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a Hyfforddiant yng Nghymru

Her Majesty's Inspectorate
for Education and Training in Wales

Closing the gap between boys' and girls' attainment in schools

March 2008



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INVESTOR IN PEOPLE



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- ▲ pupil referral units;
- ▲ independent schools;
- ▲ further education;
- ▲ adult community-based learning;
- ▲ youth support services;
- ▲ youth and community work training;
- ▲ LEAs;
- ▲ teacher education and training;
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- ▲ careers companies;
- ▲ offender learning; and
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Introduction

- 1 The Welsh Assembly Government commissioned this report as part of Estyn's annual remit for 2006-2007 and 2007-2008. The report presents findings in relation to closing the gap between boys' and girls' attainment in schools. The findings in this report are based on:
 - an analysis of the inspection outcomes of over 600 primary and secondary schools;
 - inspection visits to 23 schools (11 secondary and 12 primary schools). These schools were selected either on the basis of having received positive comments in their most recent inspection report about how they had raised boys' attainment, consideration of recent examination data, or on the basis of discussions with local authority (LA) officers about good practice;
 - further evidence from other visits being made to schools and telephone conversations with heads and deputy heads of five additional secondary schools whose 2006 GCSE results showed both high performance and very little difference between the attainment of boys and girls. Four of these schools supplied additional documentation;
 - information gained from discussions with LA advisers;
 - scrutiny of documentation and performance data provided by schools and LAs; and
 - a review of recent research.

Background

- 2 Schools in Wales have achieved a great deal over the last two decades. Pupils' attainment levels in end of key stage National Curriculum (NC) assessments, General Certificate of Education (GCSE) and Advanced (A) Level examinations have all improved considerably. At the same time, improvements in the attainment of girls have outpaced improvements in the attainment of boys in almost all subjects in the National Curriculum.
- 3 The Annual Reports of Her Majesty's Chief Inspector of Education and Training in Wales have regularly commented on the gap between boys' and girls' attainment. In 2006, the report stated:

“Over the past 10 years, the gap between how well boys and girls do in assessments and examinations in schools has been fairly consistent...Some schools are trying different strategies to improve boys' performance...girls outperform boys in every LA in Wales...there are large differences between LAs in the amount by which girls outperform boys...”
- 4 In October 2006, the Welsh Assembly Government launched *The Learning Country 2: Vision into Action*, which states that, "In order to maintain the improvement in standards achieved in our schools it will be necessary to focus increasingly on the relative under-achievement of boys compared to girls". In this context, the main focus of the report is on those factors that are within schools' control and on what schools need to do to help close the gap. The challenge is to spread effective and successful practices more widely and consistently, so that all schools are more successful in improving the attainment of boys to help boys and girls achieve their potential.
- 5 The issue of differences between boys' attainment and girls' attainment is not a recent phenomenon, nor is it confined to Wales. The gap in attainment between boys and girls is broadly consistent across the developed world, especially in the English speaking world. The type of school pupils attend, including mixed or single-sex schools does not seem to affect this attainment gap and single-sex classes have been shown to have inconsistent outcomes.
- 6 There have been considerable efforts, debate and research to find solutions and develop strategies to tackle the relative under-achievement of boys. Although there have been successes in some schools, generally, the gap between boys' performance and girls' performance, in Wales and beyond, has stubbornly resisted efforts to close it.
- 7 Overall, in recent years in Wales, the gap between what girls and boys attain has been widening. In Wales, boys gain fewer GCSEs or their equivalent than elsewhere in the United Kingdom (UK). There is a similar gap in attainment at GCSE between boys and girls regardless of social class groupings. The effect of gender does not systematically vary to any great extent across social class.

- 8 Thirty years ago, the main gender issue in education was thought to be the low performance of girls in mathematics and science. In response, there was a shift in expectations, attitudes and classroom practice to raise girls' attainment. The gap between what girls and boys attain at the end of their compulsory schooling has widened significantly since 1988. Important changes to curriculum and assessment have taken place in this period, most notably the introduction of the GCSE and the National Curriculum.
- 9 Positive changes in attitudes towards girls' widened lifestyle choices and better career prospects have also made a difference to girls' overall attainment.
- 10 Overall, at the pre-school stage, girls have better social and cognitive skills.
- 11 In general, boys do not behave as well as girls in school. They are more easily distracted, more prone to show off and less likely to follow instructions relating to what they do and how they might do it to best effect. Boys make up almost 80% of the pupils excluded from schools for the more extreme types of behaviour. A very large majority of pupils in pupil referral units (PRUs) are boys.
- 12 Boys are more likely than girls to be identified with special educational needs:
 - seventy percent of children with identified SEN are boys;
 - boys are more likely than girls to attend special schools;
 - boys are nine times as likely as girls to be identified with autistic spectrum disorder; and
 - boys are four times as likely as girls to be identified as having a behavioural, emotional and social difficulty (BESD).
- 13 Gender is only one of a number of significant factors that influence the extent to which pupils realise their potential. Socio-economic circumstances and ethnicity are also important.

Main findings

- 14 The most crucial factor in explaining the greater difficulty that some boys have in coping with the demands of learning and teaching in school is that fewer boys than girls acquire the level of literacy necessary to succeed. This is especially the case in relation to writing and, to a lesser extent, to reading. Literacy is critical for educational success at school. Because more boys have trouble with literacy than girls they also have problems in accessing the wider curriculum. This difficulty affects progress not only in subjects that are highly language-based, such as Welsh or English and history, but across the whole curriculum, because reading and recording skills are important in all subjects. By the age of 14, a significant minority of boys cannot keep pace with much of the work at school and experience an increasing sense of frustration and failure as a result.
- 15 Negative peer pressure is greater for boys than for girls. For some boys there is tension between being good at school and gaining status with their peer group. This can encourage some boys to react against authority and be indifferent to work and school reward systems. However, this does not mean that many boys cannot balance different demands well. This means that not all boys experience a conflict between engagement in learning and relationships with their peers. A majority of boys work hard in school and achieve well, although the number that do well decreases as pupils get older. Considerably fewer boys than girls leave secondary school having achieved what could reasonably have been expected of them on the basis of what they achieved at the end of their primary education.
- 16 There are no indications of a narrowing in the gap between what boys and girls attain at the end of key stages 1-3 or of a change in the respective proportions of boys and girls who gain 5 or more GCSE grades at A*-C over recent years.
- 17 The improvements in girls' performance, particularly in mathematics and science, over the past thirty years demonstrate what can be achieved when there are real efforts to bring about change. Critically, in schools that have been successful in improving boys' performance, staff have been convinced that they can raise the attainment of all pupils. Coherent and well-devised whole-school policies and practices have been important factors in supporting their work.
- 18 However, many schools continue to use too limited a range of strategies to cater for the differences between girls and boys of the same age in terms of their overall maturity and capability as individual learners.
- 19 There is a considerable degree of consensus about the types of learning and teaching that appeal to boys. A minority of schools have been successful in developing specific strategies that have raised boys' attainment. These strategies often involve refining approaches to learning and teaching by challenging stereotypical perceptions and making changes to the curriculum. These changes include providing more of the practical and vocational courses that many boys find interesting.

- 20 Schools where pupils perform well and where there is only a narrow gap between boys' attainment and girls' attainment also have teaching that makes skilful use of recent research to match learning and teaching styles to boys' needs and sets high expectations for behaviour and effort.
- 21 Schools that have been successful in raising boys' literacy skills begin by recognising and building on boys' strengths. They give boys greater choices in their reading and writing tasks and use the whole curriculum to help them develop their literacy skills. They use oral work in drama, for example, to help boys develop confidence in their speaking and listening. They work on building pupils' self-belief and motivation through setting and reviewing targets for pupils and provide good guidance on how these can be achieved.
- 22 Successful schools use information and communications technology (ICT) skilfully as part of their strategies to motivate boys and raise their attainment. They recognise that the interactive nature of many new technologies helps create learning situations where boys can learn by doing, receiving immediate feedback and continually building new knowledge. This approach is in line with the general shift in practice to more learner-centred approaches that emphasise pupils' active participation in the learning process rather than their role as passive recipients of knowledge. Successful schools capitalise on the exciting aspects of ICT to motivate boys and use it to design tailored learning programmes for individuals.
- 23 A small number of schools have been successful in significantly raising boys' attainment over a relatively short period of time. They have made certain that they model positive values and behaviours that counteract negative views, challenge stereotypical attitudes of masculinity, provide mentoring schemes (using older pupils, staff or representatives of industry and commerce), and give boys more opportunities to exercise control, responsibility and choice. Schools that are the most successful do not treat all boys the same. They find ways to support each pupil in their learning.
- 24 All local authorities in Wales are concerned about the gap between boys' and girls' attainment. Individual authorities have developed some useful initiatives to raise the levels of boys' attainment. However, in spite of the efforts of senior managers and their teams of specialist advisers in the authorities, they have generally failed to reduce the gender gap. Overall, they have not made best use of insights from the relatively small number of schools who have made notable progress in raising boys' attainment.
- 25 Some current initiatives in Wales, such as the Foundation Phase, the raising achievement in standards in education (RAISE) programme, Learning Pathways 14-19, and the Welsh Baccalaureate Qualification, offer the potential to raise boys' attainment while not adversely affecting the standards girls achieve. These issues are considered in more detail on pages 29-31.

Recommendations

In order to close the gap between boys' and girls' attainment:

Schools should:

- R1 devise a coherent whole-school policy for raising boys' attainment;
- R2 focus on improving boys' literacy skills, from the earliest stages of schooling and particularly at the primary-secondary transition stage;
- R3 find ways to meet pupils' individual learning needs through tracking their progress and targeting support where it is most needed;
- R4 challenge gender stereotyping and do more to provide positive role-models that counteract negative views of learning and academic achievement among boys;
- R5 make better use of learning, teaching and assessment approaches that appeal particularly to many boys. These include providing:
 - more opportunities for discussion;
 - more variety in lessons including competitive activities;
 - short-term targets and goals; and
 - a wide variety of learning opportunities including using ICT, and homework and study skills clubs;

Local authorities should:

- R6 give high priority to literacy programmes that improve boys' literacy skills;
- R7 ensure schools set targets for raising boys' attainment;
- R8 provide schools with performance data on the relative attainment of boys and girls compared with national and benchmarked norms;
- R9 support schools in developing partnerships with other providers of education to widen curriculum choice and meet individual needs;
- R10 disseminate the best practice in raising boys' attainment from:
 - the most successful schools; and
 - the findings of current research;

The Welsh Assembly Government should:

- R11 develop a national strategy for raising boys' attainment based on improving literacy skills, personalised learning and assessment for learning;
- R12 ensure that initial teacher training and early and continuing professional development focus on improving literacy skills, broadening teaching and learning styles, and managing behaviour effectively; and
- R13 commission research into why teacher assessment tends to favour girls more than external tests and examinations.

The attainment gap

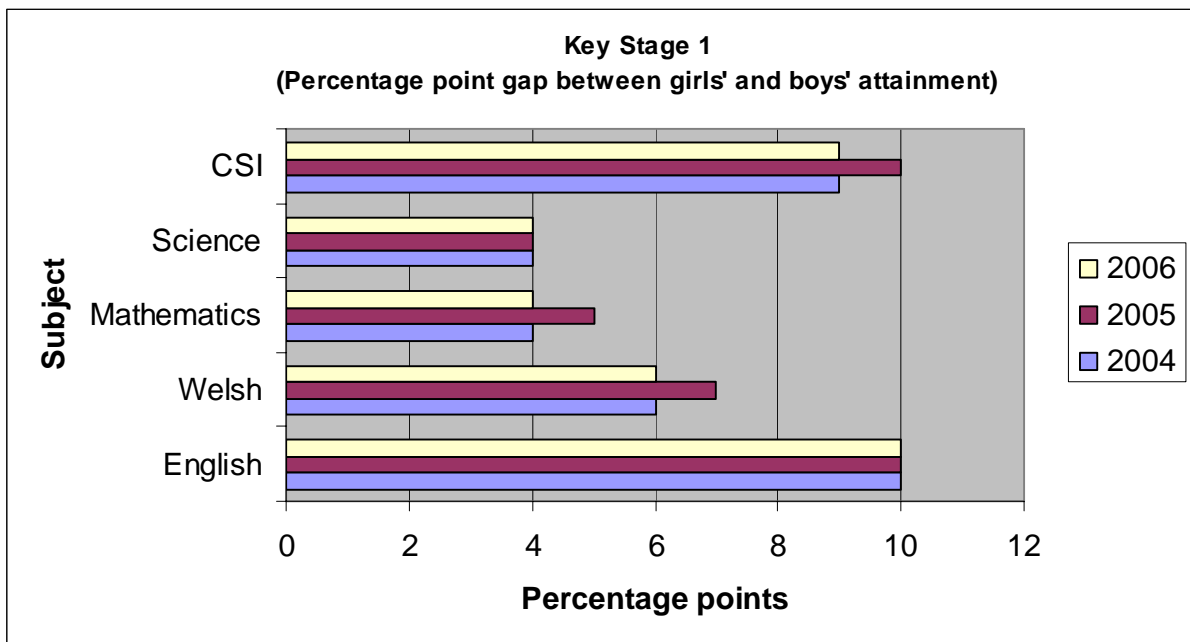
What are the performance indicators?

Results at the end of key stage National Curriculum teacher assessments

- 26 For the past two decades in Wales, girls have outperformed boys in English and Welsh. More recently, girls have also outperformed boys in almost all areas of the curriculum and in almost all key stages of education. As a result, the concern about the gap between boys' attainment and girls' attainment has intensified. Girls have consistently outperformed boys in all core subjects in all key stages. Graphs 1 to 5 show the percentage point differences between the scores of girls and boys in end-of-key-stage assessments.

The extent to which girls perform better than boys in key stage 1

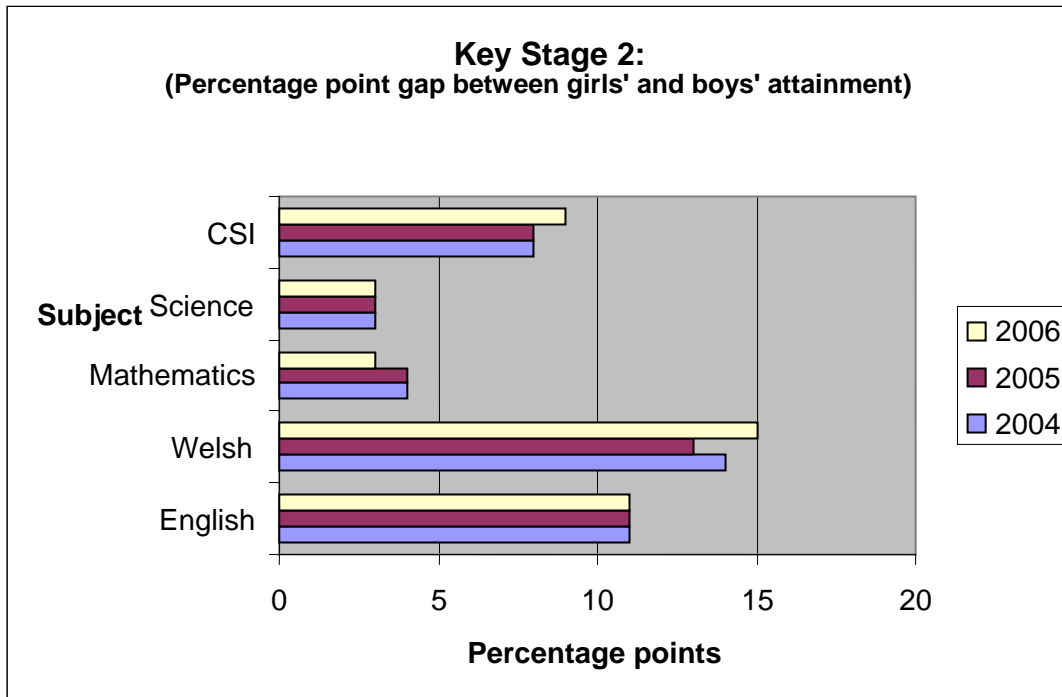
Graph 1



- 27 Graph 1 shows that, between 2004 and 2006, there is a gap of around 10 percentage points between the numbers of girls and boys attaining the nationally anticipated level (level 2 or above) in English. The gap is less in Welsh, at around six percentage points. In mathematics and science the gap is smaller still, at around four percentage points. In the core subject indicator (CSI) around eight percentage points more girls attained the nationally expected levels in all three core subjects (English or Welsh first language, mathematics and science).

The extent to which girls perform better than boys in key stage 2

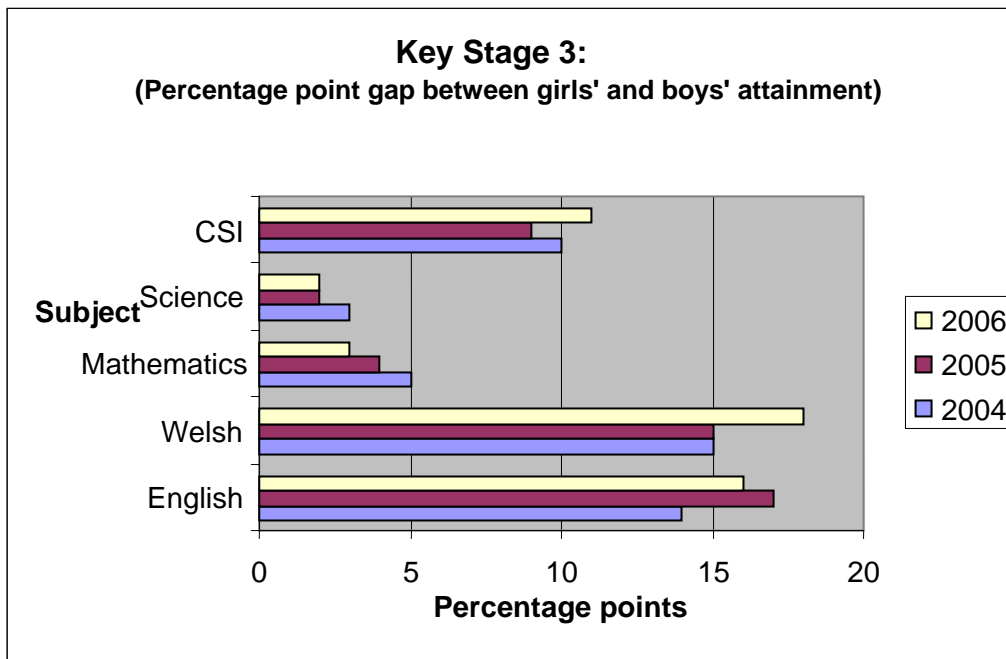
Graph 2



- 28 Graph 2 shows that between 2004 and 2006 there were differences of between eight and 10 percentage points between the proportion of girls than boys who attained the nationally anticipated level (level 4 or above) in English. In contrast to key stage 1, the gap is bigger in Welsh, where there were differences of between 11 and 15 percentage points between the proportions of girls than boys who attained the nationally anticipated level. This may be due to the increasing amount of written work pupils do in key stage 2 Welsh. In mathematics and science, the gap remains at around four percentage points and in the CSI it remains at around eight percentage points.

The extent to which girls perform better than boys in key stage 3

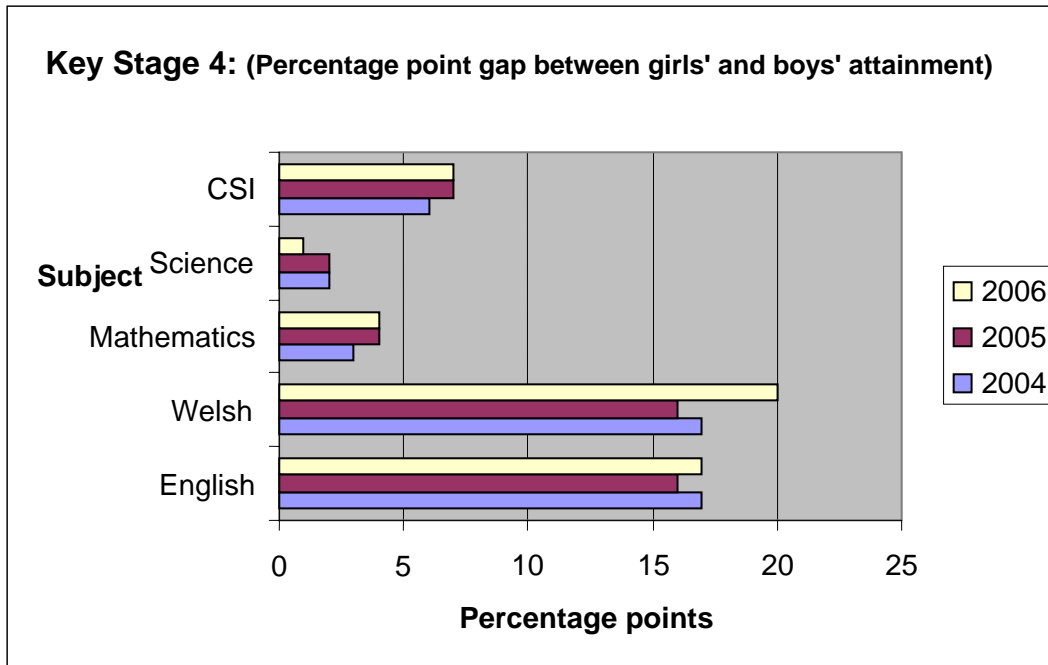
Graph 3



- 29 Graphs 2 and 3 show how, between 2004 and 2006, the gap between boys' and girls' attainment in the core subjects increased between key stages 2 and 3. This gap is greatest in English and Welsh. As pupils move from key stage 2 to key stage 3, the demands on their literacy skills increase. The failure of boys to keep pace with girls in language skills affects performance across the board.

The extent to which girls perform better than boys in core subjects in GCSE results at key stage 4

Graph 4



- 30 Graph 4 shows that between 2004 and 2006 (the latest year for which final figures are available) differences between boys' and girls' performance in language increases further. At the end of key stage 4, a gap of between 16 and 18 percentage points opens up between girls and boys who attained grade C or above in English. In Welsh, this rises to between 18 and 20. In mathematics and science the gap is much smaller.
- 31 Provisional evidence for 2007 indicates no difference in the attainment trends at each key stage from those for 2004-2006.
- 32 The following tables show the results of teacher assessments of the attainment of 14 year olds in the nine foundation subjects of the NC and the percentage of girls attaining at least level 5 (the expected level for 14 year olds). The first shows the subjects where the gap between what girls and boys attain is narrowest and the second the subjects in which it is at its widest. Apart from some results in physical education, girls attained better results than boys in every subject in every year between 2001 and 2006, the latest year for which figures are currently available.

The difference in the percentages of girls and boys who gain at least level 5 at the end of key stage 3

Foundation subjects in which the percentage point gap in attainment is narrowest

Year	Geography	History	Information technology	Physical education	Year
2001	9	12	7	-4	2001
2002	9	11	8	0	2002
2003	10	11	9	2	2003
2004	10	12	9	1	2004
2005	8	11	10	-1	2005
2006	9	11	10	1	2006

Foundation subjects in which the percentage point gap in attainment is greatest

Year	Art	Design and technology	Modern foreign languages	Music	Welsh second language
2001	18	16	19	19	19
2002	17	17	19	16	19
2003	17	17	19	16	19
2004	17	15	19	15	21
2005	17	14	19	15	20
2006	17	15	18	16	20

- 33 At GCSE, girls' performance is better than boys' performance in the two main indicators: the percentage of pupils who gain at least 5 A*-C grades; and the percentage who gain at least a C grade or above in English or Welsh first language, mathematics and science, (the CSI). Between 2001 and 2006, a gap of between 10 and 12 percentage points opens up. In the core subject indicator (CSI), the gap is around 7 percentage points.
- 34 Girls attain better results than boys in almost every subject at GCSE. In 2005 and 2006, the biggest gaps were in English and English Literature, Welsh first language and Welsh literature, Welsh second language, modern foreign languages and art and design. The smallest gaps were in mathematics, science and physical education. Slightly higher percentages of boys than girls gained an A*-C grade in biological sciences, chemistry and physics (subjects taken by relatively small numbers of usually very able pupils in sciences) and economics, which has a small number of entries.
- 35 In 2006, boys achieved better GCSE results than girls in just over 10% of schools where direct comparisons are possible. However, in almost all cases, the reason was the weak attainment of girls rather than a stronger than might be expected performance of boys. In all but a couple of these schools, girls attained below the national average for girls (58%), and in around three-quarters of the schools they attained below the national average for boys (46%). The possible reasons for this are discussed later on in this report.

Variations in the attainment of boys and girls by local authority

36 In 2006, the latest year for which figures are available, girls attained better results than boys in the CSI for each key stage in every local authority in Wales. There is considerable variation in the extent girls attain better than boys both between key stages and within authorities. The tables below provide more detail for each key stage and the gap between what boys and girls attained in the respective local authorities.

Key stage 1: The percentage point gap in the attainment of boys and girls in the CSI

Less than 5 percentage points	Less than 10 and more than 5	Less than 15 and more than 10	Less than 20 and more than 15	Less than 25 and more than 20
Ynys Môn Neath Port Talbot (NPT)	Gwynedd Conwy Denbighshire Wrexham Powys Ceredigion Pembrokeshire Carmarthenshire Swansea Bridgend Vale Caerphilly Monmouth Newport Cardiff	Flintshire Rhondda Cynon Taff (RCT) Torfaen	Blaenau Gwent	Merthyr Tydfil

Key stage 2: The percentage point gap in the attainment of boys and girls in the CSI

Less than 5 percentage points	Less than 10 and more than 5	Less than 15 and more than 10	Less than 20 and more than 15	Less than 25 and more than 20
Flintshire	Ynys Môn Gwynedd Conwy Denbighshire Wrexham Powys Pembrokeshire Carmarthenshire Swansea Bridgend Vale Merthyr Tydfil Caerphilly Monmouth Cardiff	RCT NPT Blaenau Gwent Newport	Ceredigion Torfaen	

Key stage 3: The percentage point gap in the attainment of boys and girls in the CSI

Less than 5 percentage points	Less than 10 and more than 5	Less than 15 and more than 10	Less than 20 and more than 15	Less than 25 and more than 20
Wrexham Flintshire Bridgend	Ynys Môn Gwynedd Conwy Cardiff Newport	Denbighshire Powys Ceredigion Pembrokeshire Carmarthenshire Swansea Vale RCT NPT Merthyr Tydfil Caerphilly	Torfaen Blaenau Gwent Monmouth	

- 37 The tables show that girls attained better results than boys in the CSI for key stage 1 to 3 in every local authority in Wales, although there is considerable variation in the extent girls attain better than boys both between key stages and within authorities. Critically, in some local authorities (LAs) where the gap between boys' and girls' performance is relatively small, this is due to the relatively weaker attainment by girls, by comparison with the national average, rather than because of stronger performance by boys.
- 38 While it is difficult to generalise about regional variations, in general, the gap tends to be significant where there are relatively high levels of socio-economic deprivation.
- 39 The following table provides more detail for both the proportion of pupils gaining the CSI and at least 5 A*-C grades and the gap between what boys and girls attained in the respective local authorities. In one LA, the gap for both indicators is consistently small. This is partly due to there being a number of schools where both boys and girls attain well, but it is also because of the substantial increase in the attainment of pupils in one boys' school in recent years. This school is featured in case study 6 in Appendix 1.

The percentage point difference in attainment of boys and girls at GCSE at Local Authority level

Indicator	Less than 5 percentage points	Less than 10 and more than 5	Less than 15 and more than 10	Less than 20 and more than 15	Less than 25 and more than 20
5 or more GCSE passes at A*-C: 2005	Vale of Glamorgan	Neath Port Talbot; Newport	Ynys Môn; Gwynedd; Conwy; Denbighshire; Flintshire; Wrexham; Pembrokeshire; Carmarthenshire; Swansea; Bridgend; Rhondda Cynon Taff; Merthyr Tydfil; Caerphilly; Blaenau Gwent; Cardiff; Monmouthshire	Torfaen; Powys	Ceredigion
5 or more GCSE passes at A*-C: 2006	Vale of Glamorgan	Conwy; Wrexham; Swansea; Merthyr Tydfil; Blaenau Gwent; Newport	Ynys Môn; Gwynedd; Denbighshire; Flintshire; Powys; Carmarthenshire; Neath Port Talbot; Rhondda Cynon Taff; Cardiff; Monmouthshire	Ceredigion; Pembrokeshire; Torfaen; Bridgend; Caerphilly	
Percentage of pupils gaining the CSI with at least grade C level: 2005	Conwy; Flintshire; Vale of Glamorgan	Ynys Môn; Gwynedd; Denbighshire; Wrexham; Pembrokeshire; Swansea; Neath Port Talbot; Bridgend Rhondda Cynon Taff; Merthyr Tydfil; Caerphilly; Torfaen; Cardiff; Newport	Powys; Ceredigion; Carmarthenshire; Blaenau Gwent; Monmouthshire		
Percentage of pupils gaining the CSI with at least grade C level: 2006	Gwynedd; Conwy; Wrexham; Blaenau Gwent	Ynys Môn; Denbighshire; Flintshire; Powys; Carmarthenshire; Swansea; Bridgend; Vale of Glamorgan; Rhondda Cynon Taff; Merthyr Tydfil; Torfaen; Cardiff; Newport; Monmouthshire	Ceredigion; Pembrokeshire; Neath Port Talbot; Caerphilly		

Why do girls do better at school than boys?

Differences in development

- 40 The most important reason that girls do better than boys is that greater numbers of boys have literacy problems and consequently cannot easily access the wider curriculum. The gap in language skills between boys and girls exists even before they begin school. The baseline assessments for children on entry to school show that, in up to as many as 90% of primary schools, girls' average language scores are higher than boys'. Studies show that there are significant gender differences in young children's intellectual and social behavioural development at entry to pre-school. Girls have:
- better levels of social development than boys, especially in relation to cooperation, conformity and independence and concentration;
 - higher attainment than boys on all cognitive outcomes; and
 - greater gains in pre-reading skills, early number concepts and non-verbal reasoning than boys over the pre-school period.
- 41 These different rates of development mean that many more girls than boys find it easier to become confident and successful learners in school settings. A directly related outcome is that girls are much more likely to be interested in reading and, to a lesser extent, writing. It takes the whole of childhood and adolescence to even out these differences in social and communication skills, which are generally more advanced in girls than in boys.

Attitudes to learning

- 42 There is widespread evidence from many countries that girls and boys often have different attitudes to learning. Girls are far more likely than boys to adapt to learning which is based on a large amount of listening, reading and writing. Girls are less likely than boys to become restless if they have to sit and listen for long periods or if they have to undertake tasks that require little more than repeating skills and confirming knowledge already acquired. Girls often respond better than boys to activities that involve extended writing. More girls than boys are prepared to undertake lengthy pieces of work and persevere with them, even in the absence of regular feedback from teachers.
- 43 The evidence indicates that more girls than boys generally pay much more attention and behave better in lessons. This becomes increasingly the case when lessons are not engaging and as pupils get older. Among the reasons that a significant minority of boys lose interest and motivation in the early stages of secondary education are:
- the strong focus on sitting for long periods in relative silence;
 - the expectation that they should give only short, confirmatory answers to teachers' questions;

- a largely academic curriculum and assessment based on revision and recall of work;
- the emphasis on writing in many lessons; and
- a tradition of setting homework that is geared to revision tasks or writing.

Curriculum and assessment changes

- 44 There are also issues linked to curriculum and subject content. It has been argued that, over the last 20 years, the school curriculum has been re-designed to make it less male-orientated, for example by placing more focus on female writers and artists and giving greater emphasis on studying the lives of women and children in history, to make it of relevance to both genders. One consequence of course is that some of this curriculum becomes less relevant to boys' experience. Other issues include perceived increase in the amount of theoretical work in some subjects – in design and technology, art and design and physical education for instance – and the development of more thematic and issue-led approaches in geography, at the expense of more factually orientated topics. There is no question that such changes were necessary to give a better balance to what was taught in schools. This realignment of curriculum content may have a negative impact on levels of boys' interest and motivation although it might also have a positive effect for girls.
- 45 Boys tend to prefer non-fiction reading material that has diagrammatic and pictorial representations. A number of studies show that boys perform significantly better on a reading comprehension task involving factual content compared to one based on narrative fiction. Girls' reading comprehension scores are less influenced by content. In both English and Welsh, the selection of reading materials is important. Many boys tend to take more interest and achieve higher standards if their reading programme includes non-fiction material, short stories and subject matter that include adventure, challenge and achievement. Increasing numbers of schools include such material in their schedules. However, it remains the case that many programmes of reading are centered on lengthy works. Much of this is fiction drawing on imagination and requiring empathy and emotional intelligence. The appeal of such material is greater for girls than for boys.
- 46 Most pieces chosen for assessing standards in reading are narrative passages and many more girls than boys are comfortable and confident with this genre. In addition, girls are much more likely to read fiction, and this experience of narrative structure better equips them for the extended and reflective writing that is highly valued in assessments.
- 47 The improvements in attainment by girls in mathematics and science since the mid 1980s have coincided with new assessment arrangements linked to the National Curriculum (NC). These have included a much greater focus on investigation and enquiry, often demanding increased amounts of reading and writing. Accordingly, the resources produced for these activities also often demand good literacy skills.

- 48 The improvement in girls' attainment in key stage 4 has largely coincided with the introduction of GCSE syllabuses and examinations in the mid 1980s. These have included a much more prominent role for teacher assessment and, at GCSE, a large increase in the amount of coursework in many subjects.
- 49 Where course work is assessed many girls tend to complete their work punctually and are keener to organise and present it more neatly than boys, who often place less value on these skills. In discussions with pupils in schools visited for this survey, boys gave much less weight to completing homework to the best of their ability or preparing thoroughly for internal tests than did girls. Most local authorities report that, when both end-of-key-stage tests and teacher assessments were in operation, boys did less well than girls in teacher assessment than in the tests. This could further disadvantage boys in terms of what they attain in schools.
- 50 A further significant factor is that, although many boys clearly prefer certain types of teaching and learning and attain better as a result, the adaptability of girls means that they also respond well to different teaching and learning styles, and their performance also improves. Therefore, while boys move towards attaining the levels that girls attained a decade ago, the girls also improve in the interim and the gap remains.

Behavioural factors

- 51 Recent research¹ indicates that prevalent patterns of behaviour in girls tend to predispose them to learning at school, whilst the opposite is sometimes the case for boys. For instance:
- greater numbers of boys are likely to be affected by negative peer pressure, making them more willing to react against authority and engage in disruptive behaviour. This trend intensifies with adolescence and about 80% of excluded pupils are boys;

¹ *Underachievement in Secondary Schools: Attitudes and Gender Differences among Year 9 Pupils* (Emma Smith, David Ellis and Sue Freye). The article has a focus on Wales and appeared in *The Welsh Journal of Education*, Vol.9, Number 1 (2000).

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Quoted in **Gender and Education: the evidence on pupils in England**

- there have been positive changes in girls' attitudes towards learning, whilst a greater number of boys have poor attitudes;
- many more boys than girls experience criticism and a sense of failure in school. This, in turn, generates low self-esteem, limited expectations and a lack of aspiration in a significant minority;
- girls are far more inclined to give high status to hard-working, high achieving pupils;
- many more boys than girls have serious, but usually unrealistic, ambitions to be famous sportsmen, rock-stars or simply 'rich and famous';
- boys are much more confident and relaxed about their ability to cope with tests and examinations. This confidence is often misplaced however; and
- boys are much more prominent among under-achieving pupils. They frequently show poor study skills, a lack of organisation, negative attitudes to work and feel indifference towards school reward systems.

Social factors

- 52 Until fairly recently, societal expectations were a powerful barrier to many girls achieving their potential. The fairly widespread view that girls would not pursue long-term career goals because of likely family commitments often had an impact on girls' motivation and aspiration. This had a particularly depressing influence on the achievement and attainment of girls from working class backgrounds. These attitudes are much less prevalent than they were.
- 53 A significant minority of boys have little or no contact with their fathers, and many have little contact with males at home. These boys have no positive adult male role-model in their personal lives and this may be a factor that influences their aspirations.
- 54 Many observers also feel that the significant economic decline since the early 1980s of heavy and manufacturing industries, with its loss of relatively well-paid male employment, has had a negative impact on the aspirations and motivation of a significant minority of boys in those areas most affected. This could well be the case in some instances. Nevertheless, it must also be borne in mind that there is powerful anecdotal evidence that, when work in heavy and manufacturing industries was plentiful, schools still struggled both to motivate and retain significant numbers of boys, who were determined to enter employment and the wage economy as early as possible.

Role models in schools

- 55 Reference is often made to the decline in the number of male teachers, especially in primary schools, as a factor in the gap in boys' and girls' attainment. Only some 15% of primary school teachers are male, and current recruitment figures suggest that this percentage will decline further. Many primary schools have no male teachers. The

situation certainly means there are fewer positive male role models in schools than even a decade ago. However, recent research² has found little evidence that pupils of either sex give high priority to the gender of their teachers. There are also gaps between what boys and girls achieve in schools in countries where there are higher proportions of male teachers. There is strong evidence to support research findings that it is the quality of the teaching that is the most important influence on pupils, rather than having more male teachers as role models.

² Myhill, D.A. & Jones, S. She Doesn't Shout at No Girls. Pupils' Perceptions of Gender Equality in the Classroom. *Cambridge Journal of Education*, 36, 1, 63-77.
Quoted in **Gender and Education: the evidence on pupils in England**

Why does the attainment gap increase as pupils get older?

- 56 By the end of primary school, many more boys than girls continue to lack the literacy skills that will equip them to access much of the curriculum and attain high grades in tests and examinations. This process intensifies as pupils move on to secondary school. While it should be remembered that the attainment of boys has improved significantly over the last decade, it has not improved relative to that of the girls.
- 57 An analysis of inspection reports for 2005-2007 show that girls attain significantly better than boys in just over 30% of primary schools. In the same period, inspection reports for secondary schools show girls getting better results than boys in around 85% of schools.
- 58 Graphs 1-4 on pages 8-11 of this report show that the variation in boys' and girls' performance over time. They also show that the gap between levels of attainment increases as pupils move through the key stages. The results of end-of-key-stage teacher assessments show that the gap in attainment is more marked in Welsh and English than in other core subjects. The main causes for the gender gap are rooted in literacy skills, especially writing and reading.
- 59 Pupils with weak language skills, especially in reading and writing, often fail to make a smooth transition from primary to secondary school. They experience difficulties in accessing a curriculum that is predominantly content-driven and literacy-based. Most tasks that pupils do are literacy based, and writing is the main means by which pupils record their work.
- 60 The organisation of the secondary school day, with its frequent changes of teachers and subjects and numerous demands for homework and coursework, can also be a particular challenge for boys who are already struggling with reading and writing.
- 61 By the age of 14, a very significant minority of boys experience an increasing sense of frustration and failure because they do not keep pace with much of the work at school. This can result in apathy and, at worst, disengagement. Around 80% of all exclusions from school are of boys. Problems with attendance and behaviour become much more pronounced as pupils move through the stages of compulsory education.

What are the barriers to raising the attainment of boys?

- 62 Many schools continue to use too limited a range of strategies to cater for the differences between girls and boys of the same age in terms of their overall maturity and capability as learners. Estyn's report, *Changes in the teaching and learning promoted by the aiming for excellence programme*, points to how the programme has led to significant improvements, but also comments that the progress of boys of both high and low ability is still not as good as it should be.
- 63 Far fewer girls than boys react negatively to poorer teaching or when the learning lacks momentum and interest. Furthermore, there is much evidence that certain teaching approaches are more likely to succeed with boys. These include work with an element of competition, making regular use of ICT, consistent use of short-term goals and a variety of clearly explained timed activities. However, few schools plan a range of strategies to cater for the differences between girls and boys of the same age.
- 64 In the sample of boys and girls interviewed, many boys see examinations as 'important' school priorities. Both boys and girls think that boys are more likely to keep calm and have confidence in their ability to do well in tests than girls. Despite this, more boys than girls under-perform in examinations, largely because they have not developed good revision skills or kept pace with the work.
- 65 Some recent research³ suggests that pupils often perceive female teachers as being less influenced by gender expectations than male teachers and both boys and girls feel that teachers treat boys more harshly than girls. Pupils also feel that male teachers are more openly critical of boys, especially in secondary schools. Some research suggests that, where teachers have low expectations of boys' academic potential, this can have the effect of becoming a self-fulfilling prophecy and contribute to their low achievement.

³ Myhill, D.A. & Jones, S. She Doesn't Shout at No Girls. Pupils' Perceptions of Gender Equality in the Classroom. *Cambridge Journal of Education*, 36, 1, 63-77.

Quoted in **Gender and Education: the evidence on pupils in England**
A DfES Publication: July 2007

Department for Children, Schools and Families

Confident, Capable and Creative—Supporting Boys' Achievements: December 2007

What are the strategies in schools that are proving effective in raising the attainment of boys?

- 66 Over the last five years, many schools have been proactive in meeting the challenges of pupil under-achievement, raising attainment and tackling disengagement. For many schools, the bulk of this work is with boys. Although there are examples of effective and successful practice, overall, their efforts have achieved only mixed success. Schools have introduced a range of initiatives to try and address the gender gap. These have included:
- introducing single-sex classes in English and Welsh and, less often, in some other subjects;
 - a whole-school project in which each department was required to respond to a series of questions on the gender gap and develop strategies to respond to it;
 - introducing a vocational programme into Year 6 in order to offer a more varied curriculum;
 - developing mentoring schemes which offer close support to pupils and include guidance on study habits and revision skills; and
 - close monitoring and extra support for pupils in key stage 4 who are on the borderline of a good GCSE pass grade. Many of these are boys.
- 67 These approaches and others are considered in further detail in this chapter and exemplified in the case studies in the Appendix.

Raising standards of literacy

- 68 Increasing the number of boys who acquire good literacy skills is at the heart of the work of many schools that are succeeding in improving the results of boys. A few have focused on creating single-sex classes in English and Welsh first language. The outcomes have been mixed, with some schools quickly reverting back to mixed classes while a few others have been encouraged by developments and persevered with single-sex classes, especially for those pupils on the GCSE C/D borderline.
- 69 Over the last five years or so, a growing number of schools have prioritised improving pupils' literacy skills. This often takes the form of literacy support programmes in schools that are usually targeted at pupils who are not achieving the anticipated levels in reading and writing. Almost always, the majority of these will be boys. The most successful literacy programmes are based on skilled initial diagnosis of individual pupils' strengths and weaknesses. This work also offers a choice of content based on the pupils' personal interests.
- 70 In one school, an intensive literacy programme in Year 7 is proving consistently successful. This programme targets pupils who enter the school with a level 3 or low-level 4 National Curriculum score in reading and spelling. Boys make up the majority of these pupils. Each pupil participates in three lessons a week as well as a

paired peer-reading scheme. The reading age of pupils on the programme has improved typically by six to eight months and, in spelling, by 10 to 12 months over a year. Each subject department annually reviews the initiative and analyses the progress of pupils.

Teaching and learning strategies

- 71 There are schools where both boys and girls attain well, although there might still be a narrow gap in attainment. In these, the link between good outcomes for pupils and good and outstanding teaching is firmly established. Good teachers:
- make the purpose of the learning very clear and are explicit about what successful outcomes look like;
 - provide a brisk start, precise instructions and clear structure in lessons;
 - provide well-paced, wide ranging activities, including some which are competitive and some that ask for group and class discussion;
 - provide opportunities for collaborative learning as well as work that can be done independently;
 - involve pupils in decision-making and problem-solving;
 - think creatively about how pupils record their work. This includes recognising that writing is not always the only way to demonstrate understanding;
 - use ICT from start to finish for some assignments so that pupils read and manipulate text electronically from start to finish;
 - set high expectations about behaviour, effort and presentation of work and apply them consistently;
 - help pupils understand their learning goals and use shared and clearly understood criteria to assess how well they are doing. Prompt feedback is given to pupils on what they need to learn next; and
 - are aware of the balance between content, style and presentation, thus guarding against unwitting bias when judging boys' and girls' performance, for example, in relation to neatness and presentation.
- 72 Case studies 3 and 4 in Appendix 1 provide examples of successful teaching approaches. These approaches will benefit both boys and girls.

Whole-school approaches

- 73 Initiatives to raise levels of boys' attainment have the most success when they are part of a programme involving the whole school. Initiatives that are not restricted to a few subjects but shared widely across the school have the greatest impact on improving boys' attainment. Critically, for these initiatives to succeed, staff in schools must be convinced that they can do something to raise boys' attainment. Such schools have developed a whole-school approach based on a coherent and common vision of themselves as learning communities and how pupils can best achieve their potential. The vision is implemented across all key areas of work, including learning and teaching, curriculum and assessment, provision for additional educational needs, behaviour management and attendance. A frequent phrase used in successful schools that were visited or otherwise contacted during the survey was that they set out to make learning and achievement 'cool' for boys.
- 74 Apart from the focus on improving teaching already covered in paragraph 73, successful schools share some additional common practices, whatever the variations in language-medium, size, organisation and location. These practices include:
- recognising that they can do something about raising boys' attainment and developing a whole-school approach;
 - making skilful use of data to detect under-achievement and/or weak attainment quickly and intervening accordingly;
 - challenging stereotypes and linking to positive male role models;
 - focusing on literacy to improve access to the curriculum. This can include strategies to increase the amount and variety of interactive oral work, making reading more appealing to boys and linking both to build interest and confidence in writing. Such work is often particularly effective in raising the levels of attainment of boys who are not quite reaching the nationally anticipated levels for their age in language;
 - continuously refreshing approaches to learning;
 - involving boys in negotiating how they will learn and in making decisions based on exchanging ideas and opinions about the work in hand; and
 - providing ways and means for pupils to refine and improve their study skills, for example through well-planned key skills units, homework clubs and residential courses and by providing mentoring schemes. Some of these involve older pupils and staff, and others involve representatives from industry, commerce and the wider community to give guidance and support for pupils.
- 75 In some schools the work is led, at least in the short term, by a designated member or members of staff who act as 'champions'. These teachers take the lead in the work, maintain its profile and are responsible for directing and co-ordinating its implementation.

- 76 Successful schools have regular dialogue with pupils and parents about the rationale for the teaching approaches used and a readiness both to modify initiatives and/or expand them in line with evidence about how effective they are proving to be.
- 77 In order to identify priorities and set targets for improvement, schools need precise information. Successful schools gather and analyse a wide range of pupil attainment and other data, including information about poor attendance and behaviour, and survey pupils to gain their opinions. Staff collect data over a number of years and evaluate this evidence at individual pupil, school, local and national levels. In the best examples, research findings also add to staff understanding of issues concerning boys' attitudes and performance. This information is a powerful tool to help staff identify the specific and unique needs of boys in their school and particularly boys that are 'at risk' of disengagement. These schools then use the information to devise strategies and set targets for improvement. Importantly, school improvement targets stress the importance of raising the attainment of boys while not depressing that of girls. Staff monitor and periodically review these strategies to measure and ensure their effectiveness.
- 78 Case studies 1 and 4 in Appendix 1 provide examples of successful approaches at whole-school level.

Using the motivational power of information and communications technology

- 79 Research has clearly established the motivating effect on boys of information and communications technology (ICT)⁴. The interactive nature of many new technologies helps create learning environments where boys can learn by doing. They receive immediate feedback and continually build new knowledge to enhance their understanding. This approach is also in line with the shift in practice to more learner-centred approaches, which encourage boys to participate more actively in the learning process, rather than be passive recipients of knowledge.
- 80 Case studies 1 and 7 provide examples of successful approaches using ICT.

⁴ Younger, M., Warrington, M. with Gray, J., Rudduck, J., McLellan, R., Bearne, E., Kershner, R. & Bricheno, P. (2005). *Raising Boys' Achievement*, RR. 636, Department for Education and Skills. Quoted in **Gender and Education: the evidence on pupils in England**

How are local authorities trying to improve boys' attainment?

- 81 While local authorities across Wales have recognised the gap in boy-girl attainment within their schools, few of them have a specific strategy to tackle gender attainment as a priority in its own right. Usually, raising boys' attainment is a strand of other work, such as literacy and numeracy strategies.
- 82 Local authorities provide schools with a wide range of data to help them to analyse performance. In addition, advisers regularly visit schools to review performance and this includes the respective levels of attainment of boys and girls. However, while there are isolated examples of success, senior managers and their teams of specialist advisers have been less successful in developing long-term, authority-wide strategies to help boys attain their potential. This includes making wider use of examples of effective efforts by individual schools to raise the levels of boys' attainment.
- 83 Schools in some local authorities get advisory support for schools from the authority's specialist literacy team. This support usually includes a focus on raising the literacy skills of boys. Successful work has included a strong focus on drama and role-play activities, because these activities are often successful in gaining boys' interest and engagement and enable them to use their speaking and listening skills. These activities can also contribute to improving boys' reading and writing skills. In at least one local authority evidence suggests that these programmes have contributed to improvements in the key stage 2 English assessments results for boys.
- 84 Basic skills teams within advisory services in some local authorities have adapted reading programmes successfully at key stage 3 for improving reading and motivating boys. The strategies are developed through texts that have a wide appeal to boys, such as action adventure stories and non-fiction. There is also carefully targeted support for those pupils, mainly boys, whose reading ages are behind their chronological age. There is clear evidence that this work has improved boys' confidence and motivation as well as raising their standards in reading.
- 85 Basic skills funding is being used to provide training for secondary teachers and learning support assistants in programmes designed so as to enable specific groups of pupils entering Year 7 to 'catch-up', especially in reading. When re-assessed at the end of Year 7, most of these pupils showed gains in their reading ages. Case studies 2, 6 and 8 in the appendix provide examples of successful approaches.
- 86 Some secondary schools have been well supported in using grants to broaden their key stage 4 curriculum. These grants have funded new vocational courses, which engage many pupils, again mainly boys, who were previously showing limited motivation in school.

Challenging stereotypes

- 87 While a solid majority of boys recognise the importance of academic success, in some cases a strongly established negative culture acts a powerful deterrent to hard work and enthusiasm. Often, boys feel that they lose credibility among their peers if they work hard or are judged to be successful. Mentoring schemes can be particularly helpful in combating the lack of value placed on academic success in boys' culture. This is especially the case when it also involves people from outside the school environment, for example local business people or sportsmen and women, to whom, often, some boys can relate better.
- 88 Recent research on mentoring schemes with boys have felt them to be at their most effective when target-setting was both realistic and challenging, based upon high expectations and detailed analysis of contextualized value-added data at the individual level. As part of this, teachers need time and support on a regular and frequent basis to set targets for individuals within their classes, and to engage in professional dialogue about learning at the level of the individual pupil. The mentoring that accompanies these schemes need to be developed within an ethos which accepts that mentors will mediate and negotiate with subject teachers on behalf of 'their' student, and subsequently challenge 'their' student to achieve more. The mentor should offer strategies, advice and encouragement, but crucially, also be assertive and demanding, so that disengaged students are given both effective support and firm expectations
- 89 In a number of schools, especially but by no means exclusively primary, the use of role-play with artists, poets and musicians in residence has a strong track-record of effectively challenging both traditional stereotyping and prejudices. It can also provide a means for pupils who are disengaged to get involved in work which interests and motivates them. This is especially the case when the work culminates in a presentation, production or exhibition for a wider audience.

Current developments that may contribute to closing the gap between boys' and girls' attainment

- 90 Currently, there are a number of Wales-wide curriculum developments that have the potential to help close the gap between boys' and girls' performance. These developments include the Foundation Phase, the Raise Attainment and Individual Standards in Education (RAISE) programme, the 14-19 Learning Pathways Initiative and the Welsh Baccalaureate qualification. While these developments are still at an early stage, each has elements that are likely to be of appeal to boys. They have the potential to improve the attainment of boys while at the same time contributing to improvements in outcomes for girls.
- 91 The Foundation Phase provides a curriculum that aims to give all 3-7 year olds opportunities to learn through structured play and practical learning. This focus on a more activity-based approach should help to better motivate boys. The curriculum aims to develop children's skills in seven areas of learning and has a strong focus on communication and personal and social skills. There will be increased opportunities for speaking and listening and less likelihood of moving children on to formal reading and writing activities and table-based pencil and paper number work prematurely. This approach should give children, particularly boys, more opportunities and time to develop good language skills than at present. Estyn's report, The Foundation Phase Pilots (August 2007) comments, "In a few settings, in both the maintained and non-maintained sector, staff report that boys are much more engaged in their activities, especially if the activities are outdoors".
- 92 The 14-19 Learning Pathways initiative aims to prepare 95% of young people for high skilled employment or higher education by the age of 25. This challenging target recognises that a great deal more needs to be done to engage those young people who currently leave school at the earliest opportunity and do not take up training opportunities in further education. The majority of these young people are boys. The initiative also recognises that much of this work needs to be done before the age of 16, particularly when young people are in the 14-16 age range. The initiative looks to engage more young people in education and training by providing more alternatives for them beyond the traditional GCSE and A level routes. These will combine occupational and general subject study with community and work-focused experience. Greater choice of qualifications and credits should allow young people to negotiate individually the pace and direction of their learning. With more choice, each learner can have an individual pathway which suits their needs and aspirations. The intention is that learners will select, with support and guidance, options which are appropriate to their abilities and learning styles. Each learner will also benefit from the support of a learning coach as well as access to other personal support and guidance, such as careers advice. These elements are likely to be particularly useful in supporting boys.
- 93 Estyn, in its discussion paper on Transforming Schools, (March 2007) comments, "At present, the learning that takes place in a classroom has a higher status than learning that takes place in a work-based setting. This view restricts opportunities for young people to take more balanced options to gain knowledge, understanding and skills in a wider range of practical contexts, some of which may be outside the

classroom. There is considerable evidence that, when offered these kinds of options, many learners, especially boys, become more positive about their work." However, the paper also comments that, "The Learning Pathways 14-19 programme will require fundamental changes and much greater flexibility of schools, colleges, local educational authorities and others. Success will depend largely on the willingness of providers to collaborate more effectively than is currently the case."

- 94 The Welsh Baccalaureate Qualification offers many opportunities for developing key skills by working with the community and in industry and learning through first-hand experiences. The course includes close tutorial support, with the use of short-term targets and goals. Boys in particular respond well to such targets. The Welsh Baccalaureate has many elements that are common to the Learning Pathways initiative. It places a strong emphasis on the development of key skills, work-related education, participation in work outside of the school/college environment, and individual project work. The qualification has a learning core and there is a strong emphasis on the provision of personal tutorial support. This should enable the level of close monitoring, intervention, support and challenge that have proven to be key ingredient in raising attainment of boys and which are referred to in several of the case studies in Appendix 1.
- 95 In addition to these long term policy developments, in May 2006 the Welsh Assembly Government introduced an intervention strategy, called Raise Attainment and Individual Standards in Education (RAISE). The strategy releases funding to target disadvantaged pupils and raise their level of performance. Schools were selected to take part on the basis that 20% and above of pupils were entitled to free school meals. It is in many of these schools that boys' attainment is at its weakest. Many primary and secondary schools that receive the grant have concentrated on raising standards of literacy and numeracy. Some schools are using RAISE funding specifically to support boys.
- 96 A recent early evaluation by Estyn found that most pupils are responding very positively to the opportunities provided by the RAISE projects. Some of the current projects that are particularly useful for boys include:
- the appointment of learning coaches for key stage 4 pupils who are disengaged;
 - the development of software support packages for lower achievers in Years 7-8;
 - the purchase of resources, such as multi-media projectors, interactive mathematics programmes; and
 - an interactive white board for work in mathematics in key stage 3.
- 97 In July 2007, Estyn published an interim report on the impact of RAISE funding. The findings of the report include the following:
- although it is too early to judge the impact of projects on pupils' attainment and achievement, most pupils are responding positively to the opportunities provided for them;

- in the schools visited, many pupils enjoy most aspects of their new work. They know how well they are doing and know how they can improve;
- in key stages 3 and 4, many of the projects relate to improving pupils' attendance, attitudes, behaviour and literacy. In addition, most schools provide opportunities for pupils to experience an extended curriculum or an increased range of qualifications; and
- in most schools pupils are well supported. In one school, all pupils have a plan for their future. In another school, boys are able to describe the benefit of new teaching and learning strategies.

Appendix: Case studies of successful practice

School strategies to improve boys' achievement and attainment

Case study 1

Context:

A large 11-18 secondary school, situated in a medium-sized town, which has a mixed socio-economic intake with 11% of pupils entitled to free school meals.

Strategy:

The senior management team developed an initiative where each department was asked the question "Closing the gender gap: What are you doing in your department?"

Action:

Departments responded by outlining how teachers could focus on changing teaching and learning strategies and curriculum content. As a result, they now focus on learning activities that are more competitive in nature and seen to be "fun". There is more use of ICT. Classroom organisation stresses flexibility and enables pupils to move around the class. Coursework is re-organised to include more time-limited activities carried out in lessons. The curriculum has been restructured to focus more on developing skills and interests. There is more scope for pupils to select content which appeals to their interests. There is much more emphasis on activities such as class discussions and role play. Planning is more structured around clearly structured units and assessment focused on how to reach short-term targets.

Outcome:

Between 2003 and 2006, the gap between boy and girl attainment in this school has reduced. For example, it reduced from 10 to four percentage points in the core subject indicator (CSI) at the end of key stage 3, and from 12 to 3 points in the percentage of pupils who gained at least five GCSE passes at A*-C.

Case study 2

Context:

A large 11-18 secondary school, situated in a small town with most pupils from socially and economically advantaged areas. Four percent of pupils are entitled to free school meals.

Strategy:

Over a number of years, teachers had adopted a range of initiatives to address the gender gap, including single-sex teaching groups and arranging seating in class where boys sit next to girls. However, they concluded that these met with, at best, very mixed results. After a thorough discussion of strategies, managers and teachers decided that a fresh approach was needed.

Action:

The school introduced an intensive literacy programme in Year 7 to target pupils who enter the school with a level 3 or low-level 4 National Curriculum score in reading and spelling. Boys make up the majority of these pupils. Each pupil participates in three lessons a week as well as a paired peer-reading scheme.

Outcome:

The reading age of pupils on the programme has improved typically by six to eight months, and in spelling, by 10 to 12 months over a year. On an annual basis, each subject department reviews the initiative and the progress of pupils.

Case study 3

Context:

A large 11-18 secondary school serving several small towns. The school has a relatively advantaged socio-economic catchment; eight percent of pupils are entitled to free school meals.

Strategy:

Managers and teachers felt that they could continue to do more to counter the social, cultural and peer group issues that they believed had an adverse impact on boys' effort and participation in lessons. Senior managers felt that there was some mismatch between teaching styles and learning styles and that many teachers do not take account of the different learning styles of boys and girls. This has resulted in various strategies to narrow the gap between boys and girls such as trialling some single-sex classes.

Action:

A recent inspection report judged that the school makes very good use of data on pupil outcomes to inform planning. The school makes effective use of a range of data to inform planning teaching and learning styles. One initiative involved the English department introduced single-sex groupings for sets 2 and 3. In the boys' groups there is use of more non-fiction and media materials to motivate them. Teachers used approaches that are felt to suit the boys' learning styles, including:

- short, sharp tasks;
- support from using writing frames;
- video material; and
- clearly defined programmes to support organisation and revision.

Outcome:

Teachers report that there has been significant improvement for both the boys and the girls in oral work. The 2006 results showed that, in the single-sex teaching groups, boys very slightly outperformed girls.

Case study 4

Context:

A medium-sized primary serving a mixed socio-economic catchment. Thirteen percent of pupils are entitled to free school meals. The latest inspection report for this school includes the comment, "Both boys and girls achieve well in NC assessments."

Strategy:

The school feels its success derives from developing effective whole-school approaches to teaching and learning.

Actions:

Managers and teachers feel that it is the overall ethos rather than any one strategy that has contributed to the school's success. Teaching that has been effective in helping pupils to achieve well is based on:

- identifying particular learning styles and using them to stimulate pupils' thinking skills and motivation for learning;
- a structured approach to teaching early literacy skills;
- a well-managed assessment system that enables teachers to know exactly where pupils are in relation to progress toward specific targets; and
- the consistent implementation of discipline, and positive behaviour policies throughout the school and in individual lessons.

Outcome:

The latest inspection report for states, "The school has been particularly successful in raising boys' achievement."

Case study 5

Context:

A large primary serving in a coastal town with a partly disadvantaged socio-economic catchment. Twenty-six percent of pupils are entitled to free school meals. The school identified improving boys' motivation to learn as a priority.

Strategy:

In 2002, managers and teachers at a primary school developed an initiative, the Junior Artisan Club, which had as one of its main objectives the improvement of boys' attitude to learning. Pupils in Years 5 and 6 study three vocational strands. These strands comprise cookery and basic hygiene, environmental improvements and metalwork design. The design course operates off-site in conjunction with a training company.

Action:

The careful planning and delivery of the programme avoids gender stereotyping in that all pupils take part in all activities in each vocational strand. They also work in mixed gender groups. The programme contributes to the development of key skills.

Outcome:

The pupils enjoy and value the provision. Staff consider that one of the outcomes has been the improved attitudes and motivation of boys. While there has been little change in the levels of key stage 2 performance in core subjects, it is too early to tell whether there will be long-term improvements in boys' performance.

Case study 6

Context:

A large 11-18 secondary school serving a mixed socio-economic intake. Seventeen per cent of pupils are entitled to free school meals. The school has only boys in key stages 3 and 4. It works closely with the nearby girls' school in the town to provide a mixed gender sixth form.

Strategy:

Managers and teachers developed a systematic programme for teaching, learning and raising achievement. It is based on a series of inter-related measures including changing the curriculum and supporting targeted individuals and groups of pupils.

Action:

- A key stage 3 key skills programme that aims to help as many pupils as possible to attain Level 1 awards by the end of Year 9. In 2005, over 50% of boys achieved this in each of the core key skill qualifications of communication, information and communications technology and application of number.
- Changing the curriculum to include vocational courses and a learning support programme in key stage 4, combining the efforts of the special needs, English and mathematics departments.
- Literacy support and behaviour management schemes.
- A mentoring scheme for key stage 4 pupils built around regular review of agreed targets for improvement alongside a range of study support, including homework clubs and a residential course.

Outcome:

A dramatic rise in boys' attainment in recent years. In 1999, 24% of boys attained five or more A*-C grades. By 2005, this had risen to 71%; it was 68% in 2006.

Case study 7

Context:

An 11-18 secondary school serving a mixed socio-economic intake. Eleven per cent of pupils are entitled to free school meals.

Strategy:

The school developed a series of measures to improve boys' attainment at GCSE. This was a by-product of the establishment of a 'Pass Club' aimed at offering advice and support for pupils whose GCSE grades were likely to be on the C/D borderline. Most of these pupils were boys. Managers specified the features in learning that appeal to many boys and asked departments to respond. The features in learning that they identified were:

- competitiveness;
- being adventurous with ideas;
- having a preference for experiential, spatial and technical tasks;
- responding well to tasks that include the use of ICT;
- a capacity to work quickly and write concisely;
- having a preference for factual, informative reading and writing tasks;
- enjoyment of open discussion;
- displaying leadership skills in speaking and listening;
- reacting well to short term goals; and
- being more overtly confident.

Action:

A review and re-design of schemes of work to take better account of these features.

Outcome:

The school is convinced that the measure it has taken has given the pupils concerned much more capacity to succeed. Significantly, it has improved the boys' attainment without depressing the girls' results. The percentage of boys gaining 5 or more GCSE A*-C grades rose from 54% in 2004 to 67% in 2005 and to 68% in 2006.

Glossary

Achievement: how well learners are doing in relation to their ability and according to the progress they are expected to make

Advanced Level (A Level): General Certificate of Education at Advanced Level

Attainment: a measure of how well learners are doing as measured in national external assessments and in the qualifications or credits they gain.

Aiming for Excellence Programme: a Welsh Assembly Government initiative to improve transition and the levels of progress pupils make when they move from primary to secondary school

Baseline: the assessment of children in language skills, mathematical skills and personal and social skills on entry into full-time education in Reception or Year 1 classes. The eight elements comprise assessments of non-verbal, oracy, number, personal and social development and reading and writing components.

Basic Skills Quality Mark: the award by the Basic Skills Agency to schools who provide evidence that they meet specifications in ten defined elements for teaching and developing basic skills

Core subjects: there are four core subjects in the National Curriculum. These are English, Welsh (first language), mathematics and science.

Core subject indicator (CSI): the percentage of pupils who attain the CSI level expected of them in mathematics, science and either English or Welsh as a first language.

End-of-key-stage assessments: the assessment of children's' attainment at ages seven, 11 and 14 against National Curriculum assessment criteria and level

Foundation Phase: a Welsh Assembly Government initiative covering the early years and key stage 1 (children aged between three and seven). From September 2004, 42 settings are testing this out. The initiative aims to provide a broad, balanced and varied curriculum in seven areas of learning to meet the different developmental needs of young children.

Free School Meals (FSM): the proportion of pupils entitled to free school meals is used as one of the main indicators as to levels of socio-economic disadvantage.

General Certificate of Education (GCSE): the qualification is gained by most young people aged 16.

Key skills: The key skills (for pupils aged 16 and under) are:

- speaking;
- listening;

- reading;
- writing;
- using numbers (numeracy); and
- using information and communications technology.

The **wider key skills** are:

- problem-solving;
- improving own learning and performance; and
- working with others.

Key skills qualifications: for post-16 learners

- communication;
- application of number; and
- using information and communications technology.

These key skills, as well as the wider key skills, are available from entry level to level 3. As learners progress through the levels, they move from straightforward to more complicated tasks. They also have to show an increasing ability to use higher-level skills such as analysis, evaluation and justification.

Key stage: The National Curriculum divides the period of compulsory education into the following four key stages:

- key stage 1 for pupils aged five to seven;
- key stage 2 for pupils aged seven to 11;
- key stage 3 for pupils aged 11 to 14; and
- key stage 4 for pupils aged 14 to 16.

Learning coaches: an adult who provides support to learners aged 14 to 19

14-19 Learning Pathways: the National Assembly's strategies for developing and improving education and training opportunities for 14 to 19 year olds

Link adviser: a member of the LEA education team who has lead responsibility for liaison with specified schools

Local authority (LA): part of a unitary authority or council responsible for providing education for pupils of school age in a particular area.

Mentor: an adult or, occasionally, an older pupil, who acts as an adviser/coach/guide for the learner

National Curriculum (NC): the curriculum and assessment arrangements for key stages 1-4 that all maintained schools in Wales must follow

Non-core subjects: non-core subjects of the NC are Welsh (second language), design technology, information technology, history, geography, art, music and physical education

Ofsted: the body that inspects education for learners in England

OHMCI: Office of Her Majesty's Chief Inspector of Schools in Wales. The education inspectorate in Wales worked under this name from 1992 until the name was changed to Estyn in 1999.

Pupil referral units (PRUs): units are set up and maintained by a local education authority for pupils of compulsory school age. Pupils usually go to pupil referral units because they have been excluded or are repeatedly absent from school, or because they might otherwise not receive a suitable education.

RAISE (Raising Attainment and Individual Standards in Education in Wales): a Welsh Assembly Government initiative which targets disadvantaged pupils and seeks to raise their levels of performance. Schools that are eligible for funding under the initiative are required to target the funding to support pupils who are disadvantaged and most at risk of leaving school with no qualifications.

Special educational needs (SEN): Children and young people have special educational needs if they have learning needs which call for special education to be made available for them.

Speaking and writing frames: a teaching approach which enables pupils to work to a framework in order to sequence their ideas for work on topics so that they can develop more extended oral and written contributions

Value-added: the term used to evaluate how much progress a pupil, or a group of pupils, has made over a given period and whether it matches predictions

Vocational courses: courses which are based on an occupational area. They often include a high level of practical work and direct applications, such as work experience, to the occupations in question.

Welsh Baccalaureate Qualification: the over-arching qualification introduced by the Welsh Assembly Government at levels 2 and 3 in 2003 in a three-year pilot for learners aged 16 and over. In September, 2006, a pilot level 1 qualification was also introduced for learners under and over 16 years.

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