obtained a better understanding of the topic
- a dilemma focussed on how to make revision sessions for year 11 pupils more interesting and hence more productive. The aim was to encourage the mentee to consider approaches other than going through past papers and questions
- an inquiry about preparing a summary about the performance of pupils undertaking cross-curricular work involving science subjects compared with their performance on single science subjects, such as physics, chemistry or biology.

## Appendix 5: Logic Framework for Starting Out

Logic Frameworks are analytical tools which present the workings of a programme as a number of components in a linear sequence: inputs, activities/outputs, outcomes and impacts. The Starting Out framework follows the same pattern and is presented below.

<b>Rationale</b> <i>Why did the Starting Out Programme come about?</i>	<b>Programme objectives</b> <i>What is the Starting Out Programme trying to achieve?</i>	<b>Inputs</b> <i>What resources are required to operate the Starting Out Programme?</i>	<b>Activities / outputs</b> <i>How are these resources deployed; what activities do they deliver?</i>	<b>Outcomes</b> <i>What are the direct outcomes from these activities?</i>	<b>Impacts</b> <i>What are the ultimate impacts?</i>
<p>Recruitment and retention failures:</p> <ul style="list-style-type: none"> <li>too few science and mathematics teachers entering the profession (1.1)</li> <li>too many early career science and mathematics teachers leaving the profession (1.2)</li> </ul> <p>Skills shortages:</p> <ul style="list-style-type: none"> <li>international comparative tests suggest UK pupils falling behind in mathematics and science (1.3)</li> <li>too few young people choosing to study mathematics or science at a high level (1.4)</li> <li>too few young people choosing a career in a science or mathematics related field (1.5)</li> </ul>	<p>To explore to what degree a mentoring programme can improve:</p> <ul style="list-style-type: none"> <li>the recruitment of science and mathematics ITE trainees into teaching (2.1)</li> <li>the retention of science and mathematics early career teachers in teaching (2.2)</li> <li>the quality of teaching and learning in mathematics and science (e.g. increasing the skills and confidence of the workforce) (2.3)</li> </ul>	<p>Programme set-up and development costs:</p> <ul style="list-style-type: none"> <li>time to develop concept and programme design (3.1)</li> <li>development of learning platform (including signposting and use of 'dilemmas' and 'action-research inquiries') (3.2)</li> <li>handbooks (3.3)</li> </ul> <p>Programme running costs:</p> <ul style="list-style-type: none"> <li>marketing (3.4)</li> <li>programme management (3.5)</li> <li>3 regional full-time coordinators (3.6)</li> <li>63 external subject-specialist mentors (providing support face-to-face, online and via telephone) (3.7)</li> <li>mentee participation (800 qualified mathematics and science teachers) (3.8)</li> </ul>	<ul style="list-style-type: none"> <li>Regional activities to deliver the programme (e.g. developing an action plan, establishing close collaboration with key partners (ITEs/HEIs, GOs, LAs, SIPs)) (4.1)</li> <li>Mentoring support at 3 different levels (subject mentoring, e-mentoring, network mentoring) (4.2)</li> <li>Training events for mentors (4.3)</li> <li>Regional events for trainees (4.4)</li> </ul>	<p>For mentees:</p> <ul style="list-style-type: none"> <li>increased awareness of relevant subject specific resources and materials (5.1)</li> <li>increased awareness of local and national CPD opportunities (5.2)</li> <li>increased confidence in skills and knowledge to deliver science or mathematics effectively to pupils (5.3)</li> <li>broadening and deepening subject knowledge (5.4)</li> <li>feel part of a wider network and 'community of practice' (5.5)</li> <li>raised use of relevant subject specific resources and materials (5.6)</li> </ul> <p>For pupils:</p> <ul style="list-style-type: none"> <li>more engaging mathematics and science lessons (5.6)</li> </ul>	<p>Mentees:</p> <ul style="list-style-type: none"> <li>more teacher trainees choose to enter the profession (6.1)</li> <li>more early-career teachers choose to continue in the profession (6.2)</li> </ul> <p>Pupils:</p> <ul style="list-style-type: none"> <li>more perform better at mathematics and science (6.3)</li> <li>more choose to study mathematics or science at a higher level (6.4)</li> <li>more choose a career in a science or mathematics related field (6.5)</li> </ul> <p>Wider education sector:</p> <ul style="list-style-type: none"> <li>better quality teaching and learning (6.6)</li> <li>reduction in the time it takes for new teachers to perform at the same level as experienced teachers (6.7)</li> </ul>

**Note:**

1) This logic model is based on the Project Initiation Document (PID) developed by LSN at the beginning of the Starting Out Programme in March 2009. It has been produced to support the analysis included in this third report (of a series of four) of NFER's evaluation of the Starting Out Programme. As a result, its development has also been informed by achieved outcomes and not just those which are expected.

2) The shaded areas of the Logic Framework highlight those inputs and impacts to which we were able to assign a monetary value for the purposes of cost-benefit analysis presented in this report.



## Appendix 6: Additional details on approach to measuring impact

### Notes on analysis of impact of Starting Out

A key feature of the Starting Out pilot programme was its level of accessibility to teachers. It placed no limitation on the date by which applications were required and set no minimum or maximum limits on the period of mentoring support which individual mentees could receive. For example, teachers could apply to take part in the pilot at any point during the two year period in which it was delivered, receive any number of months of support and remain on the programme up until its end (September 2009 to July 2011).

This accessibility meant that the length of mentees' participation in Starting Out varied considerably and that there were no unified cohort groups making the transition between one career stage and the next. In addition, it is difficult to identify which mentees (of those who joined the programme between September 2010 and July 2011) continued into the following year of teaching, after the programme ended in July 2011. As a result, a subset of the overall numbers of mentees on the Starting Out programme was selected for the purposes of establishing the impact of the programme on their recruitment and retention in the teaching profession.

To calculate **the impact of the programme on recruitment**, it was necessary to select a subset of mentees from the total number of those who began receiving support during their training (ITE). The key criteria for selecting this group were to select mentees who could be

- observed to have made the transition from their training year into their induction year and
- considered to have received mentoring support for a sufficient length of time to reasonably expect the programme to have made a difference.

The recruitment rate in the context of Starting Out is defined as:

*Of those Starting Out participants who started on the programme as trainee teachers (PGCEs) in the year 2009/10 and received 6 months or more support from the programme in the period up until August 2010 (during their trainee year), the percentage who then became NQTs in 2010/11 (measured by their continued participation in Starting Out for at least 2 months after August 2010).*

To calculate **the impact of the programme on retention**, it was necessary to select a subset of mentees from the total number of those who began receiving support in

their induction year (NQTs) or their second year of teaching. The key criteria for selecting this group was to select mentees who could be:

- observed to have made the transition from their induction, or second, year of teaching into their second or third year
- considered to have received mentoring support for a sufficient length of time to reasonably expect the programme to have made a difference.

Based on these criteria, the measure of retention in relation to the Starting Out programme has been defined as:

*Of those Starting Out participants who started on the programme as NQTs or 2<sup>nd</sup> year teachers in the year 2009/10 and received 6 months or more support from the programme in the period up until August 2010 (during their NQT/2<sup>nd</sup> year), the percentage who continued in the profession in 2010/11 (measured by their continued participation in Starting Out for at least 2 months after August 2010).*

### Assumptions

The following assumptions underpin the analysis of the impact of Starting Out presented above, in this report:

1. Assumptions were made about **how much** support mentees required for impact to be observed, and how such impact could be measured. Mentees were included in the Starting Out sample providing that they met the following two criteria:
  - **they had received six months' or more continuous support from Starting Out:** six months was considered to be the minimum amount of support which a mentee could be expected to have received for Starting Out to have made a difference. Therefore, mentees who had received less than six months' support were excluded from the sample
  - **they had received this support between September 2009 and August 2010:** the measure of retention or recruitment was based on mentees' continued involvement in the Starting Out programme across two academic years (2009/10 and 2010/11 because no data is available on the destination of mentees). Therefore, it was necessary to focus on mentees who received support in the academic year 2009/10 to be able to measure their progress into the academic year 2010/11. Mentees who did not receive six months' or more support during this time period (2009/10) were excluded from the sample.
2. An assumption was made about **when** impact could be said to have taken place. Mentees' recruitment to, or retention within, the teaching profession was measured by their continued involvement in the Starting Out programme between two academic years (2009/10 and 2010/11). It was therefore necessary to

introduce a 'transition point', at which mentees could be described as having progressed from one academic year to the next.

This transition point was set at August 2010, based upon the assumption that mentees could, at any point up until August 2010, make the decision to enter, continue in, or leave the teaching profession in the next academic year. Successful transition past this point was considered to be indicative that teachers had made the decision to enter, or to continue in, the teaching profession.

Mentees were considered to have made a successful transition (i.e. been recruited to, or retained in, the teaching profession) if they continued in the Starting Out programme beyond the transition point of August 2010 and remained in the programme until October 2010. Continued participation in Starting Out until October 2010 was perceived as a reasonable measure of mentees' intent to remain in the profession.

### Notes on analysis of national benchmark figures

A comparative analysis of the impact of Starting Out on recruitment required evidence of the level of impact which could have been expected in the absence of the pilot programme (the additionality of the programme).

Given that the analysis for this report was conducted subsequent to the delivery of the programme itself, the main source of such evidence was provided by analysing patterns of recruitment in the overall teaching workforce in England. This provided a national benchmark against which some measure of the additionality of the impact of Starting Out could be calculated.

The most detailed source of evidence on the teaching workforce in England is collected by the General Teaching Council in its Annual Digest of Teachers. This secondary data (and additional analyses of the dataset requested of, and conducted by, the GTC) was used as the basis for calculating national benchmark figures for recruitment and retention to the teaching profession. As far as possible a national sample of teachers with a similar profile to those participating in Starting Out was selected from this secondary dataset, in order to ensure that the comparison was as accurate as possible.

The data available at a national level includes some data focusing on the numbers of science and mathematics teachers. More detailed analysis of this dataset revealed patterns in the data which could not be explained and, at present, remain unresolved. Given this issue, it was advisable to adopt a conservative approach to the use of this data. As a result, the data relating to science and mathematics' teachers could not be considered sufficiently reliable to use as the basis for calculating national benchmark figures and it was not used in the central impact analyses (see Section 3).

In order to **benchmark** the impact of Starting Out on **recruitment against national patterns**, this national sample was chosen to include teachers:

- who were in ITE at a similar time to those in the Starting Out sample
- who could be identified as having entered the teaching profession.

For all teachers at a national level in England, **recruitment** is defined as:

*The proportion of teachers, who were awarded QTS between Jan-Dec 2010 who then entered the teaching profession in 2010/11 (as measured by the number who had started induction on or before March 2011).*

In order to **benchmark** the impact of Starting Out on **retention against national patterns**, this national sample was chosen to include teachers

- who were awarded QTS in a similar year to those in the Starting Out sample
- who moved into their induction or second year of teaching
- who could be identified as having entered the teaching profession.

For all teachers at a national level in England, **retention** is defined as:

*The proportion of teachers who were awarded their QTS in 2008 (in the case of 2<sup>nd</sup> yr teachers) or 2009 (in the case of NQTs), who then entered their 2<sup>nd</sup>/NQT year in 2009/10 and continued in the profession in 2010/11 (as measured by the number who were registered and recorded as being in service by March 2011).*

## Assumptions

The following assumptions underpin the analysis of the national benchmark figures used for the comparative analysis and presented above in this report:

1. It was necessary to ensure that the sample of all teachers used as the national recruitment benchmark cohort was as reasonably close a comparison with the Starting Out sample as possible. The Starting Out mentees included in the recruitment calculations were trainees during the academic year 2009/10. The GTC collects data on the number of teachers who were awarded their QTS by March in a certain year (a cohort year). GTC data is collected annually at the end of March and presented in calendar years. Therefore, GTC data from the 2010 cohort year offered the closest match to the year in which the Starting Out recruitment sample were trainees. As the year in which teachers are awarded their QTS is usually the year in which they trained, it was assumed that the number of people in a cohort year represents the number of trainee teachers at a national level (in England) in that year.

2. Our calculations of the national recruitment benchmark was based upon the number of trainees who started their induction on or before the census date, rather than the number of teachers who undertook and had successfully completed induction by the census date. This is a clear closer indicator of our measure of the Starting Out recruitment rate which is based on mentees' transition into their induction year. Our measurement of the Starting Out recruitment rates was based on mentees' transition into their induction year in the academic year 2010/11.
3. Our definition of the national retention rate meant that our calculations of this benchmark included teachers at two different stages. We used two different cohort years to calculate a retention rate for each of these two stages as follows:
  - one for those who were considered to be 2<sup>nd</sup> year teachers in 2009/10
  - one for those who were considered to be NQTs in 2009/10.

### Comparison of recruitment rates

The impact which Starting Out has made on the recruitment of science and mathematics teachers can be calculated by measuring the difference between the two percentages and calculating how many additional teachers Starting Out were recruited compared to what could normally be expected using the national recruitment rate as a guide.

Starting Out recruitment rate	97%
National recruitment rate	62%
Difference	35%

The difference of 35% represents **an additional 26 Starting Out participants who have been recruited into the teaching profession** (35% of 74).

### Comparison of retention rates

The impact which Starting Out has made on the retention of science and mathematics teachers participating in the programme can be calculated by measuring the difference between the Starting Out retention rate and the national retention rate and using this proportion to calculate how many additional teachers Starting Out has retained compared to what could normally be expected, using the national retention rate as a guide.

Starting Out retention rate	95%
National retention rate	90%
Difference	5%

The difference of 5% represents **an additional 4 Starting Out participants who have been retained in the teaching profession** (5% of 75).

## Appendix 7: Additional details on approach to measuring Value for Money

### Assumptions made for the cost-benefit analysis

1. That LSN mentee records' data are accurate and complete.
2. That those students who were recorded as still being on the programme in April 2011 (as indicated by LSN records) stayed on to complete the programme in July 2011.
3. That teacher mentees put in (at least) the same amount of time expected of mentors each month, for each of the four different types of mentoring support.
4. The costs of training a teacher are based on the key costs to the tax payer (i.e. the unit of funding per trainee per year to HEIs + the training bursary for trainees - tuition fees paid by the trainee). We are aware that there are other costs (e.g. marketing), but these are excluded from the 'central case' analysis as we have no reliable data upon which to draw a figure.
5. That the tuition fees paid by initial teacher trainees is an inward flow of money to the tax payer, and so should therefore be subtracted from the costs to the tax payer of training a teacher.
6. That the 'economic cost' of the time given by mentees to engage in the programme is an important input that should be included in the overall programme costs.

Other factors which were taken into account in conducting the cost-benefit analysis included the following two issues:

- beneficiaries of Starting Out: in devising the Logic Framework, the research team considered a range of possible beneficiaries of the programme, including mentees, pupils, and the wider education sector. For example, it stands to reason that as the turnover of mathematics and science teachers decreases, and the skills and confidence of the teaching workforce improves, there would be an improvement in the quality of teaching and learning in mathematics and science. This in turn would lead to benefits for pupils, teachers and schools. However, while the evaluation has collected valuable qualitative and quantitative data on the impact of the programme on a number of beneficiaries, not all of these impacts can be monetised;
- time period for measurement of costs and benefits: in cost-benefit analysis, it is good practice to put all relevant costs and benefits (expressed in money terms) on a common temporal footing. This is often done by converting the future expected streams of costs and benefits into a present value amount using a suitable discount rate. However, all costs and benefits included in this analysis occur over a short timescale between 2009 and 2011, and so are reported in nominal prices.

## Notes on sensitivity testing

Value for Money analyses typically require a broad range of data and assumptions, and by undertaking sensitivity tests we can be confident that the findings are not simply a consequence of the particular decisions taken in the analysis, but instead provide genuine insights into the programme itself.

We describe the sensitivity tests undertaken below, followed by a chart summarising their results (see Figure A7.1).

**Scenario 1:** For our national benchmark we have used data for all subject teachers. However, whilst the data examined for science and mathematics teachers was not considered sufficiently reliable for inclusion in our central case, it did suggest that recruitment and retention rates for science and mathematics teachers are substantially lower than for other subjects. We have therefore re-calculated the figures assuming science and mathematics teachers are 15 per cent less likely to be recruited or retained compared to all subject teachers<sup>6</sup>.

**Scenario 2:** As discussed in Appendix 6, the number of Starting Out teachers who could be included in our analysis was relatively low resulting in some sampling error. This sensitivity test assumes that actual recruitment and retention rates for Starting Out teachers are at the bottom of a 95 per cent confidence interval around our central case estimates.

**Scenario 3:** We have included in our cost estimates for the programme the value of the time spent by mentees. This is not a direct financial cost, and we have not included in the benefits similar estimates of the time and effort saved for teachers who do not leave the profession. We have therefore re-calculated our estimates including only direct financial costs.

**Scenario 4:** Appendix 6 describes some of the further potentially confounding factors that may have an impact on our comparison between Starting Out teachers and the national benchmark. This sensitivity test assumes that of the difference between Starting Out and national rates, half of this difference is actually due to the programme, with the remaining half being due to other factors such as selection effects.

**Scenario 5:** Our estimate of the cost savings from not having to replace a teacher who has left the profession only includes the payments made to trainees and HEIs. We were unable to identify data on the costs to schools and the TDA, covering the

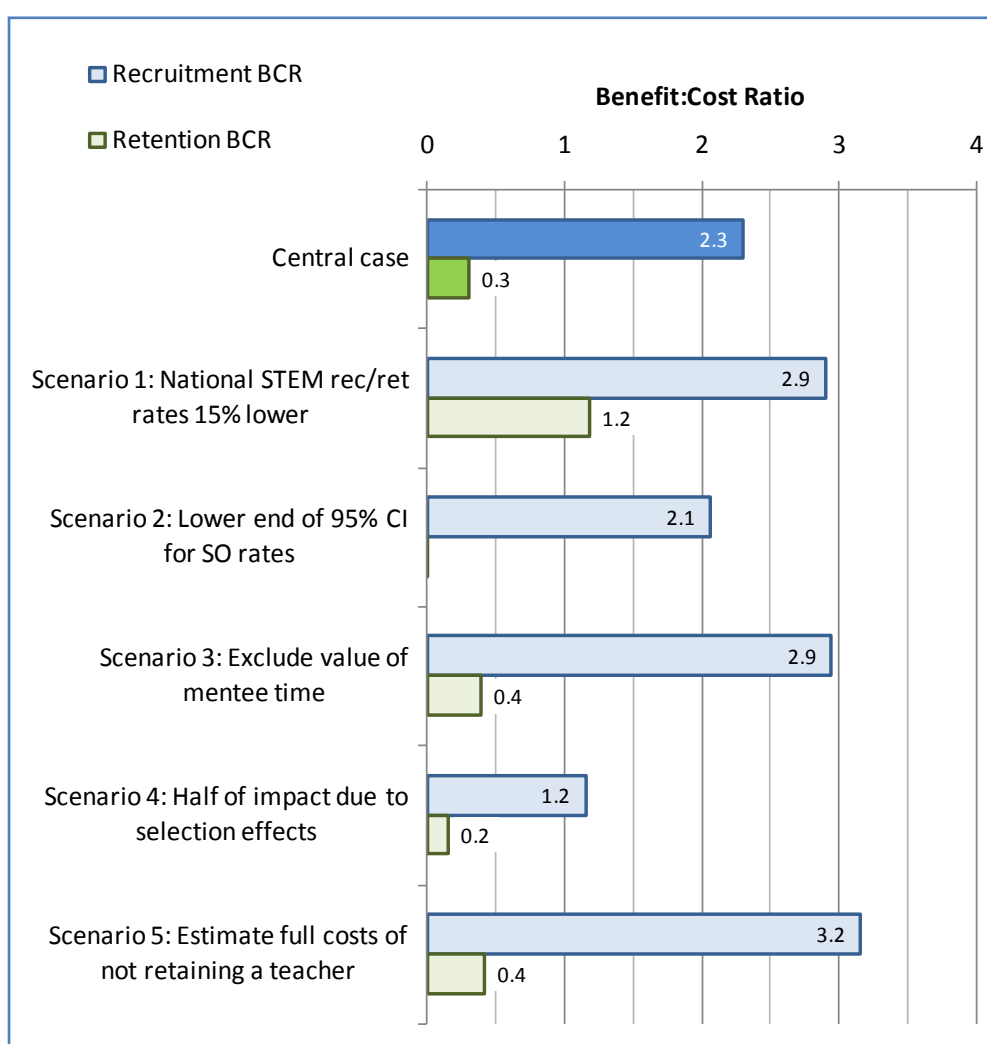
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<sup>6</sup>This figure was chosen as a notional value for illustrative purposes only. Note that if the science and mathematics national retention rate is 12 per cent lower than for all subjects then the Starting Out programme breaks-even for NQTs/2<sup>nd</sup> years.

additional activities discussed above. We have considered the impact on the case where these activities add an additional £5,000 to the cost savings<sup>7</sup>.

The findings below suggest that, compared to the central case, three out of the five scenarios would improve the BCRs for the recruitment and retention transition points (scenarios 1, 3 and 5), while the remaining two would diminish the BCRs (scenarios 2 and 4). Notably in all of these scenarios the outcome remains broadly similar to that presented in the central case in Appendix 6 above. The BCR for recruitment remains consistently above 1 (meaning benefits exceed costs) and a marginal case emerges for retention in just one of the scenarios (scenario 1).

**Figure A7.1: Results of sensitivity analysis**



<sup>7</sup> For example, the Teacher Support Network estimate that the average cost of recruiting a new teacher is £3,456 (in Jones, P. 2006. Review and Evaluation of the Fast Track Teaching Programme: Interim Report, London: DfES). It is reasonable to think that the additional costs to schools and the TDA could easily be £5000.