




**Office for Standards
in Education**

The background of the cover is a red-tinted photograph of a classroom. On the left, a vertical black bar shows the silhouettes of children standing by a window. The rest of the image shows a group of children in a classroom, with some raising their hands as if participating in a lesson.

**Quality and standards
in primary
initial teacher training**

HMI 547



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in Education**

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Introduction

1. In the period 1998 to 2002, Ofsted inspected all 90 providers of initial teacher training (ITT) for the primary age-range in England. This primary initial teacher training inspection (PITTI) programme focused particularly on the preparation of trainees to teach English and mathematics. In the first two years of the programme, training in one specialist subject was inspected in each provider. In addition to this main inspection programme, and using broadly the same methodology, a survey of primary science training in 20 providers was carried out during the academic year 2001/02. This report brings together findings from all of these inspections. However, since separate reports have already been published on training in the specialist subjects and science, the main emphasis is on English and mathematics.^{1,2}
2. The beginning of the PITTI programme in September 1998 coincided with the introduction of the Department for Education and Employment's *Circular 4/98*. This set out the requirements for all courses of ITT and replaced the existing competences for trainees with a comprehensive set of standards for Qualified Teacher Status (QTS), as well as national curricula for ITT in the core subjects and information and communication technology (ICT). The circular presented a particular challenge for providers with undergraduate courses since trainees now had to meet criteria that had not existed when their courses had begun. Another important contextual factor was the introduction of the National Literacy Strategy (NLS) and the National Numeracy Strategy (NNS) into primary schools at this time.
3. The PITTI programme was divided into two separate two-year parts, during which providers' primary training in either English or mathematics was inspected. This meant that a full national picture of provision in each subject was not available until the whole programme was completed. By the end of the programme, training had been inspected in English, mathematics and one specialist subject for each provider. These individual reports are available on the Ofsted web site (www.ofsted.gov.uk).
4. Two other features of the inspections are important. First, the inspections focused on undergraduate provision when providers offered both postgraduate and undergraduate courses, as postgraduate courses had been the focus in the previous primary inspection programme. This meant that where postgraduate provision was inspected, this was usually the only route offered. Second, the first year of inspections contained a high proportion of providers whose previous inspections had resulted in lower than average grades; to some extent that weighting remained true of the third year of the programme. As a result, years one and three were expected to produce lower grades than years two and four; this proved to be the case (see annex).
5. The majority of providers (65) were training partnerships between higher education institutions (HEIs) and schools, while the remainder (25) were school-centred initial teacher training (SCITT) partnerships.

¹ *Subject Specialist Courses in Primary Initial Teacher Training*, HMI 271, Ofsted, 2001.

² *Science in Primary Initial Teacher Training*, HMI 378, Ofsted, 2002 (web site only).

The focus of inspection in the majority of HEI-based providers (41) was the three-year or four-year undergraduate course; in the remaining HEI-based providers (14) and all the SCITTs, the one-year postgraduate course, generally leading to the award of the postgraduate certification in education (PGCE), was inspected.

6. Employment-based programmes of ITT were not included in these inspections. Ofsted published a report on the Graduate Teacher Programme in 2002.³

7. The inspections were all based on the joint Ofsted/Teacher Training Agency (TTA) *Framework for the Assessment of Quality and Standards in Initial Teacher Training*, 1998, (the *Framework*). The inspections focused on five areas, or 'cells', from the *Framework*:

- the trainees' subject knowledge and understanding (ST1)
- the trainees' planning, teaching and class management (ST2)
- the trainees' monitoring, assessment, recording, reporting and accountability (ST3)
- the quality of training (T1)
- the accuracy and consistency of the assessment of the trainees against the standards for QTS (T2).

8. The judgements for each cell were made on a four-point scale:

Grade 1: Very good – consistently of very good quality, with several outstanding features

Grade 2: Good – consistently of good quality, with no significant weaknesses

Grade 3: Adequate – complies with the Secretary of State's criteria, but requires significant improvement to be good

Grade 4: Poor quality – does not comply with the Secretary of State's criteria.

9. Each inspection consisted typically of three visits to the provider, spread across the academic year. Inspectors based their judgements on the following main sources of evidence: scrutiny of course documentation; interviews with trainers and trainees; observation of central and school-based training; scrutiny of trainees' assignments; and observation of a sample of trainees on their final teaching placement to assess the standards of their teaching.

10. The outcomes of the inspections were used by the TTA as the basis of decisions on the continued accreditation of providers and the allocation of trainee numbers to particular courses. Where any aspect of a course was found to be 'non-compliant' (that is, awarded a grade 4), the course was reinspected in the following academic year to check that the necessary

³ *The Graduate Teacher Programme*, HMI 346, Ofsted, 2002.

improvements had been made. Courses which were no better than adequate (grade 3) in all cells, were judged to be 'borderline' and were also subject to a further inspection in the following year. All five courses that were reinspected demonstrated improvement to good quality in at least one cell.

11. The PITTI programme was preceded by the two-year (1996/98) Primary Follow-up Survey (PFUS), on which a report was published in 1999.⁴ This also covered all primary ITT providers in England, but the focus was on postgraduate training, except for two providers who had only undergraduate training. The PFUS had a narrower focus than PITTI and concentrated specifically on training to teach reading and number. While finding much to commend, the inspections highlighted a number of areas requiring attention.

The main weaknesses in reading were:

- many trainees had difficulty planning a structured programme of phonics teaching
- trainees' subject knowledge of teaching reading was only adequate
- a significant proportion of trainees had weaknesses in their knowledge of linguistic terms and in their own spelling, punctuation and grammar.

The main weaknesses in number were:

- limited links between centre-based and school-based training
- too wide variations in the rigour of the assessment of trainees' standards
- trainees' limited understanding of links between areas such as fractions, decimals and percentages, and properties of number
- trainees' difficulties in planning a sequence of number lessons.

Weaknesses common to both reading and number included:

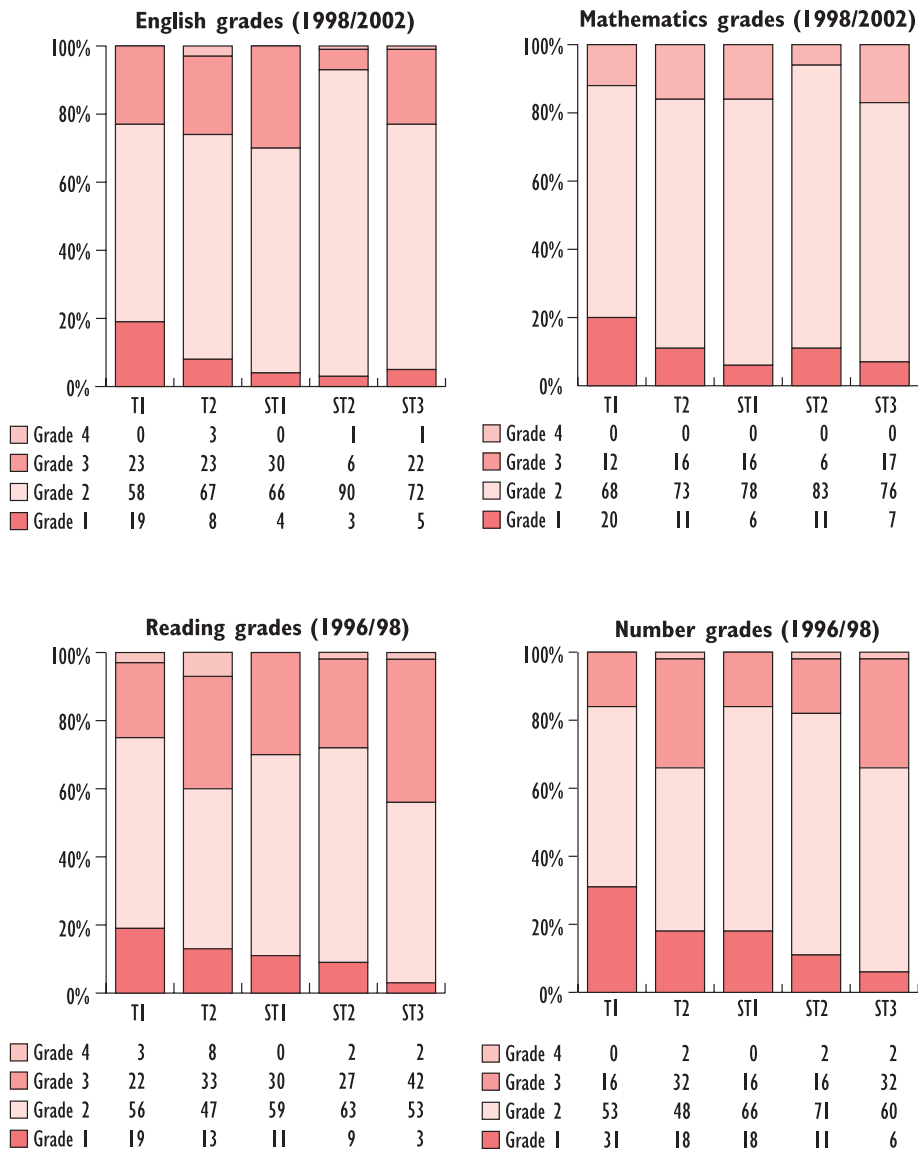
- insufficient experience of teaching across the full primary age-range, linked to lack of understanding of how pupils' learning develops across the key stages
- insufficient training to use ICT in teaching, as well as opportunities for practical use of ICT in the classroom
- the weakest area in both subjects was in the assessment and recording of pupils' progress.

⁴ *Primary Follow-up Survey of the Training of Trainee Teachers to Teach Number and Reading: 1996–98*, HMI 193, Ofsted, 1999.

12. In the light of these weaknesses and the government's continuing drive to raise standards of literacy and numeracy in primary schools, it was decided to focus on training and standards in English and mathematics in the PITTI programme.

13. While not comparable in all respects, there was sufficient common ground between the PITTI and PFUS inspections to make relevant and illuminating comparisons. Figure 1 shows the distribution of grades for each of the five inspection cells for the PITTI programme and for the previous PFUS inspections in both English (reading) and mathematics (number). Where a provider was reinspected because it was judged to be non-compliant or had significant weaknesses in each inspection cell, only its reinspection grades are included. The annex provides a more detailed breakdown of the PITTI data on grades. References to these data are made, where appropriate, throughout the report.

Figure 1. Overall grades for PITTI (1998/2002) and PFUS (1996/98)



Main findings

- ❑ Over the four years of the inspection programme, significant improvements occurred in all the areas inspected – the trainees' standards, the quality of training and the assessment of the trainees. School-centred partnerships shared in the general trend towards improvement and some achieved high standards but, overall, as a group they performed less well than HEI-based partnerships.
- ❑ Trainees' subject knowledge in English improved considerably, from being good or very good on around half of courses in the first two years of inspection to four fifths in the final two years. Progress in mathematics was less marked in terms of the grades awarded, nevertheless, substantial improvements were noted by inspectors. Trainees generally demonstrated good knowledge of the national strategies (NLS and NNS).
- ❑ Trainees' ICT skills and knowledge of how to use ICT in English and mathematics teaching improved steadily over the inspection period. However, lack of sufficient opportunities to practise the use of ICT in their placement schools continued to limit the development of a significant minority of trainees.
- ❑ Trainees' standards in planning, teaching and class management improved steadily in both English and mathematics. In the first two years of inspection, four fifths of courses were good or very good in relation to these aspects and in the final two years this proportion rose to nine tenths. A major factor in these improvements was the successful adoption in partnership schools of the practices advocated by the national strategies.
- ❑ Trainees' standards in the assessment, recording and reporting of pupils' progress improved over the inspection period, although these continued to be the weakest aspect of trainees' teaching. Nearly a quarter of English courses and just under one fifth of mathematics courses had significant weaknesses in this area. While trainees' marking was generally good, weaknesses were most commonly found in using level descriptions to assign levels to pupils' work, keeping up-to-date records of pupils' progress and awareness of the use of attainment data for target-setting.
- ❑ The quality of training in English improved considerably over the four years – three fifths of courses were good or very good in the first two years and nine tenths in the final two years. Improvements in the inspection grades awarded for mathematics training were less marked, but inspectors nevertheless noted real improvements in training in this subject.
- ❑ The content of training courses was almost always appropriate in helping trainees to attain the QTS standards. Courses generally paid close attention to the areas specified in the *ITT National Curricula* and to the national curriculum programmes of study. Later inspections found coverage of the NLS and NNS was almost always good, and often very good.

- ❑ Central training was mostly good or very good and was characterised by a range of well-planned, interesting and varied activities presented by experienced and well-informed tutors. School-based training improved in terms of the provision of accurate and helpful feedback to trainees after observation of their teaching. Partnership schools less often adopted a wider training role that included subject-specific training in English and mathematics.
- ❑ Effective partnerships were a feature of all good training programmes. While the supply of suitable school placements was sometimes a problem, especially for larger providers in urban areas, the majority of schools visited were judged appropriate for training.
- ❑ The accuracy and consistency of the assessment of trainees in both English and mathematics were the areas most improved over the inspection period. In English, only half of the courses inspected in the first two years were judged good or very good in this regard, but this proportion had improved to nine tenths in the final two years. In mathematics, seven out of ten courses were good or very good in the first two years and nearly nine out of ten in the final two years.

Standards achieved by trainees

Trainees' subject knowledge and understanding (ST1)

English and mathematics

14. Trainees' subject knowledge and understanding were good or very good in just under seven out of ten English courses. This is a slightly smaller proportion than the equivalent figure for reading in the PFUS. There was considerable improvement over the four years of the PITTI programme; the proportion of courses judged good or very good on English subject knowledge was around half for the first two years, but increased to four fifths in the second two years.

15. Subject knowledge and understanding were good or very good in four fifths of mathematics courses, which was the same proportion as number in the PFUS. Comparison of grades between the two halves of the PITTI programme does not show such obvious improvement as in the case of English. However, it is clear from the detailed inspection evidence that trainees' mathematical subject knowledge had improved substantially, so that courses judged to be good (grade 2) in the second half of the programme typically had more strengths than those similarly graded in the first two years, but were not quite good enough to be graded very good (grade 1).

16. This progress, in both English and mathematics, reflects the following factors. The first year of the programme coincided with the introduction of the requirements of the new circular, including the *ITT National Curricula*, which trainers and trainees were quickly having to adapt to. It was also early in schools' implementation of the NLS and even earlier in the NNS. Early in the programme, trainees' subject knowledge in a significant proportion of courses was still weak on phonics and pupils' mathematical learning, from early counting and number recognition through to mental and written calculations. Their overall grasp of the content specified in the *ITT National Curricula for Primary English and Mathematics* was only adequate. Similarly, auditing of trainees' subject knowledge was at an early stage of development and was often unsystematic and superficial. For example, weaknesses in trainees' own spelling, punctuation and grammar received less attention than they did later in the programme.

17. By the end of the PITTI programme, the quality of trainees' subject knowledge had improved substantially, and in nine out of ten of the English and mathematics courses inspected in the final year it was good or very good. Areas of strength in the trainees' subject knowledge included good knowledge of the NLS and NNS frameworks and of supplementary materials on, for example, phonics and grammar. An important feature was that this knowledge was firmly rooted in practical experience of teaching and observing good teachers. Other strengths included good knowledge of children's literature, particularly in relation to their preferred key stage of training but often across the full primary age-range. The best trainees had good knowledge of the use of drama and role-play in the teaching of English, as well as the confidence to use these in the classroom. In

mathematics, trainees often demonstrated the ability to handle questions from pupils that demanded quick recall of mathematical knowledge. Early Years trainees generally demonstrated a secure familiarity with the *Curriculum Guidance for the Foundation Stage*.

18. Trainees' knowledge of the content specified in the *ITT National Curricula for Primary English and Mathematics* improved steadily over the four-year period as subject knowledge auditing and arrangements for identifying and dealing with weaknesses became better. This improvement was observed particularly in trainees' familiarity with, and use of, linguistic and mathematical terms. For example, early in the programme trainees often had difficulty in defining terms such as phoneme and grapheme, while such confusion was uncommon later. Variations remained, however, in trainees' understanding of some areas of the subject knowledge set out in the *ITT National Curricula*. For example, although trainees had generally covered the required areas of mathematics in their training, a minority were not able to discuss confidently topics such as equivalent fractions, decimals and percentages.

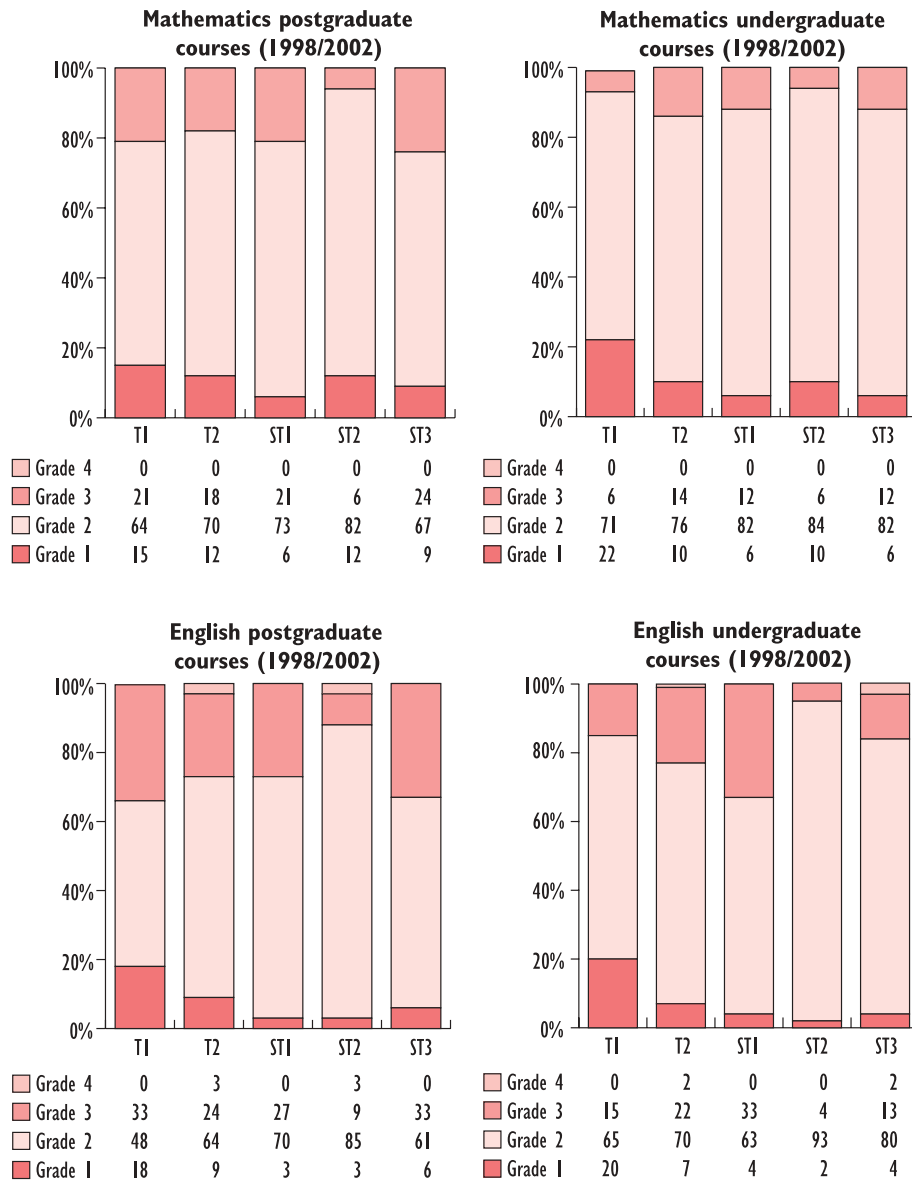
19. Over the period of the inspections, trainees' knowledge of ICT and its use in English and mathematics' teaching improved steadily until it became generally strong in the final year. Most trainees used computers to find information and ideas for lessons or to prepare teaching materials. They demonstrated a good knowledge of appropriate software for teaching English and mathematics and knew how to use a range of equipment, including interactive whiteboards. However, even at the end of the inspection period, a minority of trainees lacked opportunities to put their ICT knowledge into practice in the classroom, usually because of problems of access to appropriate resources in their placement schools.

20. In a significant minority of the courses inspected in the final year, weaknesses remained in both English and mathematics in trainees' knowledge and understanding about progress from the Foundation Stage to the primary key stages to Key Stage 3. These weaknesses were linked to trainees' limited practical teaching experience across the full primary age-range, a weakness also highlighted in the earlier PFUS report. In mathematics, for example, while some trainees showed good understanding of topics such as the links between the early collection and sorting of objects and later graph work, data presentation and analysis, many found it difficult to identify pupils' progress from counting through to mental and written number calculations.

21. On about a quarter of courses, trainees' knowledge about relevant research into the teaching and learning of English and mathematics was limited. Even the more able trainees sometimes failed to see the relevance of such research to their teaching; they often had extensive files of articles but did not show detailed knowledge of their content.

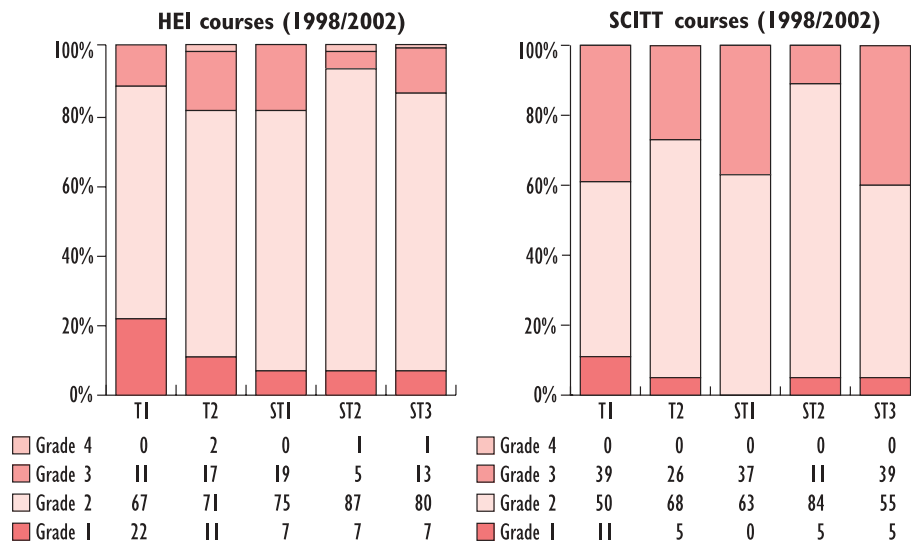
22. Figure 2 shows the distribution of grades awarded to undergraduate and postgraduate courses. There were no significant differences in the standards of English subject knowledge achieved by trainees on undergraduate and postgraduate courses. However, in mathematics, while standards were good or very good in nine out of ten undergraduate courses, the equivalent figure was only just over seven tenths for postgraduate courses.

Figure 2. Comparison of grades for postgraduate and undergraduate courses



23. Standards achieved by trainees on school-centred courses were markedly lower overall than in equivalent courses based in HEIs, both in English and mathematics (see figure 3). However, such comparisons have to be made with caution because of the much smaller numbers of trainees involved in SCITTs and the fact that many of the SCITTs were less well-established.

Figure 3. Comparison of grades for HEI and SCITT courses (English and mathematics combined)



24. Providers who were committed to enrolling trainees from local urban communities, including those from minority ethnic groups, often recruited trainees with relatively weak academic entry qualifications. Understandably, it was particularly challenging to raise such trainees' subject knowledge to a good standard. This was often exacerbated by the difficulties that these providers frequently had in finding good-quality mentors in placement schools with a high turnover of staff. In such circumstances, school-based training often made too little contribution to the development of the trainees' subject knowledge.

Science

25. Just over half the trainees observed in the science survey had good or very good subject knowledge in science. Around one in ten lacked adequate science knowledge. Their knowledge of the required elements of biology and chemistry in the *ITT National Curriculum* was generally better than for physics. As with mathematics, the subject knowledge of trainees on undergraduate courses was significantly better than that of trainees on postgraduate courses.

26. All trainees had at least a sound knowledge and understanding of the programmes of study for science in the national curriculum and the relevant level descriptions; for seven out of ten, this knowledge was good or very good. The majority had a good understanding of the way children's learning in science develops and were well-equipped to match work to their pupils. However, just over one in ten trainees showed only limited awareness of how topics they were teaching would be developed in the next key stage or of what was likely to have been taught in the previous one. This was especially the case when they had only a restricted teaching experience outside their chosen key stage and, in these cases, their knowledge of teaching science in the other key stage was, inevitably, largely theoretical.

27. In contrast to the improving picture in English and mathematics, the use of ICT in science teaching was the weakest area of trainees' subject knowledge. Only two fifths of trainees had good or better knowledge of how to use ICT in science and that of one in six was weak.

Specialist subject courses

28. Trainees' specialist subject knowledge was good or very good on about three quarters of courses. All specialist mathematics, art and religious education courses were graded as good or very good for subject knowledge, while only about a half of English, geography and physical education courses received these grades.

29. Trainees generally had a good, and sometimes very good, knowledge of the national curriculum in their specialist subject or, in the case of religious education, of the Model and Local Agreed Syllabuses. This knowledge was usually better in their preferred key stage, although it was still generally good in the other key stage. The most common weakness in trainees' knowledge of the curriculum was their understanding of the way pupils progress across the full primary age-range and into Key Stage 3 in their specialist subject. Lack of sufficient opportunity to teach their specialist subject in the other key stage was often a main contributory factor. The specialist advanced early years trainees mostly had a very good understanding of the desirable learning outcomes.

30. Trainees on HEI-based postgraduate and undergraduate courses were broadly similar in the quality of their specialist subject knowledge. Specialist subject knowledge in SCITTs, however, was generally lower than in other providers. In a few cases this was because no taught specialist subject course was provided, while in other cases, the very small numbers of trainees on different subject courses made it difficult to make suitable provision.

Trainees' planning, teaching and class management (ST2)

English and mathematics

31. At the time of the PFUS inspections, trainees' standards of planning, teaching and class management had been judged to be good or better in nearly three quarters of courses in reading and four fifths in number. Over the four-year PITTI programme, trainees' standards improved steadily in both English and mathematics courses. In the first two years, four fifths of courses were good or better in these aspects and in the final two years this had risen to more than nine tenths. Undoubtedly, a major factor in this improvement was the almost universal adoption in partnership schools of the frameworks of the NLS and NNS, with the literacy hour and the daily mathematics lesson and their common structures and teaching approaches.

32. One area of relative weakness in the first years of the PITTI programme was the lack of clarity in trainees' lesson objectives. However, helped by the NLS and NNS frameworks as well as improved advice on planning from providers, there was considerable improvement over the rest of the inspection period. As a result, lesson objectives became much more focused and therefore much more useful in guiding both teaching and assessment. Trainees were increasingly including direct reference to the standards for QTS in their lesson plans which helped them to track their progress towards them.

- 33.** The introduction of the NLS and NNS also had occasional adverse effects on the quality of training. For example, schools' use of the NLS and NNS frameworks often left little opportunity for trainees to do their own medium-term planning in English or mathematics. In English, trainees also showed some weakness in the teaching of guided reading and writing, aspects where weaknesses were found in many schools during the period of these inspections.⁵ Limitations in the extent of trainees' knowledge and experience of written calculations were similarly linked to an over-emphasis on mental calculations by many schools.
- 34.** A few providers helpfully continued to insist that trainees improved their medium-term planning by drawing up their own plans for English and mathematics which included identification of any areas of subject knowledge they needed to research before beginning to teach, as well as listing any common misconceptions or errors by pupils that their planning needed to take into account. English planning often included detailed information for each stage of the literacy hour, including word, sentence and text level work, with the best trainees taking account of the needs of pupils with different levels of attainment. The best planning included clear reference to how learning would be assessed and the success of the lesson evaluated. Specific questions, such as 'Can the children form recognisable letters?' were noted down as prompts for use during the lessons. Although trainees' planning had generally become strong, better planning was needed in about a fifth of courses for some aspects, particularly guided reading and writing. In about one course in six, trainees needed to make better use of their own lesson evaluations to inform future planning.
- 35.** Trainees generally prepared teaching materials well, often making good use of ICT. The quality of the trainees' teaching was often enhanced significantly by their knowledge of children's literature and of appropriate resources to support mathematics teaching. Many good mathematics lessons with younger pupils involved well-organised practical work, including shopping, measuring and telling the time. A minority of good trainees introduced interesting, stimulating and imaginative activities, such as drama and role-play, as starting-points to capture pupils' interest. For example, an area of a Year 1/2 classroom, set out as a doctor's surgery, was used for role-play as a stimulus for a piece of writing. The opening mental session of mathematics lessons was often of high quality. However, there were significant weaknesses in trainees' abilities to ask questions which challenged and extended pupils' application of basic number knowledge to practical problems, such as money and measurement, and engaged all pupils in answering the questions. The use of the final plenary session in trainees' lessons, particularly in mathematics, was also a relative weakness on a significant minority of courses.
- 36.** A common strength on almost all courses in the second half of the inspection programme was the good behaviour of pupils in lessons and the appropriateness of the range of class management strategies used by trainees. In the English lessons observed, only the weakest trainees experienced significant problems of class control. Such difficulties were generally identified quickly by mentors and appropriate support provided.

⁵ See, for example, *The Annual Report of Her Majesty's Chief Inspector of Schools – Standards and Quality in Education 1999/2000*, Ofsted, 2001.

While most mathematics lessons proceeded in a calm and purposeful atmosphere, a minority were disrupted by the misbehaviour of a small number of pupils.

37. There were no overall differences in trainees' standards of planning, teaching and class management between undergraduate and postgraduate courses in mathematics. In English, the proportion of courses where standards were good or very good was higher on undergraduate than on postgraduate courses. However, all providers inspected in the final year in both subjects, undergraduate and postgraduate, were judged either good or very good in this respect. There were no major differences in the standards achieved in this cell between postgraduate trainees on SCITT and HEI-based courses in either English or mathematics.

Science

38. Nearly seven in ten trainees demonstrated good or better skills in the planning, teaching and class management of science lessons. Their teaching strongly exemplified the elements of experimental work and other features of effective science teaching specified in the *ITT National Curriculum for Primary Science*.

39. Trainees' individual lesson plans generally showed clearly the content of the lesson, how it would be taught, and which objectives were being covered. A minority of trainees included literacy and numeracy strands in their science lesson plans, achieving a structure for improving pupils' learning in these areas without detracting from the main focus on science. All trainees referred appropriately to the relevant National Curriculum programmes of study, with most making cross-references to the Qualifications and Curriculum Authority's scheme of work. However, the flexibility for trainees to plan particular units of work in science to support their own developmental needs was often limited by the requirement to teach the next topic in the school's scheme of work.

40. Seven out of ten trainees taught science enthusiastically and managed their classes well. They used a mixture of whole-class, group and individual work successfully. Most of the trainees' science lessons focused appropriately on practical enquiry. The trainees generally included a balance of open and closed questions, were careful to direct questions to individual pupils and made good use of supplementary questions to develop pupils' answers further.

41. There were few differences in trainees' standards in planning, teaching and management of science lessons between undergraduate and postgraduate science courses.

Specialist subject courses

42. Trainees' skills in planning, teaching and class management in their specialist subject were good or very good on nine out of ten courses. There were some variations between subjects: in geography, only half the trainees achieved good or very good standards, but in mathematics, art and religious education, trainees on all the courses did so. Trainees' standards were generally weaker on SCITT courses than on HEI-based courses. Standards were good or very good on only around a half of SCITT courses, compared with nine tenths of HEI-based courses.

43. The medium-term planning of trainees in their specialist subject was generally good. In the case of non-core subjects, opportunities for the planning of sequences of lessons were often reduced by the infrequency of relevant lessons in the curriculum of their placement schools.

44. Almost all trainees had good relationships with their pupils and established good discipline and class control when teaching their specialist subject. Trainees displayed good teaching skills, such as explanation, exposition, questioning, instruction and demonstration. They generally had a particularly strong sense of the importance of the technical vocabulary of their own subject and were careful and precise in using technical terms, especially with younger pupils who were meeting these for the first time. Trainees frequently came up with imaginative ideas for lessons and had the confidence to try out interesting techniques and approaches they had learnt on their courses.

Trainees' monitoring, assessment, recording, reporting and accountability (ST3)

English and mathematics

45. This aspect of trainees' standards had been the weakest in the PFUS inspections, with more than two fifths of providers having significant weaknesses in this cell in reading and around a third in number. Trainees' record-keeping, their experience of end-of-key-stage tests, their knowledge of level descriptions and their experience of reporting to parents had been the main areas of weakness. The PITTI programme showed a distinct improvement, although for a few providers only after reinspection. However, nearly a quarter of inspections in English and just under one in five in mathematics still revealed significant weaknesses. The inspections carried out in the final two years showed considerable improvement over the first two years, from slightly more than a half to four fifths with good or very good standards in English, and from just under three quarters to nearly nine tenths in mathematics.

46. Aspects showing the greatest improvement included the clarity and precision of assessment objectives and trainees' increasing ability to adjust their teaching to take account of responses to questions and other assessment information during lessons. A minority of trainees identified specific questions to help them judge whether learning objectives had been achieved. The quality of trainees' marking of pupils' work became stronger on almost all courses. In particular, the better trainees were now much more likely to use written comments to extend pupils' thinking, for example 'Does the ending fit with the rest of the story?'

47. Weaknesses still remained, however, in a minority of courses, in particular: experience of assigning National Curriculum levels to pupils' work, experience and discussion with teachers of end-of-key-stage tests and the data arising from them, and the quality of record-keeping.

48. In more than one in six courses, a minority of trainees did not keep sufficiently up-to-date records of the progress of all pupils; record-keeping was in fact the area where there was most variability in approach and quality across providers. For example, the number of pupils for whom

trainees had to keep detailed records ranged from 3 to 20, and the detail required for whole-class records also varied considerably. In English, around a third of courses did not insist that all trainees record progress in speaking and listening. Trainees were generally aware of the statutory assessment and reporting requirements but their experience of national tests and of ascribing National Curriculum levels to pupils' work was too variable. Although most providers ensured that trainees knew how their placement schools' test results compared locally and nationally, nearly one in five courses had significant numbers of trainees who had not seen, for example, a school's Performance and Assessment (PANDA) report. Also, trainees commonly made insufficient use of assessment data for target-setting.

Science

49. Half the trainees observed during the science survey were good or better in assessing pupils' progress. The most common weakness was in their use of the outcomes of assessment to inform planning. Other shortcomings included a tendency to keep class records of pupils' experiences rather than of what they had learnt, something which reflected their uncertainty about what to record in terms of pupils' learning in science.

50. Trainees' understanding of the national curriculum levels that pupils are expected to achieve, and their experience of assessing pupils' work using the level descriptions, were very variable. Although many trainees used the relevant level descriptions to support their assessment of pupils in English and mathematics, they were often not sufficiently knowledgeable about the corresponding levels in science to attempt to assign levels to pupils' work. Nevertheless, a minority of trainees were able to accomplish this type of work well, often reflecting the good practice of the particular schools in which they were placed.

51. Although science is a National Curriculum core subject, it occupied substantially less time than English or mathematics in the curriculum of the primary schools in which the trainees were placed. This restricted the opportunities trainees had to practise teaching that spanned all the four science attainment targets and consequently narrowed their opportunities to carry out assessment in science.

Specialist subject courses

52. Trainees did not generally draw on their specialist subject knowledge sufficiently to develop fully their assessment and record-keeping skills. The recording of pupils' work in the specialist subject, though rarely less than adequate, was highly variable both in level of detail and in the pertinence of what was recorded. In the case of non-core subjects, this was exacerbated by the absence in some primary schools of any clear procedures for effective record-keeping for these subjects. It was not surprising, therefore, that a recommendation by the provider that 'trainees should follow their placement school's practice in recording' could lead to very disparate outcomes in trainees' records. In many cases there was an obvious and sometimes pressing need for providers to state much more explicitly what they expected trainees to record, and in what form.

Contributory factors

Recruitment and retention

53. Recruitment to primary ITT courses was very buoyant during the period of the inspections, and even new providers had no difficulty in recruiting. On PGCE courses, however, trainees' degree subjects were quite often subjects which did not match the primary National Curriculum closely, such as business studies or social sciences, and only a small proportion of primary trainees had degrees in science subjects or mathematics. Withdrawal rates of trainees from postgraduate courses were generally low but much higher rates of withdrawal from some undergraduate courses was a matter of concern.

Quality of training

54. The PFUS found significant weaknesses in the quality of training in a quarter of courses in reading and in more than one in six in number. The equivalent figures for English and mathematics decreased only slightly over the four years of the PITT programme. However, as with the standards achieved by trainees, these figures hide major improvements in training between the first and second halves of the PITT programme. This applied particularly to English, where significant weaknesses were found in the training on two fifths of courses inspected in the first two years, but in only just over one tenth in the final two years. Although there was a less marked improvement in the grades for mathematics training, inspectors nevertheless noted real improvements. This was particularly the case with courses in the good category, with more towards the upper end of the range covered by this grade. This improvement in the quality of training was the main contributory factor to the improvement in standards achieved by trainees in both English and mathematics over the period from 1998 to 2002.

55. Since the inspections of science and specialist subjects were carried out over just one or two years and were not included in the PFUS, it is not possible to make similar judgements about changes in the quality of training on these courses.

56. Almost all courses in English, mathematics and science were sensibly structured, had suitable time allocations and had appropriate content, with a good balance of centre-based training and practical school experience. A positive feature of many courses was that the planned curriculum built progressively on the trainees' developing knowledge and teaching skills through, for example, guided experience in schools. The content of specialist subject training was mostly appropriate, even where the available time was limited. The coherence of the different elements of training improved during the inspection period and was a strength of many courses. In particular, explicit links were often made between general professional courses and English and mathematics courses. For example, sessions on assessment in these different course elements were commonly designed to coincide and complement each other. Coherence was also generally found in the different elements of science courses but the links with partnership schools were not always sufficiently developed, leading to some weaknesses in training.

57. Most of the central training observed was good or very good. Features of effective training sessions included:

- regular reference to classroom experience and the use of examples from schools, such as planning documents or pupils' work
- good teaching models from tutors, for example through story-telling and reading, or conducting oral and mental mathematics sessions, and appropriate use of technical, subject-related vocabulary
- a range of interesting and relevant activity for trainees, for example role-play and other drama techniques, and analysing literature and software
- a brisk pace and balance between the tutor input and the trainees' participation
- clear objectives which are communicated to trainees and success in achieving them evaluated at the end of sessions
- good links between theory and practice, for example ensuring the practical tasks undertaken by trainees relate clearly to theoretical exposition by the tutor
- trainees challenged at their own level and continually encouraged to draw upon their practical experiences in school, as well as pre-session reading
- use of up-to-date materials, particularly those drawn from the NLS and NNS
- sessions led by school-based staff such as special needs co-ordinators or literacy co-ordinators
- use of trainees with specialist subject knowledge when organising group tasks in sessions
- tutors explaining their teaching techniques and the reasons for using them, paying particular attention to planning and teaching skills and the choice of suitable resources, including ICT.

58. There was increasing use of ICT in the training, with a strong focus on how trainees could use ICT in their teaching. For example, better providers included ICT references in reading lists as a matter of routine. In nearly a quarter of English and mathematics courses, however, significant numbers of trainees still had insufficient opportunity in their school placements to use the ICT skills learned in the centre-based training. Lack of school-based practice in the use of ICT was a similar problem in science and in trainees' specialist subjects.

59. The content of the English, mathematics and science courses was almost always appropriate to attainment of the QTS standards. Close attention was given, for example, to the knowledge specified in the *ITT National Curricula* and to the content of National Curriculum programmes of study. The occasional lack of focus on the NLS and NNS frameworks

and related pedagogy which was found in some of the early inspections was quickly overcome, and in later inspections coverage was almost always good, and often very good. In English, the organisation of texts into word, sentence and text level was strongly emphasised and the coverage of phonics in the teaching of reading and spelling was detailed in almost all courses. In mathematics there was good attention to quick recall, number bonds and multiplication tables.

60. The quality of the auditing and enhancement of trainees' subject knowledge improved quickly as providers came to terms with the requirements of the *ITT National Curricula* and these soon became positive features of almost all courses. One example of good practice was a four-year course which had two or more audit points within each year; these varied in format from tests, self-assessments or audits, formal examinations and trial TTA skills tests, as well as information from informal assessment during training sessions and the marking of assignments. In some cases, in response to an inspector's informal query, tutors were able to provide quick but detailed analyses of the strengths and weaknesses of the subject knowledge of trainees in the group they were teaching. Good training sessions designed to improve the basic skills of trainees, especially in mathematics, became very common. As well as the thorough audits of subject knowledge in English, mathematics and science, almost all providers also audited trainees' subject knowledge in their specialist subjects, even though this was not a formal requirement.

61. Resources to support training in English and mathematics were almost always good and sometimes very good. Resources for science were good, with most smaller providers making provision for the taught elements of their courses to take place off-site in suitable accommodation. Resources for specialist subject courses were insufficient in some SCITTs while provision in HEI-based providers was almost always at least good.

62. Often, good training was underpinned by the broad range of relevant qualifications and experience of the tutors, such as headship, literacy consultancy, advisory teaching, classroom teaching, in-service training provision, classroom research and academic study. The balance of experience and expertise within some teams was outstanding.

63. Trainees on the better courses often had an excellent range of school experience across the full primary age-range. For example, one four-year undergraduate course aimed to provide all trainees with block experiences in each of the 3–5, 5–7, 7–9 and 9–11 age-ranges. However, in almost a third of courses, trainees had insufficient practical school experience in the Foundation Stage or in one of the two primary key stages.

64. School-based training often consisted largely of providing good-quality feedback to trainees after they had been observed teaching. Better training had moved beyond this to include a wider range of activities, such as:

- demonstration lessons with a particular focus, for example one mentor taught two separate groups of pupils with English as an additional language and then analysed and explained to the trainees her teaching approaches

- detailed joint lesson planning of both the trainee's and the mentor's lessons
- involvement in a school's improvement programme, for example two trainees were shown videos made by staff in one school of various examples of guided writing, produced because the teachers had identified this as an area for development
- training on specific aspects of teaching, for example one mentor made very good use of an interactive whiteboard to explain to a trainee how difficulties in interpreting 'word problems' in mathematics could be analysed and overcome
- the careful recording and auditing of trainees' experiences of lesson observation, teaching and the assessment of pupils, to ensure that these were suitably broad and met their individual needs.

65. An aspect of some of the best courses was that school mentors saw their role as supporting the course's subject-specific training in English and mathematics. In some schools, the English or mathematics co-ordinators also played a full part in the support and assessment of trainees. This valuably led to more subject-specific feedback after lesson observation, more informed discussion of subject knowledge and teaching, and provided opportunities for trainees to observe skilled subject teaching. However, such good practice was not widespread. The majority of science courses made relatively little planned use of the expertise of schools' science co-ordinators. The opportunity for school-based training in other specialist subjects was sometimes limited by a lack of specialist expertise among the teachers in the schools.

Partnership arrangements

66. A feature of the best training was the quality of the training partnership. All of those involved in such partnerships had a good understanding of their respective roles and were committed to ensuring that trainees were able to achieve the highest standards of which they were capable. There were clear and appropriate criteria for the selection and deselection of the partnership schools which were used to ensure that trainees were placed only in schools that could provide suitable training. Finding sufficient suitable school placements was a problem, however, for a significant number of providers, especially those serving large urban areas. The high staff turnover in many urban schools, especially in London, resulted in providers having constantly to recruit and train new mentors. The high proportions of inexperienced or temporary staff in some of these schools severely limited their ability to be involved in ITT. Nevertheless, the majority of schools visited by inspectors were judged to be suitable for training.

67. Almost all partnerships had documentation in place that set out clearly the expectations of all those involved in the training. Communication, both face-to-face and written, was generally effective, with an increasing use being made of electronic media. Better partnerships were successful in involving partner schools in the selection of trainees, course planning and development, course management, centre-based as well as school-based training, and the evaluation and improvement of courses.

68. Mentor training had become a feature of almost all providers. Problems of teacher release, however, sometimes meant that attendance at training and other partnership events was sometimes disappointing. In the best partnerships, mentors felt part of a training team and gained a great deal of personal development from attendance at training events.

Assessment of trainees

69. In both English and mathematics, there had been clear improvements in the assessment of trainees since the previous inspection programme. This aspect had been one of the weakest in the PFUS, with two fifths of courses in reading judged to have significant weaknesses and almost a third in number. Corresponding figures for PITTI were fewer than a quarter for English and fewer than one fifth for mathematics. Improvements over the four years of PITTI were marked. In English, the first two years produced a slight dip to the very worrying figure of nearly a half of courses with significant weaknesses. This improved considerably in the final two years with over nine tenths of courses being judged to be good or very good. The trend towards improvement in mathematics was also marked, with seven out of ten courses good or better in the first two years and nearly nine out of ten in the final two years. These improvements give greater confidence that those awarded QTS have fully demonstrated the required knowledge, understanding and skills.

70. Commonly occurring features of good practice in the assessment of trainees included the following:

- the standards to be addressed in each teaching session, assignment or task were clearly identified and communicated to trainees
- assessment of written coursework and practical teaching was directly linked to particular standards, clearly set out in assessment criteria, marking cover sheets and lesson observation schedules
- there was cross-reference from a manageable assessment profile to the QTS standards, supported by appropriate evidence, and usually maintained by trainees, but checked and validated by mentors and tutors
- careful marking of written assignments contained appropriate criteria which were shared with trainees
- targets for trainees were set at assessment points, for example when assignments were marked, after observations of teaching, and at the mid-point and end-point of teaching blocks
- there were appropriate arrangements to check progress towards the targets which were set
- training was provided for tutors, mentors and, less often, other teachers in the assessment of trainees
- effective moderation arrangements existed, such as second marking of assignments, cross-school moderation of practical teaching by tutors and joint observation of trainees by mentors and tutors

- Career Entry Profiles were provided for successful trainees, which accurately recorded strengths and areas for development.

71. The best assessment of trainees often consisted of doing what most providers were now doing, such as moderating judgements on practical teaching, but doing so particularly well. For example:

- use of a detailed grid which showed how each element of a course (training, auditing, assignments, tasks, school experience) was linked to the standards for QTS and which helped trainees to meet them
- cross-reference from all assignments and tasks to the subject knowledge and pedagogical aspects of the *ITT National Curricula for Primary English and Mathematics*
- the involvement of mentors in developing criteria or pen-portraits for grading trainees' progress towards the standards
- area partnership meetings at which mentors and link tutors moderated trainees' assessments
- more detailed trainee profiles for English and mathematics in addition to a generic profile of standards
- the requirement for trainees to provide a self-assessment for each assignment in which they identified how well their work reflected the standards
- a lesson observation schedule which involved judgements on trainees' subject knowledge, for example of grammar or arithmetic, as well as curriculum subject knowledge and subject-specific pedagogy
- training for school literacy and numeracy co-ordinators in how to observe and assess trainees' teaching of English and mathematics
- training of mentors by a senior mentor who used trainees' school experience files to demonstrate and exemplify strengths and weaknesses, in order to help mentors to assess trainees more accurately.

72. The quality, range and extent of assignments and tasks were particular features of good and very good provision. Effective examples of English tasks included:

- collecting and analysing examples of non-fiction texts
- collecting, marking and assigning national curriculum levels to examples of pupils' writing across Key Stages 1 and 2
- planning and then teaching an aspect of speaking and listening to a class, then evaluating the pupils' development in the focus area.

73. A minority of English courses, however, did not set assignments that required trainees to examine the teaching of reading and writing; while assignments on speaking and listening were less commonly set.

74. Examples of effective mathematics assignments included:

- analysing the effectiveness of their placement school's system for assessing and recording pupils' learning of number, and showing how they themselves had used this effectively
- tape-recording, transcribing and analysing their own teaching of mental calculation
- demonstrating how they would use resources to help pupils to develop skills in splitting and recombining numbers.

There were similarly effective examples of challenging assignments and school-based tasks on science and specialist subject courses.

Commentary

75. The improvements noted in this report in training and in the standards achieved by trainees have to be viewed in the context of important national initiatives relating directly or indirectly to primary initial teacher training. In the first year or two after *Circular 4/98* was published, providers were still coming to terms with the training and assessment implications of the new standards for QTS and the new *ITT National Curricula*. These were major changes. For example, new elements such as regular and rigorous subject auditing, and records of progress towards standards, together with supporting evidence, had to be introduced, evaluated and refined in a comparatively short period, yet these are now taken for granted.

76. Course content had to be considerably amended to take account of the increasing focus on, for example, the use of phonics in the teaching of reading, and oral and mental methods in the teaching of number. Additionally, courses had to incorporate key areas of knowledge in the *ITT National Curricula*, such as linguistics in English and additional algebraic expressions in mathematics. Courses also needed considerable modification to take account of the NLS and NNS.

77. Similarly, the school-based requirements of *Circular 4/98* made demands in terms of the recruitment and training of mentors, who were now expected to assess not only trainees' generic teaching skills but also their subject knowledge and subject teaching skills. The almost universal adoption of the NLS and NNS in schools, however, also helped to remove some of the uncertainty about teaching in English and mathematics that had previously been found in some schools and providers.

78. Because of these new requirements, some common areas of weakness identified in the PFUS report were still present in a significant number of courses inspected in the first half of the PITTI programme. However, once the requirements were fully embedded in courses, they made an important contribution to the considerable improvements in provision and standards achieved in the second half of the programme. It is particularly noteworthy that training, the assessment of trainees, and trainees' standards were all judged good or very good on at least nine out of ten of the English and mathematics courses inspected in the final year.

79. Coinciding with the end of this inspection programme, the regulations governing ITT in *Circular 4/98* were replaced by those in *Qualifying to Teach: Professional Standards for Qualified Teacher Status and Requirements for Initial Teacher Training*, DfES/TTA, 2002. While largely removing the statutory training curriculum requirements, this document broadly carries forward the requirements of the earlier circular. It restates the central importance of strong and effective partnership arrangements, places a new emphasis on professional values and practice, and makes more explicit the requirements in a number of areas. For example, issues of inclusion, such as the teaching of pupils with special educational needs and those for whom English is an additional language, are given greater emphasis.

80. An important new requirement in *Qualifying to Teach* is that trainees must be prepared to teach across at least two key stages and must demonstrate that they meet the QTS standards across the full age-range

for which they have been trained. In the light of the long-standing weaknesses in many courses, especially postgraduate, in training across the full primary age-range, providers will find it challenging to meet these requirements.

81. The evidence of quality and improvement in primary ITT outlined in this report reflects the responsiveness of providers to demands for change and their commitment to producing well-trained teachers. The evidence from section 10 school inspections over recent years has shown a steady improvement in the quality of newly qualified primary teachers, reflecting these improvements in ITT. However, if ITT is to play its full part in the further improvement of primary school standards, greater attention needs to be paid to a number of areas of relative weakness.

82. The efforts of many primary schools to improve the attainment of pupils are often diminished by the ineffectiveness of the arrangements for pupil assessment and the use of assessment data to set targets. These are areas where improvements are commonly required in ITT courses. Also, Ofsted has recently highlighted weaknesses in curriculum continuity between primary and secondary schools as a major factor in the inadequate progress of too many pupils in Key Stage 3.⁷ It is essential, therefore, that providers respond positively to the requirement in *Qualifying to Teach* that primary trainees understand the teaching expectations in Key Stage 3. Other areas of training that require a greater emphasis include: boys' writing, the use of ICT to support classroom teaching, and ensuring that trainees know how to work effectively with a range of teaching assistants as the government's plans for remodelling the school workforce become established in schools.

⁷ *Changing schools – effectiveness of transfer arrangements at age 11: an evaluation by Ofsted 2001*, HMI 550.

Annex: analysis of grades awarded to English and mathematics courses (1998/2002)

These tables record all grades awarded. For those providers reinspected, both sets of grades are included in the relevant inspection years. Figures for the whole inspection period 1998 to 2002 do not therefore correspond exactly to the graphs in the main report which include only the final grades awarded to each provider.

English

ST1 Trainees' subject knowledge and understanding

Inspection year	Number of courses inspected	Grades (%)			
		1	2	3	4
1998/99	17	0	24	71	6
1999/2000	30	3	56	40	0
2000/01	18	0	61	39	0
2001/02	27	7	85	7	0
1998/2002	92	3	60	36	1

ST2 Trainees' planning, teaching and class management

Inspection year	Number of courses inspected	Grades (%)			
		1	2	3	4
1998/99	17	0	71	29	0
1999/2000	30	0	86	13	0
2000/01	18	0	78	17	6
2001/02	27	7	93	0	0
1998/2002	92	2	84	13	1

ST3 Trainees' monitoring, assessment, recording, reporting and accountability

Inspection year	Number of courses inspected	Grades (%)			
		1	2	3	4
1998/99	17	6	47	47	0
1999/2000	30	3	56	36	3
2000/01	18	0	67	33	0
2001/02	27	7	82	11	0
1998/2002	92	4	64	30	1

T1 Quality of training

Inspection year	Number of courses inspected	Grades (%)			
		1	2	3	4
1998/99	16	0	86	7	7
1999/2000	24	33	54	13	0
2000/01	17	12	70	13	0
2001/02	29	21	76	3	0
1998/2002	86	17	72	9	2

T2 Accuracy and consistency of the assessment of trainees

Inspection year	Number of courses inspected	Grades (%)			
		1	2	3	4
1998/99	16	0	72	21	7
1999/2000	24	17	54	29	0
2000/01	17	6	70	24	0
2001/02	29	14	86	0	0
1998/2002	86	9	71	18	2

Mathematics

ST1 Trainees' subject knowledge and understanding

Inspection year	Number of courses inspected	Grades (%)			
		1	2	3	4
1998/99	16	0	86	7	7
1999/2000	24	17	58	25	0
2000/01	17	0	70	30	0
2001/02	29	3	90	7	0
1998/2002	86	5	76	17	2

ST2 Trainees' planning, teaching and class management

Inspection year	Number of courses inspected	Grades (%)			
		1	2	3	4
1998/99	16	0	64	29	7
1999/2000	24	13	63	25	0
2000/01	17	6	70	24	0
2001/02	29	7	93	0	0
1998/2002	86	6	72	20	2

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1998/2002	86	9	71	18	2

Please note that these figures have been rounded and may not add up to 100%.











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