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Her Majesty's Inspectorate
for Education and Training in Wales

How well are the All-Wales Core Data Sets used to inform self-evaluation and planning for improvement?

June 2012



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Introduction

- 1 This report is published in response to a request in the Ministerial remit letter to Estyn for 2011-2012. The purpose of the remit is to evaluate the extent and effectiveness of the use of the All-Wales Core Data Sets ('the core data sets') to inform self-evaluation and planning for improvement in schools. The report focuses on primary and secondary schools and the role of governors and local authorities. Currently, special schools do not receive core data sets. The core data sets do not include data about level 3 qualifications (post-16).
- 2 The report is intended mainly for staff in schools and local authorities. The report may also be useful to inform the further development of the core data sets, accompanying guidance and governor training. The newly-formed consortia should also consider the best practice highlighted in the report in planning how they will use the core data sets.
- 3 The findings and recommendations in the report draw on:
 - visits to 12 primary schools and 11 secondary schools, which included interviews with school leaders and governors;
 - analysis of inspection findings from primary and secondary schools and local authorities between 2009 and 2011;
 - interviews with officers and Council members of five local authorities;
 - previous Estyn survey reports;
 - evidence provided by the Welsh Government; and
 - documents provided by schools and local authorities.

Background

- 4 Before the introduction of the core data sets, schools received data on their performance from three main sources:
 - the national pupil database;
 - the Data Exchange Wales summaries of performance for key stages 1, 2 and 3; and
 - the 'Summary Report of Achievements of Pupils' for key stages 4 and 5, which contains examination information specific to each school (called the 'RE2 Form').
- 5 Each of these data sources provided schools with analyses of their performance. The majority of local authorities supplemented this information with their own data packs. However, the content of these additional data packs differed across Wales and too many schools did not receive any further data analyses. As a result, there was no consistency in how schools and local authorities across Wales evaluated school performance to identify areas for improvement.

- 6 The Estyn report on the 'Use of Performance Data in Local Authorities and Schools' (February 2008) identified that:
 - not all local authorities analysed data in sufficient detail for schools or provided schools with analyses that enabled them to compare their performance with other schools;
 - a minority of local authorities did not routinely share comparisons with similar schools on the free-school-meals benchmarks with schools; and
 - nationally prepared data sets arrived too late for school and local authorities to use them effectively in target setting.
- 7 The 'Use of Performance Data in Local Authorities and Schools' report also recommended that the Welsh Government should provide existing national data sets earlier in the autumn term and review whether any further analyses should be provided nationally.
- 8 The Estyn report on 'Local Authorities and Schools Causing Concern' (May 2009) recommended that the Welsh Government provide a comprehensive, common set of school performance data analyses to all schools and local authorities.
- 9 In 2009 the Welsh Government replaced the National Pupil Database with the All-Wales Core Data Sets. The core data sets contain a range of different graphs, charts and tables illustrating:
 - a school's results against local and national performance;
 - the difference in performance between girls and boys and between those pupils who receive free school meals and those who do not; and
 - comparisons with performance of similar schools on the free-school-meal benchmarks.
- 10 In secondary schools, the core data sets also contain graphs comparing a school's performance against what could be expected given its level of free school meals and graphs showing the value-added between key stage 2 and key stages 3 and 4.
- 11 The core data sets contain a range of comparisons for performance in the core subjects at all key stages and for the non-core subjects in key stage 3. There is no analysis of performance of the non-core subjects in key stage 4.
- 12 Each section in the data sets begins with a set of questions that schools can use to evaluate their performance. These are accompanied with guidance notes for each key stage, covering the general principles of self-evaluation, 'health warnings' on specific contexts, such as those where numbers of pupils are low, and detailed guidance on how to use each chart.
- 13 The core data sets also introduced the concept of 'families' of similar schools. The families are created by initially grouping schools according to whether the language used in the school is mainly English or Welsh. Schools are then grouped according to their score on an 'index of challenge'. This index is derived from a number of contextual factors, including:
 - the percentage of pupils entitled to free school meals and other socio-economic factors;

- the percentage of pupils with school action plus support or special educational needs statements; and
 - the proportion of pupils of statutory school age who are either new to the English language or Welsh where relevant, at an early acquisition stage or developing competence.
- 14 The core data sets include comparisons of the performance of schools with other schools in their family. Schools know the names of the other schools in their family and the intention is that schools can contact family schools to share good practice and seek advice. Membership of the families has been fixed for three years to allow enough time for relationships between schools to develop.

Main findings

- 15 The use of the All-Wales Core Data Sets ('the core data sets') is contributing to better self-evaluation and enabling better co-operation between schools, particularly those in the families¹ of schools. Schools are increasingly liaising with higher-performing schools in their family to discuss strategies for improvement and to share best practice.
- 16 The range of indicators, new analyses, graphs and charts contained in the core data sets is used by most schools to evaluate their performance and to identify areas for improvement. New analyses of performance data, which were not previously available to all schools in Wales, include comparisons with similar schools for pupils achieving the higher levels in the National Curriculum core subjects, and the separate attainment targets of oracy, reading and writing in English and Welsh first language in key stages 1 to 3.
- 17 However, about one in five schools do not use the core data sets well enough to identify what they need to improve. Too often, these schools use data to justify what they do currently, rather than to challenge themselves to do better. A few secondary schools do not make effective use of the 'modelled expected performance' charts, which are based on the correlation between school performance and free-school-meal data, as included in the core data sets.
- 18 The core data sets are also used by many governors to fulfil their role of holding school leaders to account. When governors are well informed about the comparative performance of their school, they are more likely to provide effective challenge and support to school leaders. However, a minority of governors are not fully aware of the information that the core data sets provide on school performance and are hardly involved at all in their school's self-evaluation processes.
- 19 Since the introduction of the core data sets, the majority of local authorities have adapted the additional performance information they provide for their schools. The most helpful of these complement rather than repeat the core data set analyses.

¹ An explanation of how families of schools are created is provided in paragraph 13 in the Background section of the full report.

Increasingly, local authority officers use these analyses to challenge schools to improve their performance, although there is less consistency in how local authorities use additional analyses.

- 20 Where underperformance has been identified, schools use a range of strategies for improvement. These strategies include targeted support for groups of pupils, revising curriculum content or organisation, and seeking guidance from the family of schools. Generally, the impact of these strategies has been good, with evidence of year-on-year improvement.
- 21 However, schools do not analyse the core data sets thoroughly enough to evaluate the performance of all group of pupils, particularly pupils who receive free school meals. As a result, not enough schools take specific action to improve standards for this group of learners.
- 22 The use of the core data sets is having an increasing impact on teachers' professional learning where families of schools are identifying and sharing good practice. Across Wales, families of schools are developing new strategies to bring about improvements. These activities include holding conferences for all family schools, setting up electronic communications for a family network and appointing a part-time family co-ordinator.

Recommendations

Schools should:

- R1 use the core data sets to challenge themselves to do as well as the best practice identified in other similar schools, including those in their family of schools;
- R2 make more effective use of 'modelled expected performance' charts;
- R3 analyse the performance of pupils entitled to free school meals more thoroughly and base improvement strategies on the findings; and
- R4 make sure that governors understand fully the school's performance data, including position in the family and the free-school-meal benchmark quarters, and that they play a key role in self-evaluation and planning for improvement.

Local authorities should:

- R5 ensure that the performance information and analyses that they provide to schools complement and do not duplicate the core data sets; and
- R6 train school leaders and governors to analyse the core data sets better and to use the findings to identify what needs to improve.

The Welsh Government should:

- R7 consider including data on non-core subjects in the key stage 4 data sets.

1 How well do schools use the core data sets to evaluate their overall performance?

- 23 The core data sets are used increasingly well by schools to help them to evaluate their performance and identify areas for improvement. As a result, these data sets make an important contribution to improving the effectiveness of self-evaluation in primary and secondary schools.
- 24 The introduction of 'families' of schools in the core data sets has enabled schools to compare their performance with a group of similar schools from across Wales. The majority of local authorities previously provided analyses to help schools compare their performance only with local schools, but the families of schools widened this to enable comparisons with similar schools nationally. The family comparisons have helped schools to evaluate whether they are doing well enough and also to identify and share good practice with other schools in the family.
- 25 In schools where the core data sets are used well, senior leaders, middle managers and subject leaders:
- analyse the data rigorously to compare performance across the school, within their family of schools and with schools with similar free-school-meal benchmark quarters;
 - identify clearly strengths and areas for improvement in the performance of individual subjects in the key performance indicators in key stage 4; and
 - identify any differences in the performance of groups of pupils, such as boys and girls, and pupils entitled or not entitled to free school meals.
- 26 However, in a few schools visited, only a small number of staff use the core data sets. For example in primary schools, the core data sets may be shared only with teachers of Year 2 and Year 6. In these schools, teachers of other years do not understand well enough where performance needs to improve and so they are not able to contribute as fully as they could to raising standards.
- 27 The wider range of analyses, charts and graphs in the core data set packs has been helpful in enabling schools to evaluate their performance more robustly. This is because schools now have access to analyses and comparisons with other schools that were not available to them previously. This includes analyses of results and trends in the school's performance compared to:
- the core subject indicator of English or Welsh first language, mathematics and science with the family of schools;
 - similar schools on the free-school-meals benchmark quarters across Wales;
 - national averages and the family of schools in the National Curriculum core subjects at higher levels;
 - the separate Attainment Targets of oracy, reading and writing in English or Welsh first language in key stages 1 to 3; and
 - 'modelled expected performance' based on free-school-meals eligibility.

- 28 The majority of schools visited analyse the core data sets effectively to identify strengths and comparative under-performance. These findings are used to ask questions about why pupils do or do not make progress and where improvements need to be made and what can be done about it.
- 29 However, in about one in five schools across Wales inspected by Estyn since September 2009, data has not been analysed rigorously enough to identify what needs to be improved. A few secondary schools visited do not use the charts that compare the school's performance against modelled expectations well enough or use value-added measures to challenge themselves to do better. Too often, these schools use data to justify their performance rather than challenge it and they do not always identify underperformance accurately or plan how to address underperformance. Similarly, they do not always compare progress in learners' performance from the end of key stage 2 through to key stages 3 and 4 or from key stage 3 to key stage 4. As a result, challenge and planning for improvement are not comprehensive or specific enough.
- 30 The tables, graphs and charts in the All-Wales Core Data packs are helpful, clear and easy to use. Increasingly, schools are using them in self-evaluation processes. Schools use the questions in the data sets as a prompt to evaluate their school's performance. The questions help those staff who have less experience in using data to analyse the school's performance more effectively. However, the core data sets currently do not include data about level 3 qualifications and this limits the use that can be made of them in evaluating post-16 performance.
- 31 Case study 1 illustrates how one school visited for the survey made amendments to their self-evaluation documents to make sure that the core data sets were used appropriately in evaluating standards in the school.

Case study 1: Revising self-evaluation documents to make effective use of the All-Wales Core Data Sets in planning for improvement

Context

King Henry VIII Comprehensive School is an 11-18 mixed community school serving the small town of Abergavenny and its surrounding rural area in Monmouthshire. Part of the school's catchment area includes a Communities First area. There are currently 1,073 pupils on roll, including 175 students in the sixth form. Pupils are from a wide range of socio-economic backgrounds with 13.7% eligible for free school meals. This is below the Wales average for secondary schools of 17.4%.

Strategy

The school uses the core data sets as part of a robust self-evaluation process to provide challenge at whole-school and departmental level.

Action

Senior leaders and middle managers in the school work with staff to improve the school's self-evaluation processes. The school's leadership team want to identify

good practice clearly and challenge underperformance in a more rigorous and transparent way.

Senior leaders ask staff to complete a self-evaluation form to indicate what standards are like in their subject. The form is linked to the school self-evaluation report and contributes to whole-school improvement planning.

After discussions with subject leaders, senior leaders build on the information on the forms to address the questions that accompany the core data sets and to align them with Estyn's 2010 inspection framework. For each key indicator subject leaders analyse the data and answer questions such as: how do we compare with other subjects in the school and other family schools? What are our stronger and weaker subjects? Is there any pattern evident in the comparisons? Which subjects in the school and family schools have the best outcomes? Are some subjects and family schools more consistent in having higher outcomes? Why might this be?

Outcome

Using the core data set questions in the revised self-evaluation forms has challenged senior leaders and subject leaders to make more robust judgements when they compare the school's performance in each subject within the school and with other schools in the family and across Wales. They now understand better the strengths and areas for improvement in their subjects. Discussions between subject leaders and senior leaders in the school are more clearly focused on the areas that need to improve and how these improvements can be made.

2 How well do governing bodies and local authorities use the core data sets?

Governing bodies

- 32 In a majority of the schools visited, governors are aware of their school's performance and understand how well the school compares to other schools in the family. In these schools, governors are able to provide effective challenge to school leaders.
- 33 The majority of local authorities offer training to help governors understand the core data sets and use them to challenge the performance of their schools. However, too few governors take up the opportunity for training. As a result, in a minority of schools visited, governors are not aware of whether the school's performance is as good as it should be and they do not challenge senior leaders robustly. In a very few schools, governors are hardly involved in the school's self-evaluation process.
- 34 In 2009, the Welsh Government produced resource materials to train governors in the effective use of the core data sets. A minority of governing bodies are not aware of these materials and schools do not use them well enough to improve governors' understanding of data.

Local authorities

- 35 The majority of local authorities have adapted the performance information they provide for their schools following the introduction of the core data sets. The most useful examples of these profiles complement rather than repeat the analyses contained in the core data sets. For example, they provide analyses of:
- the performance of specific groups of pupils, such as those with special educational needs, looked-after children, those with English as an additional language and those from minority ethnic groups;
 - performance in non-core subjects at key stage 4 and in key or essential skills qualifications where appropriate; and
 - performance against a school's own targets as well as those set by Welsh Government value-added data.
- 36 In local authorities where the core data sets are used well, local authority officers use the data rigorously to challenge the performance of schools. They work with school leaders and with governors to improve their capacity to evaluate the school's performance and identify areas for improvement. However, across Wales there is too much variation in how systematically local authority officers use the data to identify and challenge underperformance in schools and monitor progress towards improvement.
- 37 The following case studies show how two local authorities have supported schools.

Case study 2: Improving performance on the level 2 threshold including English or Welsh first language and mathematics

Context

Neath Port Talbot local authority covers an area of South West Wales bordered by Swansea to the west, Bridgend to the east and Carmarthenshire, Powys and Rhondda Cynon Taff to the north. It was created by the local government reorganisation of 1996, being formed from part of the previous county of West Glamorgan. In 2008, the Welsh Index of Multiple Deprivation placed 19% of Neath Port Talbot's communities in the most deprived 10% in Wales, for overall deprivation. This is the third highest in Wales.

Strategy

To identify pupils whose performance in the level 2 threshold including English or Welsh first language and mathematics is in danger of being a 'near miss' and target improvement accordingly.

Action

The core data sets for the local authority's secondary schools showed a large gap in performance between the percentage of pupils gaining the level 2 threshold and level 2 including English or Welsh first language and mathematics. The authority used its own database to identify those pupils who were in the 'gap' and who did not meet the level 2 threshold inclusive of a language and mathematics because they did not gain at least a grade C in either English or Welsh first language and in mathematics. The local authority termed this group of pupils 'near miss' pupils. The profile of the 'near misses' was then analysed by school, subject, gender and free school meals.

The data showed that there were almost 16% 'near miss' pupils in the 2011 cohort of GCSE pupils. Of these, 147 were boys and 115 were girls. A majority of boys who 'nearly missed' did so in English whilst many of the girls 'near missed' in mathematics.

These findings were shared with secondary schools and school improvement officers challenged schools on the performance of these pupils during their monitoring visits to the school.

Outcomes

All of the local authority's secondary schools are now analysing their 'near miss' data. Each school has made a list of pupils who are in danger of falling into this group and they have drawn up an action plan for supporting these pupils.

The local authority will monitor the success of schools' support for these groups of pupils, with a particular focus on boys in English and girls in mathematics.

Case study 3: Working with school leaders and governors to improve schools' capacity to evaluate their performance

Context

Newport local authority is located in the south east of Wales, sharing land boundaries with Monmouthshire, Torfaen, Caerphilly and Cardiff. It is the third largest urban area in Wales with a total population is 140,355. Sixteen of the 94 areas in Newport are now in the 10% most deprived areas in Wales. In 2011, the percentage of pupils entitled to free school meals in Newport was higher than the Wales average and the 15th lowest in Wales compared to other local authorities, where first is the lowest free-school-meal figure and 22nd is the highest.

Strategy

When the core data sets were introduced, the authority wanted to make sure that that school leaders and governors were equipped to make effective use of this data to evaluate their school's performance and identify areas for improvement. Officers realised that if schools were to use the core data sets well then leaders needed to be aware of the contents of the data sets and they would need hands-on practice in using the information for their own school.

Action

The authority provided additional data analyses to complement the core data sets to support schools in evaluating the performance of particular groups.

A series of well-attended data seminars, workshops and training events were held to equip leaders, including middle managers and subject leaders, to make effective use of the increasing range of data available through the core data sets and the local profile. These included workshops for school leaders and for governors who worked with officers to write an evaluation of their own school's performance.

Historically, the school's link officer wrote an annual commentary on a school's performance and presented it to the school. Instead, the detailed performance evaluations from the workshops became the agenda for the next link-officer visit to the school. As a result, this discussion was better informed and more focused.

In secondary schools, additional bespoke workshops were held for senior leaders and middle managers on how to challenge underperformance in particular departments effectively.

Outcomes

The local authority has improved the capacity of its schools to evaluate their performance. Recent Estyn school inspection reports and monitoring by the local authority have identified a marked improvement in schools' ability to evaluate their own performance. Schools' self-evaluation of Key Question1 is stronger and leaders use data more effectively to measure the impact of initiatives and identify areas for improvement. Governors' ability to hold the school to account for its performance and to agree and monitor priorities for improvement has also improved.

3 How well do schools use the core data sets to identify specific areas of underperformance?

Identifying and addressing underperformance in the core subjects

- 38 The majority of schools visited use the core data sets effectively to identify underperformance in the core subjects and in key performance indicators at key stage 4. The inclusion of the three separate attainment targets of oracy, reading and writing in the English and Welsh first language core data sets has helped schools to identify specific causes of underperformance more easily.
- 39 For example, in one of the secondary schools visited, underperformance was identified in each of the English attainment targets at key stage 3 when compared with the family schools. The action the school took to improve performance included re-organising the Year 7 curriculum to introduce 'Super Skills' a thematic, skills-based approach to improve pupils' literacy. The impact of this initiative has been to improve pupils' recognition and understanding of text and to increase engagement by the Year 7 pupils with their learning.
- 40 In another English-medium secondary school visited, the need for improved performance in the key stage 4 level 2 threshold including English and mathematics was identified. This was because the school's performance in English and mathematics was lower than could be expected. The school addressed this underperformance through revising schemes of work and introducing a range of strategies in key stage 3 and key stage 4. These strategies included:
- targeting the key stage 3 pupils who had the greatest difficulty with reading and numeracy and implementing an intervention and support programme;
 - revising the curriculum structure and content to ensure that all pupils in key stage 3 and key stage 4 studied an Essential Skills Wales qualification; and
 - reviewing teaching plans and practices to ensure that pupils were able to use and develop essential skills in lessons across the curriculum and to ensure that they were suitably challenged.
- 41 As a result of introducing these strategies, the school's level 2 threshold including English and mathematics increased, almost all pupils in key stage 3 achieved an Essential Skills Wales Qualification and almost 40% of pupils in key stage 4 gained this qualification at level 3.
- 42 In one Welsh-medium primary school visited, writing in Welsh was identified from the data sets as an area of underperformance. Working with the local authority, an external consultant and with higher-performing schools in their family, the school agreed and implemented strategies to bring about improvement. The strategies included appointing a 'writing champion' to lead a consistent whole-school approach to writing and how it was assessed. As a result, there has been greater enjoyment and engagement by pupils in writing, enhanced skills and higher standards. For example, from the 2010 to 2011 core data sets, when compared with other schools' performance in the family, the school closed the gap significantly in writing in Welsh.

- 43 In a secondary school visited, science at key stage 4 was identified as an area of underperformance in comparison with the family of schools and with other core subjects within the school. The action the school took to improve outcomes included revision of pupil groupings to reduce the class size of the lower-ability sets and a review of teaching approaches to ensure that staff took account of the characteristics of effective science lessons they had identified in a higher-performing school in their family. As a result there has been an improvement in the school's key stage 4 free-school-meals benchmark quarter in science.
- 44 A primary school visited identified from the core data sets that their performance at key stage 2 in mathematics was too low when compared to family of schools and free-school-meals benchmark quarters. The school's position was among the worst in the family. To improve the performance of pupils in mathematics in key stage 2, the school re-organised its timetable to give pupils more opportunities to practise their number skills across the curriculum. Teachers also introduced more problem-solving activities. As a result, the school's benchmark position in mathematics at key stage 2 improved and the school's performance compared to others in its family also improved.

Identifying and addressing underperformance in the National Curriculum higher levels in the core subjects

- 45 The majority of schools visited make good use of the core data sets to identify the percentage of pupils attaining the higher-level outcomes in each National Curriculum core subject. These schools challenge themselves over whether pupils perform as well at the higher levels as they do at the expected level.
- 46 Schools use the core data sets to identify underperformance in the higher levels when compared with the family and to identify any underperformance between subjects within the school. For example, a secondary school visited used the differences pupils achieved in expected and higher levels in the core and non-core National Curriculum subjects at key stage 3 to discuss the different strategies departments used to provide opportunities for pupils to achieve the higher levels and to bring about improvement in the lower performing subjects.
- 47 Currently, the core data sets do not contain analyses of performance in non-core subjects at key 4. As a result, it is difficult for schools to compare their performance across subjects within schools and with other similar schools across Wales to identify any underperformance and share good practice in the non-core subjects.
- 48 Case study 4 shows how one primary school visited used the core data sets to identify the underperformance of pupils in each of the core subjects at level 3 in key stage 1 and at level 5 in key stage 2, and how the school improved its performance.

Case study 4: Strategies to improve level 3 and level 5 outcomes in the core subjects at key stage 1 and key stage 2

Context

Glan Usk Primary School is situated in the city of Newport and provides education for 656 pupils aged from three to 11 years old. The school has evolved from the amalgamation of three separate schools in September 2008. Staff and pupils moved into new purpose built accommodation in January 2010. There are 22 single age classes at the school.

The school serves a densely populated area in the St Julian's ward of the city. Approximately 20% of pupils are entitled to free school meals, which is above the Welsh average of 17.4%.

Strategy

The primary school uses the core data sets, with other performance data, to evaluate its performance and plan for improvement.

Action

In 2010, the school completed a thorough analysis of the core data sets and found that their performance on the higher levels in the core subjects did not compare well enough with other schools in their family. The school undertook a thorough review of teaching and learning strategies in the core subjects with the aim of improving performance in the higher levels at each key stage and in each core subject.

As a result of the review, a member of the leadership team was given responsibility for more able and talented pupils across the whole school. This group of pupils were identified and the teachers in the school improved their planning to make sure that pupils covered the skills they need to achieve at level 3 and level 5. Class teachers also made sure they planned for a range of activities to challenge and extend pupils in the higher levels during lessons.

To help embed the strategies across the school, each senior leader and class teacher agreed an individual target in this area as one of their performance management objectives.

Outcome

In 2011, the percentage of pupils gaining level 3 in the core subjects at key stage 1 increased by an average of 19 percentage points and the percentage gaining level 5 in key stage 2 by an average of 17 percentage points.

Identifying and addressing underperformance in groups of pupils

- 49 The core data packs do not provide data on individual pupils. However, schools use the data on performance over several years to identify declining trends or underperformance. Schools use comparisons between boys and girls and between those who receive free school meals to identify where these groups of pupils may need support.

Case study 5: Additional support and target setting for pupils in a school with a high number of pupils eligible for free school meals

Context

Fitzalan High School is an 11-19 mixed, community school maintained by Cardiff unitary authority. There are currently 1,440 pupils on roll, including 254 students in the sixth form. Almost 37% of pupils are eligible for free school meals. This figure is well above the national average of 17.4%.

Strategy

Senior and middle managers use comprehensive performance data systematically to track the progress of pupils eligible for free school meals.

Action

Data from the core data sets, and other school and local authority data, is discussed with senior, subject and pastoral leaders. Staff produce subject, attendance and behaviour profiles of individual pupils eligible for free school meals.

Subject and pastoral leaders discuss the profiles with individual pupils and these are used to set targets for improvement and to identify those intervention strategies that are required to bring about this improvement. On a weekly basis, on-going assessment, attendance and behaviour data is added to the profiles and these are formally reviewed in a meeting with each pupil twice termly.

The outcome of half-termly review meetings, together with a comprehensive analysis of progress drawn-up by pastoral leaders, is shared with all teaching and pastoral staff. Each head of year provides staff with detailed analyses on the performance of pupils in their year group based on a wide range of data, which includes, for example, end of key stage 3 levels, Year 10 GCSE module results, teacher assessments, effort grades and performance in relation to targets. Pupils identified as underperforming from this data are targeted to receive additional support.

Outcomes

Because staff work closely to use a flexible data management system, they can monitor the performance of pupils eligible for free school meals more effectively and plan and action strategies for improvement.

- 50 A majority of schools visited analyse the core data sets and identify concerns about differences in the performance of boys and girls. In most schools, the performance of boys has been a concern, although, conversely girls have underperformed in a few other schools. Schools have used a range of intervention strategies to improve performance and close the gap between boys and girls. These strategies include, for example, boy- or girl-only acceleration and catch-up groups. As a result, these pupils are more engaged and they are becoming more confident in their learning.

- 51 However, schools do not make use of the core data sets to evaluate thoroughly enough the performance of the groups of pupils who receive free school meals. Fitzalan High School above is one of the very few schools visited for the survey to identify the underperformance of free-school-meals pupils from the data as something for further investigation and action.

4 How well do schools use the core data sets to share good practice and support professional development?

- 52 The core data sets are making an increasing contribution to teachers' professional learning. The majority of schools visited have taken the opportunity to share good practice with one or more schools in its family and this has helped them to address underperformance. In the majority of schools visited, senior, subject and pastoral leaders provide appropriate support to help teachers increase their knowledge and understanding of the core data sets. In these schools, this often takes the form of presentations and one-to-one discussions. Generally this has proved effective. In contrast, in a few schools visited, senior leaders have not received specific training in the use of the core data sets.

Using the families to share good practice

- 53 Having the data on the family of schools now enables every school in Wales to identify higher-performing similar schools and they can then enter into discussions with them to share good practice.
- 54 In the schools visited, more secondary than primary schools have used the opportunity to share good practice with their family of schools. Primary schools tend to have a lower level of engagement with the family of schools than secondary schools, because they often have already established cluster arrangements with other primary schools in their local authority to share good practice.
- 55 The primary schools visited that are working with one or more schools from their family are mainly concentrating on teacher assessment and moderation. For example, one primary family is creating a portfolio of literacy examples and another has created an on-line family network. This has enabled teachers in these families of schools to improve their understanding of the National Curriculum levels and assessment, which has led to greater consistency.
- 56 Case study 6 illustrates how several members of one family of Welsh medium secondary schools have come together to form a professional network to share and bring about good practice.

Case study 6: The benefits of family networks

Context

The south east Wales Welsh-medium secondary schools' family professional network includes: Ysgol Gyfun Cwm Rhymni, Ysgol Gyfun Rhydywaun, Ysgol Gyfun Gwynllyw, Ysgol Gyfun Y Cymer and Ysgol Gyfun Llangynwyd.

Strategy

This family of schools has set up a professional network to raise standards across the curriculum, with an emphasis on the core subjects and literacy.

Action

Each school analysed the core data sets to identify strengths and areas for improvement. From this analysis, the headteachers of five of the schools in the family held an initial meeting to share findings and plan a professional learning network to work on the issues raised. The headteachers identified the need for co-operation at every level of leadership to bring about consistently high standards across the schools.

The activities that the different groups of staff from the professional network have undertaken together, with a lead deputy headteacher in each area, include:

- training for subject leaders on observing and evaluating lessons;
- joint moderation by core subject leaders and creation of key stage portfolios for English, Welsh, mathematics and science at key stage 3 and planning for extension to key stage 4; and
- planning meetings held by non-core subject leaders to prioritise and organise a schedule of network activities over a phased time period.

Within each school middle managers are leading pedagogy projects, such as tracking progress in literacy or listening to pupils' views. These projects are guided by the senior leaders in the individual schools and findings will be shared with the professional network.

Outcomes

The professional network has provided greater support and opportunities for sharing good practice in Welsh-medium schools that do not have this opportunity within their local authority. As a result, the monitoring of teaching has become more rigorous and staff implement a wider range of strategies to bring about improvements in pupils' performance.

- 57 Case study 7 shows how one family of secondary schools, many of whom are geographically distant from each other, appointed a 'family co-ordinator' to develop professional learning networks to help share their good practice.

Case study 7: Appointing a family co-ordinator for a secondary school family professional network

Context

The family network includes the following schools: Penglais (Ceredigion), Pencoed (Bridgend), Llanishen (Cardiff), Queen Elizabeth (Carmarthenshire), Olchfa (Swansea), Sir Thomas Picton and Ysgol Dewi Sant (Pembrokeshire), Llantwit Major (The Vale of Glamorgan), St. David's (Flintshire), Llandrindod High School and John Beddoes School (Powys).

Strategy

The family of schools wanted to share good practice to improve standards. They appointed a family co-ordinator to establish and support professional learning networks in five identified areas.

Action

The headteachers of each school in the family met for the first time in the spring of 2011 to establish a strategic direction. They identified five key areas for progress over the next two years:

- assertive mentoring;
- data and standards;
- teaching and learning;
- pupil voice; and
- skills and the Welsh Baccalaureate Qualification.

A co-ordinator is seconded for one day a fortnight to establish learning networks in each identified area.

Members of the professional network work together, making use of social media and other technologies, to share good practice. They are adapting good practice strategies for implementation in their own schools in each area. These strategies will be reviewed and evaluated to assess the impact to drive improved outcomes for all learners across the family.

The co-ordinator has visited each of the schools to identify staff who can contribute at different levels and in different areas. In December 2011, the first family conference on assertive mentoring was held. As a result, staff have visited other schools across the family to learn from each other.

Outcomes

The appointment of a family co-ordinator has contributed significantly to how this family of schools share good practice. With the support of the co-ordinator, schools in the family are making good progress towards establishing platforms for their professional learning networks in each of the five areas identified for action.

Appendix 1: Glossary

All-Wales Core Data Sets	Schools and local authorities may refer to performance relative to their family of schools. These families of schools have been created to enable schools to compare their performance to that of similar schools across Wales. Families include schools with similar proportions of pupils entitled to free school meals, living in 20% most deprived areas of Wales, having special education needs at school action plus or statemented and with English as an additional language acquisition less than competent.
Core subject indicator (CSI)	This relates to the expected performance in English or Welsh, mathematics and science, the core subjects of the National Curriculum.
Families of schools	These have been created to enable schools to compare their performance to that of similar schools across Wales. Families include schools with similar proportions of pupils entitled to free school meals, living in 20% most deprived areas of Wales, having special education needs at school action plus or statemented and with English as an additional language acquisition less than competent.
Level 2	This represents the equivalent of a GCSE at grade A* to C.
Level 2 threshold	This represents a volume of learning equivalent to five GCSEs at grade A* to C.
Level 2 threshold including English or Welsh first language and mathematics	This represents a volume of learning equivalent to five GCSEs at grade A* to C including English or Welsh first language and mathematics.
Level 3	This represents the equivalent of an A level at grade A*-E.
Modelled expectation	The core data sets for key stage 3 and key stage 4 contain graphs comparing the school's performance with others in the family against modelled expectations based on free-school-meal eligibility. The graphs show a line representing the 'expected' performance (or attendance) of a school given its free-school-meal entitlement based on statistical analysis of the data from all secondary schools in Wales. The position of a school indicates whether pupil outcomes are higher than expected (above the line) or lower than expected (below the line). A school whose actual performance matches its expected performance will sit on the line. The further from the line, the greater the difference from expected performance.

Appendix 2: The survey team

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