



Use of data in special schools by school improvement partners (SIPs)

A guidance document

School improvement partners (SIPs) working with special schools; headteachers, governors and other professionals involved in school improvement

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Purpose of the document

This document is for school improvement partners (SIPs) working with special schools. It may also provide a useful reference for headteachers, governors and other professionals involved in school improvement.

It should be read in conjunction with the following publications:

- *School improvement partners Brief* available at www.teachernet.gov.uk/docbank/index.cfm?id=8508.
- The role of a school improvement partner (SIP) in a special school (ref: 00074-2007BKT-EN).

The guidance is in six sections:

1. Key elements of the role of the SIP
2. Data held by schools and local authorities
3. Additional data used by special schools
4. The role of school leadership teams in using data
5. The school self-evaluation form
6. Case studies.

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1 Key elements of the role of the SIP

In 2004, the government set out its vision for a new relationship with schools (NRwS). This was designed to give schools more freedom and autonomy, releasing greater local initiative and energy in schools, helping them to raise standards.

The SIP programme, introduced as part of this new relationship, aims to provide challenge and support from a body of accredited professionals (SIPs) who have demonstrable skills and experience in promoting school improvement. Every maintained primary, secondary and special school will be allocated a SIP by April 2008. Academies have SIPs deployed by the (DfES) Department for Education and Skills. Pupil Referral Units, which have the status of schools, are included in the programme.

The role of the SIP is to provide dedicated support and challenge to schools by moderating and evaluating the processes leadership teams use to:

- judge standards and attainment
- identify priorities for improvement
- plan for effective change.

This role is fulfilled by analysing and drawing conclusions from data provided by the school, the local authority and the (DfES) Department for Education and Skills.

The SIP acts for the local authority, becoming the main (but not the only) channel for communication about school improvement with the school.

See the *School Improvement Partner's Brief* for further information.

2 Data held by schools and local authorities

School data

Performance and Assessment report (PANDA)

SIPs will be familiar with the PANDA. This provides a quick overview, through graphs backed up by diagnostic information for groups and subjects, which shows where strengths and weaknesses in standards and progress lie. The data provide overall information on standards in comparison with national averages. The PANDA report also provides contextual value added (CVA) scores based on individual pupils' results. The report does not provide grades; it uses significance tests to identify different proportions of schools as significantly different from the national average for each set of attainment or CVA analyses. For CVA analyses of overall average points score (APS), and for individual subject APS, roughly:

- the top quarter of schools shows **progress** that is significantly above national average (sig+)
- the middle half of schools shows **progress** that is not significantly different from national average

- the lowest quarter of schools shows **progress** that is significantly below national average (sig-).

Evaluation of inclusion may be informed by interpreting the data for groups of pupils, and through identifying the proportion of pupils omitted from a table or graph, then investigating the school's own data for these pupils.

Special schools no longer have a PANDA because the information that they contained did not provide sufficiently specific data to allow for meaningful comparisons. However, there is ongoing discussion to decide if such a document could be reintroduced.

Further information can be found at www.ofsted.gov.uk/portal/site/Internet/menuitem.

RAISEonline (Reporting and Analysis for Improvement through School Self-Evaluation)

As part of the NRwS, Ofsted and the DfES have worked closely to create RAISEonline, merging the PANDA with the Pupil Achievement Tracker (PAT).

This provision of a common data set is designed to support a consistent approach to data analysis and to reduce the bureaucratic burden on schools.

RAISEonline enables schools, and other professionals engaged in school improvement, to:

- examine context, attainment and value-added data
- explore hypotheses about pupil performance
- analyse question level data for National, Optional and Progress tests
- analyse performance for a range of predefined and user-defined pupil groups
- set and moderate pupil targets.

The framework has been created so that it is sufficiently flexible to record and analyse data for pupils with special educational needs special educational needs (SEN), whether in mainstream or special school settings. The fields are being populated and it will increasingly become an important tool for special schools and their SIPs when investigating the special school environment. Further information can be found via the website www.raiseonline.org.

Fischer Family Trust (FFT)

FFT data are used to supplement the PANDA. They provide a wide range of performance data, including analysis of performance at the end of Key Stages 2, 3 and 4, scrutiny of value-added data, analyses to support school self-evaluation activities, data to identify learning needs and predictions of potential pupil achievement. This allows comparisons to be made of:

- percentages of pupils, and groups of pupils, above and below key attainment thresholds (e.g. achievement of five GCSE grades at C or above)

- a range of data to facilitate target-setting
- potential pupil grades.

Many special schools have not had the opportunity to use these data, but may find that the processes used in their analysis could offer a useful pattern as they form partnerships with other schools. Further details can be found at www.fischertrust.org.

School-based data

SIPs will draw upon the range of information contained within the profile of the school including:

- staffing and staff absence
- school budget
- school curriculum plan and related policies
- school organisational and structure plan
- specialist school application/re-designation documentation
- school-level self-assessment documentation (for example, Investors in People (IIP))
- community and extra-curricular activities
- strategic issues affecting the locality
- latest Ofsted report from <http://www.ofsted.gov.uk/reports>
- any other information the school feels is important in defining its character.

Local authority data

Local authorities will provide SIPs with access to a range of data, setting the school's performance in a wider context. This may include:

- data that show trends over time in aggregated schools' performance
- reports from local authority officers and other consultants
- attendance
- exclusions
- the local Learning and Skills Council (LSC) data and reports
- relevant information related to governance, HR and finance

- the school's success in meeting targets
- relevant history of support to the school
- data on pupil well-being, including local youth crime, local drugs/alcohol abuse, obesity, teenage pregnancy rates
- the local Children and Young People's Plan and any specific implications it has for the school.

3 Additional data used by special schools

Special schools have worked to overcome the lack of robust local and national benchmarks for those pupils with SEN. This has made the assessment of pupil progress more challenging. The leadership team and the SIP will employ the data available to all schools, but may also look at a number of other measures. The SIP will want to consider the following sources of information:

- progress that the school is making to meet targets arising from post-inspection planning
- progress towards the five outcomes from Every Child Matters and the wider children's agenda
- school- and pupil-level analysis of performance, including the systems for tracking and evaluating individual pupil progress and attainment
- accuracy of assessments, especially on entry to the school or to the next key stage, and how initial pupil assessments are developed into appropriate personalised learning programmes
- the means by which teacher assessments are moderated
- effectiveness of target-setting for core subjects
- targets representing the priorities of the school, including behavioural and pastoral targets.

This information could be gathered using the following approaches and tools:

- the P scales – an assessment system designed for those pupils who have not yet reached Level 1 in the National Curriculum (further information regarding P scales is available from www.qca.org.uk)
- A toolkit for using P scales has been developed by the East Midlands Regional Partnership in conjunction with Northampton University. This incorporates practical advice on the use and interpretation of P scales, including materials and a CD-Rom of activities that can support moderation. Further information can be found at www.pcales.com
- using a range of small-step, hierarchical descriptors that further break down the statements in the P levels and National Curriculum levels

- using modified mainstream measures
- collecting detailed qualitative data, usually reflecting the performance of individual pupils.

In the past, special schools have had access to a national PANDA that provided some comparative data, such as school size, gender distribution, staff ratios and inspection outcomes currently being reconsidered. Instead, many special schools and local authorities have made their own arrangements for joining with others to compare the progress of individuals and cohorts of pupils. These may include the following.

- Collaboration between schools to compare performance data, discussing the means by which the data were collected and the use to which they are put.
- Comparing the achievement of pupils with similar learning needs and common profiles of past performance across the special and mainstream school communities of a local authority.
- Regional partnerships between local authorities, thus enlarging the number of pupils in a data set to increase its reliability
- National projects, collecting data on the performance of pupils with SEN, to create a significant sample of pupils to form a benchmark for comparison. The P scales project, coordinated by Durham University, is an example of this.

There is much to commend these localised approaches. If they do not exist, SIPs might use their influence to broker such arrangements. However, whether the special school has joined with others to create a point of comparison or not, SIPs can expect to find data sets that analyse past pupil performance in order to set meaningful and challenging targets for the future.

4 The role of school leadership teams in the use of data

Having generated the information suggested in the previous section, SIPs and leadership teams will have more robust data to analyse the following:

- end-of-key-stage performance
- actual pupil performance against predictions from ongoing teacher assessment
- progress of groups of pupils
- pupil performance in comparison with broadly similar schools within the local authority and beyond
- use and impact of intervention strategies, including the deployment of support staff.

Many special school leadership teams have developed further approaches to facilitate and record pupil progression, including:

- the use of bespoke software systems that enable schools to record, analyse and display individual pupil and cohort data consistently
- the use of multimedia recording systems to reflect pupils' achievement.

The benefits of comparing processes, moderating each others' judgements and sharing in target-setting, as has been described, are all important in ensuring that special schools are effective. SIPs, special school leadership teams and local authorities may wish to discuss establishing such clusters where appropriate. These could be ad hoc or formalised by local authorities.

Further information regarding target-setting is available via the Standards site www.standards.dfes.gov.uk/ts.

5 The school self-evaluation form (SEF)

An important aspect of the role of the SIP is to support the identification of priorities for improvement, and to help the leadership team plan for effective change. In fulfilling this role, SIPs should consider the information contained within the school self-evaluation form (SEF). A specific version is produced for special schools which should:

- convey a clear and succinct evaluation of how well the school is doing
- provide evidence to support the judgements the school has made
- identify priorities and the actions to be taken to meet those priorities.

The SIP and the headteacher will examine the judgements in the SEF to arrive at a common view of the effectiveness of the school's evaluation processes.

In evaluating the quality of the SEF, including the use of data, the SIP may find it helpful to consider the following:

achievement and standards

- pupils' success in achieving challenging targets over time
- the relationship between pupils' current work and their learning goals
- the progress of individual pupils with more complex learning needs than the majority of the school population

quality of provision

- how well teaching meets the needs of all pupils
- the suitability and rigour of assessment in planning individual achievement and monitoring progress

- the involvement of parents and carers in their children's learning and development
- the extent to which the curriculum meets individual needs.

Guidance and illustrations of the way schools in the pilot inspection programme have completed the SEF (illustrative extracts) are available in Appendix A of *A new relationship with schools: improving performance through school self-evaluation* at www.ofsted.gov.uk/publications/index.cfm?fuseaction=pubs.summary&id=3862.

6 Case studies

This section contains five case studies, reflecting the diverse range of tools that special schools and local authorities have developed in relation to assessment, data techniques and performance targets. The case studies seek to inform SIPs of a range of developing practice.

Four of the case studies show different examples of data tools currently being used by special schools across the country. A series of brief prompts, based on the data, is included as part of these case studies to give SIPs some ideas of how to develop a dialogue with schools. The final case study provides a detailed overview of the processes developed in a large county, outlines the target-setting process, and shows how SIPs use this data in their work with schools.

This section does not endorse or recommend any particular approach, but is intended to show SIPs a range of current practice, and support them in their analysis of the data available.

Case study 1

Case study 1

This case study shows an approach that replicates many of the methods that secondary and primary schools employ to collect and analyse data. The National Curriculum is used as the basic starting point for assessment. Pupils follow an adapted mainstream curriculum and are assessed against a modified framework, enabling comparison with other pupils within and beyond the school. National benchmarks can be used as a starting point for considering pupil performance in the school. Analysing this kind of data over many years creates a well-informed view of pupil achievement and progress, both for individuals and for groups of pupils. This offers schools a context in which to judge if achievement and progress is appropriate, and if the targets that have been set are realistic but challenging.

This case study is particularly helpful because many special schools have adopted similar approaches to recognising and analysing pupil achievement.

School type

- A large, urban, 11 to 16 special school, designated for pupils with Moderate Learning Difficulties, though recently the nature of the pupil population has changed significantly.
- Specialist school status for Arts and Technology was achieved in September 2004.
- 178 pupils on roll, 22 teaching staff including the headteacher, 25 full-time support staff, plus administrative staff and technicians.

Context

In 1998, an individual pupil profile was introduced for all subject areas from Year 7, including sub-levels, reading ages, end of key stage tests and teacher assessment. All subject managers have produced a document of sub-level descriptors based on NC documents.

Data provided by the school

Data set 1

Table 1 shows the profile of an individual pupil developed over the five years that the pupil has attended school. This approach provides the SIP with pupil-level data to investigate the differential performance of the pupil over time and between subjects. The SIP will be able to establish if this pattern of progress is typical of all pupils in the cohort, providing insight into the strengths and areas for development for the school, or if the pattern is unique to this pupil, leading to a discussion about interventions where performance is less good.

Case study 1

Table 1 Individual pupil profile

	Entry	Year 7	Year 8	Year 9	Year 10	Year 11	
Personal & Social	Interaction with others Independent/organisation skills Attention	4 6 8	6 7 10	8 8 10	10 10 13	12 15 15	14 15 15
English	Reading Writing Speaking & listening	above above P1(ii)	2A 3 2C	4B 4B 3A	4B 4C 3A	3C 3C 2A	4A 4A 4A
Mathematics	Using & applying Number Shape, space & measure Handling data	1 2C P8 -	2 2A 1C -	2 2A 2A 3C	2 3C 3C 3B	5B 5A 4B 4A	5A 6A 5C 5A
Science	Enquiry Life processes Materials Physical processes	4A 3A 4C 4B	4A 3A 4C 4B	4B 4B 4B 4C	4B 4B 4B 4C	3 3 3 4C	5C 4A 4C 4B
Technology	Food technology RMT Textiles	2C 1B 2A	2C 1B 2A	3C 2A 3C	3B 3A 3A	N/A N/A 4C	N/A N/A 4A
ICT		2B	2A	2A	3C	3B	3A
Geography		2C	2B	2B	3		
History		2A	3B	3			
Modern Foreign Languages		2A	3B	3A			
PE		3A	2A	3A	3A	4C	4A
Music		2C	2B	3			
Art		3A	3A	3	3	4A	5A
RE		1A	2A	2	2	3B	3A

Issues for the SIP to consider

■ This pupil's performance in mathematics is notably strong compared with other subjects, particularly English. The SIP would want to ask about the performance of other pupils in this cohort to see whether this pattern was repeated. This would allow a dialogue about the different strengths of curriculum areas within the school.

■ Looking at this pupil's progress over time and between subjects, the SIP would seek to establish if other pupils had a similar experience of science, where apparently little progress is being made, or in English, where one level of progress was made over five years. If this is typical of all pupils, the SIP would want to investigate why science teaching appears to be less effective. If this is only the case for this pupil, the SIP would want to know what actions the school had taken, given that the pupil had a secure foundation in science on entry to the school.

■ When comparing the pupil's progress over time in mathematics, there is an improvement of two levels from Years 9 to 10, and a further level to Year 11. This would be described as rapid progress for a pupil in a mainstream setting. The SIP would want to establish with the school how they could account for this. This would also raise questions about provision for such an able student and the means by which this was being recognised in summative assessments.

Case study 1

End of Key Stage 3 tests in 2004

English		Mathematics				Science	
4		3				3	
Reading age	Entry	Year 7	Year 8	Year 9	Year 10	Year 11	
	10.0	10.1	10.9	12.3	11.00	12.6+	

Issues for the SIP to consider

- The SIP would wish to examine rates of progress for other students who enter the school with a similar assessed level of achievement. The SIP should establish if the school has a benchmark about rates of progress and, if so, how this was arrived at. This would enable the SIP to consider the school's judgement about rates of progress. Finally, the SIP would want to investigate the appropriateness of the learning tasks for such a pupil.
- The SIP may wish to look at the admissions criteria for the school and local authority when considering the pupil's levels of achievement on entry to the school and progress, to see if this raises any questions about ongoing placement and provision for this pupil.
- By the time this pupil enters Key Stage 4 the levels of attainment compare favourably with many pupils in a mainstream setting. The school may have considered a return to mainstream, dual placement or some other strategy for including this pupil alongside their peers. This would enable the SIP to examine the school's ethos, particularly its policy on inclusion.

Case study 1

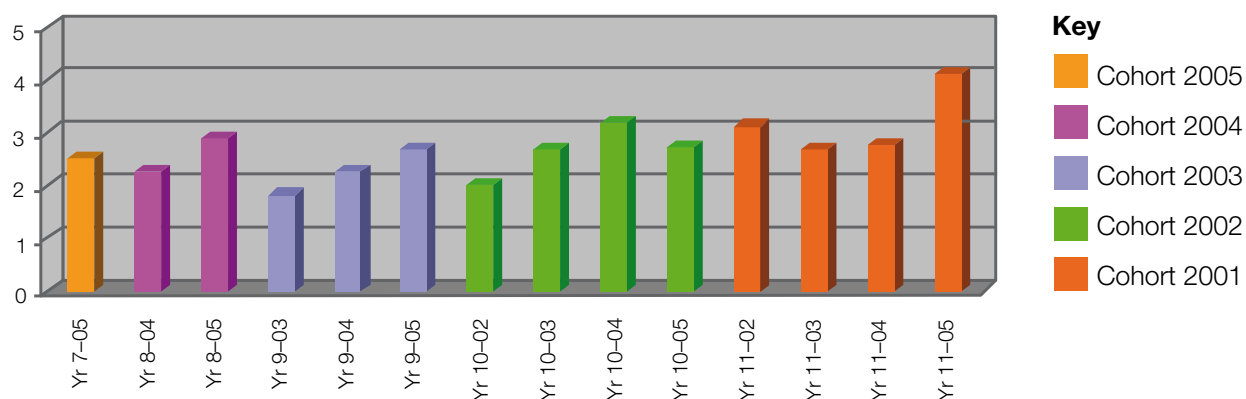
Data set 2

This data set shows several graphs (Figures 1 to 4) that detail pupil performance in relation to English. The graphs are composed of a variety of information the school has generated in its analysis of cohort achievement. This allows the SIP to look at the aggregated performance of a group of pupils within a single subject across a period of time. The SIP will be able to draw some conclusions about rates of progress in English, for making comparisons with other subjects and for providing a basis for future target-setting.

Once the analysis of mean scores has been completed, the school's performance and data manager meets each

subject leader to interrogate the analysis produced. The aim is to review subject progress over the previous year, and identify specific performance targets that will be set for the following year, including whole-school, cohort and individual targets. As part of the overall evaluation of performance, all subject leaders are expected to complete a comprehensive written analysis of subject performance using the current Ofsted self-evaluation format. Recently QCA has changed its point scoring system to include Entry Level and some vocational subjects. Whenever possible, both old and new point systems are included to enable comparison of historical data.

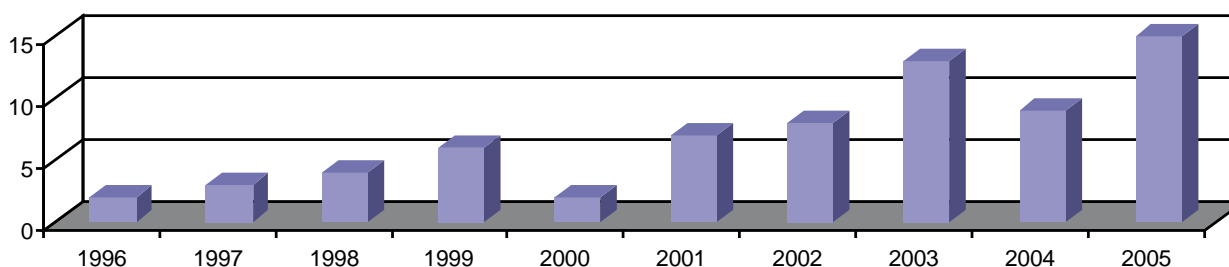
Figure 1 English cohort progress



The graph above shows mean cohort progress in English from 2001 to 2005. Each colour shows the performance over time of the current year group from Year 7 to Year 11. To validate the data, the Year 11 scores

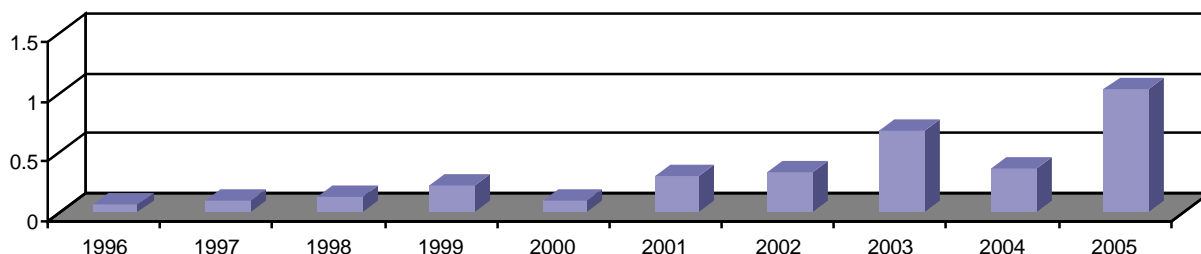
are based on actual GCSE or Entry Level grades. The mean increase during 2004/5 was 0.461 of a National Curriculum level.

Figure 2 English GCSE A*-G passes



Case study 1

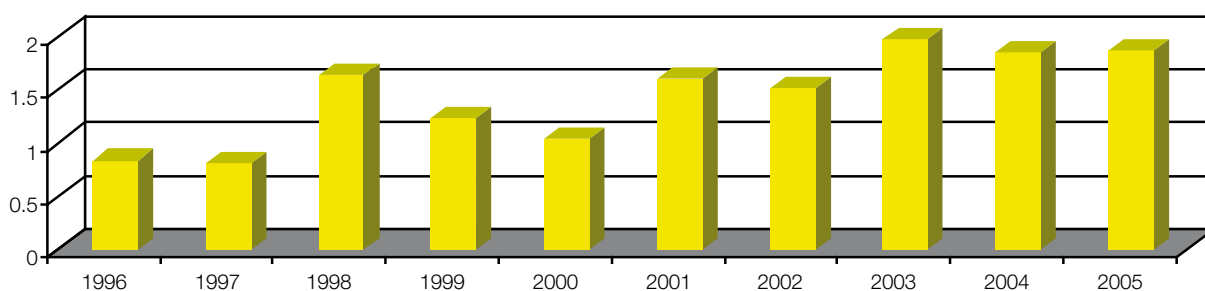
Figure 3 English GCSE APS



The English GCSE Average Point Score is based on the old DfES system of 1 point for grade G, 2 points for

grade F etc., divided by the total number of pupils in the cohort.

Figure 4 English Entry Level APS



The English Entry Level Average Point Score is based on the school system of 1 point for Entry 1, 2 points

for Entry 2 and 3 points for Entry 3, divided by the total number of pupils in the cohort.



Issues for the SIP to consider

- The school uses a system of breaking down the National Curriculum levels into three sub-levels, A, B and C, with a numerical value to measure pupil progress. The SIP would want to consider how robust this method is, and if the school can show evidence of increasing accuracy and validity of the data and associated judgements.
- The data in tables 2–4 show significant progress in English over time. There are some years where progress is significantly greater than in other years. The SIP would wish to know how the school accounts for these improvement trends and what action it has taken as a result.
- The SIP will need to explore with the school whether the method of calculation of English Entry Level APS in table 3 is a sufficiently sensitive measure of performance and progress.
- From the analysis of trends of past performance in English in tables 1–4, the SIP would be able to have a challenging dialogue about the next cohort and the targets to be set. The SIP should form a view about what those targets might be and the additional evidence that should be called upon to support this view.

Case study 2

Case study 2

This is an assessment framework that shows the performance and progress of pupils and groups of pupils with the most complex learning needs. As part of a data collection that includes several schools, the number of pupils is increased and so the reliability and validity of analysis increases. This introduces the possibility of comparing the achievement and progress of pupils with similar learning needs. For example, pupils with autistic spectrum disorder (ASD) who enter their respective schools at the same level can be compared according to their subsequent progress, both with each other and with a cohort average.

School type

- An all-age, 4 to 16 special school, which is one of 12 special schools in the county. While still designated as being for pupils with moderate learning difficulties, the school has significant numbers of pupils with ASD as well as pupils with emotional and behavioural difficulties.
- Approximately 147 pupils on roll, supported by 14 full time teachers, 13 part-time teachers and 50 non-teaching support staff.

Context

The school has been developing detailed assessment processes since 2003. The school uses a system based on the P scales, which are now being used by increasing numbers of special schools in this and other local authorities. These contribute to a growing pupil performance database, including aspects relating to the Every Child Matters (ECM) agenda. The school has also been involved in developing moderation materials for the P scales that have been used by the local authority and the DfES.

The adoption of P scales has enabled special schools to make more use of the National Curriculum assessment framework. In particular, this tool, when enriched by other qualitative evidence, enables schools to recognise and analyse the achievements of pupils with the most complex learning needs.

The inclusion in an authority-wide collection and analysis of data has provided the school with partners to make comparisons with on levels of achievement and rates of progress for both pupils and groups who share similar

profiles of learning need. This could replicate some of the analyses available to their mainstream counterparts through RAISEonline.

Data provided by the school

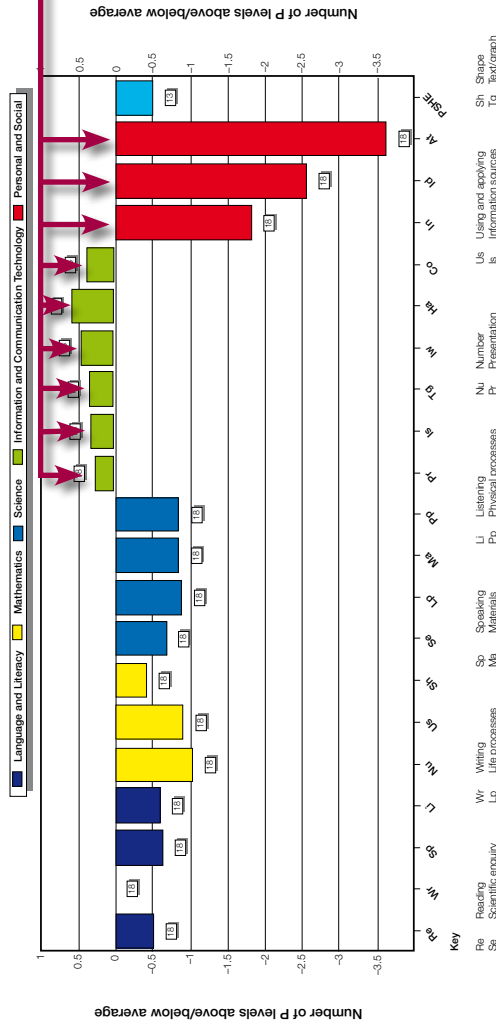
Data set 1

Pupils' progress is assessed throughout the year, using a range of formative and summative strategies. The assessment and recording system is linked to a commercial IT system and enables the school to generate a range of data, which the school's leadership team and teaching staff can scrutinise.

Figures 5 and 6 show a sample of P level assessment results for pupils during 2005/06, based on the main areas of learning, which compares performance with average results based on a three-year rolling average. The marks shown against each bar identify the number of comparisons with average scores for each aspect on which the cohort average is based. Comparisons with the average score for an aspect is only possible where the pupil has a score, and where an average value for the same year band and main area of need exists.

Case study 2

Figure 5 Average P level assessment results by aspect for girls in Key Stage 3 (2005/06)

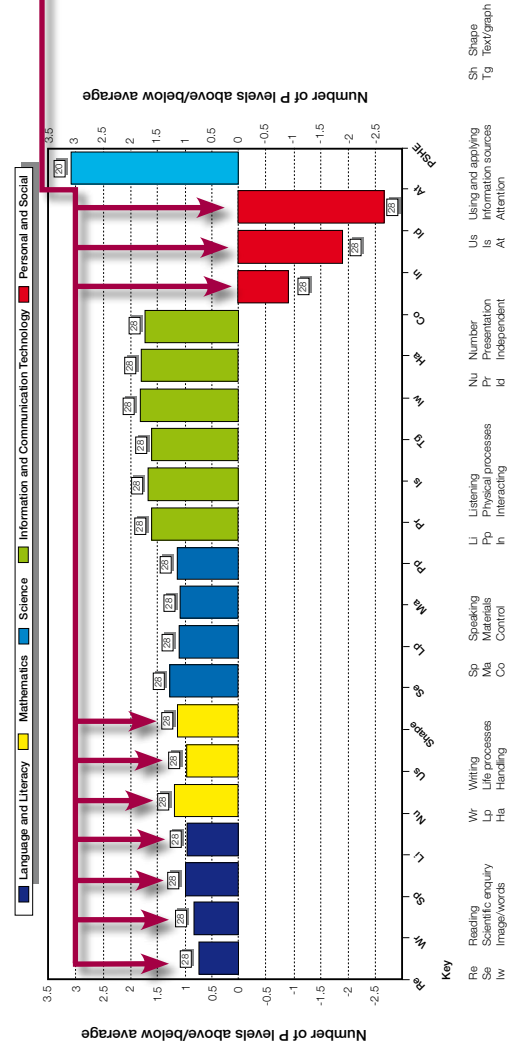


Issues for the SIP to consider

- By considering aspects of girls' subject performance, the SIP will be able to detect variation between subjects when set against the average and will be able to identify those areas they would want to look at in more detail.
- The SIP will wish to undertake the same enquiry when analysing the performance of Key Stage 3 boys.

- This approach allows the SIP to analyse the aggregated performance of Key Stage 3 girls and boys against an average. The performance is tracked across the main areas of learning. The SIP will be able to raise a series of questions about the performance of these groups over time and compare this with other significant groups in the school.
- The SIP will also be able to form a view about which subject areas merit further discussion when looking at the combined performance of boys and girls.
- The SIP will recognise that this is only a starting point for asking about the performance of pupils with the most complex learning needs. Having gained some initial impressions about differential standards within subjects, the SIP will want to decide what further evidence the school should offer to substantiate these emerging judgements.
- The SIP would wish to discuss with the headteacher the reasons for the seemingly better performance of boys when compared to girls and if this is replicated in other areas of learning.

Figure 6 Average P level assessment results by aspect for boys in Key Stage 3 (2005/06)

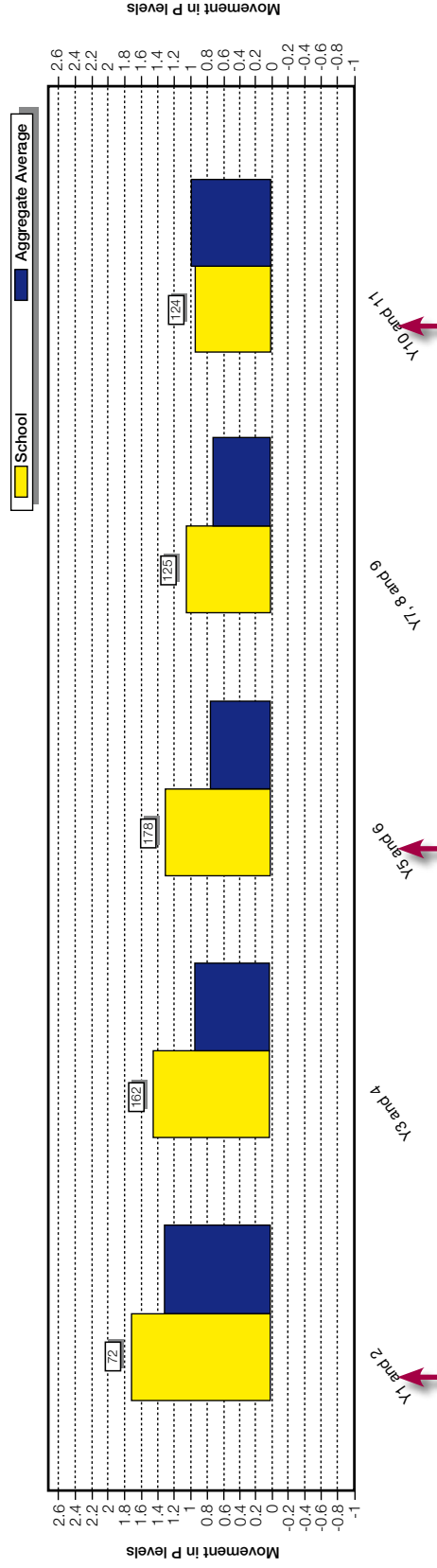


Data set 2

The system in use most recently enables the analysis of pupil performance to be conducted at various levels. The school has collected data on performance for pupils grouped according to learning need, in this case those on the autistic spectrum. This enables the school and the SIP to form a view about achievement and progress for this group and then compare them to pupils with similar needs in other schools and pupils with different learning needs within this school.

The comparative information in Figure 7 shows annual average progress or progress in terms of ASD pupils within the P scales. This is a snapshot of the performance of year groups at a particular point in time and compares this to an average performance of all those pupils included in the sample.

Figure 7 Comparison of annual average movement in P levels, by Year Band: main area of need ASD



Issues for the SIP to consider

- The SIP will form an initial impression of overall performance by analysing annual average movement of ASD pupils in P levels.
- When comparing the performance of year groups with each other, and against the average, the SIP will be able to identify the group that they wish to look at in more detail.

- The analysis of P level performance is presented within year groups, showing positive but reducing performance. The SIP will wish to speak to the headteacher about the factors the school presents to account for this pattern.

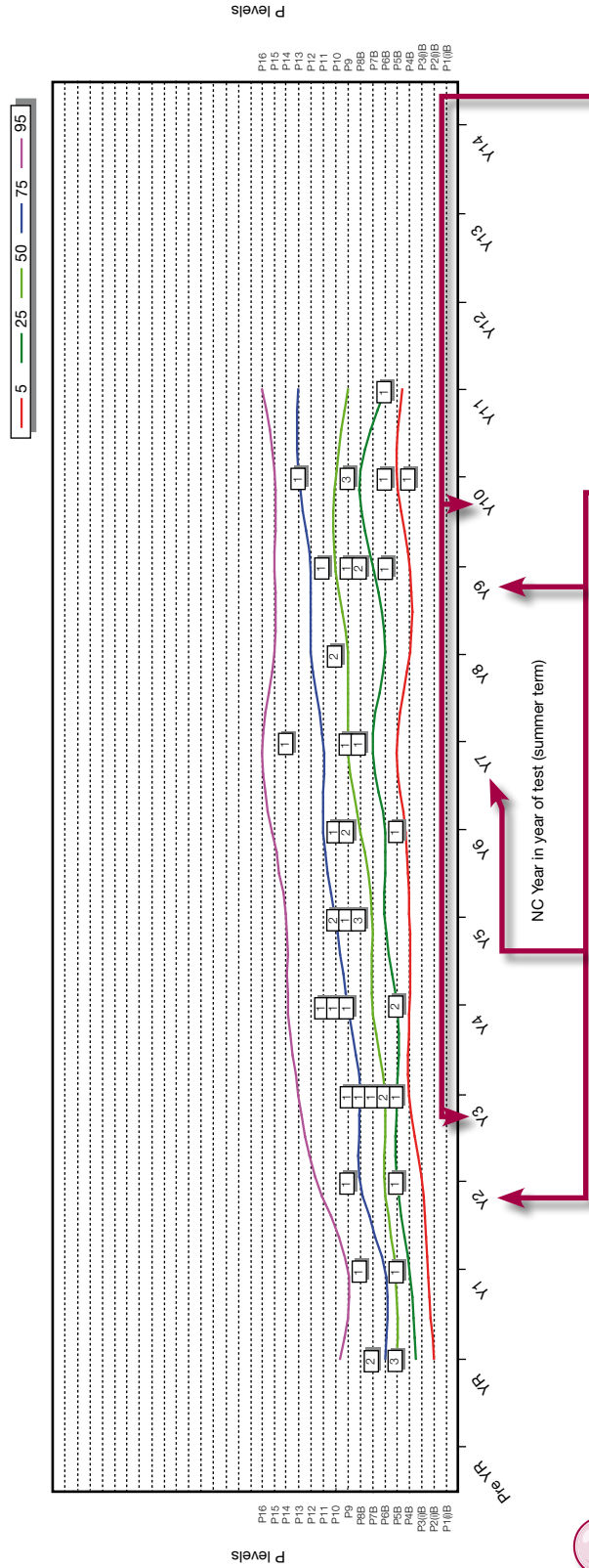
Case study 2

Data set 3

The third data set in Figure 8 shows pupil achievement in relation to the personal and social interaction of ASD pupils, scored 1 to 16 against the criteria within the P scales. The pupils have been further organised into

centiles that show the complexity of the school's pupil population with regard to this area of learning need when compared to the whole sample.

Figure 8 School results plotted against P level percentiles (2001/05) for interaction: main area of need ASD



Issues for the SIP to consider

- In analysing the interaction of ASD pupils shown in the graph, the SIP can form an initial impression of overall performance.
- The SIP will want to investigate the link between the P levels attained by groups within centile ranges and the learning experiences the school plans. For example, the school should show what strategies it uses to be ambitious for the performance of those pupils performing at the 50th centile and above.

- The SIP can also form questions about differences in provision for those pupils at the 5th and 25th centiles, in comparison with those above the 50th.

- Questions will also emerge about the year groups to be discussed, including the spread of achievement within and between the year groups.

Case study 3

Case study 3

This case study shows the way in which an individual school, supported by its local authority, has adapted the National Curriculum assessment framework to be more relevant to its pupils. The school has used the P scales and National Curriculum levels, but has further subdivided these statements into small-step descriptors. This is something that many special schools have done either individually or in groups. The strengths of such a system are that it is likely to be more sensitive to the complex learning needs of its pupils, more adaptable to the diverse ways in which the school recognises achievement, and more clearly understood and easy to apply by the staff. However, without the local authority's support, such an approach may restrict the school from taking account of evidence from other schools when deciding whether the performance of its pupils and the standards within the school are appropriate.

School type

- Secondary pupils aged 11 to 19, special school working with pupils with Profound and Multiple Learning Difficulties and Severe Learning Difficulties.
- Approximately 118 pupils on roll, supported by 22 teachers and 35 non-teaching support staff.

Context

The school has been developing detailed assessment processes for over five years in liaison with the local authority.

Within the local authority, use is made of the P levels, National Curriculum levels and a 'small steps' framework to evaluate pupil performance. Each P level and National Curriculum level is broken into five stages, allowing progress to be measured in smaller increments.

The school is also included in a pilot project involving other schools that are using the same model to assess pupil progress. Comparative information from the project is processed by the Durham University Centre for Education Management (CEM).

Data provided by the school

Data set 1

Pupils' progress is continually assessed throughout the year, using a range of formative assessment strategies. Each June, Key Stage 3 pupils are assessed in all subjects using P levels and National Curriculum (NC) levels. A software system developed by the local authority is used to store and analyse this information.

Currently the system allows a simple comparison, year by year, of numbers of pupils maintaining the same level, progressing by one or more small steps, or regressing, for all subjects by gender, year group and type of SEN. The school has also been part of the Durham University CEM P scales project for three years, showing how their pupils are performing when compared to the average for similar pupils in similar schools.

Table 2 below represents a sample from Key Stage 3 pupil performance data related to English that have been derived from the school and the pupil tracker software designed by the local authority. It shows data for the Year 9 cohort. It includes final assessments for 2004, 2005 and 2006 for each pupil. The 2006 data is colour coded. **Red** shows regression, **green** shows that the level has been maintained from last year and **gold** shows progress has been made.

Case study 3

Table 2 Sample of final assessments in English for a Year 9 cohort

Issues for the SIP to consider

■ The analysis compares the performance of pupils with each other, so that the SIP will be able to decide which pupils to discuss with the leadership team.

■ The SIP and the headteacher will be able to identify trends that need further explanation. For example, what explanation does the headteacher give for the higher achievement and progress of pupils within comprehension when compared with reading?

■ During the process the headteacher and SIP, looking at some of the anomalies for individual pupils, should be able to establish how secure the school is about the accuracy of the assessment processes and what other information the school has so that it can understand the barriers to a pupil's learning and progress.

■ Similarly, the SIP will wish to discuss with the headteacher the reasons given for the apparent lack of progress of a small number of Year 9 pupils in reading and speaking & listening in 2006 where achievement has remained the same or regressed.

Pupil	English: reading			English: comprehension			English: speaking & listening		
	2004	2005	2006	2004	2005	2006	2004	2005	2006
A	P4d	P4d	P4d	P6d	P6c	P6d	P6d	P6c	P6d
B	P8c	1Ce	1Ca	P7a	P8b	1Be	P7a	P8b	1Be
C	P8c	1Cd	1Bc	1Cc	1Ba	1Ab	1Cc	1Ba	1Ab
D	1Cb	1Bb	2Cd	2Cb	2Bb	3B	2Cb	2Bb	3B
E	1Cd	2Be	1Ad	1Cc	2Bd	2Cc	1Cc	2Bd	2Cc
F	2Cc	2Be	2Bb	2Be	2Ad	3e	2Cc	2Bd	2Ba
G	P5a	P5b	P5b	1Cc	1Bb	1Ac	P6a	P7a	P8e
H	1Cd	1Ba	2Cc	1Bd	1Ac	2Cb	1Ca	1Ad	2Bc
I	P7b	P8a	P8d	1Ca	1Aa	1Ab	1Cb	1Ca	1Ca
J	P8b	1Cc	1Bb	1Be	1Ab	1Ab	1Bc	2Cc	2Bb
K	1Cc	1Ba	2Cc	1Ab	2Bb	3e	2Cc	2Ba	2Ac
L	P8e	P6c	P8a	P6a	P7d	P7a	P6d	P7e	P7a
M	P7c	P8d	P8b	P7e	P7c	P8e	P6a	P7c	P8e
N	2Ca	2Bb	2Aa	P6c	P7d	4A	4A	4A	4A
O	P32d	P4e	P4a	P32d	P4c	P5c	P32d	P4e	P5d
P	P32c	P4d	P5d	P7d	P7a	1Ca	P6a	P8b	1Cc
Q	P7d	P7b	P7a	P7d	P8d	1Ca	1Ca	1Ac	2Cc
R	1Bc	1Bb	1Ac	1Ba	1Aa	2Ca	1Bb	1Ba	1Ac
S	1Cc	2Aa	3B	2cc	3B	4B	2Bb	3B	4B
T	P4b	P5b	P7b	P7b	1cc	1Aa	P6a	1Bb	2Cc
U	P7b	P8c	P8a	P7e	P7c	P8e	P6e	P6d	P7d
V	2Ca	2Bd	3D	4A	4A	4A	4A	4A	4A

■ This approach to identifying and recording pupil achievement against a shared framework allows the school to easily identify varying performance within aspects of a single subject. For example, the SIP will be able to decide which specific aspects of progression in English to investigate based on the pupil data supplied.

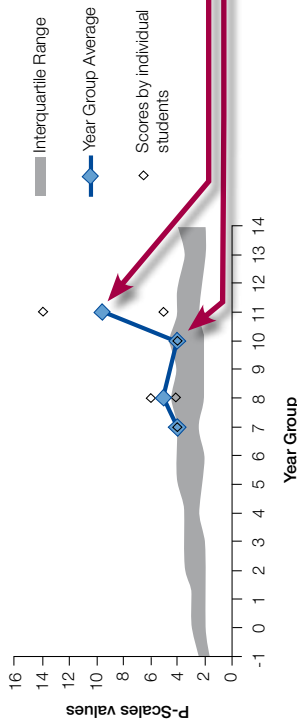
■ The school has been collecting this data consistently over a number of years. The school will be able to demonstrate how it evaluates pupil progress in key areas of learning, for example in reading and speaking & listening, over the three years for which data are available.

■ Having established trends in pupil achievement and progress, the school will be able to show the links established between rates of progress and achievement and future target-setting in subjects, in this case English.

Data set 2

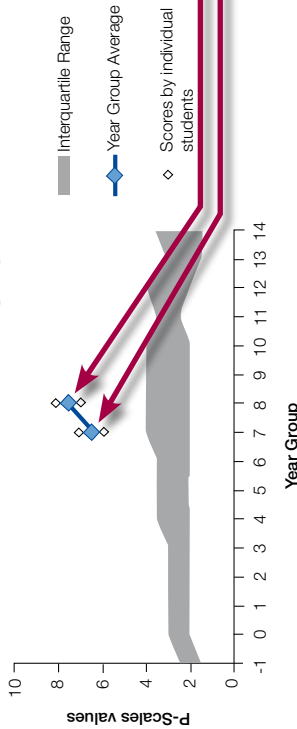
Figures 9 to 11 are examples of the information provided from Durham CEM provided by the other schools involved in the project. that compare the performance of pupils in the case study school with data

Figure 9 Comparison of pupil performance in school with other schools for P scale Reading



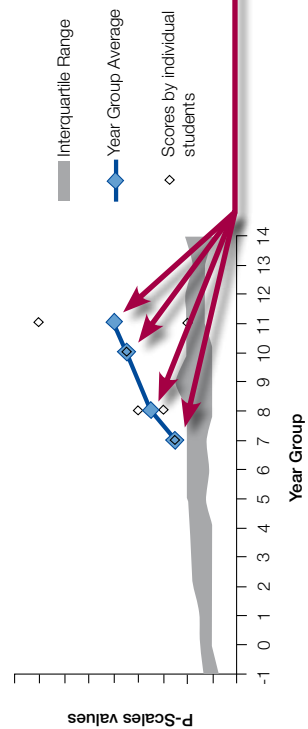
- Consider the analysis of the school's performance in reading, when comparing individual and year-group performance with interquartile information provided by Durham, and the issues that arise.

Figure 10 Comparison of pupil performance in school with other schools for P scale Scientific enquiry



- Consider the analysis of the school's performance in scientific enquiry, when comparing individual and year-group performance with interquartile information provided by Durham, and the issues that arise.

Figure 11 Comparison of pupil performance in school with other schools for P scale Number



- Consider the analysis of the school's performance in number, when comparing individual and year-group performance with interquartile information provided by Durham, and the issues that arise.

Case study 3

Issues for the SIP to consider

The inclusion of the school in the Durham project means that the school can compare pupil achievement and progress, both at individual pupil level and within groups. Where there are small numbers in each year group (as shown by the one or two individual scores for each year group in the charts), this provides the school with a significantly larger pupil population, subjected to a consistent method of analysis, so that more secure judgements can be made about the appropriateness of the rates of progress and areas of strength and weakness.

The school has more contextual information on which to base future targets and will be in a better position to decide if these are challenging.

The SIP is able to consider a range of questions for discussion with the headteacher.

The SIP should still be cautious about inferring too much from the data about pupil performance because of the very small number of pupils in each year group.

Case study 4

Case study 4

This case study shows a school with a pupil population that is becoming more diverse. The school collects a range of data built around individual pupil performance. These pupil-level data are then aggregated to create a cohort score. The school takes as its starting point the success or otherwise of pupils in meeting individual objectives, set as 'can do' statements within their individual education plans. The strength of such an approach is to remain focused on the individual pupil's performance, entirely appropriate in schools with very few pupils. It is easy to discern which pupils are making progress against their personal targets and which pupils are in need of support. Also, progress over time can be displayed easily. However, the school would need to be sure that the individual objectives were challenging since this method also measures the ability of the staff to set meaningful targets. Furthermore, comparisons with other pupils are more difficult since the school will not necessarily be comparing pupils who share the same targets, rates of progress, levels of achievement or learning needs.

School type

- A special school for pupils aged 4 to 16, designated for pupils with Moderate Learning Difficulties (MLD) but working with a significantly changed pupil population over the last decade.
- At present, there are 60 pupils on roll, supported by 9.1 teaching staff including the headteacher and 20.4 full-time support staff.

Context

The school has been involved with the use of P scales since their introduction in late 1998, developing the first 'can do' statements with exemplifications from the original P scales, and designing a scoring system that enabled schools to show very small-step progress year on year.

The school works closely with senior officers and has been active in training with local schools. The authority has produced detailed guidance, *Accessing the P Scales*, for special and mainstream schools who are adopting this approach to pupil target-setting.

The data sets were first collected in 2000 and use the Durham University CEM P scales project to provide additional analysis, including value-added data.

Data provided by the school

Data set 1

Data are collected for all subjects, but the emphasis is on scores in mathematics and English. P scale scores are collated annually in June for all pupils at strand level, and at whole-school level, with subject coordinators responsible for collation in science, ICT and the foundation subjects. The school relies mainly on formative rather than summative assessment processes.

The latest pupil assessments are recorded onto individual pupil record sheets, providing a visual record of progress year by year. The school enters all the data into a software system to enable full analysis of the information. This system provides tabular information, as well as graphs. Alongside the numerical targets, the school uses the 'can do' statements from the authority's P scale guidance to develop termly curriculum targets for pupils. These are recorded on target-setting sheets, and the headteacher monitors these targets on a termly basis.

Table 3 shows percentages of the total number of pupils on roll in each year group on 28.02.06 who were set targets for the autumn/spring terms 2005/2006.

Case study 4

Table 3 Numbers and percentages of pupils achieving targets

Class	Key Stage(s)	Year group(s)	Total number of pupils in group	No. of pupils with targets in mathematics, English	Mathematics PSHE – number and percentage of pupils achieving their target	English – number and percentage of pupils achieving their target	PSHE – number and percentage of pupils achieving their target
3H	2,3	4,5,6,8,9	8	8 (8)	4 50%	7 88%	5 63%
3R	3	7	6	6 (6)	6 100%	6 100%	4 67%
3E	3	8,9	8	8 (8)	6 75%	3 38%	6 75%
4M	3,4	8,9,10	8	8 (8)	6 75%	4 50%	8 100%
4L	4	10	10	9 (9)	7 78%	6 67%	7 78%
4CR	4	11	16	16 (16)	10 63%	11 69%	15 94%
4J	4	11	1	0	0	0	0
TW	3	8	1	1 (1)	0	0	0
Total			58	56 (56)	39 70%	37 66%	45 80%

Comparisons with scores achieved in summer 2005 show the following results: mathematics -4%, English -8%, PSHE +26%.

■ In looking at the overall analysis of year-group progress related to mathematics, English and PSHE, the school is able to show which subject areas are seemingly more successful in moving pupils forward. The SIP would want to look at these subjects in more detail and seek reasons why this was the case.

■ When progress is significant for a very large number of pupils, for example PSHE which has seen a significant overall rise in performance with some groups scoring over 75 per cent in their assessments, the school would want to discuss with the SIP which factors they considered influential in promoting these outcomes.

■ There are differences in pupil progress within subjects, for example mathematics. The SIP would want the school to identify the factors in overall performance, or achievement in a particular year group, that warrant further scrutiny.

Issues for the SIP to consider

- Overall, the SIP should consider other evidence to set alongside the aggregation of results of individuals achieving their personal targets within a subject or year group. This will support a dialogue with the head about the degree of ambition that teachers and others have built into the targets that they have agreed for the individual pupils.
- Most importantly, the SIP would seek to establish what moderation there is in the process of formulating targets.

Case study 4

Data set 2

Table 4 shows a range of pupil targets set during the period 2005/2006 and covers all pupils. This approach is also used to determine specific targets for individual pupils in respective year groups. This is illustrated by the table below which shows progressive targets set and evaluated from autumn 2005 to spring 2006 for English, mathematics and PSHE. The symbols used to display this information visually are:

- + target achieved
- 0 target not achieved
- * target not set

Pupils arriving from September 2005 are shown in red, pupils arriving from

January 2006 are shown in blue.

Table 4 Targets set and achieved for individual pupils

Name	Autumn 05			Spring 06		
	Ma	Eng	PSHE	Ma	Eng	PSHE
Pupil a Y4	0	+	+	0	+	+
Pupil b Y5	+	+	+	0	+	0
Pupil c Y5	+	+	+	+	+	+
Pupil d Y6	*	*	*	0	+	0
Pupil e Y6	+	+	0	+	+	0
Pupil f Y8	+	+	0	+	0	0
Pupil g Y8	*	*	*	+	+	+
Pupil h Y8	+	+	0	0	+	+
Pupil i Y9	+	+	+	+	0	+
Pupil j Y7	+	+	+	+	+	+
Pupil k Y7	0	+	0	+	+	+
Pupil l Y7	*	*	*	+	+	+
Pupil m Y7	+	0	0	+	+	+
Pupil n Y7	+	*	*	+	+	0
Pupil o Y7	0	0	+	+	0	+
Pupil p Y8	0	+	0	0	0	+
Pupil q Y9	+	+	0	0	0	+
Pupil s Y8	+	0	0	0	+	0
Pupil t Y8	+	0	+	+	0	+
Pupil u Y9	*	*	*	Placed in mainstream		
Pupil v Y8	+	0	0	+	0	+
Pupil x Y9	0	0	+	+	+	+
Pupil y Y10	*	*	*	0	0	+
Pupil z Y10	+	+	+	+	+	+
Pupil ww Y11	+	0	0	0	0	+



Issues for the SIP to consider

Some pupils are achieving all their targets within each subject and across both terms. The SIP would need to know what additional information could be sought to ensure that there is sufficient challenge for these pupils.

A minority of pupils have achieved few of their targets. This would also raise a number of issues for discussion with the headteacher.

Case study 4



Issues for the SIP to consider

- The school is able to determine which pupil or year group will become a focus for further inquiry in terms of progress. The SIP can discuss can be sure that the targets are ambitious and the nature of the related learning tasks that are then planned.
- The school may attempt to group the performance of particular pupils to see if any patterns emerge. This will also lead to an analysis of the differing teaching and learning approaches within and across year groups and subjects.
- During this process, the SIP and the headteacher should decide what additional evidence the school might collect to substantiate judgements arising from this analysis.

Case study 5

Case study 5

This case study shows how a local authority has taken a significant lead in bringing its special schools together to systematically collect and analyse data about school effectiveness, particularly pupil achievement and progress. The strength of such an approach is to enlarge the pupil population, increasing reliability and validity of judgements about improvement trends for groups of pupils. This offers an individual school a more certain benchmark against which to judge how effective it is, and to provide a context for setting challenging targets in the future. However, schools would want to be sure that they were comparing similar pupils and groups before placing too much reliance on the data.

Context

- The authority has been providing data analysis and interpretation to its schools and advisers for 14 years with a value-added project for secondary schools based on NFER CAT data. This has gradually developed into a comprehensive data service covering all phases: secondary, primary, short stay (PRU) and special schools.
- The 650 schools in the authority receive a School Information Profile (SciP) and an interactive spreadsheet for statutory and non-statutory target-setting. In addition, the local authority also distributes the FFT self-evaluation reports and school databases.
- Schools can opt to take part in projects such as the Secondary Value Added Project (VAP), Pupil Attitude Questionnaire (PAQ), Parental Questionnaire and target-setting for pupils with SEN (using a small-steps assessment framework). Some of these projects include other local authorities who subscribe to services such as the PAQ and VAP.

Data provided by the Local Authority

The SciP is a comprehensive document for schools, which summarises the data held by the local authority. It provides comparison with local benchmarks and with national indicators where these are available. This document has a summary page, which is worked through by the headteacher and SIP, to highlight current practice and priorities in standards, teaching, and leadership and management, and informs the annual performance review. The agreed priorities derived from this analysis form the basis of the discussion for the performance management of the headteacher.

For the last three years, an interactive spreadsheet has been provided to assist schools in all phases with target-setting. This is pre-populated, using individual pupil data, and captures information from a range of sources, using unique pupil numbers (UPN). The methodology is based on a predictive model and does not build in an additional factor for improvement at this stage, but takes the higher of two calculated probabilities to offer a final prediction for each pupil. Pupils who have left or joined the school can be deleted or added. The school has the option to amend the targets based on their own assessment and contextual information and using the tables provided within the sheet. These tables provide information by gender and ethnic group, based on the prior performance of pupils in schools, encompassing a cohort of 170 000. In addition to these, there are tables for pupils below Level 1, working within the P scales, based on the achievement of 50 000 pupils in the 'small steps' cohorts. The large numbers offer a high level of reliability. As amendments are made, the overall targets for the school are recalculated.

This process takes place prior to the target-setting visit by the SIP. The target-setting spreadsheet includes historical data for the school and overall FFT estimates to support this. During the process, pupils at the thresholds of the levels are identified and these groups of pupils are set as target groups for intervention strategies and additional support. The SIP encourages the school to set targets for vulnerable groups, such as looked-after children, those with English as an additional language and types of SEN statement. On subsequent visits to the school, the SIP follows up the progress of these pupils when reviewing progress with priorities.

As the spreadsheet is interactive, schools are encouraged to use it to set targets for other cohorts in the school. The format lends itself to this, and a simple process of cutting and pasting allows schools the flexibility to extend target-setting to other year groups. This facility has encouraged schools to look at individual target-setting for all pupils. The methodology has promoted ownership of the targets by the schools. For pupils who are unlikely to achieve National Curriculum levels, the small-steps approach and benchmarking are particularly useful.

The data from the PAQ and Parental Questionnaire are analysed, benchmarked and interpreted for schools, flagging areas for further consideration or celebration. This information is used by schools to inform the

Case study 5

stakeholder section of the SEF, and also by SIPs to highlight the links to achievement and to challenge underperformance.

In addition to this school-based information, SIPs have access to Local Authority Strategic Information (LASI), which is a series of databases that are pre-set with filters to enable comparative data for similar schools and groups of pupils to be highlighted and analysed. For example, this can be used to promote and track the achievement of underachieving groups.



Issues for the SIP to consider when partnered with a school involved in a similar local authority model

- The SIP would want the school to demonstrate how certain it was in its assessment framework, particularly:
 - initial assessment on entry
 - the moderation of teachers' assessments.
- The school will be keen to show that the initial priorities derived from the analysis of performance indicators and standards in the local authority model match those which the school and the SIP would focus on when reviewing the school's performance using other evidence that it had generated.
- The SIP would need to examine the link between the school's targets and those targets that emerge from the predictive model developed by the local authority.
- As there is an authority-wide approach to collating data and target-setting, the SIP would wish to see what efforts the school has made to compare its analyses to schools with similar profiles.
- The local authority model should lead to a more effective target-setting process. Therefore, the SIP would wish to see:
 - how the current targets compare with those set in the past three years and how successful the school has been in meeting these targets
 - whether the targets set for pupils following the 'small steps' programmes in the school are sufficiently challenging compared with the significant database developed within the local authority over the years.
- There will be students within the school who do not fit the local authority model, and for whom the predictions are less relevant. For example, the SIP would need to consider the additional evidence the school collects on those pupils who remain at the same level for a period of time or regress.
- Finally, the SIP may look at the way in which the school's leadership team has used performance data effectively to target additional support and intervention strategies for pupils operating at learning thresholds.

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