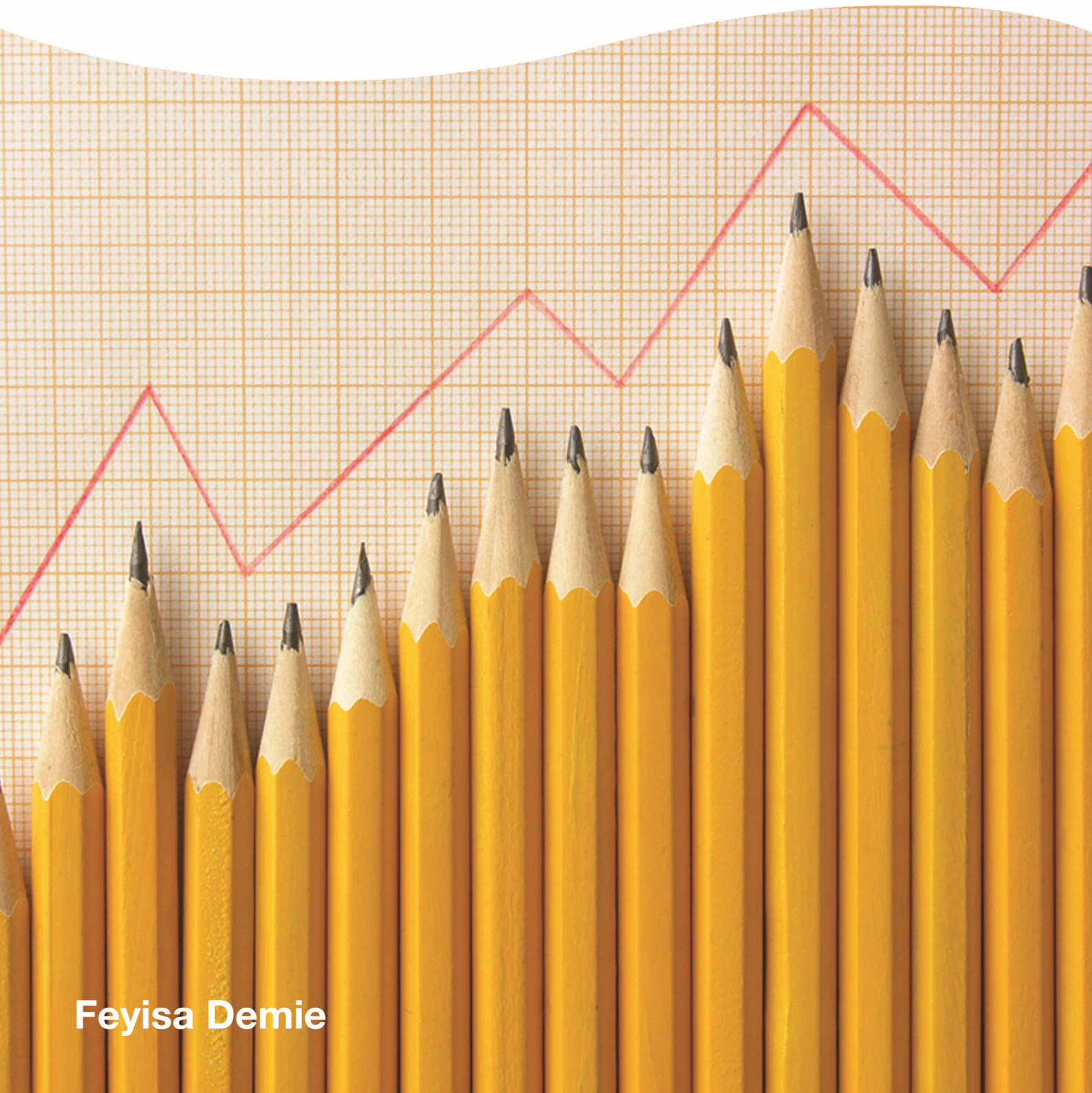


Using Data to Raise Achievement

Good Practice in Schools



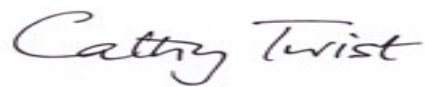
Feyisa Demie

Foreword

I am delighted to be able to write a foreword to this research report into good practice in using data to raise achievement in schools.

This study explores what works in the effective use of data in Lambeth schools. The study gathered evidence on how data is used to promote teaching and learning and its impact to raise achievement. The main findings of the research show that one of the core elements of the schools' success in raising achievement is a robust focus on tracking and monitoring of individual pupil progress and forensic use of assessment data for progress tracking, target setting and support for pupils slipping behind with targeted interventions. Data is used effectively by senior managers, teachers, teaching assistants and governors to pose and answer questions about current standards, trends over time, progress made by individual pupils, to track pupils' progress and to set high expectations in case study schools.

I hope you will find this research report useful.

A handwritten signature in black ink that reads "Cathy Twist". The script is cursive and fluid, with the first letters of each name being capitalized and prominent.

Cathy Twist
Director, Education, Learning and Skills
London Borough of Lambeth

Using Data to Raise Achievement Good Practice in Schools

Feyisa Demie

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Section 1: Introduction

This study arises from three observations in a recent national debate. Firstly, various national agencies such as the DfE and OFSTED provide schools with a vast amount of data with the stated aim of raising standards but little may have been used in schools because the information in RAISEonline and league tables is not presented in a way that is accessible or easily interpreted by schools and governors. In addition, guidance is lacking as to how classroom teachers and practitioners can use the data effectively (Goldstein 1999, Elliot and Sammons 2001). Furthermore, the information in these reports does not rigorously provide details into the background factors known to impact on pupils' achievement at local level such as socio-economic background, fluency in English, mobility rate, for the purpose of school improvement (Demie, 2003). This contextual information is very useful to group schools into families of schools with similar characteristics and to identify those schools that are successful and which can serve as beacons of best practice to other schools. Unfortunately, in the words of Harvey Goldstein, there is no proper guidance on how to use the performance data and what emerges is 'a sorry mixture of confusion, technical naivety and misleading advice' (Goldstein, 1999).

Secondly, there is broad agreement in the literature that effective use of data is vital to school improvement. Recent research in England (Kirkup et al 2005), for example, found that the effective use of data can promote better teaching and learning through:

- *more effective allocation of staff and resources*
- *performance management*
- *monitoring the effectiveness of initiatives and strategies*
- *evidence-based discussions with the Office for Standards in Education (Ofsted), local education authorities (LAs), governors, among others*
- *challenging expectations of staff, pupils, parents, among others*
- *transitions and transfers - particularly transitions between key stages within schools*
- *identification of pupils' achievements and setting of targets (Kirkup et al, 2005, p.1)*

The findings also highlight the impact of data on teaching and learning of individual pupils and whole schools. The commonly reported use of data in all schools was to track pupil progress, to set targets, to identify pupils for further support and to inform teaching and learning and strategic planning (Kirkup et al 2005,p.3).

Thirdly, a number of previous researchers have highlighted successful examples of the use of performance data in schools to assist school self-evaluation (Hedger and Jesson 1998; Kendall and Hewitt 1998; Yang et al 1999; Hayes and Rutt 1999; Thomas et al 2000). Most of these researchers argue that the DfE, Ofsted and Local Authorities can be key players in the provision of clear performance data that can be readily used by schools in making judgements about the relative performance of their pupils, and to diagnose their strengths and weaknesses. With the emphasis on raising standards in schools, central government has also made it clear that LAs are expected to play a vital supporting role in the provision of performance data to schools, including the establishment of systems for monitoring the educational achievement and progress of schools across the LA, together with individual and specific groups of pupils. These responsibilities have been outlined in the Education Act 1996, The White Paper, *Excellence in Schools* (DfE, 1997) and Ofsted framework for Inspection of LA school improvement function (Ofsted 2013). *Excellence in Schools* stresses the need for well-researched, evidence-based or evidence-informed approaches. The Education Act 1996 and Ofsted (2013:17) also clearly stated that: '*The LA provides a comprehensive range of performance data, including data about the local performance of different pupil groups and local benchmarking and comparative data. Schools and other providers have high regard for this which is influential in helping them to identify school based performance priorities.*'

Indeed much of this data is now provided to schools through their RAISEonline, FFT and LAs with the main aim being to use the data to raise standards. A number of LAs have established a Research and Statistics group to play a unique role of bridging the gap between policy and practice. Much of the work of these professional groups is in applied research and includes educational research, data collection and analysis, monitoring performance and supporting schools in the effective use of data for school improvement purposes (Rudd and Davies 2002).

Fourthly, there is very little empirical evidence in the literature which demonstrates the link between the use of performance data and improved school effectiveness and this is another area requiring further research. Saunders and Rudd (1999) pointed out that whilst researchers of value-added have rightly been concerned with the methodological accuracy of statistical models for measuring value-added, there has been no research that has produced supporting empirical data which demonstrates how schools use the value-added data and any performance data available to them. Saunders and Rudd (1999) and Gorard (2002) go on to pose questions as to whether the headteacher and the staff of schools actually understand the data they are presented with, particularly that which is based on complex multilevel modelling techniques. Research by Demie (2003) also questioned some of the work on value - added data that is based on complex statistical techniques and highlighted the various approaches of feeding back data and research findings to schools, including graphical illustration of school profile, contextual and value added information. Using straightforward and manageable techniques, such as median lines and simple regression techniques, he successfully demonstrated how it was possible to provide value-added data feedback to schools that provide an authoritative account of the progress made by pupils in particular schools to support classroom teachers. Overall the main findings of his research suggest that schools use performance data effectively for school improvement purposes when provided with clear, user-friendly information to carry out their functions. Teachers in the LA schools also use data effectively to review the performance and expectations of pupils, to identify groups of pupils who are underachieving and to evaluate the effectiveness of their teaching (Demie 2003 and 2004).

A recent NFER survey of headteachers echoed similar issues and identified a number of reasons that have prevented them from using research findings and performance data in schools (Rudd and Davies 2002). These include 'lack of time to read research publications and implement new ideas; lack of access to research publications; academic language and statistical analysis that are not fully understandable; lack of relevance of the research findings for practice and lack of enough personal experience as researchers to interpret the findings of any research or to translate the evidence to classroom settings' (see Rudd and Davies 2002, p2).

However, recent studies by Ofsted into outstanding primary and secondary schools highlighted the prime contribution of effective use of data for the success of each of the case study schools (Ofsted 2010). In these schools the quality of teaching is well informed by effective use of data. Ofsted also noted that one of the core elements of the schools' success in raising achievement is a robust focus on tracking and monitoring individual and groups of pupils' progress and achievement. High quality assessment, tracking and target setting procedures, for individual and groups are a feature of all the case study schools.

We would argue that at the core of every good school policy for school improvement is the effective use of data in self-evaluation and planning for improved outcomes for pupils. Research shows the difference that can be made at pupil, school and system level through the effective use of data, e.g. in setting high expectations, identifying underachievement and intervention, informing decisions on resource allocation and in monitoring, evaluation and benchmarking performance (Rudd and Davies 2002, Demie 2004, Ofsted 2010). There is also a need to promote and share good practice in the effective use of data in teaching and learning, classroom intervention and monitoring of pupil progress.

Despite agreement that effective use of data is essential for success, there is very little research evidence in the literature which shows good practice in the effective use of data in schools to monitor performance and progression of individual pupils and classes. Policy makers, headteachers, teachers, governors and school staff need more evidence on what works in use of data in schools and there is a need to look into the success stories of why some schools do well in the use of data to promote teaching and learning. Such research will provide positive messages.

Section 2: The aim and objectives of the research

The aims of the study were:

- to identify how data is used to promote teaching and learning and
- to identify good practice in the effective use of data to raise achievement.

This study gathered evidence as to the impact of the use of data in schools and the perceptions of users as to how successful this has been in raising achievement. It draws lessons from good practice research carried out in successful inner city schools and the local authority.

The methodological approach for this research comprises case studies of selected schools, extensive data analysis and focus group interviews and are summarised below:

Case studies: Using an ethnographic approach, detailed case study research was carried out to study the school experiences of effective use of data. A structured questionnaire was used to interview headteachers, teachers, support staff, parents and pupils to gather evidence on the use of data to raise achievement and on how well pupils are achieving. Six primary and five secondary schools were selected for the case studies. The case study schools as a whole include pupils with a range of ethnic groups, community languages spoken, free school meals and EAL needs. A key criterion for the selection of schools was as follows:

- exceptionally good results and a sustained overall KS2 and GCSE improvement
- good levels of progress with high value-added
- good experience in the use of RAISEonline, FFT and LA data
- outstanding or good grade in the most recent Ofsted inspections

Focus groups: Headteachers, teachers, support staff and governors focus group sessions were carried out to ascertain their views. This is further triangulated with the findings of the case studies.

Section 3. Background to the Case Study Schools and Local Authority

This study considers good practice in the effective use of performance data in inner city primary and secondary schools in Lambeth. The local authority (LA) is one of the most ethnically, linguistically and culturally diverse boroughs in Britain. Overall about 85% of pupils are from black and ethnic minority groups, a reflection of the ethnic composition of the inner London population as a whole. The largest ethnic groups are Black African 24% followed by Black Caribbean 17%, White British 15%, mixed race 13%, White Other 8%, Portuguese 6%, Black Other 5%. There were also a small number of Indian, Bangladeshi, Irish, Pakistani and Turkish pupils in the schools.

The social and cultural diversity noted in the ethnic composition of the school is also reflected in the languages spoken. Around 150 languages were spoken in the LA's schools. About 44% of students spoke a language other than English as their main language. The most common were Portuguese,

Spanish, Somali, Yoruba, French, Twi, Arabic, Polish, Bengali and Urdu. The local authority therefore has a large proportion of bilingual pupils that need support in English as an additional language.

The case study schools serve some of the most deprived wards in Lambeth. Many pupils come from disadvantaged economic home circumstances. The number of pupils taking up free school meals is about 34% and ranges from 16% to 60% for all schools. There is a high proportion of pupils joining and leaving the school at other than usual times. The number of pupils with a statement of special educational needs is less than average but the number with learning difficulties is very high. The majority of pupils are from a wide range of minority ethnic groups and speak more than fifty different languages. The school populations mirror the communities in which the schools are situated.

The case study schools in this report defy the association of poverty and low outcomes and they enable such young people to succeed against the odds (Demie et al 2012). Table 1 shows that attainment of all pupils has been exceptionally high. About 63% of the pupils in the LA achieve 5+A*-C including English and Maths. The ranges of performance in the case study schools were from 61% to 87%. At KS2 84% achieved level 4+ compared to national average of 79%. Overall, the case study schools' data shows pupils reach exceptionally high standards. The key challenge is to find out what schools are doing in the use of data to raise achievement.

Table 1. Case Study Schools: Pupil Profile and Achievement Data

Secondary School	Roll	EAL %	FSM %	Black African	Black Caribbean	White British		GCSE 5+A*-C inc English and Maths
School A	928	60%	18%	45%	13%	4%	Portuguese (11%) Other White (4%)	87%
School B	1214	28%	22%	17%	17%	29%	Other White (6%) Carib/ White (7%)	72%
School C	987	53%	60%	26%	22%	6%	Portuguese (6%) Other White (5%)	80%
School D	869	34%	23%	35%	35%	3%	Mixed Other (6%) Black Other (8%)	61%
LA Average		43%	33%	24%	19%	13%		63%
National				17%				59%
Primary School	Roll	EAL %	FSM %	Black African	Black Caribbean	White British		KS2 Level 4+
School E	410	86%	28%	37%	2%	5%	Portuguese (22%) Other (8%)	79%
School F	518	55%	34%	24%	14%	6%	Portuguese (15%) Other White (10%)	88%
School G	496	52%	39%	26%	23%	9%	Other White (8%) Mixed Other (10%)	84%
School H	200	23%	21%	16%	26%	15%	White other (6%) Portuguese (7%)	89%
LA Average		51%	24%					84%
National		34%	19%					79%

Section 4: Using data to support school improvement

Why the use of data matters?

The review of literature clearly shows the crucial importance of the use of data to improve teaching and learning in education. Data are the key to continuous improvement. 'We all use data, all the time, to get a fix on what is happening and what it tell us about what we should do:

- Weather forecasters with their barometric charts;
 - The nurse tracking pulse, temperature and blood pressure before and after an operation;
 - The accountant analysing spread sheets and cash flows;
 - The marketing Director interpreting survey data on market segmentation and customer preferences to inform branding and publicity strategies;
 - The football manager reviewing tactics and results;
 - Teachers tracking and reviewing the progress of each and every pupil performance to inform teaching and learning;
 - Education policy makers monitoring how schools and our education system is doing.'
- (Charles Clarke, Secretary of State for Education and Skills, June 2003)

The English education system now has a tremendously rich set of data on each pupil and there has been a revolution in the use of data in support of school education since the early 1990s (Rudd and Davies 2002). The revolution has been brought about by the increase in available national curriculum assessment data at pupil level. Add to that the pupil data from School Census (SC) and we have much more sophisticated information about how different groups of pupils progress at different key stages. Schools also have an increasing amount of information about their own pupils, for example on optional and CAT tests, individual pupil targets and results from their own assessment and monitoring.

The Government attaches great importance in the use of data to raise standards. High quality data is key to monitoring performance and in the OFSTED inspections of schools and allow schools and governors to ask important benchmarking questions as a means of identifying areas for improvement:

1. What does the attainment data tell me about the performance of the school compared to national and LA averages? Do we have any underperforming groups of pupils?
2. What does the value - added data tell me about pupil progress?
3. What are the overall strengths and areas of development?
4. What can be done to improve?

The continued effective use of school data can promote effective self-evaluation and high standards of teaching and learning in schools by:

- Identifying pupils' achievement and informing target setting
- Supporting the allocation of staffing and resources
- Challenging the aspirations of staff, pupils and parents
- Supporting school self-evaluation
- Tracking pupils' performance and progress
- Identifying underachieving groups
- Narrowing the achievement gaps
- Celebrating good news

It will also contribute towards a school's capacity to improve and to ask key questions such as:

- How well are we doing?
- How do we compare with similar schools?
- How well should we be doing?
- What more can we aim to achieve?
- What must we do to make it happen?

Figure 1. Five Stages of School Improvement Cycle



Source: DfE

The DfE five-stage cycle for school improvement shown above provides a useful summary of the process. It sets pupil achievement and use of data at the heart of school improvement. As part of the school self-review process, schools will systematically gather data and evidence of performance including the views of pupils and parents/carers. School self-evaluation is informed by effective monitoring and pupil tracking across subjects, year groups and key stages. Schools will need to examine contextual factors such as gender, ethnicity, free school meals and type of special educational needs in order to make judgements regarding the progress and performance of individual cohorts of pupils. In addition the schools need to use comparative performance data. Schools also need to be able to place their overall and subject level performance into the range of appropriate contexts provided by national benchmark information. Only then can they begin to make coherent judgments about performance and identify ways to raising achievement.

Where do we find comparative data?

There are a number of sources for comparative performance data. The three important analysis tools that are used widely by schools are RAISEonline, Fischer Family Trust (FFT) and the Local Authority reports. Schools may use as a tool the LA school profile and contextual and value-added reports, RAISEonline and FFT data to examine trend attainment, contextual and value added data. National comparative data is available through RAISEonline and Fischer Family Trust (FFT) and this provides details of the range of outcomes pupils have achieved so far, given their various starting points and circumstances. These tools are outlined below:

RAISEonline. RAISEonline stands for Reporting and Analysis for Improvement through School self-Evaluation. It is a tool produced jointly by the DfE and Ofsted to provide data to schools to support their 'self-evaluation'. It aims to provide a common set of analyses for schools, local authorities, Ofsted and school improvement professionals and inspectors.

For each school, RAISEonline provides:

- Reports and analyses covering the attainment and progress of pupils in Key Stage 1, 2, 3 & 4 with interactive features allowing exploration of hypotheses about pupil performance
- Contextual information about the school including comparisons to schools nationally
- Simple value-added (non-contextualised)
- Question level analysis, allowing schools to investigate the performance of pupils in specific curriculum areas
- Target setting, supporting schools in the process of monitoring, challenging and supporting pupil performance
- Data management facility providing the ability to import and edit pupil level data and create school-defined fields and teaching groups

Fischer Family Trust (FFT) provides schools and local authorities (LAs) with a range of reports to support school self-evaluation. The aim of FFT is to help schools make effective use of value-added test and teacher assessment (TA) data to raise individual pupils' attainment. Analyses are based upon matched pupil data and provide a range of estimates of likely attainment. There are two models for FFT estimates:

- The prior attainment model (Model PA)
- The socio-economic model (Model SE)

Using Model PA gives one type of estimate: Type A, based upon pupils' prior attainment, gender and age. Using Model SE gives three types of estimates:

- Type B, based upon pupils' prior attainment, gender, age and school context
- Type C, based on Type B and then taking into account the improvement needed for national or locally negotiated local authority targets
- Type D, based on type B and then adjusting to ensure its consistent with the 'top 25%' of schools (value-added)

Local Authority Data: Many Local Authorities provide comprehensive data package to support school improvement (see section 5). Performance data and wider management information from the full range of services are analysed systematically and sent to schools. For each school the LA:

- Analyse recent test, examination and inspection data
- Compare results and progress with data from other schools

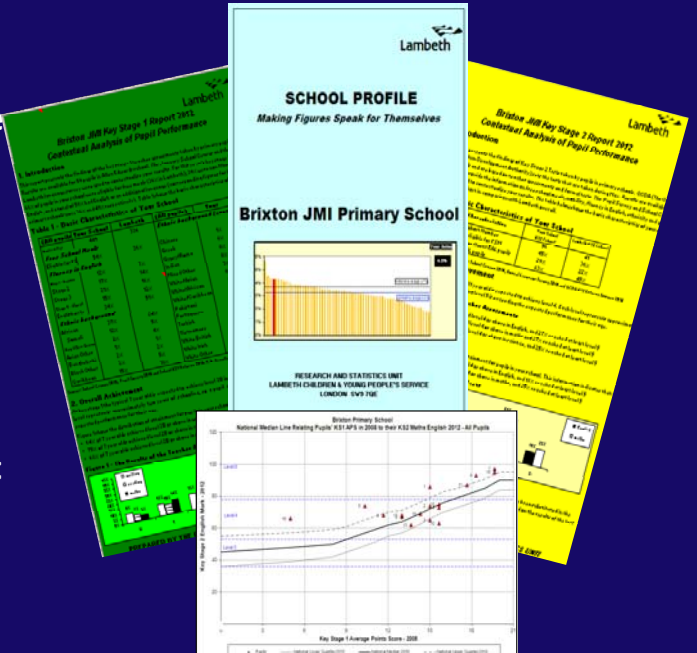
Section 5: Use of data in Local Authority: Case studies of good practice

The LA's have established a strong tradition of providing a comprehensive analysis of performance data for local schools. A key feature of the LA's support in the effective use of data is the provision of different kinds of data at different stages of analysis. Each school in the LA such as Lambeth is supported in four ways:

- A customised School Profile for each school which reports the raw data and compares the performance over a wide range of indicators with local schools, national average and similar schools
- Contextualised reports are produced at the end of each key stage for each school. The reports put into context each school's performance broken down by gender, free school meals, ethnic background, special education needs, summer born and attendance rates, levels of fluency in English and EAL background
- Value-added analysis for each school which the school can use to set targets and assess how well it has educated individual and groups of pupils
- Training on the effective use of data for school self-evaluation

Local Authority Data Support to Schools

1. Primary School Profile
2. Secondary School Profile
3. KS1 Contextual Report
4. KS2 Contextual Report
5. FSP Contextual Report
6. KS3 contextual Report
7. GCSE Contextual Report
8. KS1 KS2 Value added Report
9. KS2 - GCSE value added



The use of performance data is seen as essential to school improvement. To raise standards, schools and LAs must:

- Analyse current performance of pupils and groups
- Compare with national standards and similar schools
- Set clear and measurable targets
- Identify and implement improvement plans
- Take action: reviewing success and areas of development

Underpinning the LA's strategic approaches is the recognition of the need to use data and evidence to identify underachieving groups and support schools in their self-improvement and raising standards. The LA established in 1997 a dedicated Research and Statistics Unit (R&S) as part of the new School Improvement Division. The provision of performance data provided to schools, governors and senior managers is of major importance and the R&S Unit leads the LA's work on the strategies to support schools in the effective use of data to raise achievement.

School Profiles – Making Figures Speak for Themselves

The LA issues all of its governors as well as all headteachers and teachers with a ***“School Profile: Making Figures Speak for Themselves.”***¹ The LA provides School Profiles to all of its primary and secondary schools. The school profile will enable greater clarity in school improvement initiatives by providing comparative statistical information that will allow schools to compare their performance with that of similar schools both in Lambeth and nationally. The main aims of School Profiles are to:

- provide a comprehensive set of data to schools
- focus attention on individual school issues
- identify key areas to ensure improvements
- support governors and headteachers in developing their roles and exercising their responsibilities for the strategic management of schools

The LA issued a school profile to each school in November with a draft in September containing performance and benchmarking data to support governors and school staff. The profile enables governors and heads to develop their strategic management responsibilities by helping them identify school strengths and weaknesses. In addition, primary schools are placed into four family groups based on a disadvantage indicator derived from Free School Meal entitlement, pupil mobility and fluency in English. Thus the 25% of schools with the highest level of disadvantage are placed in Group 1, the next 25% of schools in Group 2 etc.

¹ For the sample and details of the performance indicators of the customised school profile see Lambeth Council (2013). *Brixton JMI Primary School, School Profile: Making Figures Speak for Themselves*, pages 1-28; <http://www.lambeth.gov.uk/NR/rdonlyres/6CD8B7C2-8DBF-4051-938D-4131CB543849/0/PrimarySchoolProfile2008DummySchool.pdf>

Lambeth Council (2013). *Brixton High School, School Profile: Making Figures Speak for Themselves*, , pages 1-28; <http://www.lambeth.gov.uk/NR/rdonlyres/2E92C5E3-8703-4215-BF0C-FB42BDF1014D/0/SecondaryProfile2008DummySchool.pdf>

Table 2: Brixton JMI School Performance Data

Indicators	2008	2009	2010	2011	2012	Lambeth	National
Roll (Form 7)	258	260	260	245	246	362	251
Teaching Staff (FTE)	11.6	11.6	12.2	13.1	11.8	18.6	n/a
PTR	20.1	20.3	19.3	17.9	19.9	18.9	n/a
Average Class Size	29.2	30.0	30.0	29.8	30.0	27.5	27.1
SEN % (Statemented)	1.9%	1.9%	1.5%	1.6%	2.4%	2.4%	1.4%
FSM (%)	28.1%	28.6%	30.5%	31.8%	25.9%	35.7%	19.3%
ESL (STAGES 1-3) %	19.0%	26.5%	24.6%	23.7%	28.5%	35.8%	n/a
ESL (STAGES 1-4) %	26.0%	32.7%	28.8%	31.8%	34.1%	50.7%	17.5%
Inward Mobility Rate	2.2%	5.1%	3.9%	3.4%	6.1%	6.1%	n/a

Budget Share (£)	£1,017,225	£1,051,814	£1,069,700	£1,136,545	£1,184,671	£1,866,030	n/a
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Attendance (%)

Authorised absences	5.5%	5.3%	5.7%	5.3%	4.4%	3.3%	3.8%
Unauthorised absences	0.4%	0.2%	0.2%	0.2%	0.0%	0.9%	0.9%
Attendance rate	94.1%	94.5%	94.2%	94.5%	95.6%	95.8%	95.3%

Key Stage 1 Level 2B+

Writing	52%	60%	60%	60%	79%	67%	64%
Reading	76%	73%	80%	70%	89%	76%	76%
Maths	66%	77%	87%	63%	82%	76%	76%
Average	64%	70%	76%	64%	83%	73%	72%

Key Stage 2 Teacher Assessment (Level 4+)

English	93%	87%	97%	93%	90%	88%	85%
Maths	93%	87%	100%	97%	90%	89%	85%
Science	100%	93%	100%	90%	90%	88%	87%
Average	96%	89%	99%	93%	90%	88%	86%

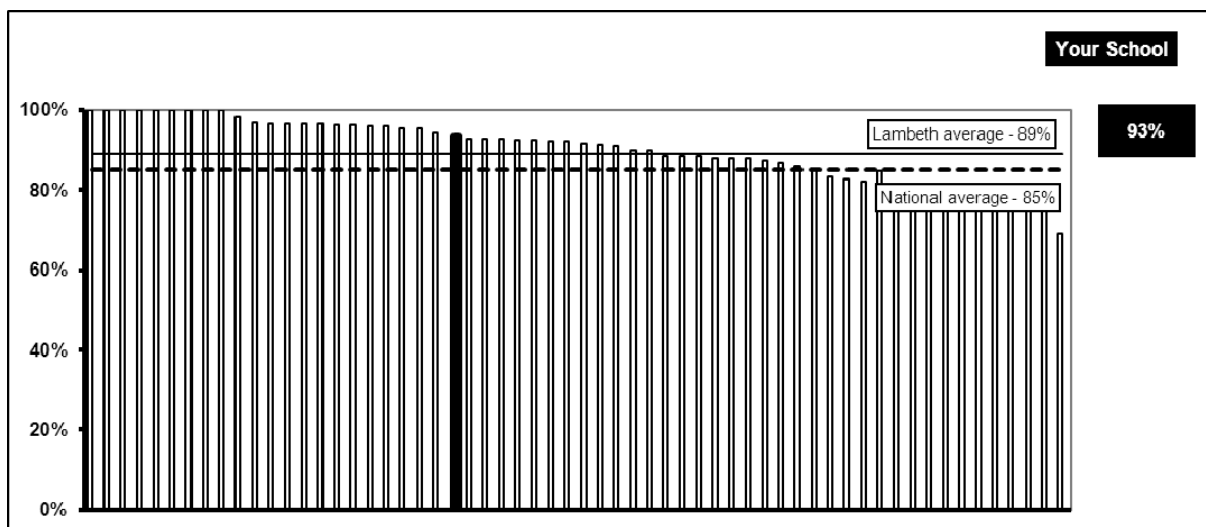
Key Stage 2 Tests (Level 4+)

English	100%	90%	93%	93%	93%	89%	85%
Reading	100%	93%	100%	93%	97%	90%	87%
Writing (TA)	93%	83%	83%	90%	87%	84%	81%
Maths	93%	90%	100%	97%	93%	89%	84%
English & Maths Combined	93%	87%	93%	93%	87%	85%	79%
Average	98%	91%	97%	95%	93%	89%	85%

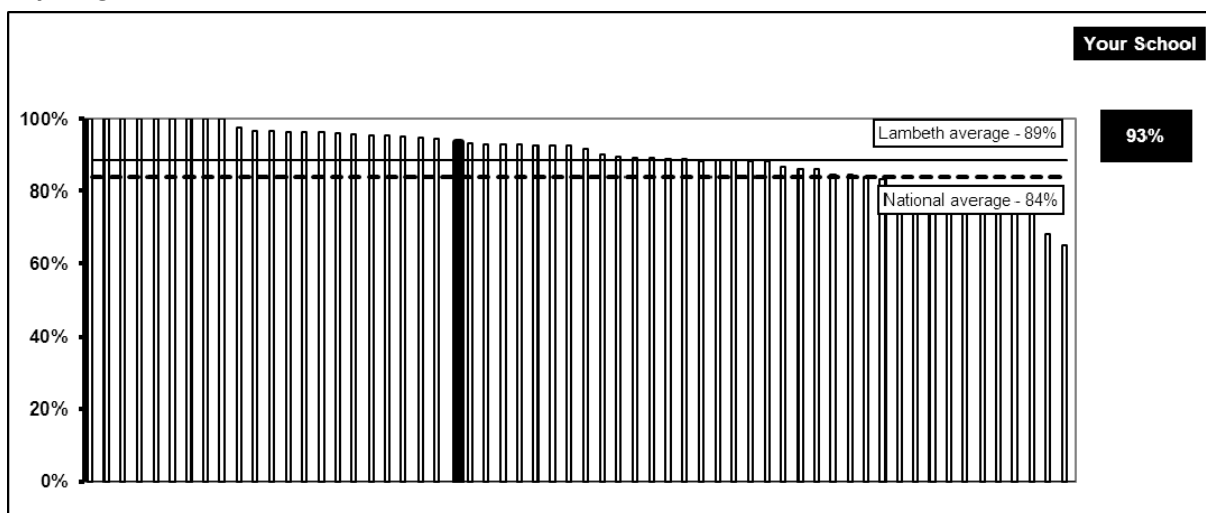
The School Profiles provide schools with easily manageable performance data through user friendly charts, tables and reports including data on socio-economic characteristics of the school population such as eligibility for free school meals, inward pupil mobility, pupils with statements of special educational needs, English as a Second Language, pupil teacher ratio, average class size; resources in the education service: budget share, financial expenditure and staffing resources; school performance: at FSP, KS1, KS2, KS3, GCSE. Each performance indicator is represented by a bar graph of decreasing performance across the borough's schools. Each school is represented by means of a darkened bar so that its performance and position in the LA can be easily seen by governors, headteachers and teachers (see Figure 2). It is simple and easy to use by governors, headteachers and teachers when compared to RAISEonline and official published performance data and tables which are often cumbersome. All these vital school statistics are also compared with the LA average, national average and similar Lambeth schools. See Table 2 below for Brixton JMI – an actual Lambeth school although the name has been changed – which give a time series analysis for major indicators.

Figure 2 – an example of School Profile Performance Charts

Key Stage 2 – Level 4+ English test



Key Stage 2 – Level 4+ Mathematics Test



The graphs and tables in School Profiles show the comparative position for each school on variety of indicators. They are designed to:

- Trigger a series of questions and suggest areas of discussion once heads and governors have compared their own performance with other Lambeth schools in the bar graphs, LA averages and families of schools with similar characteristics.
- Suggest targets and form the basis for discussion with teachers about classroom practice.
- Enable school link advisers to monitor school progress and verify schools' self-evaluation conclusions.
- Provide the LA with information to allocate adviser time to support schools, identify schools likely to need external support and target resources and services to ensure school improvement.
- Help governors understand school data in comparison with LA and national data

The School Profile offers an important tool to governors and headteachers in identifying key management issues affecting their school and to ask a number of questions.

1. Overall school performance issues:

- What does it tell me about my school?
- Do we know why we are in that position?
- Are we happy to be where we are? If yes, why?
- If no, where would we like to be?
- How are we going to get there?

2. Socio-economic context of school population

- How does the school compare to other authority schools with respect to:
Eligibility for free school meals?
Pupil mobility?
English as a second language?
Pupils with statements of special educational needs (SEN)?
- Does the school receive additional resources because of these factors?
- How are these resources used to address pupil achievement?

3. Staffing Resources

- How does your school compare with other authority schools with respect to PTR and average class size?

4. School Performance: Foundation Stage, KS1, KS2, KS3 and KS4

- How does your school compare with other authority schools with respect to:
Early Years Foundation Stage?
Key Stage 1?
Key Stage 2?
Key Stage 3?
Key Stage 4?
- How do your school test results compare with your school's teacher assessment results?
- Does the same picture emerge for all subjects?
- What might explain variations between subjects?
- What issues might you want the school to address as a result of key stage information?
- How does your key stage performance compare with similar schools and the national results?
- What other assessment related information might you want to have to help you monitor pupil achievement?

Contextual Analysis of Pupil Performance

In addition to School Profiles, the LA also provides its schools with customised Contextual KS1, KS2, KS3 and GCSE reports. The reports contain an analysis of school performance by gender, ethnic background, fluency in English, free school meals and mobility rate.² This is summarised below:

KS1 Contextual Report:

- KS1 performance data by gender: percentage of boys and girls attaining Level 2B+ in English, maths and science
- KS1 performance data by ethnic groups: Pupil number and percentage of pupils in different ethnic groups, including African, Caribbean, Bangladeshi, White British, Chinese, Indian, Pakistani, Vietnamese, Greek, Turkish, Portuguese, Other Black and Other White attaining Level 2B+ in English, maths and science
- KS1 data by free school meals: Pupil number and percentage attaining Level 2B+
- KS1 performance data by level of fluency in English i.e. Bilingual Stage 1, Bilingual Stage 2, Bilingual Stage 3, Bilingual Stage 4 and English Speakers only: number and percentages of pupils attaining Level 2B+ in English, maths and science

KS2 Contextual Report

- KS2 performance data by gender: percentage of boys and girls attaining Level 4+ in English, maths and science
- KS2 performance data by ethnic groups: Pupil number and percentage of pupils in different ethnic groups, including African, Caribbean, Bangladeshi, White British, Chinese, Indian, Pakistani, Vietnamese, Greek, Turkish, Portuguese, Other Black and Other White attaining Level 4+ in English, maths and science
- KS2 data by free school meals: Pupil number and percentage attaining Level 4+ in English, maths and science
- KS2 performance data by level of fluency in English i.e. Bilingual Stage 1, Bilingual Stage 2, Bilingual Stage 3, Bilingual Stage 4 and English Speakers only: number and percentages of pupils attaining Level 4+ in English, maths and science
- KS2 performance data by pupil mobility i.e. Pupils joined in Year 5, joined in Year 4, joined in years 3: number and percentages of pupils attaining Level 4+ in English, maths and science

KS3 Contextual Report:

- KS3 performance data by gender: percentage of boys and girls attaining Level 5+ in English, maths and science
- KS3 performance data by ethnic groups: Pupil number and percentage of pupils in different ethnic groups, including African, Caribbean, Bangladeshi, White British, Chinese, Indian, Pakistani, Vietnamese, Greek, Turkish, Portuguese, Other Black and Other White attaining Level 5+ in English, maths and science

² For the sample and details of the range of indicators used for customised contextual reports for each key stages see: Lambeth Council (2013). *Brixton JMI Primary School, KS1 Contextual Analysis of Pupil Performance*, Research and Statistics Unit, pages 1-4.

Lambeth Council (2013). *Brixton JMI Primary School, KS1 Contextual Analysis of Pupil Performance*, Research and Statistics Unit, pages 1-4.

Lambeth Council (2013). *Brixton JMI Primary School, KS2 Contextual Analysis of Pupil Performance*, Research and Statistics Unit, pages 1-4.

Lambeth Council (2013). *Brixton JMI Primary School, FSP Contextual Analysis of Pupil Performance*, Research and Statistics Unit, pages 1-4.

Lambeth Council (2013). *Brixton High School, KS3 Contextual Analysis of Pupil Performance*, Research and Statistics Unit, pages 1-4.

Lambeth Council (2013). *Brixton High School, GCSE Contextual Analysis of Pupil Performance*, Research and Statistics Unit, pages 1-4.

- KS3 data by free school meals: Pupil number and percentage attaining Level 5+ in English, maths and science
- KS3 performance data by level of fluency in English i.e. Bilingual Stage 1, Bilingual Stage 2, Bilingual Stage 3, Bilingual Stage 4 and English Speakers only: number and percentages of pupils attaining Level 5+ in English, maths and science
- KS3 performance data by pupil mobility i.e. Pupils joined in Year 10, joined in years 9, 8: number and percentages of pupils attaining Level 5+ in English, maths and science

GCSE Contextual Report

- GCSE performance data by gender: percentage of boys, girls attaining 5+A*-C, 5+A*-G, A*-C, A*-G, 1+A*-G
- GCSE performance data by ethnic groups: Pupil number and percentage of pupils in different ethnic groups including African, Caribbean, Bangladeshi, White British, Chinese, Indian, Pakistani, Vietnamese, Greek, Turkish, Portuguese, Other Black and Other White attaining 5+A*-C, 5+A*-G, 1+A*-G
- GCSE performance data by free school meals and paid meals: Pupil number and percentage attaining 5+A*-C, 5+A*-G
- GCSE performance data by level of fluency in English i.e. Bilingual Stage 1, Bilingual Stage 2, Bilingual Stage 3, Bilingual Stage 4 and English Speakers only: number and percentages of pupils attaining 5+A*-C, 5+A*-G
- GCSE performance data by pupil mobility i.e. Joined in Year 11, joined in Year 10, joined in years 7, 8 and 9: number and percentages of pupils attaining 5+A*-C, 5+A*-G

Schools are sent a draft report in September and the final analysis in November. Each Key Stage report is four pages. These reports include trend performance data for each school, compared with LA and national averages, as well as 'families' of schools with similar characteristics.

School staff and governors use contextual reports to monitor progress over time and to identify factors influencing performance, to identify key areas of action to ensure improvements and to set targets and address issues of underperforming groups of pupils. The LA also uses the data to identify whether improvements have or have not been made, and whether the attainment gap between underachieving groups and their peers is being reduced. Overall the contextual KS1, KS2, KS3 and GCSE reports are very useful to ask a number of the following questions in the context of factors influencing performance in each school:

- How does the school's performance compare to other Lambeth schools?
- What are the relative performances of different ethnic groups compared to the LA average and similar schools?
- What is the relative performance of girls and boys?
- What is the relative performance of mobile and stable pupils compared to the LA average?
- Why might some groups be doing better than others?
- What are the school's strengths and weaknesses compared to similar schools?
- What must be done to improve externally assessed performance?

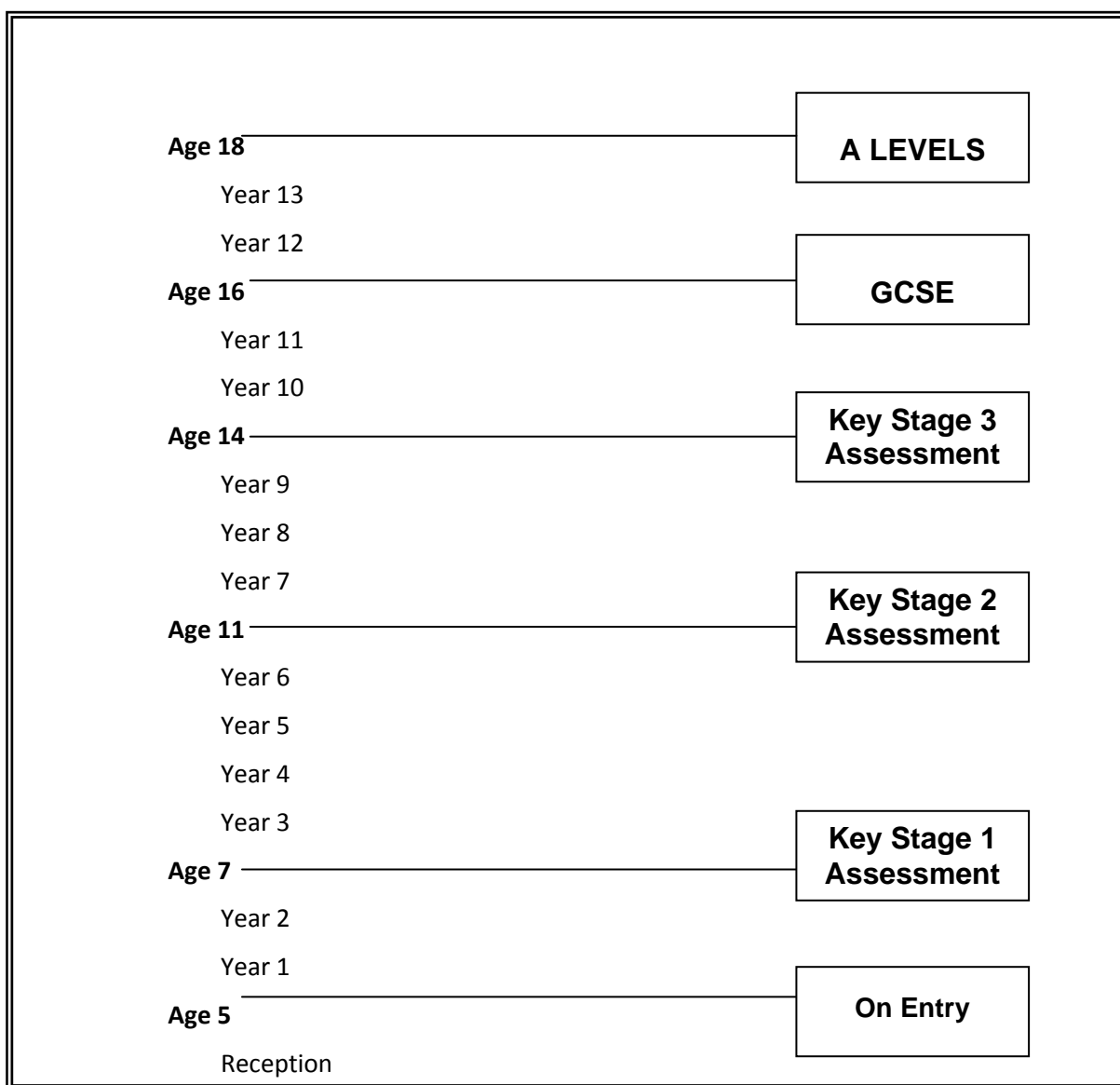
The LA has provided School Profiles and contextual reports to schools since 1997 and each school now has 16 years of trend data and schools value being able to see how they have performed over a reasonable length of time and whether or not their underlying trend is an improving one. They can also see the factors influencing performance from the contextual reports. However, this analysis is based on raw data, which means that it does not tell schools if they are achieving the best possible results for the pupils they are educating. The LA also provides schools with value-added analyses.

Value-Added Reports

What is Value-Added?

The major purpose of education is to help children make progress and we need to measure this from one attainment measure to the next. This is enshrined within the National Curriculum framework by allocating characteristic levels of performance to each key stage. Prior attainment is simply an indication of the starting point from which we can measure the progress which pupils make to the next stage (see Figure 3).

Figure 3. Chart for tracking pupil progress between key stages



Value-added in education concerns the relative progress pupils make in a school from one stage of education to another compared with the progress of other pupils with similar attainment at the start of the period. Value-added can refer to individual pupils, or to a cohort of pupils in a school. The following three components are essential to undertake value added analysis:

- A measure of pupil prior attainment- their starting point
- A measure of pupil outcome- their finishing point
- Large pooled data of LA schools and/or a number of other schools
- And derived from these- a regression line, representing average progress

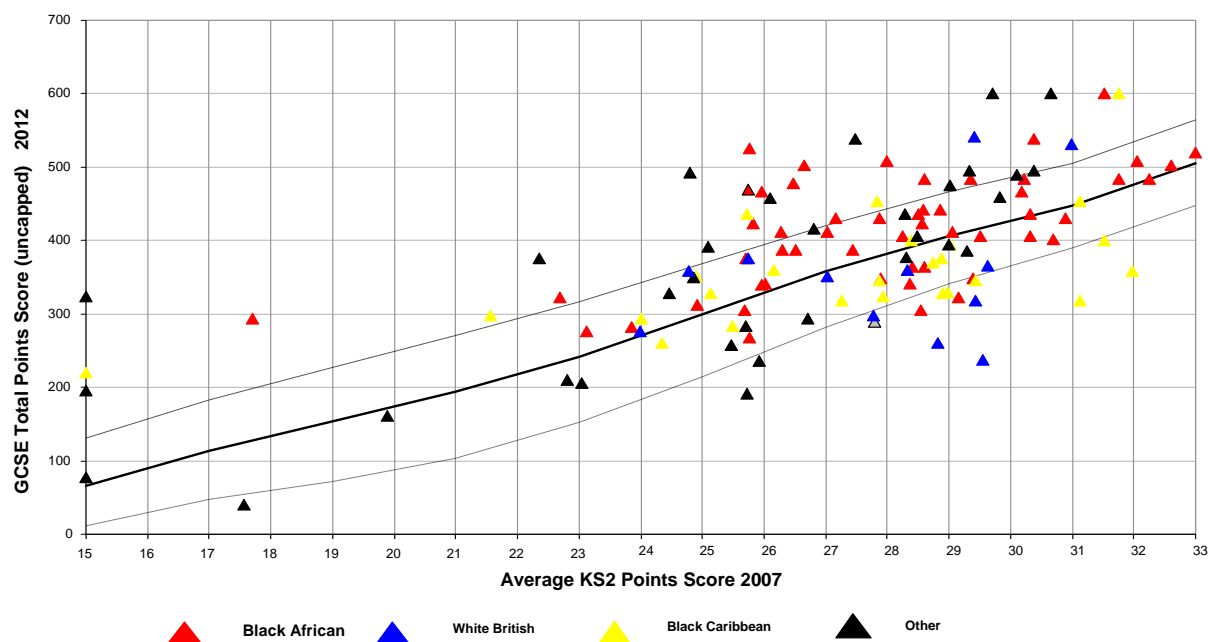
The LA Value-Added Support

Lambeth provides a value-added service for pupil level value-added information. Schools are able to track the performance of individual pupils and class teachers to set targets for pupils.

Lambeth provides to its schools median based value-added.³ Figure 4 gives an example of this and compares the relative progress made by pupils in the case study school with the progress made nationally by all pupils in England between KS2 and GCSE. In Figure 4 the solid black line shows the median and represents the relationship between KS3 and GCSE. On the graphs, 50% of pupils nationally fall on or below this line, with the remaining pupils falling above. Pupils whose plots fall within this area are considered to be progressing in line with the current average rate of progress more or less as expected given their prior performance. The two dotted lines represent the upper and lower quartiles indicating that the 25% of pupils whose plots fall in the upper quartile are doing better than would be expected and the 25% of pupils in the lower quartile are doing less well than would be expected.

The LA started providing its schools with additional comparative national median line analysis to help schools to see whether their pupils are doing better or worse than other pupils nationally. The findings from the sample school suggest that the pupils in this school have made good progress in terms of value-added. About 63% of the pupils in the case study school are in the upper quartile indicating that their progress is greater than would be expected given the average rate of progress (see the sample Brixton High School chart Figure 4). This evidence from the national median line was also used by schools to ask questions such as which pupils have made significantly better or worse progress than others and to identify the reasons for this.

Figure 4: Brixton High School – KS2 to GCSE English median line Value-Added



³ For the sample and details of the performance indicators of the LA customised value-added reports see: Lambeth Council (2013). *Brixton JMI Primary, KS1 to KS2 Value added of Pupil Progress*, Research and Statistics Unit, pages 1-4; Lambeth Council (2013). *Brixton High School, KS2 to GCSE Value added of Pupil Progress*, Research and Statistics Unit, pages 1-4.

Schools receive similar tables for FSP to KS1, KS1 to KS2, KS2 to KS3 and KS3 to GCSE. The tables can help headteachers and teachers to pose these questions:

- How many pupils appear to be achieving less than expected levels at the end of KS2 and KS3 tests and GCSE examinations?
- Are there any common characteristics of the pupils who appear to be achieving less well than expected at KS2, KS3 and KS4? For example, are there a high proportion of pupils of one particular ethnic origin, or a high proportion of boys?
- Why is the school not making progress, compared with other schools in the LA, for example KS2 to KS3?
- What are the reasons for the difference in subject effectiveness at GCSE?
- What are our weaknesses and strengths?
- What must be done to improve?

The LA can also provide the information graphically to schools using median lines. Figure 4 above is for Brixton High School which is described further below. The graph shows the median line of pupil progression from KS2 to GCSE, the line where 50% of pupils are above the line and 50% are below. The two dotted lines represent the upper and lower quartiles indicating that the 25% of pupils whose plots fall in the upper quartile are doing better than would be expected and the 25% of pupils in the lower quartile are doing less well than would be expected.

Each triangle represents a pupil's performance and they have been colour coded for ethnicity. The graphs sent to schools have the symbols numbered so that schools can identify the pupils.

The graph shows that 43% of Brixton High School pupils are in the upper quartile indicating that their progress is greater than would be expected given the average rate of progress. As the school can identify the individual pupils, schools can see how much progress pupils have made and identify the reasons for this.

Training in the use of data

Schools and governors have been receptive to the Lambeth R&S Unit's work on the use of data for self-evaluation, target setting and development planning. The Unit is a critical friend, helping schools to use performance data to secure improvements. Extensive support is offered through conferences, training and briefing sessions and a telephone help line.

The purpose of the training session is to look at the ways in which your school performance data can be used for school self-evaluation and raising achievement. The training programme helps governors and senior teachers to understand school performance and to ask key questions such as:

1. What does the attainment data tell me about the performance of the school compared to national and LA averages? Do we have any underperforming groups of pupils?
2. What does the value added data tell me about pupil progress?
3. What are the overall strengths and areas of development?
4. What can be done to improve?

The session covers in detail evidence from:

- RAISEonline
- LA School Profile
- LA Contextual and value-added reports

The training is customised to each school's needs. The format of the training session is interactive and includes presentations, practical exercises and open discussions on good news and key issues raised from the school performance data with implications for Ofsted inspections. School staff and governors use data to draw up action plans.

As a result, there is now a clear understanding of the need to use data well in Lambeth schools to raise expectations. A headteacher summed up where Lambeth schools are:

"We need to be more data literate and use performance data well to inform our lesson planning so that our teaching supports underperforming groups in school."

Almost all schools have now a deputy or assistant headteacher or senior teacher with specific responsibility for the effective use of performance data for target setting and school self-evaluation. The next challenge is to encourage all teachers to use performance data for making pupil forecasts and improving classroom teaching practice.

Schools are getting online access to the R&S Unit's databank of pupil-level contextual and performance information including baseline assessment, KS1, KS2, KS3, GCSE and A level results. Using longitudinal pupil level data, the R&S Unit supports school systems to track pupils' progress and obtain school level data by downloading data from the Council website. Schools can obtain e-contextual reports and e-value-added reports which are updated when further information becomes available. Schools can also obtain from the R&S intranet copies of the paper based reports and charts. The public website contains the LA research publications, helpful documents such as notes of guidance on interpretation of data analysis, and guidance on target setting in schools for governors and senior managers.

Evidence of effectiveness of the service in schools

Lambeth's R&S Unit has been recognised by Ofsted for the quality of its service. An inspection of the service and interview of a significant number of Lambeth headteachers, governors and teachers on the provision of data to support school improvement and target setting stated that:

'The data provided by the Research and Statistics service is good and continues to improve. Governors and teachers have been widely consulted to produce documents (school profile; KS1, KS2, KS3 and GCSE customised contextual and value-added reports), which are a model of clarity. Data circulated to schools help to raise questions that pinpoints strength and weaknesses precisely. Governors, school staff and officers have received extensive training. Schools value the data and the work of the team in mediating it.'

Recent HMI observations and reports also confirm that the Research and Statistics service provide data that is effectively used by schools to raise achievement and states:

- *'Data set is comprehensive, very helpful that it is sent out early in the academic year. Highly effectively presented and accessible to governors, teachers and support staff'*
- *'Research documents produced by the Research and Statistics Service are unique and well used by schools' (Ofsted 2013)*

The Research and Statistics team feedback survey also further confirms 98% of governors, headteachers and teachers felt the service provided by the team is either very useful or useful. Overall evidence from OFSTED and our feedback survey confirms that the service is highly regarded by schools.

Conclusions

This good practice in the LA highlights the various methods of feeding back research findings to schools and discusses how performance data is used for school self-evaluation. There are three messages in this paper.

Firstly, the message that comparative information triggers more questions than it provides answers for. They are tin openers not gauges. All that the performance data in school profiles, contextual analysis *and* feedback to schools could do was to trigger a series of questions which headteachers, teachers and governors could ask themselves once they looked at the pupil level evidence and compared their own schools with similar schools in the charts:

- What does it tell me about my school?
- Do we know why we are in that position?
- Are we happy to be where we are? - If yes, why? If no, where would we like to be?
- How are we going to get there?

Secondly, the old message that the only good research is that which is communicated. The contextual and value-added feedback to schools meets the test of good research, policy and practice. The information from school profiles and value-added analysis has been communicated directly to teachers, headteachers, governors, advisors and policy makers and has been used effectively for self-evaluation and target setting in schools and LAs.

Thirdly, that what we have done so far is providing research information that can be readily used by schools, and that much more research could be done to improve the effective use of research findings. The information provided to schools and governors shows the data for each school using simple tables and charts. It is easy to understand, accessible and usable compared to information published by the DfE. Some of the national publications and research reports are too complex to understand, detailed and can be daunting for teachers and schools to use. Schools prefer to see clearer and more manageably presented research data – preferably like the London underground map rather than the full length National Rail timetable. With all its limitations, the provision of performance data to schools and governors was a success in the LA schools. Information such as the ***School Profiles: Making Figures Speak for Themselves*** and Contextual Reports were used effectively by schools for improvement purposes and to investigate the reasons why there is under-performance in particular areas.

The main conclusion from our research is that the LA has established a strong tradition of providing a comprehensive analysis of performance data for local schools. A key feature of the LA's support in the effective use of data is the provision of different kinds of data at different stages of analysis. Each school is supported in a number of ways with its own customised raw data, contextual and value-added data including in the extensive training on the effective use of the performance data.

The key question for researchers is why this approach was so successful in disseminating research findings. There are a number of reasons:

- There was and remains a huge demand from schools for performance data.
- The service has been developed in close consultation and collaboration with headteachers and governors.
- The information provided to schools and governors is in a clear and accessible format and it is easy to understand and use for school improvement purposes.
- The LA provides detailed and comprehensive performance data feedback to schools within a confidential framework for school self-evaluation and as a tool to raise

questions rather than make judgements about the schools. Headteachers and governors are asked to draw their own conclusions and act accordingly.

- Research evidence produced by the LA research officers was taken very seriously by schools because it was provided at a time when policy makers and senior managers in schools and the LA needed to look at their performance and draw up action plans in their school development planning.
- The information in each school profile shows the data from each school in relation to the borough's other schools and the LA and national. It is presented using charts. It is simple, easy to understand, accessible and usable. In contrast to information published in RAISEonline, school profiles provide an easier, more manageable presentation of the data. The charts enable each individual school to be compared with other Lambeth schools, the national average and family group average.

Finally, there has been a strong leadership in the LA with a clear focus on school improvement and the use of data supported by a well-focused and effective Research and Statistics Unit.

Section 6: Use of Data in Schools: Case Studies of Good Practice

The purpose of this section is to explore how the schools used data to raise achievement. In recent years the need for detailed case studies of successful schools in raising achievement has become apparent. For this reason, recently a number of studies have looked at examples of good practice into raising achievement of outstanding schools (Ofsted 2010; Demie and Lewis 2010), Black Caribbean pupils (Ofsted 2002; Demie 2005), Black African pupils (Demie et al 2005), Bangladeshi pupils (Ofsted 2004), Somali pupils (Demie et al 2007) and pupils with EAL (Demie et al 2012). The research is similar but reflects on the data perspective using case studies to illustrate how schools use data to improve teaching and learning with a strong emphasis on what works. Seven case studies are included as examples of good and innovative practice in secondary and primary schools on the use of data to support school improvement.

Secondary Case Study: School A

The use of data in the school is exemplary and a strength of the school. The headteacher, ably assisted by the senior leadership team, delegates well and middle leaders play a vital role in monitoring and evaluating learning and teaching in their areas, using data. The school sees the use of data as an essential part of school improvement and self-evaluation and it is used as one of the levers of change. Evidence provided both now and previously confirms that:

- The school has a good range of assessment data including CATS, KS2, KS3, GCSE and A level and QCA optional tests for each year group.
- Data are collected, analysed and evaluated including background data such as ethnic background, language spoken, level of fluency in English, date of admission, attendance rate, eligibility for free school meals, stage of EAL fluency, SEN stage, mobility rate, years in school, which teacher's class has been attended, types of support, postcode data, class work concern and homework concern.
- The school also uses a range of other comprehensive benchmarking, contextual and value-added reports provided by the Local Authority, Fischer Family Trust (FFT) and national data from RAISEonline.
- The school extensively uses KS2 to GCSE value-added data to improve the attainment of individual pupils, in addition to monitoring the standards of year groups or the whole school. Subject teachers and tutors use data and other assessment information to review the performance and expectations of pupils.
- The school uses a data analysis system called SISRA online which is managed by the data manager. This system and other school data MIS systems are highly flexible. Data can be retrieved in many combinations at any time, to look at the performance, for example, of those with English as an additional language, gifted and talented, ethnic background, language spoken, free school meals, SEN stage, mobility rate, attendance rate, types of support etc. The school continues to refine the data held in its information and data tracking system, ensuring the data are simple, accessible and easy to understand. Using red, amber and green to indicate actual against expected levels of progress, attainment is clear and easy to grasp, which is useful for discussions with parents. (see Table 2)
- Data are widely circulated and used by senior managers, heads of departments, classroom teachers, learning mentors and bilingual classroom assistants and is used to help review the pupils' progress and set targets.

- Teachers make effective use of data to review performance and to identify and provide support for differentiated groups of pupils. At classroom or pupil level, effective use of data enables the school to highlight specific weaknesses of individual pupils, identify weaknesses in topics for the class as a whole, inform accurate curricular targets for individual pupils and provide evidence to support decisions as to where to focus resources and teaching. (see sample)

Table 3. Sample of Year 9 class spreadsheet for tracking & monitoring pupil attainment & progress

Pupil	Attainment & Progress														ATTAINMENT MTM1	PROGRESS MTM1	ATTAINMENT MTM2	PROGRESS MTM2	ATTAINMENT MTM3	PROGRESS MTM
	MTM FINAL ATTENDANCE YEAR 9 TERM 3	MTM FINAL LATES MTM YEAR 9 TERM 3	KS3 TARGET ENGLISH	KS3 ENGLISH MTM LEVEL MTM YEAR 9 TERM 3	KS3 TARGET FRENCH	KS3 FRENCH MTM LEVEL MTM YEAR 9 TERM 3	KS3 TARGET GEOGRAPHY	KS3 GEOGRAPHY MTM LEVEL MTM YEAR 9 TERM 3	KS3 TARGET HISTORY	KS3 HISTORY MTM LEVEL MTM YEAR 9 TERM 3	KS3 TARGET MUSIC	KS3 MUSIC MTM LEVEL MTM YEAR 9 TERM 3	KS3 TARGET MATHS	KS3 PE MTM LEVEL MTM YEAR 9 TERM 3	KS3 TARGET RE	KS3 RE MTM LEVEL MTM YEAR 9 TERM 3	KS3 TARGET SCIENCE	KS3 SCIENCE MTM LEVEL MTM YEAR 9 TERM 3		
Pupil 1	97.10	6.00	7	7	7	6.3	7	5	7	7	7	5.3	7	7	7	7	7	6.7		
Pupil 2	99.40	8.00	7	6	6	5.7	6	5.7	6	6.7	6	5.3	6	6	6	6	6	6		
Pupil 3	86.50	60.00	6	5.3	6	5	6	5	6	5.7	6	5	5	6.3	6	6	7	6		
Pupil 4	78.70	1.00	6	6	6	5	6	6.3	6	7	6	5	6	5.7	6	6	7	5.7		
Pupil 5	88.70	15.00	6	5	6	5	6	4.7	6	5.3	6	5	5	5.7	6	6	6	5		
Pupil 6	88.70	34.00	6	4	4	3	4	4	4	5.3	4	4	2	5.3	4	4.3	5	4.7		
Pupil 7	97.70	2.00	6	5	6	5	6	5.3	6	5.3	6	5.3	6	5	6	5.3	6	5.7		
Pupil 8	96.80	1.00	7	7	7	5.3	7	5	7	6	7	5	7	6	7	7	7	6.3		
Pupil 9	99.00	0.00	7	7	7	6	7	5.3	7	6.7	7	5	7	5.7	7	7	7	7.7		
Pupil 10	89.70	7.00	6	6	7	5.7	7	6	7	6	7	6	7	5	7	7	7	6.3		

Source: School SISRAonline.

N.B: Similar data is also produced for all year groups at pupil level and shared within for monitoring and target setting.

- Parents are regularly informed about their child's progress reports. Data for parents are comprehensive and produced in a clear and easy to use format (see sample Table 3)
- The school employed a number of data driven interventions including providing additional support such as one to one support or booster groups; making changes to the teaching programme or curriculum such as more personalised learning; differentiated teaching to meet the specific needs of pupils with EAL; other targeted initiatives to improve performance. In addition, the EAL coordinator keeps a register of all pupils with EAL needs in the school by year group and the school is very good at tracking the performance of pupils with EAL. This register records their name, sex, date of birth, date on roll, SEN, family origins, home language/s including literacy, their stage of English fluency by each year throughout their school career and attainment and test results. This information is updated once a term. All class teachers are given this information so that they have an up to date picture of their pupils' EAL stage. Overall, those learning English as an additional language are well supported and monitored by teachers and SMT.




Table 4. Sample of Year 10 Academic Assessment Year 2011-2012 Mid Term Monitoring Report 3 JUNE 2012 for parents and pupils.

NAME _____ Form Group _____

Academic Assessment




The boxes below represent overall progress at this point in the Academic Year

Attainment

TERM	TERM	TERM
		

























Performance in relation to students of similar ages nationally

Progress

TERM	TERM	TERM
		

Performance in relation to personal targets at the school

Please refer to Key overleaf

	TARGETS	TERM 1	TERM 2	TERM 3
	End of KS4			
Double Science	B			
English	B			
Food Technology	B			
French	B			
History	B			
ICT	B			
Maths	B			
RE	A			

Key – Attainment

Performance in relation to students of similar ages nationally



Excellent - results are on or above expected levels at this point in the Academic Year



Good - results are at an acceptable level for this point in the Academic Year







Satisfactory - some results are below expected levels at this point in the Academic Year



Unsatisfactory - some results are well below expected levels for this point in the Academic Year

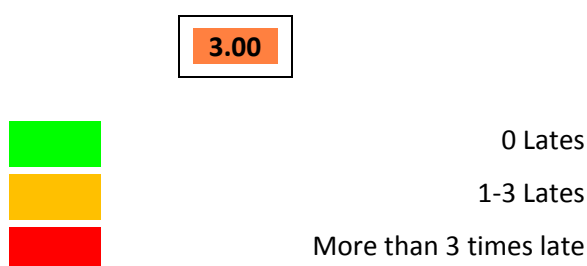
Key – Progress

Performance in relation to personal targets at School A

	<u>Excellent - progress towards targets at this point in the Academic Year is excellent</u>
	<u>Good - progress towards targets at this point in the Academic Year is good</u>
	<u>Satisfactory - progress towards targets at this point in the Academic Year is satisfactory</u>
	<u>Unsatisfactory - progress towards targets at this point in the Academic Year is unsatisfactory</u>

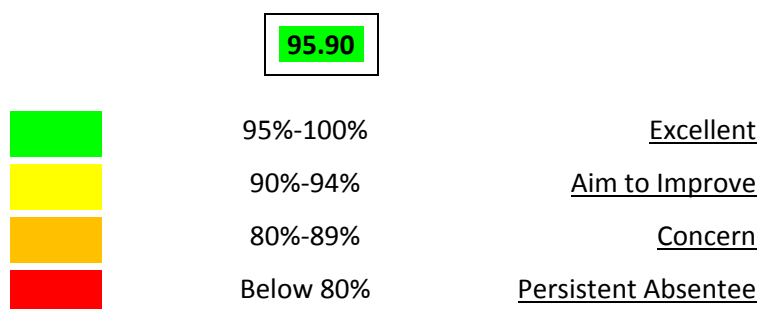
Punctuality

The box below represents the number of times has been late to school so far this Academic Year



Attendance

The box below represents attendance percentage so far this Academic Year



The deputy head speaks about the way in which the school uses data to intervene in a meaningful way:

'The use of targeted support works across the departments. We keep a very close eye on who is likely to pass English but not Maths or vice versa. We intervene with these pupils with booster sessions. We try to raise awareness of their situation with teachers, students and parents so that the students are focussed and supported during the run-up to GCSEs. I meet with the students regularly. We think it's about having a teacher they trust and achieving the right mentality.'

'We were aware last year that some students had skills or talents that were not accredited. They spoke a language fluently, for instance. Now, we make sure that they have the opportunity to do a GCSE in their home language if they are able. This also helps to make them aware of their own abilities and gives them confidence.'

'There has been personalised support, from the pastoral staff as well as from the academic staff. Year Learning Co-ordinators look as closely at the data as subject teachers and speak to the students about what they need to do as individuals to maximise their outcomes. We are working at developing the predictive skills of teachers so that we have increasingly robust data to work with.'

'We find that the important thing is having the confidence to use the data. This is important for staff at all levels. We know that there is only so much data you can convey to people. We try to keep it simple so that everyone can understand just what they have to do to succeed. We say it's not so much about the actual data but about how you use it for improvement. It's a person to person job. It's about motivating the children to do their best. You have to get the relationship and trust right - that's what matters.'

The deputy headteacher is in no doubt that the more focussed use of data has raised teachers' expectations and introduced more challenges into the teaching. In the school, teachers use the data to inform teaching strategies to determine specific interventions with individual children, such as extra support in Maths or intensive EAL support. Teachers interviewed also acknowledged the effectiveness of data and commented that:

'Data has been a fuel that has kept the 'engine for improvement' burning.'
'It has forced teachers to look at particular areas of attainment and decide what to do to help the children get to the next level.'
'The data provided by school helps you to target groups of children for specific types of help.'

This is further supported by another Assistant Headteacher who commented that data provided to teachers has been extremely useful:

- *'to highlight specific weaknesses for individual pupils, identify,*
- *weaknesses in topics for the class as a whole,*
- *inform accurate curricular targets for individual pupils,*
- *and tailor teaching to the needs of targeted groups.'*

The effective use of data by the school to provide well targeted support is also well recognised in an Ofsted report that states:

"The school is very successful in identifying and tackling barriers to learning for students from different cultural backgrounds and providing well targeted guidance and support. The high quality of the school's self evaluation and review results from rigorous monitoring and analysis of performance at all levels. This helps the school to identify and prioritise areas for improvement such as developing the skills and roles of middle leaders and improving assessment for learning." (Ofsted 2007)
"The school mid-term monitoring system plays an important role in securing positive value added for each student as there is targeted intervention for students requiring specific support." (Ofsted 2007)

The above good practice was well articulated by all people interviewed during our visit. The successful use of data owes much to the headteacher's vision in setting up a strong data support service, led by the data manager. The data manager is responsible for collating and monitoring trends and analysis of how the school performed in relation to similar schools and schools nationally. Comparisons are made between subjects using raw, contextual and value added analysis. The rapid analysis of data by the school data service, heads of departments and teachers means that areas of weakness are picked up and can become a priority for targeted intervention. Our observations during a day visit to the school confirm that school leaders and managers identify what does or does not seem to be going well at an early stage and act upon it swiftly to counteract underachievement, poor behaviour and unsatisfactory attitudes to learning. The school knows its strengths and areas for development very well. It monitors and evaluates the progress of the pupils rigorously using data and any underachievement is addressed quickly and effectively.

To conclude, evidence from this and previous research into the use of data in the school (see Demie et al 2006) confirms that the effective use of a wide variety of data has promoted teaching and learning by clearly indicating areas for development, identifying under-performing groups, the better use of staff and resources and for closely monitoring the effectiveness of initiatives and strategies. The interrogation of data is a key feature of pupil progress meetings (academic reviews) in the school. It supports schools in making judgments about the quality of teaching and learning and the impact of targeted interventions, as well as in planning further action to overcome barriers to attainment and progress.

Secondary Case Study: School B

The school sees the use of performance data as an essential part of school improvement and has used data as one of the key levers of change and improvement. The use of data involves all staff, governors and parents. One of the core elements of the school's success in raising achievement is its robust focus on tracking and monitoring individual student's progress and achievement in the widest sense of the term. The school has a well developed management information and pupil tracking system that suits the needs of the school. It allows a good range of telling evidence to be collected, analysed and evaluated including detailed CATS, KS2, KS3, GCSE assessment data followed by background data such as ethnic background, language spoken, level of fluency in English, date of admission, attendance rate, eligibility for free school meals, EAL stage of fluency, SEN stage, mobility rate, years in school, which teacher's class has been attended, attendance rate, types of support, postcode data. The school continues to refine the data held in its information and data tracking system, ensuring the data sets are simple, accessible, easy to understand and manageable. The systems can identify 'threshold' students and so trigger interventions. Using red, amber and green to indicate actual against expected levels of progress, attainment is clear and easy to grasp, which is useful for discussion with families. Families are regularly informed about their child's progress reports.

Table 5. Sample class spreadsheet for Pupil Tracking and monitoring

	Surname Forename	KS4 Course Work Concern- Progress Report	KS4 Effort- Progress Report	KS4 Effort- Progress Report	KS4 Home Work Concern - Progress Report	KS4 mock- Progress Report	KS4 Current Performance- Progress Report	KS4 Dunraven Target		% Grade	Target	Mock	Current Performance
Pupil 1		A		B		*A	*A	*A		*A	3.2%	4.3%	4.3%
Pupil 2		A		A		A	A	*A		A	20.9%	10.3%	21.8%
Pupil 20		C		A		NA	A			B	23.0%	12.4%	8.5%
Pupil 21		C		B		A	A	A		C	38.0%	33.5%	27.1%
Pupil 33		C		B		C	C	A		A*-C	85.0%	60.5%	61.7%
Pupil 34		A		A		B	A	A		D	11.8%	17.8%	20.7%
Pupil 35		A		A		B	A	B		E	3.2%	14.1%	14.9%
Pupil 47		A		B		B	A	A		F	0.0%	5.9%	2.7%
Pupil 49		A		A		B	A	B		G	0.0%	1.6%	0.0%
Pupil 50		A		B		C	B	A		A*-G	100.0%	100.0%	100.0%
Pupil 52		A		B		B	A	A		U	0.0%	0.0%	0.0%
Pupil 55		C	X	B		C	B	B		X	0.0%		
Pupil 56		A		B		B	A	B		APS			
Pupil 57		A		B		B	A	A		With result	187	185	188
Pupil 61		B		C	X	C	C	A					

	Student exceeded this predictive data		1 Grade below predictive data
	Student on par with predictive data		2 or more grades below predictive data/data missing

Periodically, the data is updated and progress towards targets is estimated. Students and staff have regularly updated grids including: the pupil's current attainments and personal targets; cohort list; detailed background, attainment and target data; classwork concern; homework concern; KS3 and KS4 mock results; key stages current performance based on teacher assessment and the school targets. Targets are based upon Cognitive Ability Tests (CATS), Fischer Family Trust (FFT) estimate, RAISEonline prediction and the school's additional challenging targets. Indicative grades are set for Key Stage 3 and GCSE. This data enables the schools to identify what steps they need to take to meet the needs of individuals, groups and cohort of pupils. The data system in the school is highly flexible. Data can be retrieved in many combinations at any time, to look at the performance, for example, of those with English as additional language, gifted and talented, different ethnic backgrounds languages spoken, free school meals, SEN stage, mobility rate, attendance rate, types of support, etc."

Table 6. Sample of Target spreadsheet based upon CATs, FFT, Raise predictions

Name	Attendance		Gender	EAL	SEN	CAT Prediction	FISCHER Prediction	RAISE Prediction	FINAL GCSE GRADE	% Grade	CAT	Fischer	RAISE
Pupil1	84.2	Other Black	F	4	N	B	*A	*A	*A	*A	0.0%	58.6%	35.3%
Pupil2	85.8	Other group	F		N	C	*A		A	A	33.3%	20.7%	17.6%
Pupil3	82.4	White British	M	4	N		C	C	C	B	23.8%	13.8%	17.6%
Pupil4	82.4	White British	M		N	B	*A	*A	A	C	33.3%	6.9%	29.4%
Pupil5	67.4	White	M		N	A	*A	*A	B	A*-C	90.5%	100%	100.0%
Pupil6	82.1	Caribbean	M	4	N	B	*A		*A	D	9.5%	0.0%	0.0%
Pupil7	80.8	Caribbean	M		N	C	C	C	B	E	0.0%	0.0%	0.0%
Pupil8	77.3	African	F		N	A	A	A	*A	F	0.0%	0.0%	0.0%
Pupil9	78.1	White British	F		N	C	B	C	A	G	0.0%	0.0%	0.0%
Pupil10	80.8	White British	M		N	A	*A	*A	*A	A*-G	100%	100%	100%
Pupil11	84.2	Caribbean	M		N	A	*A		*A	U	0.0%	0.0%	0.0%
Pupil12	75.7	White British	F		N		B	C	C	X	0.0%	0.0%	0.0%
Pupil13	75.4	Chinese	F		N	B	A	A	*A	APS	45	54	50
Pupil14	87.2	Vietnamese	F	4	N	C	A	B	*A	Reliability	0.25	0.59	0.64
Pupil15	85.0	Bangladeshi	M	4	N	D	B	B	B	Residual	1.52	-0.28	0.24
Pupil16	80.2	Chinese	M		N	A	*A		*A	-			
	Student exceeded predictive data					1 Grade below predictive data							
	Student on par with predictive data					2 or more grades below predictive data/data missing							

There are a number of good practices in the use of data in the school and evidence provided during the school visit confirms that:

- The school produces its own internal CAT, key stages assessment and GCSE information which is widely circulated and used by senior leaders, directors of learning, classroom teachers, learning mentors and classroom assistants. The school also uses a range of other comprehensive benchmarking, contextual and value added reports provided by the Local authority, FFT and national data from RAISEonline for self-evaluation, tracking individual student performance and target setting. Local Authority and nationally available data is effectively used for tracking students' progress between entry and KS2, KS3 and KS4 and to set challenging targets. The students are well aware of their targets and how they might achieve them, with a wide range of support mechanisms in place.
- Teachers have ready access to student data including attendance, behaviours and assessment results. Test results and teacher assessments are analysed to illuminate aspects of student performance. Subject teachers and tutors use data and other assessment information to review the performance and expectations of students. Teachers also make effective use of data to monitor and review individual student progress, especially to identify signs of underachievement or unusual potential and to provide support for differentiated groups of students and to help set targets for students and subject departments.

- Attendance data is extensively used at all levels to support teaching and learning. The data team provide all teachers and senior team with colour coded data where green refers to 95% and above attendance, yellow (90-94% and Red below 90%. This data is prepared by year group, class and individual students and is well used in the school.
- Data is made available across the school and is used to help review the pupils' progress and set targets. The Principal, the senior team and teachers have an accurate assessment of the school and individual student progress. As a result the school is effective in tracking and identifying any individuals or groups of all abilities who are not achieving as well as they could.
- Teachers make effective use of data to evaluate the quality of provision and to identify and provide targeted support for differentiated groups of students. The most common type of interventions employed in the school where data analysis had highlighted issues to be addressed were providing additional support including one-to-one support and making changes to the teaching programme or curriculum, such as, more personalised or differentiated teaching to meet the needs of EAL students or SEN or students in targeted initiatives to improve performance. This effective use of data and targeted support was demonstrated to us as part of the classroom observation we attended in the mixed ability group. Data is also used in the school effectively to review student setting and teaching groups and this has helped in raising achievement.

The above good practice is well articulated by the school's Data and Intervention team at the interviews. Discussions with the Principal, Deputy Principals, Teachers, Learning Mentors and Teaching Assistants also further confirmed that the school uses data to track student progress, set targets, identify underachieving students for further support, inform teaching and learning and strategic planning and to inform the setting and grouping of students. The school understands how well their students are doing. The school routinely monitors not just students' academic standards, but also teaching, learning and other aspects of their provision to evaluate the extent which they are adding to students' education, well being and care. The monitoring is linked to evaluation and the identification of priorities for improvement. These self-revelation processes have helped the school to identify further potential strengths and areas for improvement. Overall, the school is thorough and rigorous in the use of target setting, assessment and tracking individual student's performance to raise achievement. Data is used well to inform school improvement planning and self-evaluation. A recent Ofsted inspection supports the views of the Data Team, the school leadership team and states that:

"The detailed monitoring data based on GCSE module results and submitted coursework demonstrate that standards have not only been maintained this year but have improved from last year. These indicate that the challenging GCSE targets will not only be met but exceeded. The percentage of students leaving with 5+ A to C is very high and demonstrates the inclusive nature of the school"*
(Ofsted 2009)

The successful use of data owes much to the Principal's vision to set up a strong Data and Interventions team led by the Deputy Principal, Assistant Principal for Assessment and Data Manager. They are responsible for collating and monitoring trends and analysis of how the school performed in relation to similar schools and schools nationally. Comparisons are made between subjects using raw, contextual and value added analysis. Directors of Learning are expected to identify and target specific areas of improvement in their development plan. Teachers are also asked by the Data and Interventions team and the ST to identify and monitor the progress of individual

students who are underachieving. The school developed a strong sense of unity of purpose in its effort to improve through effective use of data in teaching and learning. The rapid analysis of data by the Data and Intervention team in the school means that areas of weakness are picked up and can become a priority for targeted intervention. Our observation during a two day visit to the school confirms that school leaders identify what does or does not seem to be going well at an early stage and acts upon it swiftly to counteract underachievement, poor behaviour and unsatisfactory attitudes to learning.

To conclude one common feature of strategies for raising achievement in the School is intelligent use of assessment data, progress tracking, target setting and support for students slipping behind with targeted interventions. Every student is expected and encouraged to achieve their full potential by teachers in the Secondary School. These high expectations are underpinned by the effective use of data to pinpoint underachievement and target additional support:

“Data is critical for raising standards. It is useful to track pupil progress and identify strengths and weaknesses”. (Deputy Principal)

Secondary Case Study: School C

The school is now data rich, with a wide range of data including KS2, KS3, CATS and optional assessments/tests for monitoring performance. GCSE examination data is rigorously analysed to identify areas for improvement and to identify support needs and organise the deployment of resources appropriately. The school has good systems for assessing and mapping the progress of all pupils, including ethnic and bilingual pupils at individual and group level. High quality assessment and tracking pupils are therefore features of the school. The school sees *‘the use of data as an essential part of school improvement and self-evaluation and is used as one of the levers of change.’ (deputy headteacher)*

There is good practice in the use of data at the school and evidence provided during a previous visit and this recent school visit confirms that:

- Key stage data is gathered as early as possible and analysed carefully by gender, ethnicity, and mobility, supplemented by other tests such as in English, mathematics or verbal reasoning tests.
- The school extensively uses KS3 to GCSE and KS2 to GCSE value-added data to improve the attainment of individual pupils in addition to monitoring the standards of year groups or the whole school. Each individual pupil is plotted on the chart according to their GCSE point score or KS3 point score and a level point score. The value-added charts offer the opportunity to probe the strengths and weaknesses within the group.
- Data is used as a baseline to monitor and review individual pupils progress, especially to identify signs of underachievement or unusual potential and to help set targets for pupils and subject departments.
- Subject teachers and tutors use data and other assessment information to review the performance and expectations of pupils. Test results and teacher assessments are analysed to illuminate aspects of pupils’ performance.
- The school produces their own internal CAT, key stage assessment and GCSE information which is widely circulated and used by senior managers, heads of departments, classroom teachers, learning mentors and bilingual classroom assistants.
- The school also uses a range of other comprehensive benchmarking, contextual and value-added reports provided by the Local authority, Fisher Family Trust (FFT) and national data from RAISEonline.

- The school has well developed management information systems (MIS) - SIMS so that all staff have quick and easy access to basic pupil data and timetables. This has guaranteed a consistent flow of information across all areas of the school. The system allows for individual pupils to be tracked, registered, reported on and monitored at all times. Using the MIS system the school produces good KS2, KS3, and GCSE data in a format that is easily accessible to the SMT and classroom teachers.
- The headteacher, the SMT and teachers have an accurate assessment of the school and individual pupil progress. Teachers and the SMT are well trained and confident in the use of the systems.
- Data is used for a number of purposes and is widely circulated to senior managers, heads of year, heads of departments and classroom teachers. There is strong evidence that individual teachers within the classroom use data for: lesson planning; to inform accurate targets for individual pupils, gender and ethnic groups; identifying weaknesses in topics or aspects in the class as a whole; arranging groupings for teaching and learning; tracking progress of pupils; setting high expectations with pupils and identifying implications for planning for different groups.
- Heads of Departments use data to identify and target specific areas of improvement in their development plan.
- Teachers make effective use of data to evaluate the quality of provision and to identify and provide support for differentiated groups of pupils. At classroom or pupil level, effective use of data enables the school to highlight specific weaknesses of individual pupils, identify weaknesses in topics for the class as a whole, inform accurate curricular targets for individual pupils and provide evidence to support decisions as to where to focus resources and teaching.
- Information and data systems have been developed that suit the needs of the school. They continue to refine them, ensuring that data are simple, accessible, easy to understand and manageable. For example, the school's data manager developed a spreadsheet that is a flexible and accessible medium to track the progress of groups and individuals, and to ensure that no student becomes 'invisible'. In the words of the school data manager the assessment tracking spreadsheet *'strongly supports the school's main business of teaching and learning. The system can identify 'threshold' pupils and so trigger targeted interventions. Teachers' record progress as points linked to National Curriculum levels or predicted GCSE grades. Using red, amber and green to indicate 'actual' against 'expected' levels of progress and attainment is clear and easy to grasp, which is useful in discussions with parents'*. The system is highly flexible. Data can be retrieved in many combinations and at any time, which makes the assessment database a valuable management tool, for example, in reviewing the impact of provision for gifted and talented pupils, or those with English as an additional language. (see table 7)
- Equality of opportunity sits at the heart of all the school does and this is shown by rigorous monitoring of the impact of its work on different groups of pupils (see Table 7). In this school, diverse groups of pupils make equally good progress because they are known as individuals and their learning is carefully tracked. Senior leaders analyse and interpret assessment information carefully to make sure no one is left behind and take swift action to remedy any shortfall.

Table 7: Sample of year 8 spreadsheet for tracking and monitoring pupil attainment and progress

Surname Forename	Gender	SEN Status	EAL	Gifted/Talented	EN TA English Subject KS2	MA TA Maths Subject KS2	SC TA Science Subject KS2	KS2: Average Point Score	V_SAS	N_SAS	Q_SAS	MEAN_SAS	End of KS3 English Target Levels	End of Y8 Eng Target Levels	Y8 English Current L Aut Term	English Progress Aut Y 8	Y8 English Current L Spring Term	English Progress Spr Y 8	Y8 English Current L Summer Term	English Progress Sum Y 8	Eng Intervention Y 8 Summer Term 1
Pupil A	F		Y	Y	4	4	4	33	103	124	109	112	6b	5a	4a	WTC	6c	EP	5b	WTC	HC
Pupil B	M		Y		5	4	4	30	93	85	108	95	7c	6b	4a	WTC	4c	WTC	4b	WTC	One to One
Pupil C	F	A	N		4	5	5	33	103	99	90	97	6b	5a	5c	WTS	4b	WTC	5c	WTS	HC
Pupil D	F		Y	Y	5	5	5	33	114	102	108	108	7c	6b	4a	WTC	5a	WTC	6b	GP	
Pupil E	M	A	N	Y	5	5	5	33	115	107	111	111	7c	6b	5c	WTC	4a	WTC	6a	EP	
Pupil F	M		N		4	4	4	27	97	108	106	103	6b	5a	4c	WTC	4a	WTS	5c	WTS	HC

EP: Excellent progress

GP: Good Progress

WTC: Working Towards Marginal (one sub-level below Target)

WTS: Working Towards Significant (2 sub-levels below Target)

WTC: Working Towards Concern (more than 2 sub-levels below target)

- Supporting teachers to raise the achievement of pupils with all groups of pupils is a strong focus of the school and as a result, pupils make rapid progress and achieve outstanding results at GCSE. This can be seen from the following case studies:

Case Study A: Student A came from Somalia in 1999 and attended primary school in Lambeth. She speaks Somali at home and was a beginner English speaker on arrival in the UK. She achieved Level 4+ in English, maths and level 5+ in science at KS2. By the time she completed GCSEs her fluency in English had improved to stage 4. Through targeted support, which included booster classes, one to one tuition, and in-class intervention, she achieved A grades at GCSE in English literature and mathematics, with B grades in English language, chemistry, physics, religious studies and study skills. She also achieved C grades in biology, engineering, statistics and business studies. What is particularly special about student A is that her value added score tops national expectations and she has shown excellent progress between KS2 and GCSE.

Case Study B: Student B came from Bangladesh and was a beginner English speaker when she joined primary school, Lambeth, in 1998. She was fully fluent in English at the time she completed KS2 and achieved level 4+ in English, maths and science. Through the support of the EAL Department and other targeted support in the school, she achieved A in art and design and additional science; B grades in English language, English literature, mathematics and French; C in science (core), health care, study skills, and D in statistics.

In a research interview, the EAL Co-ordinator also said that the school keeps a register of all children with EAL needs in the school by year group and that the school is very good at tracking the performance of EAL children. This register records their name, sex, date of birth, date on roll, SEN, family origins, home language/s, their stage of English fluency by each year throughout their school career and attainment and test results. This information is updated once a term. All class teachers are given this information so that they have an up to date picture of their pupils' EAL stage. There is an expectation that they will use this information in their individual target setting for individual children during independent activities. Strategies might include talk partners and speaking frames to reflect their level of fluency. Teachers could incorporate language structures into their planning- e.g. for stage 1 speakers, key words; for stage 2 speakers, a fuller response and for stage 3/4 an academic language response. These features are starting to be built into teachers' planning.

The most common type of interventions employed in the school, where data analysis had highlighted issues to be addressed, were: providing additional support, including one to one support or booster groups and making changes to the teaching programme or curriculum such as more personalised or differentiated teaching to meet the needs of EAL pupils, SEN pupils or pupils in targeted initiatives to improve performance. Data is also used in the school effectively to review pupils' setting and teaching groups and this has helped in raising achievement. The school also works to target and involve parents through home school partnerships and to encourage mentoring of pupils. The effective use of data has a major effect on teaching and learning in the school. The quality of teaching is very good and well informed by effective assessment and data. Teachers in the school analyse and build national curriculum tests and CAT information into their planning in order to identify strengths and weaknesses in curriculum areas. They structure their curriculum and teaching plans carefully and assessment and monitoring are an integral feature of the teaching and planning process. Work is planned carefully to match prior attainment and individual education plans are devised for all pupils with a below average profile, including EAL and SEN pupils. Staff think very carefully about strategies for grouping pupils and targeted support. Classroom lesson observation confirmed the standard of QTS teaching is very high and teachers unobtrusively and skilfully target questions, using their knowledge of individual pupils to good effect. There is evidence that detailed assessments of pupils' work are written and followed with helpful questions to aid pupils' learning. The children's contribution to the dialogue and discussion is impressive and there is good evidence of excellent teaching in the school.

In the words of the deputy headteacher, the data manager and a teacher, the focus on the use of data and targets in the school has:

'Raised the expectation of staff and pupils and makes you focus on what children are actually learning.' (Teacher)

'The school is good in assessing all pupils and teachers look at data carefully.' (Deputy Headteacher)

'We use data incredibly well for personalised learning and we have a well developed tracking system with detailed assessment data and background information, including ethnic background, language spoken, level of fluency, SEN stage, data of admission, mobility rate, years in schools, which teacher's class has been attended, attendance data, type of support and postcode data that is used for tracking pupil progress.' (Data Manager)

'Teachers use the data to review pupil performance, to have reflections and good conversations and to produce class profiles. This has been useful for assessment for learning and tracking individual pupils' performance. You cannot do without data.' (Assistant Headteacher)

The use of data in the school owes its success to the deputy head who has led in the use of data in the school for the last eight years. The deputy head was successfully able to empower all teachers and heads of departments to own the data that is needed for improving teaching and learning. The deputy headteacher argued that *"Data has the strongest impact and power when individual teachers use it to improve teaching and learning. The biggest change is when the staff own the data. It is important teachers and all staff understand and use the data effectively."*

To conclude, every pupil is expected and encouraged to achieve their full potential by teachers in School C. These high expectations are underpinned by the effective use of data to pinpoint underachievement and target additional support. Data is used effectively by senior managers, teachers, teaching assistants to pose and answer questions about current standards, trends over time, progress made by individual pupils, to track pupils' progress and to set high expectations in the School.

Good Practice in Primary Schools

Primary Case Study: School D

The school has a well-developed pupil tracking system and detailed FSP, KS1, KS2 and non-statutory assessment data followed by background data such as ethnic background, country of origin, language spoken, level of fluency in English, date of admission, eligibility for free school meals, EAL stage of fluency, SEN stage, mobility rate, years in school, which teacher's class have been attended, attendance rate, types of support, postcode data and experience of pre-school. In addition the school identifies and monitors the progress of 'joiners', who are pupils who have joined the school as non-routine arrivals.

The consistent use and analysis of school data has promoted effective self-evaluation and high standards of teaching and learning by informing professional discussions with key partners including governors, parents and staff; identifying pupils' achievement and informing target setting; monitoring the effectiveness of targeted support and interventions; supporting the allocation of staffing and resources and challenging the aspirations of staff, pupils and parents. Staff have developed a good understanding of the range of data available and this understanding has given them the confidence to plan for continuous school improvement. The effective use of school data has contributed towards the school's capacity to improve and key members of staff and governors have a good understanding of how data can be used to evaluate and improve the performance of a school.

Table 8 Sample of data used to monitor attainment and progress using average point scores

Group	ATTAINMENT				PROGRESS			
	Average Point Score –				Average points progress			
	November 2011				September - March 2012			
	Writing	Reading	Maths	Combined	Writing	Reading	Maths	Combined
All	8.17	8.31	8.73	8.57	4.52	4.28	4.00	4.26
Boys	7.53	7.84	8.84	8.07	4.53	4.37	4.00	4.30
Girls	9.40	9.20	9.10	9.23	4.50	4.10	4.00	4.20
Paid Meals	8.47	8.24	8.88	8.53	4.71	4.38	3.81	4.30
FSM	7.75	8.42	9.00	8.39	4.25	4.12	4.25	4.20
Black Caribbean	8.25	8.75	9.00	8.7	4.25	4.50	4.25	4.33
African	8.76	8.76	9.12	8.8	4.74	4.32	4.00	4.35
Joiners	11.00	10.00	10.00	10.3	5.00	3.00	4.00	4.00
EAL	7.00	7.38	8.50	7.6	3.44	3.81	4.14	3.79
SEN	6.62	6.39	8.00	7.0	4.38	4.06	3.75	4.06
G&T	12.75	12.50	11.00	12.0	6.50	5.25	4.00	5.25
All pupils	8.17	8.31	8.73	8.57	4.52	4.28	4.00	4.26
Excluding SEN	8.76	9.05	9.29	9.03	4.57	4.36	4.10	4.34

The successful use of data owes much to the capable, determined data manager who is responsible for collating and monitoring trends, results and analysis of how the school performed in relation to similar schools and schools nationally. Comparisons are made between subjects and teachers are held accountable for their results and this has helped to sharpen the focus to raise achievement. Teachers are expected to identify and target specific areas of improvement and to identify and monitor progress of individual pupils who were underachieving. The headteacher and leadership team monitor progress against targets. The school has developed a strong sense of pride and unity of purpose in their effort to improve through effective use of data in teaching and learning. In the words of the headteacher and data manager *'all teachers are trained in the use of data and the*

school uses data well. They understand what data tells them 'What is outstanding, good and satisfactory and areas of development. They are good at reading the data.' More importantly in this school, teachers are also responsible for the collection of all the data. As a result they know their data and class well, including issues which require intervention or support.

In addition the headteacher and the SMT play an important role in maintaining a focus on school improvement and in using data to set targets and priorities. The headteacher stated that:

'The school holds in-depth pupil progress meetings where we look at the data. We have to account for what we do for EAL, all other groups and individual pupils. This forms one of the areas of discussion in the pupil progress meetings and this is also used to formulate intervention groups. All of the teaching staff have an understanding of how well the pupils of the school achieve and how this compares with similar schools and national average. All teachers are involved in individual and group target setting and in the regular assessment of pupil groups. Teaching assistants are also aware of their target groups and they play a key role in helping individual pupils achieve significant improvement.'

The school is particularly proud of its approach to ethnic monitoring. It uses data to identify individual strengths and weaknesses in school provision to make target setting more responsive to the needs of the pupils. This monitoring is done by all teachers and the data manager who also uses the data from the assessment of the stages of English fluency. It was clearly noted during the interview with the headteacher and in the classroom observations that teachers are using data in a number of ways to motivate their class pupils:

'Teachers are confident in the use of data and assessment information. The data is shared widely within the school' (data manager)

'The school has been good in using our data to identify pupils who are particularly underachieving. The school looks very early on at the students who are underachieving against the FSP, KS1, KS2 results and this has led to a number of interventions or strategies where data analysis highlighted issues to be addressed in the school' (data manager)

'The most common interventions in the school as a result of looking at the data were changing a teaching approach, providing additional support including one to one, booster groups, tailoring teaching levels or the curriculum, mentoring and target setting.' (headteacher and data manager)

'All Pupils with EAL are assessed carefully using their stage of English fluency to ensure they receive appropriate support and are making the required progress.'
(teacher)

The evidence from our research confirms the use of performance data is a strength of the school and there is a strong focus on learning to ensure that no one is left behind, through detailed monitoring and tracking; those pupils below the expected level or at risk of falling behind are quickly identified and individual needs are targeted. The use of data in the school is widespread and used for tracking pupil progress, target setting, identifying underachievement, monitoring teachers and staff performance and informing teaching and learning. It has also promoted teaching and learning by clearly indicating areas for development, identifying under-performing groups, better use of staff and resources and for closely monitoring the effectiveness of initiatives and strategies. A comment from the headteacher captures the climate and the views in the school about effective use of data which supports some of the conclusions reached in this paper:

'Data is used as a driving force for raising standards and is central for the school self-evaluation process and target setting'. The use of data at all levels by teachers, also means that areas of weakness are picked up and can become a priority for early interventions.'

The school has developed rigorous monitoring and assessment systems which feed into individualised target setting and guarantee that each child is given the right EAL support. This has certainly had a major impact in raising the achievement of pupils with EAL as can be seen from the following case study:

Child A Case Study: Child A is a pupil with EAL and speaks Yoruba at home. She came from Nigeria and was assessed at a beginner stage when she joined the school nursery in 2004. In Year 6 she was further assessed as stage 3 level of fluency suggesting that she needed some additional support to develop more academic English. The school targeted her language development in maths, English and science and provided additional support through interventions, booster classes, one to one tuition, in-class intervention and support from a teaching assistant. Her records for KS1 suggest that she was assessed as 1 in reading and writing and 2B in maths. However, as a result of EAL support she achieved level 5 in maths and level 4 in English. This was indeed a good achievement for someone with stage 3 level of fluency in English to achieve level 4 in the English test.

Child B Case Study: Child B came from Nigeria in 2004 and speaks Yoruba at home. He was assessed as a beginner stage English on arrival in the school in Reception. His achievement at KS1 was 1 in reading and writing and 2C in maths. Significant English support was given through one to one and in class support. Additional EAL support has helped child B to achieve level 5 in English and level 4 in maths in the KS2 test results.

Child C Case Study: Child C came from Nigeria in 2004 and speaks Yoruba at home. She was assessed as stage 2 level of fluency in English with the need for considerable support while in Nursery and Reception. Her achievement at KS1 assessment was 2A in reading, writing and maths. At the beginning of Year 6, she was assessed as fully fluent in English. As a result of the additional targeted support child B achieved level 5 in English and maths in the KS2 test results.

From the outset Child A and Child B needed effective support to achieve good results in improving their level of fluency in English to access their primary education. With their limited language and literacy levels of English when they joined school, they had considerable needs. However through targeted support, effective assessment systems and tracking of pupil performance, both pupils proved English as an additional language need not be a barrier.

Primary Case Study: School E

One of the core elements of the school's success in raising achievement is its robust focus on tracking and monitoring individual pupil's progress and achievement in the widest sense of the term. The headteacher raised expectations through challenging everyone to think about the performance of the school, different groups, classes and individuals. The school used detailed performance data which was becoming increasingly available and now uses class, group and individual targets extensively. The use of data involves all staff, governors and parents. Ofsted stated that:

'Tracking of pupils' progress and attainment is rigorous and monitoring of teaching is clearly linked to the outcomes for pupils. Senior leaders and governors have an accurate understanding of the school's strengths and weaknesses and this underpins the school's capacity to improve.' (Ofsted 2010, p5)

In addition the school has a well developed pupil tracking system and it has detailed Foundation Stage, KS1, KS2 and optional assessment data for all year groups followed by background data such as ethnic background, language spoken, level of fluency in English, SEN stage, date of admission, eligibility for free school meals, mobility rate, years in school, attendance rate, types of support and postcode data.

The school sees data as an important tool in raising achievement:

'Data is critical in raising achievement. Without data you would not have any focus. It helps to create a picture that you wouldn't have otherwise, an overview of school, class and individual performance. We have moved on from compiling data, what makes it powerful is that we use it to prompt action to make sure that each child is doing well.' (Head of School).

Data is used to look at whole school, class issues and group issues, drilling down further to individual learning issues, for example the attendance of a particular pupil and the impact that this might have on their learning. The senior management team supports and challenges teachers to raise the performance of every pupil. The data is shared with all the staff, including teaching assistants so that everybody involved in pupils' learning has an overview of the issues. Support staff are included in training for example, levelling writing samples so that they too are aware of what next steps need to be in place.

Table 9. A sample of Year 2 records to monitor booster groups and provide evidence of their impact in making a difference to standards

	Lit Dec (WRITING)	Lit Mar	+ -	Mat Dec	Lit Mar	+ -
Name	1A	2C	+1	1A	2A	+3=1 LEVEL
Name	1A	2C	+1	1A	2B	+2
Name	1A	2C	+1	1B	2C	+2
Name	1A	2C	+1	1B	2C	+2
Name	1A	2C	+1			
Name	1A	2B	+2			
Name	1A	2C	+1			
Name	1A	2C	+1	1A	2B	+2
Name	1A	2C	+1			
Name	1A	2B	+2	1A	2B	+2

The school bases its improvement and support strategy on thorough monitoring and evaluation including the identification of what most needs to be done and decisions about actions to be taken. Data analysis enables the school to identify the pupils who are at risk of underachieving as early as possible and this has led to a number of interventions or strategies being employed. The most commonly reported interventions as a result of looking at the data is providing additional support, including one to one, personalised teaching, booster sessions and English language support. As a result, pupils with EAL in general make rapid progress and achieve outstanding results as they are monitored and closely supported. Pupils' comments illustrated that they valued this support highly.

Procedures for initial assessment, especially newly arrived pupils are well developed, providing baseline information. Where possible, the school uses pupils' first language as part of the assessment procedures and annotated writing samples in the pupils' home language. This informs individual target setting that is supported by bilingual teaching assistants and teachers.

**Table 10. Sample of evidence of Impact (One to one tuition) October 2011 - January 2012
(taking the teacher predictions in September)**

Literacy				
Name	Reading		Writing	
	Prediction Sept '11	Actual result achieved Dec '12	Prediction Sept '11	Actual result achieved Dec '12
Pupil1	3B	4C++	3C	4C+++
Pupil2 *+	2A	3C+	2B	2A+
Pupil3	3C	3B+	2A	3B++
Pupil4 *+	3C	2A+	2A	2A
Pupil5	2C	2A++	2A	2A
Pupil6+	3C	2A-	2B	2A+
Pupil7	3A	3B-	3C	3A++
Pupil8+	3C	2A-	2A	3C+
Pupil9*	2A	3B++	3C	3C
Pupil10	3B	3A+	3C	3B+
Pupil11	3A	3A	3B	3A+
Pupil12	4C	4C	3A	4C+
Pupil13	3B	4C++	3B	3A+
Pupil14	3A	3A	3B	3A+
Pupil15	4C	4C	4C	4C
Pupil16	4C	4B+	3A	4B++
+literacy specialist teacher support +LEXIA				
	Numeracy			
	Prediction Sept '11	Actual result achieved Dec '12		
Pupil2	3C	3B+		
Pupil 17	3C	3B+		
Pupil 18	3C	3C		
Pupil 1	2A	3b++		
Pupil9	2A	3C+		
Pupil20	2A	3B++		
Pupil21	3A	3A		
Pupil19+	3B	3A+		
Pupil 22	3A	3B+		

On target + = plus one sublevel ++ = plus two sublevels +++= plus whole level

Not on target to meet prediction - = minus one sublevel

At the beginning of each term the senior management team meets with each class teacher to review every pupil's levels and progress and to set targets for them in English, maths and science. Detailed performance and progress of all pupils including pupils with EAL, EMA, or SEN and all pupils identified for booster classes is considered. Those pupils who are not on track with their learning are highlighted, their levels are cross-checked with their stage of English fluency, barriers identified and interventions for example booster classes for Year 2,3,4,5 and 6 are put in place straightaway. Stages of English are assessed termly by the head of inclusion working with the teachers and teaching

assistants. This has highlighted groups of pupils who are stage 3 English fluency, but whose NC learning has plateaued and who *'are good at reading, but have issues in writing.'* These pupils are the focus of teaching to develop the academic structures needed in writing.

Teachers stay after school to take booster classes and teaching assistants give support. This provides consistency in pupils' learning. Pupils with EAL are a focus of the work of the school. The school also uses *Lexia Reading* software that provides a method for pupils to acquire foundational reading skills. The impact of EAL support, booster class and one to one tuition in raising achievement can clearly be seen from the case study outlines below, both for pupils who are new arrivals and those who have been in the school for few years.

Child A Case Study: Child A is a pupil with EAL and speaks Portuguese at home. He came from Portugal into the nursery class. In year 6 he was assessed as stage 3 level of fluency suggesting that he needed some support to develop the more academic English. The school targeted his language development in maths, English and science and provided additional support through interventions. As a result he got level 5 in maths and level 4 in English. This was indeed a good achievement for someone with stage 3 level of fluency in English to achieve level 4 in the English test.

Child B Case Study: Child B came from Poland in 2006 and speaks Polish at home. He joined the school near the end of Year 1, had no English on arrival and was assessed as a stage 1 beginner. His records for KS1 suggest that he was assessed as 2B for reading, 2C writing and 2A in maths. At the beginning of Year 6, his level of fluency in English was 3, suggesting that he needed some support to develop the more academic language. With additional EAL support from the teachers and teaching assistants he achieved level 4 in English and level 5 in maths in the KS2 tests. This is indeed good achievement for a child who had only been in the school for 5 years.

Child C Case Study: Child C speaks Chinese at home. The school gave full support from the beginner stage with English lessons. His KS1 results were assessed as 2A for reading, 2B writing and maths, but with the EAL support provided he managed to achieve level 5 in English and maths. This again is a remarkable achievement for a child with EAL who had to learn English, when starting school in England.

Overall there are excellent systems for monitoring the work of pupils, identifying those who need additional help or extra challenge and then providing them with appropriate additional support

Primary Case Study: School F

Use of individual pupil progress and achievement data are at the heart of the school improvement agenda and is the strength of the school. (see Table 11 and 12). The school keeps records of all pupils and it has its own good tracking systems developed by the headteacher and uses an EXCEL database for data management.

As the headteacher explained *'There is rarely one factor accounting for underachievement.....there are so many groups and even within groups pupils do well, so we need to ask why? We need to drill down further to the individuals. For example, the data for a Somali pupil who made rapid progress gave a false impression for the 'Somali group', where many had been level 5c for a while.'* The teachers use the data incredibly well for personalised learning and there is a well- developed tracking system with detailed assessment data and background information including ethnic background, language spoken, level of fluency, SEN stage, data of admission, mobility rate, years in school, which

teacher's class has been attended, attendance data, type of support and postcode data that is used for tracking pupil progress

Good practice in the use of data and evidence provided during the school visit confirmed that:

- The school is data rich and uses FSP, KS1, KS2 assessments for monitoring performance and to look at whole school, class, group and individual issues.
- Data are widely shared with classroom teachers, senior leaders and inclusion staff. There is evidence that individual classroom teachers use data for lesson planning, to track the progress of pupils, to inform targets for individual pupils and ethnic groups, to identify weaknesses in topics or aspects of class teaching as a whole. The school uses data for targeted support and the staff spend a good deal of time during the year 'drilling down' to individual needs.
- Pupils with EAL are identified through individual initial assessment and on-going 'stages of English' data which is updated three times per year.
- Data is used as a baseline to monitor and review individual pupil progress, especially to identify signs of underachievement or unusual potential and to help set targets for pupils and subject departments.
- Subject teachers and teaching assistants use data and other assessment information to review the performance and expectations of pupils.
- Test results and teacher assessments are analysed to illuminate aspects of pupils' performance.
- The school also uses a range of other comprehensive benchmarking, contextual and value-added reports provided by the Local authority, FFT and national data from RAISEonline.

The head teacher has a clear vision about driving up standards. He believes that there needs to be a shared understanding of performance data across the school and how it is used to raise pupil performance. In order to facilitate this, after assessment week three times a year the school holds a Learning Assessment Forum Week (LAFW). Each class teacher is released for a day to work in the morning with the headteacher to analyse their class data and the Inclusion Manager and SENCO in the afternoon to discuss targeted support, to *'discuss the groupings, whether particular children would benefit from extra reading support, to start the statementing process for a particular child. It's about balancing out the resources we have'*

At present there are target groups of children, 6 in reading, 6 in writing and 6 in maths.

'The idea is that teachers must turn these children from red, at the beginning of the year, to green (national age related expectation colour on the tracking chart). The idea is for the class teacher and TA to take ownership for the learning of those children. I want them to be empowered to make the difference. I want them to say.. this is the resource I need to make the difference to this child. I want this to be self perpetuating rather than all from me, I want the phase leaders to take over this role and report back to me.' (headteacher)

The Key Stage 2 teachers always have access to the KS1 results so that they can assess progress from Year 2. There are many moderation meetings throughout the year, both whole school and in phase groups. There are whole school priorities e.g. writing but sometimes Learning Assessment Forum Week meetings with individual teachers can highlight that the whole school priority is not appropriate for a particular year group e.g. in Year 5 this year writing was not the priority but maths achievement overall. *'We need to learn this lesson by November so that something can be done about it quickly.'* (headteacher)

Data is used for a number of purposes and it is widely shared with classroom teachers and senior staff. There is evidence that individual teachers within the classroom use data for lesson planning, to track the progress of pupils, to inform targets for individual pupils and ethnic groups; to identify weaknesses in topics or aspects of class teaching as a whole. The school uses data for targeted support and staff spend a good deal of time during the year *'drilling down'* to individual needs. The headteacher has brought in new, extra, teachers since he started at the school to ensure flexible high quality support where it is needed. An example of this is that children in Years 2, 4 and 6 have had high quality guided reading and writing support from teachers, rather than TAs on top of their daily curriculum which has had an impact on their achievement. One of the extra teachers is a literacy expert who is able to teach collaboratively with class teachers.

In September there is a 'transition year' for the Reception children going into Year 1. There will be three cohorts of 20 children. *'This is because even the children who get 7's on the Foundation Stage Profile don't necessarily progress all the way to 1a by the end of Year 1, usually an indication that they will get a level 2b. Sometimes they need some extra input in Year 1.'* (headteacher)

The Inclusion team has 3 part time teachers who cover teaching interventions such as EAL support, G and T, Talking Partners, Group support in the Foundation Stage, team teaching in maths and reading comprehension support in Year 6.

Teachers plan together with their parallel year group teacher for 9 days of learning. The 10th day is their PPA time when their class receive a maths workshop and an English workshop either side of lunchtime. *'Children get consistency with their PPA time as they know the teachers and the PPA teachers are not picking up someone else's planning.'* (headteacher)

Teachers also work across both classes for example there might be a Year 1 phonics intervention group for the whole year group. This is mutually supportive and means that teachers can draw upon each other's expertise which has benefits for the children they teach.

Sixteen children have had ten weeks 1:1 tuition, funded by City Challenge, all on writing. These were children that were low level 3's, *'they've been turned into high level 3's which has made them an overall level 4 in English. This has made a difference to white working class children here.'*

Interviews with the inclusion manager, EAL teacher, learning mentor and EAL teaching assistant, further suggested that the school uses data to track pupil progress, set targets, identify underachieving pupils for further support, inform teaching and learning and strategic planning and the setting and grouping of pupils.

The most common type of interventions employed in the school where data analysis had highlighted issues to be addressed, were specific EAL programmes like 'Talking Partners', talk groups, one to one support or booster groups, specific reading programmes and making changes to the teaching or curriculum such as more personalised or differentiated teaching to meet the needs of pupils with EAL or SEN or pupils in targeted initiatives to improve performance.

Overall there are excellent data systems for monitoring the work of pupils with EAL, identifying those who need additional help or extra support and monitoring the impact of such support. This also means that those with learning difficulties receive the help they need, whether it is emotional or academic. Pupils who need support in learning English are equally well provided for and all pupils know and understand their targets, being clear about what they have to do to improve. Parents are also fully consulted in order to help focus support where it can be most effective.

Table 11. Sample of spreadsheet to track pupils' progress for Year 5- Reading

Name	Reading- Pupil Progress Year 5									
	KS1	APS	July Y4	APS	Autumn	APS	Spring	APS	Summer	APS
					Term 2		Term 4		Term 6	
Pupil 1	2b	15	2a	17	3b	21	3b	21	3a	23
Pupil 2	2b	15	3b	21	3a	23	4b	27	4b	27
Pupil 3	2c	13	3a	23	3b	21	3a	23	4c	25
Pupil 4	1c	7	2b	15	2b	15	2a	17	2a	17
Pupil 5	2a	17	4c	25	4c	25	4b	27	4a	29
Pupil 6	1c	7	3c	19	3b	21	2a	17	3b	21
Pupil 7	2a	17	4c	25	4c	25	4b	27	5c	31
Pupil 8	2a	17	4b	27	4c	25	4b	27	5c	31
Pupil 9	2b	15	4c	25	4c	25	4c	25	4c	25
Pupil 10	2b	15	3b	21	3a	23	3a	23	3a	23
Pupil 11	W	5	1c	7	1c	7	1c	7	1c	7

N.B: School use for all year groups progress including for writing, reading and maths. This is a sample for Reading.

Table 12. Sample of spreadsheet to track pupils' progress for Y5-Reading, Writing and Maths 2008-09

Name	WRITING					READING					MATHS				
	KS1	July Y4	Autumn Term 2	Spring Term 4	Summer Term 6	KS1	July Y4	Autumn Term 2	Spring Term 4	Summer Term 6	KS1	July Y4	Autumn Term 2	Spring Term 4	Summer Term 6
Pupil 14	2a	3a	3a	3a	4c	2a	4c	4b	4a	4a	2b	3b	3b	3b	3a
Pupil 15	1a	3c	3c	3c	3b	1a	2b	2a	3c	3b	1c	2b	2b	3c	3b
Pupil 17	2b	3b	3a	3a	4c	2b	3b	3a	3a	4c	2b	3b	3c	3b	3a
Pupil 18	W	1b	1a	2c	2c	W	1c	1a	1a	2c	W	2c	2c	2a	2a
Pupil 19		2b	2a	2a	3c		4c	3b	3a	4c		3b	3c	3b	3a
Pupil 20	1a	2b	2b	2a	3c	2c	2b	2a	3c	3c	2b	3b	3c	3b	3a
Pupil 21	2b	3b	3b	3b	3a	2b	3b	3a	4c	4b	2b	3c	3c	3c	3a
Pupil 23	2b	3a	3b	3a	3a	2b	3b	3a	4c	4b	1a	3b	3b	3b	3a
Pupil 24	2a	3b	3a	3a	4c	2a	4c	4c	4b	4a	2a	3a	3a	3a	4c

N.B: The data system is highly flexible. The spreadsheet have all social background data and Data can be retrieved by English as additional language, gifted and talented, ethnic background, language spoken, free school meals, SEN stage, mobility rate, attendance rate, types of support, class attended, etc and used by classroom teachers.

Primary Case Study: School G

Effective use of data is a strength of the school and key for raising achievement and tracking pupils performance. In the past the school has used a wide range of assessment and analysis tools but now uses extensively a combination of school, LA and national data. This includes school produced KS1, KS2, optional tests, baseline assessment data and LA school profile, contextual KS1 and KS2 reports and value-added data. The school also uses NFER Year 2 to Year 6 Reading and Maths tests. The headteacher and her deputy have the overall responsibility for analysing performance data. Both have the expertise for interrogating the data and in ensuring classroom teachers, senior teachers and the assessment co-ordinator use data to improve teaching and learning. They also make sure that other colleagues are trained to take on this role.

The school is good at carefully keeping records of all pupils. The school has its own good tracking systems and uses a Microsoft EXCEL database to input data. The programme is able to produce spreadsheets showing individual pupil progress and graphs showing progress within individual classes. This data is analysed by the senior management team (SMT). The SMT and the teacher/s meet to discuss the implications and plan any appropriate action. At the beginning of each academic year teachers are provided with data relating to the prior attainment of all children in their classes. This enables them to plan for the class, groups within the class and for individual children.

The tracking system provides information to enable teachers to track pupil and class progress, set precise objectives for their lessons and share these objectives with children at the start of each lesson. It also allows teachers to set individual pupil targets for both the short and medium-term, set group and class targets, provide additional support to both the gifted and talented and the less able children, as appropriate, and keep parents fully informed of their child's progress.

The pupil tracking systems in the school are very useful to look at attainment using baseline assessments/tests on entry, KS1 and KS2 by any combination of factors. These include ethnic origin, gender, free school meals, mobility rate, EAL stage, SEN stage, years in the school, whether a pupil attended a nursery class, term of birth, previous schools and number of schools attended, date of admission and pupil address and postcode information.

Children are not subject to any other assessments, except in Reception where the school uses the Foundation Stage Profile. At present, information from the Foundation Stage Profile does not form part of the overall school tracking system.

There are two formal assessments each year. There is a teacher assessment (except reception and Year 1) and there are also the Year 2 and Year 6 statutory outcomes, the optional tests for Years 3, 4 and 5 and a teacher assessment for reception and Year 1.

Assessments are made against each attainment target and level. The school is also very familiar with QCA point scores. All teachers have a clear understanding of how the point score relates to national curriculum levels.

There are also regular opportunities for all staff to come together to moderate the children's work, particularly writing, and to develop a shared understanding of the national curriculum levels.

Teachers have ownership of the tracking system as they are involved in classroom forecasting using spreadsheets, although class and school performance is analysed by the headteacher and deputy headteacher.

In addition to its own school data, the school also uses LA data extensively, for example, the KS1 and KS2 contextual and value-added reports which include analysis by factors such as gender, ethnic background, fluency in English, free school meals and mobility rate. Each key stage report is four pages in size and easy to use for governors and headteachers. These reports also include trend performance data for each school, compared with LA and national averages, as well as 'families' of schools with similar characteristics. The school and governors use each individual key stage contextual report to monitor progress over time and to identify factors influencing performance, to identify key areas of action to ensure improvements, and to set targets and address issues of underperforming groups of pupils. The school profile, contextual and value-added reports provided by the LA have been very useful to ask a number of the following questions:

- How well are we doing?
- How do we compare to similar schools and other borough schools in respect to performance at KS1, KS2, by gender, free school meals, mobility rate, term of birth, and level of fluency in English?
- What is the relative performance of different groups?
- What are the strengths and weaknesses of the school?
- What more should we aim to achieve?
- What must and can be done to improve?
- Taking action and reviewing progress

Overall, the school uses data effectively to raise achievement. There is a particular focus on the analysis of national curriculum tests results and the quality of teaching, all of which are regular aspects of review in the normal cycle of departmental and whole-school improvement planning. Test results are routinely analysed and performance indicators were introduced. The school use its own school data and LA data to track pupil progress, to inform teaching and learning, to identify underachieving pupils for further support, to set targets and to compare between groups, subjects, individuals and schools. At classroom level effective use of data enabled the school to highlight specific weaknesses of individual pupils, identify weaknesses in topics for the class as a whole, inform accurate curricula targets for individual pupils and provide evidence to support decisions as to where to focus resource and teaching. Early intervention is based on a detailed analysis of need and is a key strategy in the school's drive to raise standards.

The way that the pupil performance data is collected, analysed and disseminated has enabled the school to focus very clearly and target areas of the curriculum, groups and individuals effectively. The headteacher and teaching staff interviewed are absolutely convinced of the value of the data in focusing on key issues, and view the school spreadsheets as invaluable tools for monitoring performance and target setting. They provide a clear visual image of where the class is in relation to the whole school.

According to the headteacher:

'Data is used very well in the school to identify areas of improvement. We think data is critical to improve classroom practice and identify underachieving groups. We particularly use the Lambeth school profile, contextual and value-added data, as they are invaluable and easy to use in comparison to national data such as RAISEonline or Fischer Family Trust. They provide clear and user friendly information. The data in the reports trigger a series of questions and suggests area of discussion with teachers and governors about classroom practice.'

Overleaf is an example of the value-added KS1-KS2 data analysis that the LA provides to all Lambeth primary schools in the autumn term every year.

Table 12. Sample of Value-Added Tracking Table

Pupil Details									Key Stage 1 - 2008				Key Stage 2 - 2012			
ID	SURNAME	FORENAME	SEX	Mobility	ETHNICITY	FLUENCY	FSM	SEN	READING LEVEL	WRITING LEVEL	MATHS LEVEL	APS	ENGLISH MARK	ENGLISH LEVEL	MATHS MARK	MATHS LEVEL
1	Surname	Forename	F	S	African	Stage 4	F	A	2B	2B	2B	15	86	5	87	5
2	Surname	Forename	M	S	Any other group	Stage 4	P	P	2B	2B	2B	15	74	4	94	5
3	Surname	Forename	M	S	African	Stage 3	P	S	2B	2B	2B	15	65	4	72	4
4	Surname	Forename	F	S	African	Stage 4	P	A	2A	3	2A	18	93	5	83	5
5	Surname	Forename	M	S	Asian Other	Stage 4	F	N	1	1	2C	10	74	4	89	5
6	Surname	Forename	M	S	African	Stage 4	P	N	2C	2C	2C	13	67	4	85	5
7	Surname	Forename	M	S	Any other group	Stage 4	P	N	3	3	2A	20	97	5	97	5
8	Surname	Forename	M	S	African	Stage 3	F	S	1	2C	2C	12	68	4	49	4
9	Surname	Forename	F	S	White British	Eng Only	F	N	2A	2B	2B	16	73	4	77	4
10	Surname	Forename	M	S	White British	Eng Only	F	N	2A	2B	2B	16	63	4	82	5
11	Surname	Forename	M	S	African	Stage 4	F	P	2B	2A	3	18	87	5	93	5
12	Surname	Forename	M	S	Mixed Caribbean/White	Eng Only	F	N	2A	2B	2B	16	75	4	74	4
13	Surname	Forename	F	S	White British	Eng Only	F	S	2C	2C	2B	14	62	4	80	5
14	Surname	Forename	F	M	Mixed Black/White British	Stage 3	F	N	Missing	Missing	Missing	0	66	4	82	5
15	Surname	Forename	F	S	Pakistani	Stage 4	P	N	3	3	2A	20	95	5	87	5
16	Surname	Forename	F	S	African	Stage 2	F	N	W	1	W	5	66	4	61	4
17	Surname	Forename	M	S	Black Other	Eng Only	F	N	2C	2C	2C	13	68	4	69	4
18	Surname	Forename	M	S	Any other group	Stage 3	P	N	2B	2B	2C	14	69	4	83	5

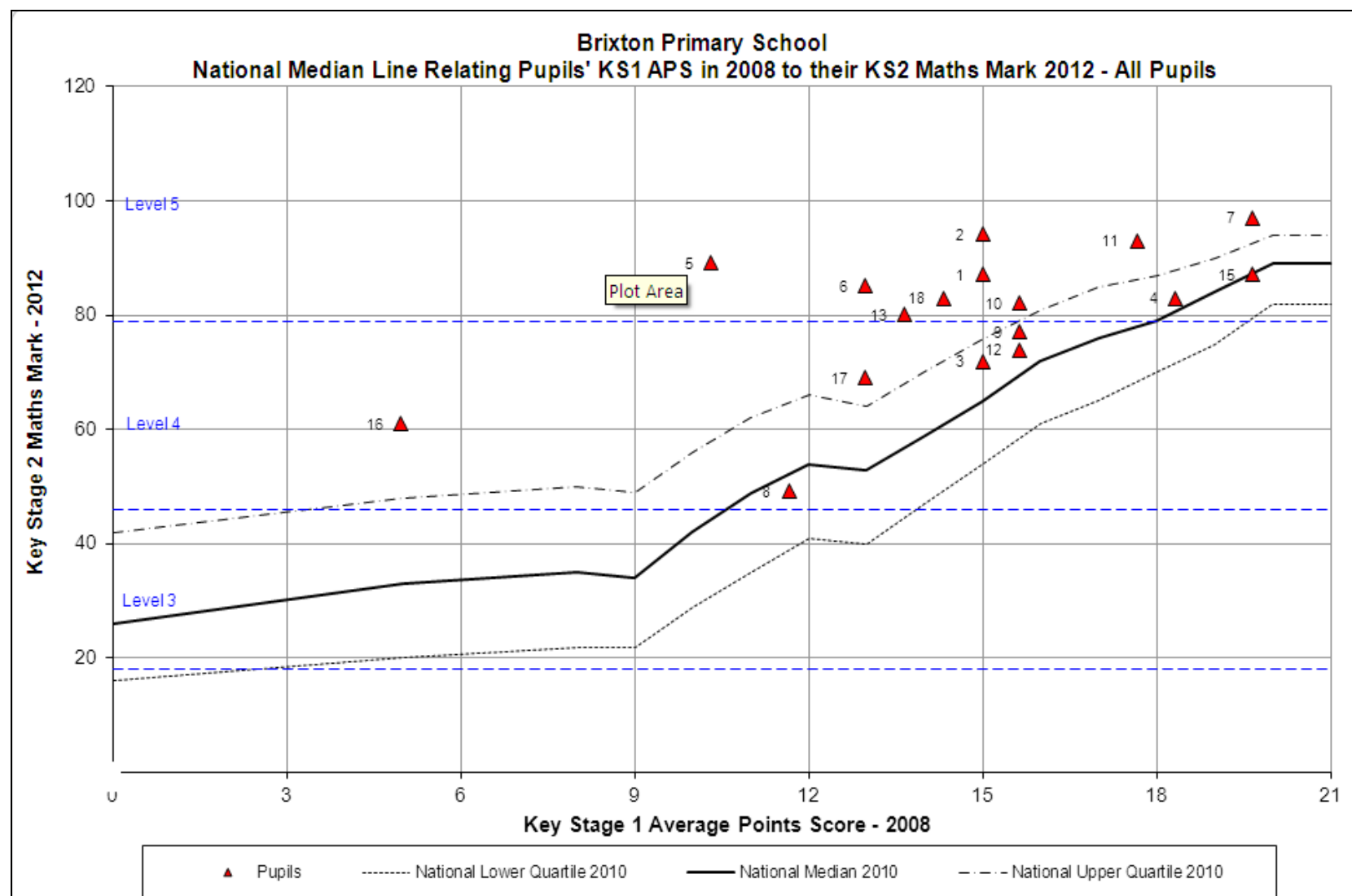
N.B The school tracking system is detailed and includes information such as gender, ethnic background, free school meal status, and fluency in English. This spreadsheet also adds teacher forecast and school targets for English, Maths and Science at the end of Years 3, 4, 5, and 6. The table above is a sample of the Year 6 tracking system. The school also has similar tracking systems for reception, and Years 1 to 5.

Guidance in regard to levels shown in the table: B = Working below the level of the tests. Missing = KS1 data not available.

Mobility status: M = Mobile; S = Stable.

SEN status: N = No SEN; A = School Action; P = School Action Plus; S = Statemented

Figure 5. Brixton Primary Maths Value-added



Summary and Conclusion

Use of performance data for school improvement is a strength of the case study schools. Data is used as a driving force for raising standards and is central to the school self-evaluation process. There are four main data sources used by case study schools for self-evaluation, planning for improvement and setting targets. This includes the school's own data including teacher assessment; RAISEonline, Fischer family Trust (FFT) and Local Authority data.

These schools are now in a data rich environment and children are assessed at age 7, 11, 12, 13, 14 and 15 using key stage assessments, Cognitive Abilities Test (CATs) and GCSE public examinations and produce their own data. Schools use spreadsheets and school management software to keep careful records of all pupils. It is possible to look at attainment using foundation stage profiles / tests on entry, FSP, KS1, KS2, KS3 and GCSE by any combination of ethnic origin, gender, free school meal status, mobility rate, EAL stage, SEN stage, years in the school, term of birth, which teachers classes had been attended, previous school, number of schools attended, date of admission and pupils address and postcodes. Schools produce their own internal teacher assessment that is widely used by senior managers, assessment co-ordinators, heads of year, heads of department and classroom teachers.

In addition to their own school produced data, the case study schools use alternative external data sources and a range of different data and analysis to make sound judgements about their school performance and progress. The case study schools effectively use the national performance and assessment data in DfE/Ofsted RAISEonline report data that includes contextual information, raw attainment data, contextual value added and target information about their schools. This is supplemented by the national data produced by Fischer Family Trust which is similar to those contained in RAISEonline. The FFT and RAISEonline are circulated to the senior management team.

The schools also use a range of historical comprehensive benchmarking, contextual and value-added data provided by the Local Authority. Schools use the Local Authority School Profiles which provide a comprehensive set of benchmarking data to support governors and headteachers in developing their roles and exercising their responsibilities for the strategic management of schools. The School Profile data is used to identify possible strengths and weaknesses of the school and asks a number of questions of overall school performance such as *'What does it tell me about my school? Do we know why we are in that position? Are we happy to be where we are? Where do we want to be in one or two year's time and how do we get there?'* (Demie 2003:463).

In addition, the case study schools extensively use customised Local Authority contextual and value-added data. The FSP, KS1, KS2, KS3 and KS4 contextual report provides analysis by factors such as gender, ethnic background, fluency in English, free school meals and mobility rate. Value-added data is also used extensively in schools to track the performance of individual pupils to monitor their educational progress. This value-added information includes scatter plots by ethnic background, free school meals and gender and is *'seen in the schools, along with other pupil performance information, as essential to enhance teachers' abilities to analyse their effectiveness in terms of the progress their pupils have made and to enable them to take necessary steps for improvement'*

The schools and governors use contextual and value-added reports to monitor progress over time and to identify factors influencing performance, to identify key areas of action, to ensure improvements and to set targets and address issues of underperforming groups of pupils. Over time the schools' own data, the Local Authority contextual and value-added reports and RAISEonline reports have been very useful in asking a number of the following questions in context of factors influencing performance in the school:

- How does the school compare to other borough schools in respect of performance at entry KS1, KS2, KS3 and GCSE, by gender, free school meals, mobility rate, and terms of birth and levels of fluency in English?
- What is the relative performance of different ethnic groups and mobile pupils in the school compared to the Local Authority and national average?
- What is the relative performance of different ethnic groups by free school meals and gender in the school compared to the Local Authority and national average?
- How many pupils appear to be achieving less than expected levels at the end of KS2, KS3 and GCSE tests?
- What are the school's strengths and weaknesses?
- What must be done to improve?

These questions are debated and discussed at staff and governors meetings as a basis for self-evaluation and raising standards in all schools. As a result the senior management team, teaching staff and governors are well informed of the performance trends of the schools.

Overall the growth of interest in the use of data in schools has been striking. In all case study schools using data and monitoring performance is seen as an effective method of raising achievement levels. The schools make detailed analysis of data to enable them to identify the strengths and weaknesses of its performance not only across phase, subjects and groups of pupils, ethnic groups, socio-economic indicators, but also class by class, pupil by pupil and question by question, using the full range of raw, contextual and value added data produced by schools, LA, DfE/Ofsted and FFT. This has helped the case study schools to diagnose the reasons for any variations in performance, to identify priorities for improvement, to plan the actions and to put in place the support to bring about that improvement. The schools regard improving the use of data as the key elements of improving schools and identifying underachieving groups.

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