# Breaking down the stereotypes: gender and achievement in schools

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# EXECUTIVE SUMMARY

Over the past decade, educational policy has been concerned about a perceived 'gender gap' in achievement, that is boys underperforming when compared with girls. A number of educational policy strategies and interventions have aimed at raising the achievement of boys, as well as improving their attitudes and motivations towards schooling. A contrasting concern has been that the achievement of girls at school has not translated into rewards in the workplace. For example, young men continue to have higher average hourly wages than young women.

This report seeks to present a more nuanced picture of educational achievement than is currently found within the existing policy focus on 'boys' underachievement'. It shows that the interplay of gender, ethnicity and socio-economic group together impact on the underachievement of girls as well as boys. It is based on a literature review, carried out in early 2007, and a statistical analysis of publicly available data for achievement at Key Stage (KS) 1-4 in England for 2006. The latter focused on KS2 when most pupils are aged 11. These are set in the context of the need to develop policy and practice at schools in relation to the new Gender Equality Duty.

## KEY STATISTICAL FINDINGS

- The emphasis in recent years on boys' underachievement has resulted in an oversimplified view of the gender gap in achievement. Some groups of boys are achieving and some groups of girls are underachieving.

### *Gender*
- Girls do not outperform boys in all subjects. On average, they do so in English and literacy, with an overall gender gap of 10 percentage points in English at KS2 in 2006. However, there is almost no gender gap in achievement in mathematics and science at KS2.

- The gender gap in literacy is an international phenomenon. The gap in the UK is in fact less pronounced than in many developed countries. Of the 42 countries examined in an OECD survey in 2000, only 11 had a narrower gender gap.

### *Ethnicity*
- Levels of achievement vary considerably between ethnic groups. For example, at KS2 in English, amongst the larger ethnic groups, there was a gap of 16 percentage points between the highest achieving group (Chinese) and the lowest achieving group (Pakistani). The gaps were even wider in science (18

points between Chinese (highest) and Pakistani (lowest)) and in mathematics (30 points between Chinese (highest) and Black Caribbean (lowest)).[1]

- For all ethnic groups, average attainment was higher at KS2 in English for girls than for boys, varying from 7 percentage points (White and Black African) to 16 percentage points (Black Caribbean). However, at KS2 in both science and maths, the gender gap for most ethnic groups was very small.

*Social class*

- Social class, as measured by the provision of free school meals (FSM), is the major factor impacting on educational achievement levels in the UK. For example, at KS2 in English, there was an overall achievement gap of 22 percentage points between non-FSM and FSM pupils. The gap between non-FSM/FSM pupils was 24 points for boys and 20 points for girls, double the overall gender gap in achievement (10 points).

- The underachievement of pupils in lower socio-economic groups occurs only in some countries, such as the UK, and is not an international phenomenon. In a number of countries, including Canada, Finland, Iceland, Japan, Korea and Sweden, students from a variety of socio-economic backgrounds perform well.

*A more nuanced picture: combining gender, ethnicity and social class*

- The table below shows the level of achievement in English, in terms of the percentages gaining Level 4 or above at KS2, for some broad ethnic groups by gender and social class (as proxied by whether in receipt of free school meals):

  o There was a huge range in achievement of nearly 40 percentage points between Mixed girls not in receipt of FSM, 90% of whom reached Level 4, and White boys in receipt of FSM, only 52% of whom reached Level 4.

  o Among those not receiving FSM, Black and Asian groups performed a little worse than the Mixed and White groups. In contrast, among those who did receive FSM, the White group had the lowest overall achievement. This was true of both boys and girls.

  o Boys who did not receive FSM outperformed girls within the same broad ethnic group who did receive FSM. Mixed and White boys who did not receive FSM outperformed girls from all ethnic groups who were on FSM.

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1  Data are for ethnic groups with at least 2,000 pupils at KS2. For all three subjects, the lowest overall level of achievement was for Travellers of Irish Heritage and Gypsy/Roma, but these are numerically small groups and, in particular, it is difficult to identify membership of these groups.

This suggests that social class is a stronger factor for achievement than gender, regardless of ethnic group.

o The achievement level for White boys on FSM (52%) was particularly low compared to White boys not receiving FSM (79%). This 27 point gap compares to a 20 point gap for Mixed boys, a 16 point gap for Black boys and a 13 point gap for Asian boys. For girls, the gaps between those on FSM and those not on FSM was generally smaller, but again was largest for White girls at 20 percentage points. This gap was 15 points for Black girls, 13 points for Mixed girls and 10 points for Asian girls.

• Looking at more specific ethnic groups, the lowest level of achievement for non-FSM pupils was by Traveller of Irish Heritage boys (30%), but this is a small group with only just over 100 pupils. For FSM pupils, it was by Gypsy/Roma boys (19%), but again this is a small group.

**Percentage of pupils achieving Level 4 or above in English by ethnicity and free school meals, 2006**

| Non-Free Schools Meals | | Free School Meals | |
|---|---|---|---|
| **Girls** | **Boys** | **Girls** | **Boys** |
| Mixed: 90 | Mixed: 81 | Mixed: 77 | Asian: 62 |
| White: 88 | White: 79 | Asian: 74 | Mixed: 61 |
| Black: 85 | Asian: 75 | Black: 70 | Black: 56 |
| Asian: 84 | Black: 72 | White: 66 | White: 52 |
| **All: 88** | **All: 78** | **All: 68** | **All: 54** |

*Notes:* Data are for broad ethnic groups with more than 2,000 female and male pupils. There are important differences in results within these groups, notably for Asians.

## EXPLANATIONS OF GENDER DIFFERENCES IN ACHIEVEMENT

### *Pupils' construct gender roles as opposites*

Various explanations have been put forward to explain gender differences in achievement, including: natural differences between the sexes; gender differences in learning styles; the 'feminisation' of schooling and gender-biased assessment procedures. However, all these theories have been challenged or discredited by counter-evidence. Only one theory emerges strongly and consistently from a range of studies and has not been challenged or discredited. This is that pupils' constructions

of what is appropriate, relevant and meaningful for boys and girls - produce different behaviours that impact on achievement.

Boys and girls 'perform' their gender in different and opposite ways (i.e. being 'a boy' means acting and behaving in ways that are the exact opposite of being 'a girl'). Such gendered behaviours are deep-seated, and children enact these without being consciously aware of them, but vary depending on whether they are in nursery, primary or secondary school, whether they are working class or middle class, and according to the ethnic group they belong to.

Furthermore, the ethos and practices of individual schools, and the peer groups that exist in these, influence what kind of being 'a boy' or 'a girl' is seen as appropriate in that setting. The peer group is of central importance. Pupils usually sit in same-gender groups and friendship groups tend to be composed of pupils of the same gender. Both primary and secondary pupils respectively 'police' the gendered behaviour of their peers, and punish failure to conform to traditional gender norms.

### Some constructions of masculinity militate against working hard

Particular constructions of masculinity are invested with high status, including 'laddishness' (where it's not 'cool' to work hard or to achieve at school). School work, diligence and application are therefore constructed as feminine. Hence some boys seek to disassociate themselves from it to bolster their constructions of masculinity.

Some researchers argue that, where previously this was particularly evident among working class boys, middle class boys are increasingly adopting these attitudes.

### Black Caribbean boys react to a perceived lack of respect at school

Among Black Caribbean pupils, boys in particular disengage from classroom situations, with peer group pressure encouraging challenging, aggressive behaviour in line with a street subculture that encourages the adoption of hard, confrontational identities. But the anti-authority positions adopted by Black male youths are not a sign that school or education is being rejected; rather they are contesting a perceived 'inequality of respect', where teachers expect and demand respect simply for being 'the teacher', whilst teachers disregard and even show contempt for Black boys' interests, experiences and concerns without trying to get to know them.

### Teachers' misunderstanding of ethnic identities leads to low expectations

Some research shows how teacher-pupil perceptions and relations are also a significant feature in constructions of gender identity. One study showed that teachers had low expectations of Mixed White/Black Caribbean pupils in part

because they misunderstood minority ethnic identities and backgrounds. For example, the majority of teachers in this study thought their pupils experienced 'identity problems' and were disadvantaged because they were from single mother (White) homes where the (Black) father was absent or a poor role model. However, the teachers had no evidence to support this assumption. This factor was one of the main obstacles to achievement for this group of pupils; another was peer group pressure, with pupils gaining greater credibility with their peers through behaving in disruptive ways.

### Gender stereotyping in subject choice

Young men still typically pursue technical and science-oriented subjects, while young women typically pursue caring, or arts/humanities/social sciences subjects. Traditionally, 'the sciences' have been seen as masculine and 'the arts' as feminine. The latter are constructed as lower-status than science subjects and as 'soft' and/or 'easy', compared to the sciences. So subjects more often pursued by young men are seen as more difficult and more important by society than those more commonly pursued by young women.

Explanations of why boys and girls tend to enjoy and pursue different subjects include that there are inherent differences between the sexes; differences in cognitive style; a masculinised educational environment that values the learning styles of boys over girls; and gender stereotyping, or differential constructions of gender, among pupils and teachers. We suggest that girls and boys may tend to be drawn to different subject areas due to their own ideas of what is appropriate for their gender. For example, literacy and English are often constructed as 'naturally female' due to their 'feminine' curriculum content. Girls, then, may find the study of English to be affirming to their constructions of femininity, while boys may find it challenging to their constructions of masculinity. The choices of girls and boys may therefore reflect both the desire of individuals to align themselves with apparently gender-appropriate subjects, and the appeal of a (gendered) subject curriculum to an individual with gendered interests.

Teachers and other educationalists (for example, careers advisors) also often reinforce gender stereotyping. Gendered subject choices and subsequent school-to-work routes have strong consequences for young peoples' future career trajectories in terms of job opportunities, status, and remuneration.

## STRATEGIES TO RAISE ACHIEVEMENT LEVELS

A number of studies have attempted to identify why and how some schools succeed in raising the achievement of groups of pupils (e.g. boys, or pupils from minority ethnic groups such as Black Caribbean or Bangladeshi). Each has observed that a key factor for these successful schools was that there were high expectations of academic achievement for all pupils, irrespective of gender/minority ethnic group.

### *'Whole school' approaches have been successful*
Each school also adopted a holistic approach to achievement and devised various strategies from this. The three key aspects of this were the role played by the headteacher; the establishment of effective partnerships, for example between teachers, pupils, school governors and parents; and the nature of the teaching practice. Together they create a culture through which achievement can be realized.

Warrington et al. (2005) have set out the components of this culture:

- *Behaviour:* this involves the school establishing high levels of self-discipline, with prompt attention to misdemeanours and responding in a constant and ongoing manner to issues of behaviour. Staff show courtesy to pupils.

- *Equal opportunities*: this involves a commitment to valuing diversity through curriculum content, classroom grouping arrangements, school activities and worship.

- *Fostering pride and achievement*: this involves a school placing emphasis on pride in work and behaviour and on high expectations of responsibility and independence. Pupils are aware that staff care for their progress and happiness.

- *Imaginative thinking*: this concerns the ways in which pupils can become engaged in the life of the school, and the willingness of the school to ensure that individual pupils become involved in its activities.

- *Values and aims*: these need to be transparent, consistent, shared by colleagues, and permeate all the work of the school.

### *Responses to learning style differences should not be based on gender stereotypes*
In some schools, teachers have sought to address underachievement in gender stereotyped learning styles. There is some evidence that, as groups, boys and girls

*tend* to have different preferred learning styles. However, there is as much difference between pupils of the same sex as between the two sexes. Many pupils thus buck the tendency for their sex, and many teachers are adamant that gender differences in learning are non-existent or superficial. We would suggest that teachers should be aware of individual pupils' preferred ways of learning, but these should not be labelled as 'boys' learning styles' and 'girls' learning styles', as this will only reinforce traditional masculine and feminine stereotypes of boys and girls as learners.

### *Single-sex classes established as an isolated strategy will not be effective*

It is argued that single-sex classes allow teachers to tackle pupils' traditional perceptions of certain subjects (as well as encouraging boys to behave less 'laddishly' and girls to be more confident). However, once pupils' socio-economic status and their prior achievement are taken into account, there are no significant differences in the achievement of those in single-sex classes or schools and pupils in coeducational establishments.

Single-sex classes provide girls a space away from 'laddish' or disruptive behaviour of some boys and can provide opportunities for teachers to redress stereotypical constructions of particular subjects, and work with boys on violence. However, they are only effective in raising achievement if they are introduced within an overall school framework that promotes high expectations and achievement of *all* pupils. Further preconditions for the effective use of single-sex classes are:

- a consensus and commitment amongst staff as to their purposes;

- training and development support to teachers enabling them to modify their teaching styles to meet the varied learning needs of boys and girls in their classes;

- that teachers establish a 'community' of learning in which common expectations are clearly established and accepted by all, for example that disruptive behaviour or failure to complete work will not be tolerated.

### CONCLUSION

The key approach to raising achievement and meeting the aims of the gender equality duty is the tackling of gender stereotypes. One reason why schools that have adopted some of the strategies to raise boys' achievement have had such disappointing results is that they have encouraged teachers and pupils to view boys and girls as gender stereotypes. Other aspects of identity, such as ethnicity, also have a strong impact on pupils' curriculum preferences. Teaching practice based on

assumptions of different preferences and abilities due to gender inevitably build on stereotypes and can exacerbate differences, channelling pupils down different routes of learning. This has consequences for achievement and future career choices, particularly by making it more likely that young people enter jobs traditionally associated with their gender. This is of particular concern for girls, as jobs traditionally done by women are often low paid/low status.

Teachers and schools should be aware that pupils often have strongly gender stereotyped views. They should therefore be *challenging* stereotypical differences and encouraging the diversification of skills and interests to broaden horizons and thus improve the life chances of girls and boys.

# 1.  INTRODUCTION

Questions and concerns about gender and achievement have, in recent years, focused more on boys. However, even though the policy focus has been on boys:

> *… girls in low socio-economic status groups, and in some ethnic minority groups, also perform poorly, with the consequence that they have very limited opportunities in the labour market.*
> (Breitenbach, 2006)

The aim of this report, which was commissioned by the Equal Opportunities Commission (EOC) in January 2007 as part of its policy work on the Gender Equality Duty (GED), is to present a more nuanced picture of the situation regarding pupil underachievement and gender. The report covers England only. It is shown how the interplay between factors such as gender, ethnicity and socio-economic group together impact on the underachievement of girls as well as boys. In providing the evidence for these differences, the report draws on data related to schools and pupils in England provided by the (former) Department for Education and Skills (DfES), which is now the Department for Children, Schools and Families (DCSF), the Higher Education Statistics Agency (HESA), the Organisation for Economic Co-operation and Development (OECD) and the University and College Admissions Service (UCAS) and from the Youth Cohort Study.

By reviewing[1] existing studies on gender and achievement and the most frequently used approaches to tackling gender inequalities in achievement, we were able to identify successful and effective strategies for schools to adopt. The GED, which came into force in April 2007, requires schools to take a proactive approach to tackling gender inequalities in achievement and, as such, the framework recommended here is based on a whole school project. This whole school project requires teachers and pupils working together to breakdown stereotypes in an environment that is democratic and utilises teaching practices that take account of pupils' real lives and experiences. Central to the success of the project is the effective leadership of the senior management team of the school and, particularly, the headteacher.

## 1.1  Structure of the report

The report consists of six chapters. Chapter 2 looks at the implications of the GED for schools. It also sets out the theoretical perspective used by the authors in their critique of the current research and strategies on gender and achievement. Chapter 3

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[1]  The review was based on both published and unpublished material that is currently publicly available. The databases used included: Ingenta, Science Direct, ERIC etc.

explores the literature on gender and achievement by examining some of the most common questions asked about why boys and girls appear to achieve differently. Chapter 4 provides evidence which shows how gender differences in the achievement of boys and girls are relatively slight in comparison to the differences that can be seen when looking at combinations of gender with social class and ethnicity. Chapter 5 looks at how schools can develop a whole school approach to tackling the issue of achievement with all pupils and relates these to GED. Chapter 6, the concluding chapter, summarises the main points that have been raised in the report.

Three key factors arise from this report:

- Pupil achievement and underachievement is related to the interplay of social class, ethnicity and gender. It is not simply a case of (all) girls outperforming (all) boys. Some boys are succeeding very well and some girls are underachieving.

- Analysis of the literature and statistics indicates that the 'gender gap in achievement' can only be removed by shifting notions of gender itself; that is, notions of what is appropriate, relevant and meaningful for boys and girls.

- Tackling gender differences in achievement is attained through a whole school approach to raising achievement in general and the adoption of strategies that focus the whole school (ethos, teaching practices and organisation) towards this goal.

## 2. GENDER AND ACHIEVEMENT IN SCHOOLS AND THE GED

### 2.1 Introduction

The recent introduction of the GED is likely to provoke educators to ask 'What are we expected to do that is different to our existing policies on gender and education?' This is a reasonable question, given that for several years now schools have been expected to have an equal opportunities policy. As part of the Ofsted inspection process, information is sought on the extent to which a school is 'socially inclusive' and ensures equal access and opportunity for all pupils. As education authorities, governing bodies and teachers are aware, the requirement to provide equal opportunities is one based in law and therefore demands more than simply producing a policy statement. In the years since the Sex Discrimination Act 1975 was passed, a range of measures have been introduced by schools and education authorities, all of which have been designed to enable pupils to reach their full potential by removing any barriers to 'educational success'. For example, they have encouraged boys and girls to take up subjects they might usually associate with the 'other' sex; used books and materials with content that appeals to both sexes and that does not contain stereotypical assumptions about men and women's abilities, skills and behaviours; and made teachers aware of their own and pupils' expectations and attitudes that were based on gender and sought to challenge these.

Despite the introduction of these approaches by schools, there continue to be disparities in the experiences and opportunities of different groups of children in our schools. Girls and boys persist in making subject choices that will channel them into stereotypical jobs; there are still disparities in achievement in public examinations of some groups of boys and girls; and research studies have shown how inherent gender biases remain in assessment policies, teacher recruitment, and attitudes and expectations of pupils (see Chapter 3). The aim of the GED is to tackle such persistent inequities.

The Gender Equality Duty places a statutory duty on all public authorities, when carrying out their functions to have due regard to the need to:

- Eliminate unlawful discrimination and harassment.
- Promote equality of opportunity for men and women.

The GED is intended to address the fact that despite 30 years of individual legal rights to sex equality, there is still widespread discrimination (both intentional and unintentional) and persistent gender inequality. It differs from previous sex equality legislation in two critical respects:

- Public authorities have to be proactive in eliminating discrimination and harassment, rather than just waiting for individuals to take cases against them.

- Public authorities have to be proactive in promoting equality of opportunity not just avoiding discrimination.

It is a form of legally enforceable 'gender mainstreaming' - building equality into the core business thinking and processes of an organisation. It is focussed on achieving outcomes - specific, identifiable improvements in policies and services for men and women, and girls and boys.

The hallmark of success is for a school to be able to provide evidence of its action in bringing about a positive change. The Gender Equality Duty Code of Practice for England and Wales (EOC, 2006) lists the specific duties or steps that each school must follow to show how it meets the general duty. These are:

- Gathering and using information.
- Consultation.
- Gender Impact Assessments of new and existing policies.
- Identifying and implementing gender equality objectives.
- Monitoring and reviewing.

The EOC has produced guidance for schools on implementing the duty, including how to meet the specific duties and how looking at gender can help them to deliver on their core work, including the *Every Child Matters* outcomes (EOC, 2007). The legal responsibility for implementing the GED rests with schools' governing bodies, but as the guidance implies (and we will go onto argue) one of the keys to the successful implementation of the duty lies in the leadership of the head teacher and senior staff. The EOC guidance also identifies a number of key issues that schools should consider: challenging gender stereotypes in subject choice and careers advice; pupil attainment; health, sport and obesity; and, sexual and sexist bullying and violence.

The argument at the core of this report is that to bring about changes in the achievement opportunities and potential of boys and girls demands a whole, composite, range of actions in the school. The intention in this report is to set out the explanations in support of such a holistic approach and to give the reasons why many equal opportunity initiatives aimed at raising achievement (particularly that of boys) have been unsuccessful. In order to provide a context for these, we set out the

perspective used here to inform analysis of the statistical data and literature and which underpins the recommended strategies.

## 2.2 Gender and achievement: the 'gender gap'

When the Sex Discrimination Act was passed in 1975, the concern was with the underperformance of girls particularly in relation to maths and science subjects. The utilisation of the term 'gender gap' came into popular usage just over ten years ago when the focus turned to boys' underachievement. It has been suggested that the shift in discussions away from girls' *underachievement* in particular subjects to the 'gender gap' where girls are compared to boys revealed deep seated societal beliefs about gender. When boys were doing better than girls, there was no concern about 'gender gaps' as it was taken for granted that this was the 'natural order' of things (Yates, 1997; Epstein et al., 1998). Furthermore, the term 'gender gap' sits comfortably alongside the increase in tests used to measure pupils' abilities. As pupils become winners and losers in the 'academic success' stakes, then some groups will win and some lose - therefore, so this argument goes, if girls are doing better it must be at the cost of boys doing worse.

The term 'gender gap' is most often used to refer to the differences in performance between girls and boys in Standard Assessment Tasks (SATs), GCSEs and A level examinations, but it is also used to describe differences in the take-up of particular subjects and choice of careers (Arnot et al., 1999). With regard to pupil performance in public examinations, the 'gender gap' is one in which girls (as a group) are seen to achieve more highly than boys (as a group). However, as we will show, there has been a tendency in the media (and indeed by the government) both to exaggerate the extent of the gender gap and to fail to recognise the ways in which pupils perceive their own strengths and weaknesses (e.g. whether they believe themselves to be 'quick to pick up science concepts' or 'no good at writing') (Epstein et al., 1998; Francis and Skelton, 2005).

The explanations for the 'gender gap' come from a variety of perspectives which themselves are premised on two broad ideological perspectives - i.e. whether human behaviour is biologically determined and immutable; or whether human behaviour is socially constructed. *Biological* explanations include suggestions that there are sex differences in brain structure (Gurian, 2002) and/or that hormones influence how the brain works (Kimura, 1992; Head, 1999). Social explanations include *socio-psychological* theories that gender differences result from socialisation processes which start at birth and continue into adult life (Delamont, 1980). Here children are regarded as 'sponges', absorbing images and messages from the outside world about how to behave as a boy or a girl. Then there are *social constructionist*

perspectives that view gender as mutually constructed and developed due to the social expectations and perceptions perpetuated through interaction (Connell, 2002) These and other explanations will be referred to more fully throughout the report, but we wanted to flag them up here in order to place our own perspective on the 'gender gap' in achievement in context.

The first point to make is that 'gender' by itself cannot offer any revealing insights into the relationship between learning, identity and achievement. Rather, the ways in which pupils' social class, ethnicity and gender, along with other aspects of identity, interact to impact on achievement provides a more accurate picture. Secondly, 'achievement' tends to be narrowly conceived within the debates where it is equated with the acquiring of credentials and pupil performance in public examinations. Having said this, the issue of male underachievement in literacy and language is clearly an important one, as gender gaps here are significant and affect all socio-economic and ethnic groups. And further, we recognise that, however unhelpful and restrictive the concept is, policymakers and educational professionals are well versed in talking and hearing about the 'gender gap in achievement' and therefore we need to engage with it directly, whilst simultaneously putting it into a socio-economic context.

The rationale underpinning this report is that gender is socially constructed and is 'relational' in that there can be no conception of masculinity without a femininity to which it can be compared and contrasted. As gender is a central pillar of identity, integral to what it is to be 'a proper person' (Davies, 1989), pupils must construct their gender identities (and their behaviours are interpreted in gendered ways). This often involves boys and girls positioning themselves and being positioned in opposition to each other, e.g. girls 'work hard' in contrast to boys' 'work avoidance'; girls are co-operative and team players in comparison to boys' individuality and competitiveness; girls prefer humanities subjects as opposed to boys' interests in the sciences. We argue that the achievement gap is a result of such 'oppositional' ideas about gender (i.e. assuming that if boys are good at/like X then girls must not be good at/like X) - and in order to tackle this, the ways in which teachers, pupils, parents and policymakers construct gender itself must be challenged. As such, the report identifies strategies that together offer a holistic approach to tackling gender and achievement. Thus, at the centre are the perceptions, attitudes and behaviours of teachers and pupils regarding how they construct 'gender'. This means attempts to eradicate gender gaps in achievement should start with teachers' challenging stereotypes and that in turn they should encourage pupils to challenge stereotypes.

One challenge is then to tackle how boys and girls see themselves as opposites of each other in the classroom, for example, 'if I'm a girl I must like the arts, literacy and humanities subjects and show myself to work hard because I enjoy school. If I'm a boy I must be the opposite and have some interest in maths and sciences, but only do well by being 'naturally good' and *not* showing myself to work hard.' Another challenge is to look at the gendering of curriculum subjects themselves. Science is seen as a 'boys' subject'[2] and rather than trying to make it 'girl friendly', schools need to find ways to opening up this topic so that it ceases to be associated with one or other and, instead, captures the interests of both genders. A consideration of the ways in which subjects such as maths and English can be 'de-gendered' are discussed in Chapter 5.

What this more holistic approach and the evidence from existing work implies is that 'one-off' strategies (such as single-sex classes) or even the adoption of a series of strategies, as recommended on the former DfES (now DCSF) Standards Site web pages, will not 'produce' achieving pupils. As the analysis of the literature and statistics in this report shows, the 'gender gap in achievement' can only be removed by shifting notions of gender itself; that is, notions of what is appropriate, relevant and meaningful for boys and girls.

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[2] In fact, more females than males took biological sciences at A level in 2005/06 and a higher proportion of females achieved A grade in all three main science subjects: biological sciences, chemistry and physics. In terms of entries, only physics remains male-dominated; females comprised almost half of all A level entries in chemistry. See Appendix 3 for details.

## 3.    GENDER AND ACHIEVEMENT: A LITERATURE REVIEW

### 3.1   Introduction

One of the most striking features of the literature on gender and achievement is that it is written from different and, most often, opposing ideological standpoints. There is the research carried out by those who see gender as one aspect of pupils' learning identities and who point to the larger achievement gaps that can be seen when including social class and ethnicity alongside gender (these are the kinds of studies undertaken by feminists during the past thirty years). Then there is a literature which has emerged more recently through the focus on boys' underachievement which focuses exclusively on 'boys'. Within this second body of literature are writers who argue that the 'gender gap' has been created by 'feminisation' of schools (i.e. the predominance of women teachers and learning and teaching strategies which they suggest are girl-friendly).

There are, of course, a number of different theories that are used to explain 'the gender gap', but it is worth readers bearing in mind that the separation of theories from ideological positions is impossible.  Indeed, the various explanations for the 'gender gap' in achievement can be clearly linked to particular theories/ideological positions. This chapter will take the different explanations for gender differences in achievement and describe a) the assumptions upon which they are based; and b) the evidence to support or refute the explanations. However, before doing this, a few key facts will indicate why gender differences in achievement are important and demand attention:

- Young men have higher real hourly wages than young women (Andrews et al., 2006b).

- Boys and girls' preference for gender stereotypical subject areas has been linked to their school-to-work choices and the subsequent gender-pay gap (EOC, 2004).

- Girls and boys' preference for gender stereotypical subject areas has been linked to skills shortages in sections of the workforce (EOC, 2004).

- Primary school boys of all ethnic and social class groups underachieve at literacy in comparison to their female counterparts (Francis and Skelton, 2005).

There are five main explanations that have been put forward which try to account for the 'gender gap' in achievement.[3] These are that:

- Boys and girls are naturally different and this explains discrepancies in achievement.

- Boys and girls have different learning styles.

- Schools are feminised and this advantages girls and disadvantages boys.

- Assessment procedures are biased towards girls.

- Pupils' constructions of gender produce different behaviours which impact on achievement.

We will discuss each of these explanations in turn.

### 3.2 'Natural' differences

One perspective evident in the literature is that it is 'natural' for girls to prefer reading and writing and to enjoy working quietly, whilst boys are 'naturally' more boisterous and require greater effort on the part of the teacher to get them motivated and involved in school work (Biddulph, 1997; Pollack, 1998; Kindlon and Thompson, 1999). Underpinning the argument that the 'gender gap' in achievement is a result of 'natural' differences is the belief that babies are born with an inbuilt biological and/or genetic predilection which, for example, pushes them towards some curriculum subjects whilst avoiding others.

A different, yet related, argument is that boys and girls have different brain structures and these result in their gender differentiated skills and abilities at schoolwork (Geake and Cooper, 2003; Baron Cohen, 2004).

The problem with assigning gender gaps in achievement to 'natural', physiological differences is that this not only closes down the possibilities of change but, in the case of some authors, boys are presented as more worthy and more in need of support than girls. For example, when Moir and Moir (1999: 119) say 'feminists simply refuse to entertain the idea that boys just might be plain better at higher mathematics than girls', they do not go on to suggest that girls just might be plain better at English than boys. It could also be concluded from the work of brain

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[3] The literature on boys' underachievement contains an identification of a number of key discourses including: poor boys, boys will be boys, problem boys, 'at risk' boys (for discussion of these, see Epstein et al., 1998; Francis and Skelton, 2005).

difference theorists that if girls' language skills are inherently different and superior to those of boys, then girls might be the 'naturally' better scholars and we should just accept this. The view that boys are more in need and more deserving rather than less able is one that has pervaded the history of boys' education.[4]

So is the gender-gap attributable to 'nature'? Diane Halpern's (1992) overview of the research remains the most authoritative text. Halpern weighed up the evidence between studies claiming that gender differences were innate and those that argued these are created through socialisation practices. Her conclusions were that, when considered together, both have a part to play. What is important for educators to note is that the brain is not 'fixed' prior to birth, but is an organ of the body that responds to external stimuli. A neuroscientist, Lesley Rogers (2000) has written that even hormones may be affected by environmental factors. So even if a relationship were to be found between patterns of brain difference and gendered patterns in educational achievement, these gender differences in the brain might still be the result of social experiences rather than innate (and unalterable) factors. It is possible that girls' brains may tend to develop slightly differently to boys' because of their (socially expected) different behaviours and modes of expression. In this case, directing teaching practices to meet the apparent brain predilections of one sex or another might exacerbate differences further. That is, for example, if because boys are exposed more to technical/electronic toys and become more adept at manipulating such materials, this will develop the logical/reasoning areas of the brain. That practice in a skill or attempts to learn a particular skill develops certain parts of the brain has been demonstrated by Blakemore and Frith (2005). One of the examples they provide is of Black cab drivers in London learning 'The Knowledge' (a mental map of all the streets in London). Efforts to learn this mental map results in the posterior hippocampus in taxi drivers being larger than that of other people and, importantly, the size of it was related precisely to the length of time the driver had been in this occupation. The implications of this are that its increased size is directly related to the extent to which spatial memory is used. Thus teaching practices aimed at playing to boys' and girls' perceived strengths and weaknesses in any one curriculum area or to a preferred learning style would be intensifying the differences between the genders.

Indeed, there is far more evidence pointing to the significance of social factors rather than biological factors in shaping children's abilities. For example, back in the 1980s, Kathy Clarricoates (1980) observed that middle class girls were expected to be

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[4] The historian, Michelle Cohen (1998) cites an 18th century view that while girls appeared to be more advanced than boys it was only because boys were more thoughtful and deep – so girls were seen as bright but inferior and boys as dull but with potential.

academically successful in a way that working class girls were not. Recent studies have shown how the greater emphasis on academic achievement in public examinations has put particular pressure on middle class girls who face the implicit assumption of both their parents and their teachers that they will succeed (Lucey and Reay, 2002). In middle class families, very high academic performance has been found to be routinely understood as 'ordinary' and to be expected (Walkderdine et al., 2001; Lucey and Reay, 2002). Also, teachers' and parents' social constructions of appropriate gendered behaviours of boys and girls have been shown to result in teachers seeing them as having differing potential and abilities. For example, Black girls have been, and continue to be, stereotyped as 'assertive', but are seen as achieving better in schools than their male counterparts, while South Asian girls are regarded as passive, meek and ruthlessly oppressed by their families (Fuller, 1980; Williams, 1987; Connolly, 1998). This stereotype does not reflect the lived lives of the girls themselves. A report published by the EOC shows that whilst 64% of Pakistani girls and 55% of Bangladeshi girls said that their parents had a big say in their future careers, only 43% of Pakistani and 35% of Bangladeshi girls stated that they were happy to follow their advice (Bhavnani, 2006). Furthermore, the South Asian (Pakistani and Bangladeshi) girls in Bhavnani's (2006) study were more likely than White girls to say that working near home was not important to them (58% Pakistani, 61% Bangladeshi, 54% White British). They were also ten percentage points more likely to describe themselves as confident than any other group of girls (Black Carbbbean, Indian or White British). When girls do not conform to conventional gender behaviours, they invite harsh criticism from teachers. In a study by Reay (2001), teachers spoke of girls who were misbehaving as 'a bad influence', 'scheming little madams' and 'spiteful', whilst boys' similar behaviours were seen as 'mucking about'. Similarly, Skelton (2002) found that those girls who adopted behaviours not associated with being 'properly feminine' were described as 'pushy'.

### 3.3   Different learning styles

Interest in 'learning styles' has grown rapidly in recent years (Coffield et al., 2004) and perceived differences in the learning styles of boys and girls are one of the most frequently expressed explanations for the gender gap in achievement (Duffy, 2003; Maby, 2004). This argument is also based on the presumption that if boys are naturally different to girls because of their biological make-up, then it follows that they will have different approaches to learning (Noble and Bradford, 2000; Gurian, 2002). It is these preferred learning styles which are said to explain why boys are attracted towards science subjects with their emphasis on the memorisation of rules, facts and short, abstract responses and girls towards humanities subjects which are related more to real life situations and demand elaborate and detailed responses (Arnot et al., 1998; Murphy, 1989). We suggest that if biology did dictate how boys and girls

learn, then we would have no female mathematicians or male writers. At the same time, we recognise that there is some evidence that as groups, boys and girls *tend* to have different preferred learning styles.[5]

If this is the case, should single-sex classes be encouraged and/or should teachers develop strategies which cater for these different learning styles?[6] We examine each point in turn. With regard to single-sex classes, the findings of research into single-sex teaching offer inconclusive evidence. Firstly, there is the argument that this form of organisation makes raising achievement a possibility because it allows teachers to tackle pupils' traditional perceptions of certain subjects (as well as encouraging boys to behave less 'laddishly' and girls to be more confident) (Sukhnandan et al., 2000; Warrington and Younger, 2003). However, it has been shown that teachers tend to adopt 'curriculum-as-usual' approaches and utilise the same teaching practices whether in mixed-sex or single-sex classes (Warrington and Younger, 2001; Jackson, 2002a). Thus it is perhaps not too surprising that researchers find that rather than boys concentrating more on their work when not 'distracted' by the presence of girls, they are as much, if not more, diverted by an all-male peer group (Askew and Ross, 1988; Jackson, 2002a).

In addition, once pupils' socio-economic status and their prior achievement are taken into account, there are no significant differences in the achievement of those in single-sex classes or schools and pupils in coeducational establishments (see Marsh and Rowe, 1996; Jackson and Smith, 2002). Indeed, the evidence seems to suggest that if either sex is favoured by single-sex education in co-educational schools, it is *girls*, rather than boys (Warrington and Younger, 2002; 2003). Single-sex classes provide girls a space away from the distractions of boys and they can provide opportunities for teachers to redress stereotypical constructions of particular subjects or work with boys on violence (Kruse, 1996). However, they may only be useful within the context of an overarching school policy. For example, Gray and Wilson (2006) interviewed teachers in one secondary school at the end of a four year period when single-sex classes had been adopted. They found that the majority of teachers interviewed thought that the academic performance and classroom behaviour of pupils had worsened with the introduction of single-sex classes. The reasons

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5   Sex role theory has been a key influential theory in explaining gender differences. It has been utilised to help explain such gender differences in approaches to learning and to curriculum subjects. At the same time, more recent theorising has highlighted the inadequacies of sex role theory in effectively explaining gender differences (see Connell, 2002; Francis and Skelton, 2005).

6   The EOC's GED Code of Practice (EOC, 2006) notes that it is potentially lawful to provide separate lessons in single-sex groups for boys and girls in a mixed school provided that each sex has access to equivalent facilities, benefits and services. So remedial classes in English for underperforming boys, for example, would not be lawful unless underperforming girls were given the same opportunity and help.

identified by the researchers for this were that the teachers had not felt involved from the outset in the decision to adopt single-sex teaching, they did not feel they were prepared nor did they receive any support; and the imposition of this organisational approach had negatively affected their enjoyment of teaching. In contrast, case studies provided by Warrington et al. (2006) and Younger et al. (2005) indicate that where teachers have been part of the decision making process about whether, where and when to adopt different patterns of class teaching, how these were to be organised, and what kinds of support were necessary, these were successful. Thus, single-sex teaching might and can be useful when these form part of a whole-school policy on achievement and one which takes into account the need to challenge gender stereotypes.

As to whether teachers should engage in pupils' preferred learning styles, certainly the issue demands reflection, but caution is also crucial. The extent of these gendered tendencies in learning style remains highly contested (Elwood and Gipps, 1998; Younger et al., 2005). Even Gurian (2002), author of *Boys and Girls Learn Differently*, admits there is as much difference between boys and between girls as between boys and girls. Many pupils buck the trend in terms of learning preferences, and many teachers are adamant that gender differences in learning are non-existent or superficial (Francis et al., 2004). We would suggest that teachers should be aware of pupils' preferred ways of learning, but these should not be labelled as 'boys learning styles' and 'girls learning styles' as this will only reinforce traditional masculine and feminine stereotypes of boys and girls as learners.

### 3.4 Feminisation of schools

A phrase often used when talking about boys' underachievement, in particular, is the 'feminisation of schools' (Pollack, 1998; Mulholland and Hansen, 2003). But what is meant by the 'feminisation' of education? One writer has said that:

> *… it is possible to interpret the label of teaching as "feminised" at several levels, and it seems that those who refer to teaching as feminised also assume different meanings.*
> (Smith, 1999, p. 3)

Most frequently, the phrase is used simply to refer to the fact that there are more female teachers than male, especially in the primary sector. Women primary teachers do outnumber men by roughly five to one, but it continues to be the case that men are disproportionately represented at headteacher level (Francis and Skelton, 2005). Indeed male teachers in both primary and secondary schools are statistically far more likely to become headteachers than are their female colleagues (Hutchings, 2002).

Women teachers have, since the introduction of state schooling in 1870, *always* exceeded the numbers of men teachers (Thornton and Bricheno, 2006). The current situation is often presented as one which is detrimental to the educational experiences and opportunities of boys (Biddulph, 1997; Clark, 2006, citing an educational consultant, Dr Tony Sewell), with the implication that boys do better when taught by men teachers. What is never explained is why the continuing greater numbers of women teachers was not considered a problem for boys in the 1960s, 1970s and 1980s when they were seen as more successful than girls in '0' levels, CSEs (later GCSEs) and A levels.

Another use of the phrase the 'feminisation of schools' is in relation to the idea that the predominance of females has led to the delivery of the curriculum, assessment practices and the management and organisation of the classroom becoming more 'feminine' in nature. But what does it actually mean for schools to take on 'feminised practices'? The literature on female management styles suggests that 'feminised practices' would involve a non-hierarchical management structure, school agendas that are informal and flexible, and more inclusive approaches to the organisation of teaching and learning. However, the reality is that, far from becoming more progressively 'feminised', primary schools are increasingly 'masculinised' in terms of management regimes (Mahony and Hextall, 2000). The Education Reform Act 1988 put schools into competition with each other and the teachers' role has become increasingly focused on ensuring pupils achieve proscribed stages at certain ages in public tests, whilst the 'job' of pupils is to become proficient in the subjects set down in a state regulated curriculum. Haywood and Mac an Ghaill (2001) have argued that one consequence of a restructured authority system, together with intensified surveillance, disciplinary codes and the emphasis on testing at all ages and stages of schooling, has been to re-masculinise schooling.

Further, the notion of the 'feminised school', assumes that women teachers do act in 'feminine' ways (see Skelton, 2002 for discussion). This includes, for example, women teachers using non-competitive teaching and learning styles; favouring group work; and placing emphasis on the emotional development of pupils.

The presumptions inherent in 'the feminisation of schools' are more directly examined in discussions over whether assessment procedures are biased in favour of girls.

## 3.5   Assessment procedures
A suggestion that frequently emerges in debates on 'boys' underachievement' is that current teaching practices are not conducive to boys, thus resulting in boys' poorer

performance. Methods of assessment have been identified particularly frequently as a key factor in this 'bias against boys'. An increased amount of assessed coursework has been suggested to explain boys doing less well at GCSE and A levels, with the argument being that boys do less well at coursework because of their preferred learning styles. Girls are seen to do better with sequential assessment methods that reward consistent application (Smithers and Robinson, 1996) – what Bleach (1998) controversially terms the 'diligent and plodding approach that is a characteristic of girls' (p. 14). Girls do less well at 'sudden death' exams (timed exams previously unseen by the candidate) which rely on last-minute revision and require self-confidence. This latter form of assessment has been argued to favour boys (Bleach, 1998), and was the basis for O level exams (the exams that preceded GCSEs in Britain). In fact, however, girls' results were already improving *before* the GCSE assessment model was introduced (Bleach, 1998). And further, Arnot et al. (1999) discuss how a reduction in the coursework component in public examinations in the 1990s did little to alter the pattern of gender achievement. Hence this evidence strongly contests the idea that gender achievement gaps can be explained by changes in assessment models at school.

On the other hand, gender clearly impacts on aspects of assessment, as with all aspects of life. An example is provided by Elwood and Murphy's (2002) investigation of how pupils are entered for GCSE mathematics. Since the introduction of GCSEs in 1988, pupils have been allocated to one of three tiers for maths: a foundation tier (grades D-G), an intermediate tier (grades B-E) and a higher tier (grades A*-C). Elwood and Murphy (2000) found that teacher perceptions of their pupils' ability were influenced by young people's (gendered) attitudes and behaviours. Hence, more boys than girls were likely to be entered for the foundation tier on the basis that they were less motivated and consequently, some were not entered at all. More girls than boys were entered for the intermediate level because teachers perceived girls to be less confident about their mathematical abilities. Boys were over-represented in the higher tier as teachers saw them to be confident and highly competitive.

Similarly, Harlen's (2004) review of 20 years of research into assessment found, amongst other things, that teachers' judgments of boys' academic abilities were informed by their behaviour and, as boys tended to misbehave more than girls, they were more likely to lose out on good assessment grades. These tendencies for social and cultural expectations to impact on assessment are of course influenced by other aspects of social identity, such as social class and ethnicity, as well as gender. A body of work has shown how many teachers read the behaviours of pupils differently depending on their 'race' and social class (e.g. Wright, 1987; Sewell, 1997; Reay, 2001; Majors, 2001; Crozier and Reay, 2005).

Assessment experts tell us that assessment practices and evaluation of pupils' responses in tests need to take into account a range of contextual, and structural (gender, social class, ethnicity) factors. If pupils cannot relate to the information sought in order to answer questions, or are not familiar with assessment materials and resources, or assessors fail to recognise that there are a range of preferred response styles, then a bias can be introduced into the assessment procedures and subsequent results (Gipps and Murphy, 1994). For example, it was found when examining children's abilities to compile graphs in a maths test that if the problem was couched in terms of traffic flow through a town, more boys were likely to opt for the question and do better than girls at it. However, when the task was phrased in relation to the day in the life of a secretary, more girls were likely to choose it and do better at it than boys (Gipps and Murphy, 1994). Another example is related to the ways in which different subjects make different learning demands to which boys and girls may respond differently. As Peter Downes (1999) suggested in comparing the 1998 and 1999 KS2 English tests, this can lead to differences in achievement. He noted that in 1998, pupils had to read an 850 word extract from a story and then respond to questions many of which required reflection and empathy (characteristics attributed to girls' preferred styles). In 1999, the reading test was split into three different passages about spiders; the text was printed in larger type and accompanied by illustrations and diagrams. Although some questions required an elaborative form of response, most of the marks were given for factual comprehension (characteristics attributed to boys' preferred learning styles). Downes argued that this shift explained the 14 percentage point increase in boys' reading scores. His concern was that both tests did not encompass a range of learning approaches. Other examples disregarding social structures (social class and ethnicity) are where tests have used language or situations which might be unfamiliar to certain groups. For example, Siraj-Blatchford (1993) reported that for their homework, a class of multi-ethnic primary children in London were asked to bring a Victorian artefact into school.

All of this complex information needs to be taken into account in any judgement about the impact of gender on assessment outcomes, but the evidence demonstrates that a simplistic attribution of girls' out-performance of boys in some subject areas to 'feminised assessment tools' is unfounded.

## 3.6  Pupils' construction of gender

The one explanation for the gender gap to emerge strongly and consistently from the various large-scale studies (from a range of perspectives) that have been carried out on gender and achievement is that pupils' constructions of gender produce different behaviours which impact on achievement. We discussed earlier how children actively

construct their own gender identities as relational (masculinity being what femininity is not, and vice-versa), and adopt different behaviours to express their gender allegiance (Davies, 1989). Rather than simply being a matter of choice, research has shown that there are strong penalties for children who fail to conform to gender norms (Davies, 1989, 1993; Connolly, 2004).

Boys and girls 'perform' their gender in different and opposite ways (i.e. being 'a boy' means acting and behaving in ways that are the exact opposite of being 'a girl'). Such gendered behaviours are deep seated and children enact these without being consciously aware of them. Also, what being 'a boy' or 'a girl' is modified depending on whether they are in nursery, primary or secondary school, whether they are working class or middle class, and according to the ethnic group they belong to (e.g. Reay, 2001, 2003; Ali, 2003; Connolly, 1998, 2004; Archer and Francis, 2006). Furthermore, the ethos and practices of individual schools, and the peer groups that exist in these, influence what kind of being 'a boy' or 'a girl' is seen as appropriate in that setting.

*'Laddish behaviour'*
Indeed, the peer group is of central importance. As any teacher knows, given the choice pupils usually sit in same-gender groups, and, friendship groups tend to be composed of pupils of the same gender (Thorne, 1993; Adler and Adler, 1998). Davies (1989) and Lees (1992) show in detail how primary and secondary pupils respectively 'police' the gendered behaviour of their peers, and punish failure to conform to traditional gender norms. Many researchers have found that a particular construction of masculinity is invested with high status among peer-groups in the secondary school (and even in the later years of primary schooling). This construction is what has commonly been referred to as the 'laddish' construction of masculinity. The notion of being 'one of the lads' evokes a group of young males engaged in hedonistic practices (including 'having a laugh'; disruptive behaviour; alcohol consumption; objectifying women; and an interest in pastimes and subjects constructed as masculine).

The key point in relation to gender and educational achievement is that the 'laddish' construction is seen as 'anti' academic application (it's not 'cool' to work hard or to achieve at school), hence having a negative impact on achievement. Some researchers see this as due to the conflict between 'laddish' values and school culture: 'laddish' behaviours have a negative affect on the achievement of the boys concerned and of their classmates due to the 'lads'' disruptive and distracting behaviours, and prioritisation of other interests over schoolwork (Salisbury and Jackson, 1996; Francis, 2000; Skelton, 2001). Other writers see 'lads' as *specifically*

'anti-swot', and 'anti-work' (Willis, 1977; Mac an Ghaill, 1994; Martino, 1999): school work, diligence and application are constructed as feminine and hence some boys seek to disassociate themselves from it as part of their efforts to bolster their constructions of masculinity. Martino (1999) maintains that where previously it had been particularly working class boys who saw academic application as feminine and consequently sought to disassociate themselves from learning, these attitudes are increasingly being adopted by some middle class boys.

Furthermore, research on Black Caribbean pupils found that whilst all who felt they were being singled out by teachers because of their race became defensive, it is boys in particular who disengage from the classroom situation (Wright et al., 2000; Haynes et al., 2006). This most frequently takes the form of challenging, aggressive behaviours. In addition, the street subculture of Black male youth is characterised by the adoption of 'hard', confrontational identities and peer group pressure encourages such performances within school as well as out of it (Sewell, 1997). However, as Warren (2005) has advised, it is a mistake to read the anti-authority positions adopted by Black male youths in school as an sign that school or education is being rejected, rather it is the 'inequality of respect' that is being contested. That is where teachers expect and demand respect simply for occupying the position of 'teacher', whilst Black boys feel that, as a matter of course, teachers disregard and even show contempt for them, their interests, experiences and concerns without trying to get to know them.

Indeed, there is evidence to suggest that some boys (Black and/or working class) act out laddish behaviours as a result of their negative schooling experiences and subsequent disenchantment (Jackson, 2002a; 2002b; Bleach, 1998). In this view, boys take up 'laddish' expressions of masculinity as an alternative method of building their self-worth, which has been damaged by their experiences of schooling. This assumes, like certain policy documents reflecting the discourse of 'at risk boys', that boys tend towards having 'low self-esteem' - ideas which remain controversial given a contradiction between research showing that boys have *higher* self-confidence and belief in their ability than girls. Both views are represented within the Kevan Bleach (1998) collection on boys' achievement. On the one hand, Davison and Edwards (1998, p. 129) note that:

> *… boys have an overconfidence in their own ability and a willingness to blame others, particularly teachers, for their failure…*

Similarly, Ryder (1998, p. 145) alludes to boys' 'notorious and ill-judged optimism' about their work. Conversely, Terry and Terry (1998, p. 110) conclude that:

> *It seems that more boys in our schools opt out of the academic race through fear of failure.*

Moreover, Bleach (1998) draws on his interviews with boys to argue that for them to ask questions in class is 'to expose oneself to potential ridicule' from peers, hence boys 'lie low and avoid attention' (p. 48). Yet we know from classroom observational studies (Howe, 1997; Younger et al., 1999) that boys ask far more questions in class than girls, as well as tending to produce more attention-seeking behaviour - rather belying the former view.

A slightly different perspective is that which sees some boys taking up disruptive behaviours if they are not doing well in their schoolwork as a result of their competitive behaviours (rather than due to their 'low self-esteem') (e.g. Salisbury and Jackson, 1996; Epstein et al., 1998). In other words, such boys create different competitions to excel in (e.g. being 'the most rebellious'; or the best at sport, etc), or adopt the attitude that 'if they can't win then no-one will' (by disrupting lessons and deriding achievement). This view sees boys as needing to exercise power and 'success' of one sort or another as an aspect of their masculinity.

Irrespective of the debates about the *causes* of boys' 'laddish' behaviour, a substantial body of work has shown how these high status constructions of masculinity are likely to have a negative impact on attainment (of the boys concerned, and sometimes that of their classmates) (Salisbury and Jackson, 1996; Pickering, 1997; Epstein et al., 1998; Francis, 2000; Younger et al., 1999; Warrington et al., 2000; Skelton, 2001; Martino, 1999; 2000; Martino and Pallotta-Chiarolli, 2003; Francis and Skelton, 2005; Younger et al., 2005). These various studies have shown that constructions of gendered behaviour provide the key explanation for a 'gender gap' in achievement. As with other explanations for gendered achievement patterns, it is extremely difficult to establish the *extent* to which boys' 'laddish' constructions of masculinity adversely affect their achievement. For example, some boys seem proficient at achieving in spite of 'laddish' behaviours; and few of the studies listed have examined the behaviours of individual boys in relation to any impact (or otherwise) on their educational attainment. However, the evidence does constitute a convincing explanation for the comparative underachievement of some boys, and this remains the only account that has not been challenged or discredited by counter-evidence.

*Subject choice*
This focus on gendered behaviour in relation to achievement can also be applied to the achievement gaps where girls are disadvantaged, and to the gendered patterns of curriculum subject preference and uptake. As we shall explore in more detail in the

next chapter, at the moment that subject choice is introduced (be it as particular subject options in addition to the National Curriculum at Key Stage 4, or at post-16), the statistics continue to show highly stereotypical trends for young men to pursue certain subjects (typically technical and science-oriented subjects) and young women others (typically caring, or arts/humanities/social sciences subjects). Traditionally, 'the sciences' have been seen as masculine and 'the arts' as feminine. 'The sciences' are associated with high-status (masculine) traits, such as rationality and objectivity, while 'the arts' are seen as involving feminine attributes of emotion and subjectivity. In relation to curriculum subjects, not only are 'feminine' arts subjects constructed as lower-status than science subjects due to their ascribed feminine attributes, but they also tend to be seen as 'soft' and/or 'easy', while the sciences are popularly seen as harder, more difficult and more rigorous. So subjects which are more often pursued by young men are seen as more difficult and more important than those more commonly pursued by young women. This in turn has a bearing on the remuneration that men and women receive for the work they do in the adult workplace which draws on their differentiated subject expertise (EOC, 2004).

Why do boys and girls tend to enjoy different subjects? As with the 'gender achievement gap', explanations for this phenomenon have been diverse. They include: inherent differences between the sexes; differences in cognitive style; a masculinised educational environment that values the learning styles of boys over girls; and gender stereotyping, or differential constructions of gender, among pupils and teachers. We have already discussed how evidence for the influence of inherent sex difference on abilities is extremely slight, and has been extensively challenged. And how although a substantial body of work has suggested that *as groups* boys and girls tend to prefer different learning styles, the extent of such differences have been debated. Further explanations, though, return us to the issue of the construction of gender, and resulting different behaviours as boys and girls construct their masculinity and femininity. Girls and boys may tend to be drawn to different subject areas due to the construction of their genders as different and relational. Hence, pupils and teachers may (consciously or unconsciously) see it as more appropriate for girls to study arts subjects and for boys to pursue the sciences. For example, Lucey (2001) observes that literacy and English are often constructed as 'naturally female' due to their 'feminine' curriculum content. Girls, then, may find the study of English to be affirming to their constructions of femininity, while boys may find it challenging to their constructions of masculinity. We reiterate that these processes are not necessarily conscious: our implication is that gender discourse is so subtle that behavioural difference becomes taken for granted and naturalised. Hence girls' tendencies to choose arts subjects over sciences, and boys' preferences for the sciences, may reflect both the desire of the individual to align themselves with

apparently gender-appropriate subjects, and the appeal of a (gendered) subject curriculum to an individual with gendered interests.

Educators may also help to perpetuate these patterns, consciously or unconsciously encouraging girls and boys to pursue 'gender-appropriate' subjects. Researchers in the 1980s found that teachers' expectations for pupils differed dramatically according to their gender: expectations tended to be gender-stereotypical and were more ambitious in the case of boys (Spender, 1982; Stanworth, 1981). Similarly, Benett and Carter (1981) found that careers officers tended to steer girls and boys towards gender-stereotypical occupations (requiring particular – gender stereotypical - subject qualifications). Rolfe (1999) found that such practices were far less overt than they were in the past, but that gender equality issues were not prioritised in the Careers Service, and that covert or unconscious stereotyping might remain a problem on the part of careers advisors. Such stereotyping applies to a pupil's ethnicity and social class in addition to gender (Francis et al., 2004; Archer and Francis, 2006). It is clear that gendered subject choices and subsequent school-to-work routes have strong consequences for young peoples' future career trajectories in terms of job opportunities, status, and remuneration and hence for productivity in the economy as a whole.

*Approaches to deconstructing gender*
Four recent studies on achievement illustrate the significance of pupils' construction of identities for the gender gap. The authors do not all explicitly point to deconstructing gender through the adoption of particular approaches or strategies, but they all identify some processes which are happening in the school that facilitate it.

Writing of their evaluation of single-sex classes in a Tasmanian primary school, Wills et al. (2006) noted how staff reported increased confidence and higher self-esteem amongst the girls and increased motivation and commitment amongst the boys - yet there were no improvements in academic achievement. It was clear from the article that stereotypical expectations of what boys and girls 'do and like' informed the single-sex classes for as one parent observed:

> *My boy enjoyed the boys' class because he got to do boy things - more adventurous activities that may not have happened in a mixed class, and yet they learnt through these without knowing it.*
> (Wills et al., 2006: 285)

We observed earlier that one of the problems of single-sex teaching is that it can be used to reinforce gender differences and emphasise traditional gendered

expectations and behaviours. As such, without deconstructing gender, there is little chance of increasing pupil achievement as was the case here. However, the project was successful in improving motivation and confidence. The reason why this came about was because the school adopted many of the features of an 'inclusive approach' discussed in Chapter 5. Here the school changed the ethos so that children were encouraged and enabled to become more personally engaged with the school. For example, by being included in discussions and decisions about their learning and learning needs.

A study by Haynes et al. (2006) used quantitative and qualitative data techniques in order to identify the barriers to achievement for minority ethnic pupils. The authors found no evidence to support claims that underachievement is a feature of all Mixed minority ethnic groups (e.g. White/Black Caribbean pupils may be underachieving, but White/Asian are doing well in relation to other groups). They discovered that White/Black Caribbean pupils experienced similar challenges to those of Black Caribbean pupils and that these were related to a combination of factors. Firstly, they were from a low socio-economic position. Secondly, their teachers had low expectations of them because they misunderstood Mixed White/Black Caribbean identities and backgrounds. For example, the majority of teachers in this study thought their pupils experienced 'identity problems' and were disadvantaged because they were from single mother (White) homes where the (Black) father was absent or a poor role model. However, the teachers had no statistical evidence to support that households were constituted in this way. Interviews with pupils indicated that they had a positive sense of identity, but were frustrated by how teachers saw them as having identity problems and whilst some did come from single parent homes, not all did. Thirdly, there was the influence of peer group pressure. In common with other studies, Haynes et al. (2006) found that the dominant peer group subculture in the schools was 'Black street culture'; all pupils were influenced by this, albeit to different extents. Thus pupils gained greater credibility with their peers through behaving in disruptive ways which their teachers could not manage than through being seen to achieve academically. The combination of these three sets of factors produced major obstacles to achievement.

Lindsay and Muijs (2006) used multi-level modelling to identify the characteristics of three primary and three secondary schools which were producing exam results above expectations for Black Caribbean, Black African and White UK-born boys. The project was the initiative of a local education authority (LEA) which covered an area of low socio-economic status and where the local population had shifted away from being predominantly White to one of ethnic diversity. The authors of the article worked with (rather than for) staff in the LEA to set up a two stage procedure. The

first stage was to identify primary and secondary schools which demonstrated they were achieving with their pupils in terms of academic performance. The second stage involved interviews with the headteacher of each school, three to six teachers in each school and six to twelve pupils in each school. The analysis of the data revealed six factors that were helpful in overcoming relative underachievement. These were that:

- No one approach was adopted by any of the schools, rather each school adopted a number of different approaches.

- The curriculum was broad and diverse and targeted the pupils.

- There was monitoring at the level of the individual (not just on performance, but on effort and attendance) and underachievers were given targeted support. The data were also analysed for the school as a whole.

- Teachers had high, but realistic, expectations about their pupils.

- Staff in the school were from diverse backgrounds, which were representative of the local community.

- An inclusive ethos (i.e. the 'school as community) was adopted.

In their conclusions, the authors note that while no single approach was taken by the schools, a key factor for these successful schools was the way in which there were high expectations of academic achievement for all pupils, irrespective of gender/minority ethnic group. It is in the setting of high expectations of academic achievement for all pupils that provides the basis for the challenging of pupils' stereotypes about their attitudes towards learning and their curriculum interests (see Chapter 5).

Finally, an analysis by Andrews et al. (2006a) of the Youth Cohort Study from 1985-2001 and the National Pupil Database 2002 and 2003 sought to explain gender gaps when controlling for personal, school, family and neighbourhood effects, and when controlling for individual- and school-level unobserved differences. The authors stated (p. 24):

> *In view of these findings, we argue that girls must behave differently to boys prior to the GCSE stage … We therefore conclude that unobservable differences between schools, which could include variables such as pupil behaviour, tiering and streaming, could well be important explanations of the gender gap even though we have no direct evidence of these effects.*

What the authors are saying here is that there was no obvious and evident reason for their findings. We would argue that it is the more subtle influences of pupil constructions of identities, which they refer to here as 'pupil behaviour', that is the root of gender gaps in achievement.

## 3.7  Summary

There are five main explanations that are drawn on to explain the gender gap: biological/genetic differences between boys and girls; different learning styles; the 'feminisation' of schools; gender biased assessment procedures; and pupils' constructions of gender. These explanations are themselves based on particular ideological beliefs. Thus those who adhere to the notion that gender difference is down to biology will cite the work of scientists and those who consider it is the interaction in the social world will refer to sociological research. However, recent studies of the gender gap from economists (Andrews et al., 2006a); educationalists using quantitative/scientific techniques (Hayes et al., 2006; Lindsay and Muijs, 2006); and educationalists using sociological methods (Wills et al., 2006) are all reaching the same conclusion. That is, the gender gap cannot be attributed to simply being born as, or socialised into being, a boy or a girl. Rather it is the way in which children themselves put together their identities as being a particular kind of male/female pupil (shaped by 'race', class, dis/able bodiment, straight/gay etc) which is crucial. Because society gives out the message that being a girl means not behaving or liking the same subjects or having the same attitudes as boys (and vice versa), then gaps in achievement are inevitable.

The next chapter explores the patterns of achievement that can be seen between different groups of children.

# 4. STATISTICS ON ACHIEVEMENT IN SCHOOLS IN ENGLAND

The intention in this chapter is to focus on the performance of boys and girls in England. Where, and as appropriate, we will make reference to the situation in other countries in order to draw attention to those particular factors that affect pupils' achievement in England. The chapter will begin by looking at the data produced by the DCSF (DfES) and published on the 'Gender and Achievement' part of its Standards website.[7] We are aware that how the statistics we refer to in this section have been arrived at and subsequently 'read' have been open to significant criticism (see detailed discussion in Connolly, 2004), but our purpose here is to survey the information in the form that it is made available by government agencies to teachers and parents. The 'gender gap' in achievement in SATs and GCSEs has been of continuing interest and concern to policymakers for over ten years now, with the concern residing in boys' apparent underachievement in relation to girls' performances. We will consider the data from the early years through to A levels to identify what patterns are occurring.[8]

## 4.1 Early Years (3–5)

Results from the Foundation Stage Profile 2006 show that girls tend to achieve at a higher level than boys, for each of the assessment areas (personal, social and emotional development; communication, language and literacy; mathematical development; knowledge and understanding of the world; physical development; creative development) (see Table 4.1). Also more girls than boys *work securely within* the early learning goals. These results are based on teacher expectations of the abilities and skills of boys and girls. The information provided in the Foundation Stage Profile 2006 (SFR 03/2007) only provides information about gender differences, so we are not able to gauge the extent to which ethnicity and social class influences young children's achievement.

As will be shown, where there is a subsequent gender gap in achievement, it is in literacy. The increase in the gender gap in literacy as children progress through school is of particular note when looked at in relation to the evidence on boys' and girls' measured abilities at the point of entry to mainstream education. Studies carried out by early years practitioners at a time when baseline tests were being trialled discovered that it was not unusual to find boys outperforming girls in literacy skills (Walker, 1999; Maltby, 2004). Other studies of baseline assessments have discovered evidence to show that both Black boys and Black girls succeed equally as

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[7] See http://www.standards.dfes.gov.uk/genderandachievement/

[8] Data for the following discussion are drawn from DCSF, UCAS, HESA and the OECD.

well in literacy. As Gillborn (2005: 8) found in one of the largest local education authorities in England:

> *Black children were the highest achieving of all groups in the baseline assessments.*

Gillborn goes on to note that, at the age of five years, Black boys and girls were appreciably ahead (by 20 percentage points) of their White counterparts in all the required levels (including literacy).

**Table 4.1   Achievement of children at Foundation Stage, England, 2006**

| | Percentage of children achieving: | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Girls | | | | Boys | | | |
| | 1-3 | 4-7 | 8-9 | 6 or more | 1-3 | 4-7 | 8-9 | 6 or more |
| Personal, social and emotional development: Dispositions and attitudes | 1 | 41 | 58 | 91 | 2 | 52 | 45 | 84 |
| Personal, social and emotional development: Social development | 2 | 55 | 43 | 85 | 5 | 62 | 33 | 75 |
| Personal, social and emotional development: Emotional development | 4 | 45 | 51 | 82 | 8 | 53 | 39 | 71 |
| Communication, language and literacy: Language for communication and thinking | 5 | 51 | 44 | 82 | 8 | 57 | 34 | 74 |
| Communication, language and literacy: Linking sounds and letters | 13 | 54 | 33 | 67 | 20 | 55 | 25 | 56 |
| Communication, language and literacy: Reading | 6 | 61 | 33 | 73 | 10 | 63 | 27 | 63 |
| Communication, language and literacy: Writing | 11 | 58 | 30 | 66 | 21 | 59 | 19 | 49 |
| Mathematical development: Numbers as labels for counting | 3 | 51 | 46 | 89 | 4 | 53 | 42 | 85 |
| Mathematical development: Calculating | 9 | 59 | 31 | 72 | 13 | 57 | 29 | 67 |
| Mathematical development: Shape, space and measures | 4 | 59 | 36 | 83 | 7 | 59 | 33 | 78 |
| Knowledge and understanding of the world | 5 | 56 | 39 | 79 | 7 | 54 | 39 | 76 |
| Physical development | 2 | 40 | 58 | 92 | 4 | 49 | 47 | 84 |
| Creative development | 2 | 56 | 41 | 84 | 5 | 68 | 26 | 71 |

*Source:*       DfES, 2007b: Table 2.

## 4.2   Primary sector

The 'Gender and Achievement' website of the DfES reports up to the 2004 data and states that:

- Girls progress more than boys on average in English throughout school and across the key stages.

- Girls also progress more than boys in mathematics and science, although the differences are much smaller than those in English.

However, if the statistics provided on the same website are examined, it becomes clear that the picture is not so clear cut. Key Stage 2 will be taken as an example (Table 4.2).

## Table 4.2   Key Stage 2 achievement over time, 2001-04

| | Percentage of pupils achieving Level 4 or above in KS2 National Curriculum test | | | Percentage of pupils achieving Level 5 or above in KS2 National Curriculum test | | |
| --- | --- | --- | --- | --- | --- | --- |
| | **English** | **Maths** | **Science** | **English** | **Maths** | **Science** |
| *Boys:* | | | | | | |
| 2004 | 72 | 74 | 86 | 21 | 33 | 43 |
| 2003 | 70 | 73 | 86 | 21 | 32 | 40 |
| 2002 | 70 | 73 | 86 | 24 | 30 | 38 |
| 2001 | 70 | 71 | 87 | 22 | 27 | 34 |
| *Girls:* | | | | | | |
| 2004 | 83 | 74 | 86 | 33 | 29 | 42 |
| 2003 | 80 | 72 | 87 | 33 | 26 | 41 |
| 2002 | 79 | 73 | 87 | 34 | 25 | 37 |
| 2001 | 80 | 70 | 88 | 35 | 23 | 34 |

*Source*:        http://www.standards.dfes.gov.uk/genderandachievement/understanding/analysis/

In the Key Stage 2 SATs, analysis of the four years listed shows that girls are ahead in literacy, but that boys and girls are performing at about the same level in mathematics and science. It is important to note then that girls are *not* outperforming boys in all areas and at the rate implied by statements that girls are doing much better than boys in examinations.

### 4.3 Secondary sector

A similar picture emerges during the secondary years, with girls and boys achieving similarly in mathematics and science but with a notable gender gap in English (Table 4.3).

**Table 4.3 Key Stage 3 achievement over time, 2001-04**

|  | Percentage of pupils achieving Level 5 or above in KS3 National Curriculum test | | | Percentage of pupils achieving Level 6 or above in KS2 National Curriculum test | | |
|---|---|---|---|---|---|---|
|  | **English** | **Maths** | **Science** | **English** | **Maths** | **Science** |
| *Boys:* |  |  |  |  |  |  |
| 2004 | 64 | 73 | 65 | 27 | 52 | 34 |
| 2003 | 61 | 70 | 68 | 27 | 49 | 40 |
| 2002 | 58 | 66 | 65 | 25 | 45 | 33 |
| 2001 | 56 | 64 | 66 | 25 | 41 | 34 |
| *Girls:* |  |  |  |  |  |  |
| 2004 | 77 | 74 | 67 | 41 | 52 | 35 |
| 2003 | 74 | 72 | 69 | 40 | 50 | 40 |
| 2002 | 75 | 68 | 66 | 40 | 45 | 32 |
| 2001 | 74 | 68 | 66 | 40 | 44 | 34 |

*Source*: http://www.standards.dfes.gov.uk/genderandachievement/understanding/analysis/

Table 4.4 indicates that by the time pupils reached GCSE stage in 2004, boys' achievements in maths and English were approximately the same at levels A-C (at 52% and 53%). Girls were doing particularly well in English at 67%, but their mathematics achievements, at 53%, were in keeping with those of boys.

**Table 4.4   GCSE achievement over time, 2001-04**

|  | Percentage of pupils achieving grade A-G at GCSE | | | Percentage of pupils achieving grade A-C at GCSE | | |
|---|---|---|---|---|---|---|
|  | **English** | **Maths** | **Science** | **English** | **Maths** | **Science** |
| *Boys:* | | | | | | |
| 2004 | 97 | 96 | 97 | 53 | 52 | 53 |
| 2003 | 98 | 96 | 97 | 52 | 50 | 52 |
| 2002 | 98 | 97 | 97 | 52 | 52 | 51 |
| 2001 | 99 | 96 | 97 | 51 | 50 | 51 |
| *Girls:* | | | | | | |
| 2004 | 99 | 97 | 98 | 67 | 53 | 54 |
| 2003 | 99 | 96 | 97 | 68 | 52 | 53 |
| 2002 | 99 | 97 | 98 | 67 | 53 | 53 |
| 2001 | 99 | 97 | 98 | 66 | 51 | 52 |

*Source*:        http://www.standards.dfes.gov.uk/genderandachievement/understanding/analysis/

These tables represent the information provided by the DfES on or through its gender and achievement website. It is the statistics provided by the DfES which are most likely to be accessed by schools and, as such, it can be seen that there is little to be gleaned about gender gaps in achievement other than girls are doing marginally better than boys in most subjects. To obtain a more nuanced and detailed picture of gaps in achievement requires a consideration of data that cover other factors besides gender. These are available in the wealth of statistics held on the DfES gateway. However, before moving to explore this more complex data, the following section looks at the one key piece of information that can be gleaned from the basic statistics on gender differences in academic performance.

## 4.4   The gender gap in literacy
As is indicated above, an analysis of the statistics at all ages and stages suggests that the gender gap in achievement is specifically in relation to literacy rather than all curriculum areas.

As can be seen from Table 4.5, the gender gap in literacy increases as the children get older. As Hall and Coles (2001) point out when reporting the findings from the *Children's Reading Choices* project, whilst boys and girls today read about the same number of books they did thirty five years ago, there is a decline in book reading amongst 14 year old boys. Martino and Pallotta-Chiarolli (2003) refer to Martino's

earlier work on Boys and English which relates how in interviews with teenage boys the subject of English was associated with not being a 'proper [heterosexual] boy'. As one male pupil argued 'English is most suited to girls because it's not the way guys think …. Most guys who like English are faggots' (p. 241). Reading is perceived as a passive (and therefore feminine) activity. Schools have attempted to redress this by tapping into 'boy friendly' texts. However, as was argued in the previous chapter, reinforcing traditional 'masculine' stereotypes without critically reflecting on these can exacerbate, rather than reduce, gender differences in achievement.

**Table 4.5   The gender gap in literacy achievement, 2006**

|  | **Boys** | **Girls** | *Gap* |
|---|---|---|---|
|  | | **Per cent** | |
| KS1 Writing (Level 2) | 76 | 87 | *11* |
| KS1 Reading (Level 2) | 80 | 89 | *9* |
| KS2 English (Level 4) | 74 | 84 | *10* |
| KS3 English (Level 5) | 65 | 80 | *15* |

*Notes*:        Data are for percentage of pupils achieving expected level, shown in brackets.

*Source:*        DfES, 2007c: Tables 1, 4, 33, 34.

*International comparisons*

Before considering pupil performance in literacy in more detail, it is worth examining how boys in the UK perform in relation to boys in other countries. The OECD produce data that show the performance of pupils in various countries (OECD, 2003a). The OECD Programme for International Student Assessment (PISA) is an internationally standardised assessment in reading, mathematics and scientific literacy which is administered to 15 year olds in schools in participating countries. The survey takes place every three years and the results of the most recent one which includes a large enough sample from the UK appeared in 2000; it involved 4,500 to 5,000 pupils in each of the 43 countries that took part.[9] Key results from the survey are shown from Table 4.6 for the 42 countries for which data were available.

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[9]   The 43 participating countries (14 of which were non-OECD members) in 2000 are listed at:
      http://www.pisa.oecd.org/pages/0,3417,en_32252351_32236225_1_1_1_1_1,00.html
      The UK participated in the 2003 survey, but the response rate was too low for its results to be shown. The most recent PISA survey took place in 2006.

## Table 4.6   Performance of girls in reading literacy, 2000

| Females at least half a proficiency level ahead | Difference in performance on combined reading literacy scale |
|---|---|
| Albania | 58 |
| Latvia | 53 |
| Finland | 51 |
| FYR Macedonia | 50 |
| Bulgaria | 47 |
| New Zealand | 46 |
| Argentina | 44 |
| Norway | 43 |
| Thailand | 41 |
| Iceland | 40 |
| Russian Federation | 38 |
| Italy | 38 |
| Czech Republic | 37 |
| Greece | 37 |
| Sweden | 37 |
| Poland | 36 |
| **Females less than half a proficiency level ahead** | |
| Germany | 35 |
| Australia | 34 |
| Belgium | 33 |
| Canada | 32 |
| Hungary | 32 |
| Liechtenstein | 31 |
| Switzerland | 30 |
| Japan | 30 |
| Netherlands[1] | 30 |
| France | 29 |
| Ireland | 29 |
| United States | 29 |
| Luxembourg | 27 |
| Austria | 26 |
| *United Kingdom* | 26 |
| Chile | 25 |
| Denmark | 25 |
| Portugal | 25 |
| Spain | 24 |
| Mexico | 20 |
| Indonesia | 20 |
| Brazil | 17 |
| Hong Kong-China | 16 |
| Israel | 16 |
| Korea | 14 |
| Peru | 7 |

*Notes:* [1] Response rates for the Netherlands are too low to ensure comparability. No data for Romania.
The composite reading scale in PISA is divided into five "proficiency levels", relating to the overall scores achieved. One proficiency level is equal to just over 70 points in the PISA score.

*Source:* OECD, 2003a, Figure 5.3.

The findings of the PISA assessment showed that boys' underachievement in literacy is an international problem. Moreover, as can be seen from Table 4.6, when it comes to an international comparison of performance, the gender difference in reading literacy was less in the UK than in most other surveyed countries. Of the 42 countries in the survey for which data were available, the gender difference was wider than in the UK in 30 of them.

The literacy assessment was broken down into retrieving information, interpreting texts, and reflection and evaluation. From the mean score boys, internationally, are at their weakest on the reflection and evaluation scale. This part of the reading literacy assessment is where pupils have to relate a text to their personal experience, knowledge and ideas. In this category, boys in the UK scored the highest grade (522 points with the average score for all boys being 480 points). Furthermore, UK boys featured amongst the highest scoring countries in the other two categories (retrieving information, and interpreting texts). As the OECD Pisa Report (2003a: 148) commented:

> *In reading literacy… the United Kingdom achieve[s] both high [average] scores and limited gender differences. In mathematical literacy… the United Kingdom achieve[s] both high [average] performance and small gender differences.*

Thus on an international stage, gender gaps in achievement are minimal. However, there are significant gaps between various groups of pupils in schools in England and it is to these that we now turn.

## 4.5  Gender, socio-economic class and achievement

Analysis of the statistical evidence shows that whilst the *gender* gap is one of the smallest gaps in performance, when socio-economic class is taken into account, much larger gaps appear. The effect of socio-economic factors on pupil achievement is measured by relating examination success to children who take free school meals (FSM). The tables of achievement from KS1 to GCSE show that the more socially and economically disadvantaged the pupils, the less well they do in examinations (see Appendix 1 for tables).

FSM status is widely used as a measure for socio-economic status (SES) (i.e. social class) in UK educational research. It is used, for example, in a recent report by Cassen and Kingdon (2007) on low achievement (which is based on an analysis of the National Pupil Database). The authors note that:

*Eligibility for free school meals is an imperfect measure of disadvantage, but it is the main one in our data. Children who do take them will come from disadvantaged families, but many who do not take them, for one reason or another, may also be disadvantaged. For all that, it works much as might be expected as an indicator.*

Another recent study by Hobbs and Vignoles (2007) indicates that FSM status does not appear to identify all low-income children (i.e. those with a weekly income of less than £200). Their figures suggest that 22% of children who are eligible for FSM come from households with incomes above £200 per week. Nor, according to Hobbs and Vignoles, does FSM status offer an accurate indication of the family set-up (one/two parents), or whether the child's parents are employed. Then again, since the 1930s, there have been on-going debates about the accuracy and validity of the indices used to measure inequality (Gorard and Taylor, 2002) and it is likely these will continue. The report by Hobbs and Vignoles (2007: 23) concludes by calling for the:

*… use of various small area data matched to children's home postcodes as proxies for measures of SES.*

We would support such a move. However, for the purpose of this report, whilst recognising the complexities of measuring inequalities and the debates around the use of FSM, we would argue that FSM status does, at the least, point to groups of children who are disadvantaged in relation to other groups.

For the purpose of illustration, the impact of socio-economic class on achievement can be seen by comparing the performance of boys and girls in English at Key Stage 2 with those who are and who are not on FSM (Table 4.7).

**Table 4.7   Percentage of pupils achieving Level 4 and above at KS2 in English, 2006**

|          | Girls | Boys |
|----------|-------|------|
| Non-FSM  | 88    | 78   |
| FSM      | 68    | 54   |

*Source:*        DfES, 2007c: Table 1.

This table highlights three key issues. Firstly, that the gap in achievement between pupils on free school meals and those not on free school meals is substantial. Secondly, it shows that not all groups of girls are achieving – as can be seen here, 78% of boys who do not take FSM, compared to 68% of girls who are on FSM, achieve Level 4 in English in KS2 (and such gaps are wider for maths and science).

Thirdly, the table demonstrates that the gap in achievement in literacy is greater between boys according to social class (at 24%) than between girls (20%).

## 4.6 Gender, ethnicity and achievement

When looking at the examination performance of different ethnic groups, it is important to note that the sizes of these groups are variable and therefore to draw conclusions is extremely problematic. Much is made of the successes of Chinese boys and girls and the failure of Gypsy/Roma and Traveller pupils but, firstly, these are relatively small groups[10] and, secondly, (particularly in the case of these latter), there is the question of how and whether children are identified as belonging to specific groups. It is also important to note that the picture is not a static one and that the performance of some ethnic groups has improved considerably in recent years. For example, in reference to GCSE results between 2003 and 2005, Bhavnani (2006: 39) noted that:

> *The results of ethnic minority girls have improved at a much higher rate than white girls over the last two years. For example, the results of white girls have improved by 3 percentage points, whilst the results for Caribbean girls have improved by 9 points.*

In addition, as discussed below, in some ethnic groups, pupils whose first language is not English have significantly lower achievement than other pupils.

Achievement in curriculum subjects, when gender is combined with ethnicity, reflects similar patterns as for gender by itself. There are some differences, however, particularly in relation to mathematics. Again, KS2 will be taken as an example (Table 4.8).

As can be seen here, there are significant gender gaps between particular groups. For example, 72% of Bangladeshi boys achieved Level 4 and above in mathematics in contrast to 67% of Bangladeshi girls. Similarly, 78% of Mixed race (White and Black African) boys achieved Level 4 and above, compared to 72% of Mixed race (White and Black African) girls. Traveller children underperform in all subjects and at all stages but, in mathematics, Traveller girls do less well than Traveller boys, with only 23% of Traveller girls reaching Level 4 as opposed to 33% of Traveller boys.

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[10] In 2006, there were just over two thousand Chinese pupils and less than one thousand Gyspy/Roma or Traveller pupils at KS2, for example.

**Table 4.8   Percentage of pupils achieving Level 4 and above at KS2 in mathematics by ethnicity, 2006**

| Ethnicity | Eligible pupils | | | % achieving | | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Total | Boys | Girls | Total |
| **White:** | **242,779** | **231,822** | **474,601** | **77** | **76** | **77** |
| White British | 234,309 | 223,852 | 458,161 | 77 | 76 | 77 |
| Irish | 1,033 | 993 | 2,026 | 81 | 80 | 80 |
| Traveller of Irish Heritage | 180 | 166 | 346 | 33 | 23 | 29 |
| Gypsy/Roma | 397 | 367 | 764 | 30 | 34 | 32 |
| Any other White background | 6,860 | 6,444 | 13,304 | 75 | 73 | 74 |
| **Mixed:** | **9,148** | **8,920** | **18,068** | **76** | **75** | **76** |
| White and Black Caribbean | 3,256 | 3,219 | 6,475 | 69 | 72 | 71 |
| White and Black African | 852 | 895 | 1,747 | 78 | 72 | 75 |
| White and Asian | 1,830 | 1,759 | 3,589 | 83 | 82 | 83 |
| Any other Mixed background | 3,210 | 3,047 | 6,257 | 78 | 76 | 77 |
| **Asian:** | **21,399** | **20,204** | **41,603** | **73** | **70** | **72** |
| Indian | 6,577 | 6,246 | 12,823 | 81 | 81 | 81 |
| Pakistani | 8,845 | 8,117 | 16,962 | 65 | 62 | 64 |
| Bangladeshi | 3,611 | 3,575 | 7,186 | 72 | 67 | 70 |
| Any other Asian background | 2,366 | 2,266 | 4,632 | 78 | 75 | 76 |
| **Black:** | **12,327** | **12,144** | **24,471** | **62** | **64** | **63** |
| Black Caribbean | 4,427 | 4,301 | 8,728 | 61 | 63 | 62 |
| Black African | 6,571 | 6,668 | 13,239 | 63 | 64 | 63 |
| Any other Black background | 1,329 | 1,175 | 2,504 | 65 | 67 | 66 |
| **Chinese** | **1,012** | **1,007** | **2,019** | **92** | **91** | **92** |
| **Any other ethnic group** | **2,930** | **2,662** | **5,592** | **71** | **69** | **70** |
| Unclassified | 6,266 | 5,739 | 12,005 | 71 | 70 | 70 |
| | | | | | | |
| **All pupils** | **295,861** | **282,498** | **578,359** | **76** | **75** | **75** |

*Source*:      DfES, 2007c: Table 2.

For many groups, the gender gap in science is relatively small (around 1-3 percentage point difference) (Table 4.9). The main exception, where the gender gap is in favour of girls, can be seen amongst Black Caribbean pupils, with 83% of girls and 76% of boys achieving Level 4.

**Table 4.9  Percentage of pupils achieving Level 4 and above at KS2 in science by ethnicity, 2006**

| Ethnicity | Eligible pupils | | | % achieving | | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Total | Boys | Girls | Total |
| **White:** | **242,800** | **231,831** | **474,631** | **87** | **88** | **88** |
| White British | 234,327 | 223,857 | 458,184 | 87 | 88 | 88 |
| Irish | 1,033 | 993 | 2,026 | 88 | 90 | 89 |
| Traveller of Irish Heritage | 181 | 166 | 347 | 41 | 42 | 41 |
| Gypsy/Roma | 397 | 367 | 764 | 48 | 53 | 51 |
| Any other White background | 6,862 | 6,448 | 13,310 | 81 | 82 | 82 |
| **Mixed:** | **9,150** | **8,921** | **18,071** | **86** | **89** | **87** |
| White and Black Caribbean | 3,258 | 3,220 | 6,478 | 83 | 87 | 85 |
| White and Black African | 852 | 895 | 1,747 | 87 | 86 | 86 |
| White and Asian | 1,830 | 1,759 | 3,589 | 89 | 91 | 90 |
| Any other Mixed background | 3,210 | 3,047 | 6,257 | 88 | 90 | 89 |
| **Asian:** | **21,405** | **20,207** | **41,612** | **79** | **81** | **80** |
| Indian | 6,581 | 6,248 | 12,829 | 87 | 89 | 88 |
| Pakistani | 8,846 | 8,117 | 16,963 | 73 | 74 | 73 |
| Bangladeshi | 3,612 | 3,576 | 7,188 | 79 | 80 | 79 |
| Any other Asian background | 2,366 | 2,266 | 4,632 | 82 | 83 | 82 |
| **Black:** | **12,329** | **12,147** | **24,476** | **75** | **80** | **77** |
| Black Caribbean | 4,429 | 4,303 | 8,732 | 76 | 83 | 80 |
| Black African | 6,570 | 6,669 | 13,239 | 74 | 78 | 76 |
| Any other Black background | 1,330 | 1,175 | 2,505 | 78 | 82 | 79 |
| **Chinese** | **1,012** | **1,007** | **2,019** | **90** | **91** | **91** |
| **Any other ethnic group** | **2,931** | **2,661** | **5,592** | **75** | **78** | **76** |
| Unclassified | 6,263 | 5,739 | 12,002 | 82 | 83 | 82 |
| | | | | | | |
| **All pupils** | **295,890** | **282,513** | **578,403** | **86** | **87** | **86** |

*Source*:        DfES, 2007c: Table 3.

It is clear from Table 4.10 that when gender and ethnicity are combined boys, overall, do less well than girls in English; overall, 84% of girls achieved Level 4, compared with only 74% of girls. The pattern is consistent across all ethnic groups, but the overall 10 percentage point gender gap does not hold for all minority ethnic groups. The gender gap varies between 7 points (for four different ethnic groups) and 16 points  (for the Black Caribbean group).

**Table 4.10 Percentage of pupils achieving Level 4 and above at KS2 in English by ethnicity, 2006**

| Ethnicity | Eligible pupils | | | % achieving | | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Total | Boys | Girls | Total |
| **White:** | **242,754** | **231,820** | **474,631** | **75** | **85** | **80** |
| White British | 234,286 | 223,852 | 458,138 | 75 | 85 | 80 |
| Irish | 1,033 | 993 | 2,026 | 78 | 87 | 82 |
| Traveller of Irish Heritage | 181 | 166 | 347 | 23 | 30 | 27 |
| Gypsy/Roma | 398 | 366 | 764 | 29 | 41 | 35 |
| Any other White background | 6,856 | 6,443 | 13,299 | 71 | 78 | 75 |
| **Mixed:** | **9,149** | **8,922** | **18,071** | **76** | **86** | **81** |
| White and Black Caribbean | 3,257 | 3,221 | 6,478 | 71 | 84 | 77 |
| White and Black African | 852 | 895 | 1,747 | 77 | 84 | 81 |
| White and Asian | 1,830 | 1,759 | 3,589 | 82 | 89 | 85 |
| Any other Mixed background | 3,210 | 3,047 | 6,257 | 78 | 88 | 83 |
| **Asian:** | **21,395** | **20,204** | **41,599** | **72** | **81** | **76** |
| Indian | 6,576 | 6,247 | 12,823 | 81 | 89 | 85 |
| Pakistani | 8,845 | 8,117 | 16,962 | 64 | 76 | 70 |
| Bangladeshi | 3,608 | 3,575 | 7,183 | 70 | 80 | 75 |
| Any other Asian background | 2,366 | 2,265 | 4,631 | 74 | 81 | 77 |
| **Black:** | **12,325** | **12,146** | **24,471** | **66** | **79** | **72** |
| Black Caribbean | 4,427 | 4,302 | 8,729 | 65 | 81 | 73 |
| Black African | 6,568 | 6,669 | 13,237 | 66 | 77 | 72 |
| Any other Black background | 1,330 | 1,175 | 2,505 | 67 | 81 | 73 |
| **Chinese** | **1,012** | **1,007** | **2,019** | **82** | **90** | **86** |
| **Any other ethnic group** | **2,929** | **2,661** | **5,590** | **64** | **74** | **69** |
| Unclassified | 6,264 | 5,740 | 12,004 | 69 | 80 | 74 |
| | | | | | | |
| **All pupils** | **295,828** | **282,500** | **578,328** | **74** | **84** | **79** |

*Source*:     DfES, 2007c: Table 3.

## English as a first language

At KS2 level, pupils for whom English is the first language have significantly better results than those for whom another language is their first language. For example, 85% of girls whose first language was English achieved Level 4 in English in 2006, compared with only 78% of girls for whom another language was their first language

(the equivalent results for boys were 75% and 68%). The difference of 7 percentage points for both genders was similar in maths and wider in science (10 percentage points for girls and 11 percentage points for boys). The effect is often particularly great for Asian and African pupils. For example, amongst Black Africans, there was a difference in attainment of 17 percentage points for boys and 13 points for girls between those whose first language was English and those where it wasn't; for Asians, the equivalent gaps were 14 points (girls) and 10 points (boys) (DfES, 2006).[11]

Recent research by Cassen and Kingdon (2007) indicates that while there is an initial handicap for Asian and African children relative to White British children at primary school because English is less likely to be their first language, this disadvantage progressively disappears.

In order to obtain a more accurate insight into the achievements of boys and girls, gender, ethnicity and socio-economic status have all to be considered together.

## 4.7   Gender, socio-economic class, ethnicity and achievement

A comparison between the highest achieving groups of boys and girls and the lowest achieving groups of boys and girls indicates that it is the combination of socio-economic class, gender and ethnicity that results in wide gaps in achievement (Table 4.11). Again taking KS2 results in English as an example, it can be seen that socio-economic status has a particular impact on success.

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[11]   Provisional data for 2005-06, which differ slightly from the final data presented in other tables.

**Table 4.11 Achievement at KS2 for English by ethnicity and free school meals, 2006**

| Ethnicity | | Eligible pupils | | | % achieving | | |
|---|---|---|---|---|---|---|---|
| | | **Boys** | **Girls** | **Total** | **Boys** | **Girls** | **Total** |
| **White** | Non-FSM | **208,080** | **198,748** | **406,828** | **79** | **88** | **83** |
| | FSM | **34,258** | **32,742** | **67,000** | **52** | **66** | **59** |
| White British | Non-FSM | 201,597 | 192,597 | 394,194 | 79 | 88 | 83 |
| | FSM | 32,280 | 30,936 | 63,216 | 52 | 66 | 59 |
| Irish | Non-FSM | 798 | 790 | 1,558 | 85 | 92 | 88 |
| | FSM | 236 | 202 | 438 | 54 | 66 | 59 |
| Traveller of Irish Heritage | Non-FSM | 53 | 53 | 106 | 30 | 32 | 31 |
| | FSM | 128 | 108 | 236 | 20 | 30 | 25 |
| Gypsy/Roma | Non-FSM | 212 | 188 | 400 | 38 | 44 | 41 |
| | FSM | 184 | 178 | 362 | 19 | 38 | 28 |
| Any other White background | Non-FSM | 5,420 | 5,129 | 10,540 | 75 | 82 | 78 |
| | FSM | 1,430 | 1,318 | 2,748 | 55 | 65 | 60 |
| **Mixed** | Non-FSM | **6,817** | **6,670** | **13,487** | **81** | **90** | **85** |
| | FSM | **2,313** | **2,250** | **4,563** | **61** | **77** | **69** |
| White and Black Caribbean | Non-FSM | 2,221 | 2,229 | 4,450 | 77 | 87 | 82 |
| | FSM | 1,030 | 992 | 2,022 | 58 | 76 | 67 |
| White and Black African | Non-FSM | 637 | 621 | 1,258 | 80 | 90 | 85 |
| | FSM | 213 | 274 | 487 | 67 | 72 | 70 |
| White and Asian | Non-FSM | 1,497 | 1,442 | 2,939 | 86 | 92 | 89 |
| | FSM | 326 | 315 | 641 | 62 | 77 | 69 |
| Any other Mixed background | Non-FSM | 2,462 | 2,378 | 4,840 | 83 | 90 | 86 |
| | FSM | 744 | 669 | 1,413 | 64 | 79 | 71 |
| **Asian** | Non-FSM | **15,798** | **14,779** | **30,577** | **75** | **84** | **79** |
| | FSM | **5,571** | **5,405** | **10.976** | **62** | **74** | **68** |
| Indian | Non-FSM | 5,892 | 5,528 | 11,420 | 83 | 90 | 86 |
| | FSM | 680 | 718 | 1,398 | 69 | 80 | 75 |
| Pakistani | Non-FSM | 5,989 | 5,456 | 11,445 | 68 | 79 | 73 |
| | FSM | 2,844 | 2,653 | 5,497 | 57 | 70 | 63 |
| Bangladeshi | Non-FSM | 2,021 | 1,973 | 3,994 | 73 | 81 | 77 |
| | FSM | 1,577 | 1,593 | 3,170 | 68 | 78 | 73 |

| Ethnicity | | Eligible pupils | | | % achieving | | |
|---|---|---|---|---|---|---|---|
| | | Boys | Girls | Total | Boys | Girls | Total |
| Any other Asian background | Non-FSM | 1,896 | 1,822 | 3,718 | 76 | 83 | 79 |
| | FSM | 470 | 441 | 911 | 64 | 71 | 68 |
| **Black** | Non-FSM | **7,788** | **7,646** | **15,434** | **72** | **85** | **78** |
| | FSM | **4,529** | **4,480** | **9,009** | **56** | **70** | **63** |
| **Black Caribbean** | Non-FSM | 3,211 | 3,096 | 6,307 | 69 | 84 | 76 |
| | FSM | 1,214 | 1,203 | 2,417 | 55 | 75 | 65 |
| Black African | Non-FSM | 3,694 | 3,806 | 7,500 | 74 | 85 | 79 |
| | FSM | 2,869 | 2,849 | 5,718 | 56 | 67 | 62 |
| Any other Black background | Non-FSM | 883 | 744 | 1,627 | 72 | 85 | 78 |
| | FSM | 446 | 428 | 874 | 57 | 73 | 65 |
| **Chinese** | Non-FSM | **890** | **917** | **1,807** | **83** | **90** | **86** |
| | FSM | **119** | **89** | **208** | **76** | **90** | **82** |
| **Any other ethnic group** | Non-FSM | **1,853** | **1,655** | **3,508** | **69** | **78** | **73** |
| | FSM | **1,070** | **1,010** | **2,080** | **57** | **66** | **62** |
| **All pupils** | Non-FSM | **245,446** | **234,421** | **479,867** | **78** | **88** | **83** |
| | FSM | **48,701** | **46,755** | **95,456** | **54** | **68** | **61** |

*Notes*:      Provisional data for 2006, which differ marginally from the final data.

*Source*:      DfES, 2006: Table 25.

As Table 4.11 shows, the highest and lowest achieving groups are as follows:

- Highest achieving group: Boys:      Mixed White and Asian, non-FSM (86%)
- Highest achieving group: Girls:      Irish and Mixed Asian and White, non-FSM (92%)
- Lowest achieving group: Boys:      Gypsy/Roma, FSM (19%)
- Lowest achieving group: Girls:      Gypsy/Roma, FSM (38%)

The gender gap between the highest achieving group of boys and the Highest Achieving group of girls when free school meals and ethnicity are both taken into account is 14 percentage points. Amongst the lowest achievers the gap is 11 points. This does suggest that the gap between the lowest achieving groups of boys and girls is less than the gap between higher achieving groups of boys and girls. However, if we look at three of the large groups - White British, Pakistani and Black African (and, although a comparatively small group, the Black Caribbean population

are also included here) who are and are not on free school meals - we get a more accurate picture (Table 4.12).

**Table 4.12 Achievement at KS2 in English by free school meals, 2006**

| | Percentage achieving Level 4 or above: | | |
|---|---|---|---|
| | **Non-FSM** | | |
| | **Boys** | **Girls** | **Non-FSM Gap** |
| White British | 79 | 88 | 9 |
| Pakistani | 68 | 79 | 11 |
| Black African | 74 | 85 | 11 |
| Black Caribbean | 69 | 84 | 15 |
| | **FSM** | | |
| | **Boys** | **Girls** | **FSM Gap** |
| White British | 52 | 66 | 14 |
| Pakistani | 57 | 70 | 13 |
| Black African | 56 | 67 | 11 |
| Black Caribbean | 55 | 75 | 20 |

*Notes*:        Provisional data for 2006, which differ marginally from the final data.

*Source*:        DfES, 2006: Table 25.

As the table shows, importantly, there are some groups of girls doing worse than other groups of boys, e.g. Black African girls who are taking FSM (67%) when compared to White British Boys who are non-FSM (79%).

In the UK, it is 'common knowledge' that the lower down the socio-economic scale an individual or family is, the less able they are to access or make full use of educational opportunities. This common knowledge is backed up by research studies providing evidence of the differential experiences of working class and middle class pupils. In practical terms this means, for example, that parents are less likely to be able to get their children into the 'best' schools, or to liaise assertively with teachers on behalf of their children, or to help with decisions about a university education (Ball and Gewirtz, 1997; Reay, 1998; Reay et al., 2001). Then there is the influence of how we come to understand and see ourselves as members of particular social classes whereby, for example, working class girls believe they have to work extremely hard,

but are unlikely to do as well as middle class girls (Plummer, 2000) and middle class girls feel that they too have to work hard, but whatever they achieve is never good enough (Walkerdine et al., 2001). However, this underachievement of pupils in lower socio-economic groups is not an international phenomenon and only applies to pupils in some countries, the UK being one of them. As the OECD PISA Report (2003b: 1) states:

> *Advantaged students perform better by similar amounts at different levels of advantage, but socio-economic background does not determine performance.*

In fact, several countries (Canada, Finland, Iceland, Japan, Korea and Sweden) demonstrated that it is possible to have students who perform well from a variety of socio-economic backgrounds. The PISA report (OECD, 2003c: 3) noted that:

> *High performance does not have to come at the expense of inequalities as some of the countries with the best levels of performance have relatively gentle gradients.*

In contrast to those countries that combined a high degree of achievement with equality between socio-economic groups, the UK (as well as Australia and Belgium) has a high quality of performance, combined with above average inequality between advantaged and disadvantaged socio-economic groups. Thus the UK seems to have made little progress in eliminating, or even reducing, the effects of social class on a person's life chances or opportunities.

Related to the above is what the OECD PISA survey (OECD, 2003a) refers to as 'home background', citing this as the key to educational success. We take this to mean what Bourdieu refers to as social capital whereby wealth is not the most important factor but knowledge of, and access to, cultural capital is. Thus the OECD PISA research found that parental occupation is strongly associated with pupils' performance in assessments, for example, those whose parents have higher status jobs demonstrated higher literacy performance. Also, it was students from homes that had the most cultural capital that typically achieved very well; that is, pupils who had access to literature, and so forth. In some countries, the differences were particularly marked and, certainly in the UK, pupils in the top quarter of cultural participation were at least 70 points ahead of pupils in the bottom quarter (likewise for the US, Belgium, Germany and Spain).

## 4.8   Subject choice

The focus has so far been on achievement in public examinations. A further dimension of the gender and achievement issue relates to pupils' choice of subjects to pursue at A level and higher education.

Examining gender and achievement at A level, there is a substantial difference in the number of females entered for A levels (386,976 of those aged 17-18 at the beginning of the academic year) and the number of males entered (328,227) (See Appendix 3). The figures indicate that of *those taking up* the A level exams, 97.7% of girls achieved an A level (grades A-E) in contrast to 96.6% of boys, a very comparable performance.

Traditional gender subject choice continues to be apparent with vastly more boys taking A levels in subjects in mathematics and physics (though interestingly no longer in chemistry), and girls more often taking language, art and social science subjects (with the exception of economics). These gendered choices have consequences for the types of career that students are able to pursue (Thomas, 1990; Francis, 2002; Department of Trade and Industry, 2004; EOC, 2004). More than twice as many girls as boys take English A level, but the number of male entrants seems large considering the extent to which boys' underperformance at English in compulsory education might be expected to deter them.

Whilst students exercise stereotypical choices when it comes to studying for A levels, those boys and girls who opt for non-traditional areas do well. Table 4.14 shows that of those who achieve the highest grades, girls outperform boys in the traditionally male science and mathematics areas, boys outperform girls in the traditionally female area of modern languages and both do equally well at English (the full table is in Appendix 3).

As the report by Andrews et al. (2006b) observes, even when girls achieve well at school they are more likely than boys to opt for further and vocational education than higher education. Females also form the majority of the student population in further education and, here, they are outperforming males in terms of the number of qualifications obtained (Leathwood, 2006). However, further and vocational education is seen as the 'poor relation' of education both in terms of financial resources and status. Both further and vocational education is gendered and classed (Skeggs, 1997) and it is in these sectors that traditional gendered activity is most evident. For example, Leathwood (2006) illustrates how the courses and pathways selected by young people are highly gendered by observing that women students form 77% of those in adult and community education compared with 41% in work-

based learning. Whilst the majority of social work, nursery work ('people type') courses are comprised of female students, males elect to take the more technical programmes, such as construction and engineering, which inevitably lead to more highly paid work. And, whilst there is evidence to suggest that young women are more likely to at least consider taking up non-traditional career options (Francis 2000) it remains that there are far more females choosing caring jobs and males the more technical and scientific occupations.

**Table 4.13 Percentage of 16-18 year old students gaining 'A' grade at A level, 2005/06**

|  | **Females** | **Males** |
| --- | --- | --- |
| Biological Sciences | 25.6 | 23.3 |
| Chemistry | 32.7 | 30.6 |
| Physics | 36.0 | 28.2 |
| Mathematics | 45.7 | 41.8 |
|  |  |  |
| French | 33.7 | 36.8 |
| German | 35.1 | 41.2 |
| Spanish | 35.0 | 41.8 |
|  |  |  |
| English | 21.8 | 21.7 |

*Notes*:      Data are for students in all schools and colleges entering the examinations.

*Source*:      DfES, 2007a: Table 3f; 3m.

## 4.9   Summary

The government's public pronouncements on boys' underachievement are based on statistics on performance in school examinations. Further analysis of the same sources of information has revealed that:

1.   *Gaps in literacy in an international context*. Boys across all countries underachieve in literacy in comparison to girls. However, the UK has one of the smaller gender gaps in literacy achievement. Of the 42 countries examined in the OECD's PISA study for which data were available, the gap was narrower in only 11 countries.

2.   *Gaps in literacy in a national context.* The gender gap in literacy is a significant issue, especially from the age of 14.  However, it is misleading and inaccurate to say that 'all boys are underachieving' when clearly some groups of boys are

doing very well when compared to some groups of girls. For example, Black African girls (on FSM) are doing worse in English than White Boys (not on FSM).

3.   *Gaps in achievement are significantly influenced by social class.* Social class is of particular consequence to the achievement scores of pupils in the UK. Pupils on FSM are underachieving significantly in relation to those not receiving FSM, e.g. the gender gap at KS2 between the highest scoring groups of pupils in English not receiving FSM and the lowest scoring groups of pupils who take FSM is 73%. The OECD data also reveal that in the UK, pupils in the top quarter of cultural participation were at least 70 points ahead of pupils in the bottom quarter, whereas in some other countries students from a variety of socio-economic groups performed well. As such, factors relating to achievement cannot be taken as a 'given' or universal, but are particular to the social, economic and cultural aspects of life in any one country. This means that assessment and achievement are socially situated.

What is evident from an analysis of the statistics (and the review of the literature in Chapter 3) is that discussions around 'gender and achievement' are complicated and far more complex than might be assumed by media headlines. There is a gender gap in literacy with boys underperforming in relation to girls, which deserves attention. But in other areas, the gap is not significant and certainly the focus on 'boys' underachievement detracts from the consideration needed to be given to the larger gaps between groups defined by gender, social class and 'race'. As has been shown here, there are data on the impact that the combination of gender, ethnicity and social class has on achievement and it is this information that should inform educational policy and practice.

# 5. STRATEGIES TO ADDRESS INEQUALITIES IN GENDER AND ACHIEVEMENT

## 5.1 Challenging gender stereotypes

As we have seen, the large-scale research in this area concurs that a central explanation for inequalities in gender and achievement is gender stereotyping and the cultures of gender difference – social norms and expectations that encourage and expect pupils to have different educational preferences, behaviours and abilities in terms of their gender (and often in terms of 'race' and social class too). These views are often internalised by children and young people. We need to keep in mind that these socially prevalent practices begin even before a child is born (when the gender of the foetus becomes a key focus of interest for parents and friends), and certainly from birth onwards. From the moment the midwife or doctor congratulates the parent on the arrival of a healthy 'baby girl' or 'baby boy' (rather than just 'baby') onwards, a child's gender is made publicly identifiable through its clothes, the toys it is surrounded with, and the way adults relate to it. Assumptions about gender differences in interests and behaviours continue to be applied throughout childhood, and are taken up by children within and without schooling to demonstrate their gender identity. The result of these processes is that the gender gaps in subject areas which have masculine and feminine associations (i.e. physics/masculine; literacy/feminine) increase as children get older and move through school.

At the centre of any approach developed by schools to raise achievement has then to be the 'deconstruction of gender difference': that is, the need to reflect on, and take apart, assumptions about what it is to be and behave as 'a boy' or 'a girl'. Because 'boy' and 'girl' are binary opposites, then being 'a boy' means not being 'a girl' and vice versa. Enabling pupils to broaden their views means, rather ironically, placing *less* rather than more attention on differences between 'boys' and 'girls'. One of the reasons why there have been such disappointing results for schools which have adopted some of the strategies to raise boys' achievement is that they have encouraged teachers and pupils to view boys and girls as gender stereotypes.

Although research has shown that there are trends in girls and boys' learning preferences (for example, girls preferring group work, boys preferring tightly structured individual learning and so on), it is important to remember that a) these are *generalisations*, and b) playing up to difference will exacerbate such difference. In relation to the first point, even the strongest proponents of 'gendered learning styles' admit that there is both diversity of learning preference among 'boys' and 'girls'; and extensive overlap between the two groups (Gurian, 2002). So for example we cannot assume that all girls enjoy groupwork, and to assume so risks marginalising the

needs of those who do not. Other aspects of identity, such as ethnicity, have also been shown to have a strong impact on pupils' curriculum preferences, illustrating the danger in assuming pupils will share preferences simply on the basis of their gender. But also, teaching practice based on assumptions of different preferences and abilities due to gender will inevitably build on stereotypes and risk exacerbating difference and channelling pupils down different routes of learning – with potential consequences for their achievement, particularly in non-gender traditional subject areas. Rather, as educators we should be *challenging* such differences, and broadening horizons.

Hence we reiterate that what is called for to address gender gaps in achievement is a deconstruction of gender difference: challenging stereotypes and encouraging diversification of skills and interests.

The GED requires schools to set and implement objectives to promote gender equality. The approach set out below will help schools to achieve change and raise the achievement levels of all pupils and help both boys and girls achieve their potential.

## 5.2   Practitioner reflection

A whole raft of research has illuminated the role that teachers may play in terms of perpetuating gender stereotypical behaviours and expectations in the classroom. These may manifest in terms of the different expectations held of girls and boys; the language and manners of interaction adopted by the teacher in relation to girls and boys; the amount of classroom time dedicated to boys/girls, and the content of these interactions; and the valuing of different types of behaviour (and achievement) according to gender. Teacher expectations and perceptions of pupils have also been shown to be often subtly influenced by pupils' social class and ethnicity (Connolly, 1998; Majors, 2001; Reay, 2002; Archer and Francis, 2006). The recent policy demands and targets around raising boys' achievement, and some of the short term strategies recommended to address these, have been found to have had an unfortunately strong impact on some teachers' understandings of gender difference. Some teachers now see such differences as inevitable and to be built on as a method for raising achievement. For example, they consider that girls and boys as groups have different learning styles, or that as groups they have different preferences for learning materials and content, and play to these differences in teaching practice (Skelton and Read, 2006).

Clearly, we are all influenced by socially prevalent views about gender, ethnicity and social class; and we use these in part to inform and create our own identities. Hence

in order to ensure that such views are not outlined in the classroom (hence exacerbating cultures of gender difference), teachers need to reflect on their assumptions, and on their teaching practice.

For example, our research into 7-8 year old pupils' perceptions of the importance of the gender of their teacher[12] highlighted many instances where teachers used gender as a means of motivating children or controlling children's behaviour. These included, for instance, boys being seen as particularly keen on IT and maths, and girls at literacy and presentational aspects, and using these aspects to motivate particular gender groups of pupils. Such strategies may well be effective in terms of securing motivation. Yet what are the messages being given to pupils by such an approach? Surely, that it is right and appropriate that they have different interests according to gender. And the likely outcome of this approach is that boys develop their IT and maths skills and confidence, and girls' their literacy and presentational skills (this in turn being likely to increase their enjoyment and ability at, and preference for, these subject areas). Parents might be legitimately concerned that their daughters were being encouraged to be 'neat' at the expense of developing their technological skills; or that their sons were not having their literacy abilities attended to. There is a difficult balance for teachers in recognising that socially constructed gender identities will manifest in boys and girls tending to have preferences for different subjects and ways of learning; between wanting to ensure that pupils stay engaged and motivated, but also in challenging stereotypical preferences and extending different skills and abilities.

A staff development exercise would be to take an example such as this where differentiation by gender is utilised and ask:

• What is the motivation and aim in adopting these kinds of classroom practices?

• What choices are being opened up or closed down for pupils by these actions?

• What messages does this practice give out?

This kind of questioning enables schools and teachers to be critically reflective about practices and assumptions. Warrington et al. (2006) describe how the schools in their study found it particularly helpful to work in groups of three to collaborate and reflect on practice, as having outsider views on one another's school cultures was particularly enabling for practitioner reflection.

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[12] This refers to an ESRC-funded study, 'Investigating Gender as a Factor in Primary Pupil-Teacher Relations and Perceptions' (RES- 000-23-0624) by Christine Skelton, Becky Francis, Bruce Carrington and Merryn Hutchings, which began in 2004.

Francis (2007) has argued that in order to ensure that teachers seek to challenge, rather than comply with, gendered patterns in classroom behaviour, they need to reflect closely on their own classroom behaviour, asking questions such as:

- Do I spend more time and attention on certain groups of pupils? If so, why?

- Do I apply the same expectations to all pupils, and respond to their behaviours in a consistent way in spite of factors such as gender, social class and so on? Which pupils do I like/dislike, and why? Am I complicit with gendered expectations, for example that boys behave in 'laddish' ways, or that girls be 'ladylike'?

- Do I ever find myself giving more time and mental energy to boys, due to a pragmatic need to hold their attention in order to complete tasks?

- Do I adopt particular approaches with boys, and/or girls (e.g. 'roustabout'/gentle), which may aid classroom constructions of gender as oppositional?

Other questions might include consideration of how gender and other aspects of social identity (social class, ethnicity, sexuality etc) might be informing:

- My expectations of pupils behaving in different ways according to their gender, ethnicity and/or social class.

- The ideas regarding gender and career that students bring with them into the classroom.

- The messages that the students are getting from the books etc used in classroom teaching about the ways in which children are expected to think, act and behave in order to be a 'proper boy' or a 'proper girl'.

- My own theories of teaching my subject and the (gendered) learning expectations of my students.

Teachers are not always conscious of their gender differentiated classroom practices: research has shown, for example, that they often do not realise that they are spending disproportionate amounts of attention on boys. An observational study by Spender (1982) showed how even teachers making a conscious effort to give more classroom attention to girls were still spending substantially more time with boys. Hence conducting their own observation record - or better still asking a colleague to observe their practice - provides an effective approach in ensuring

awareness of issues in teaching practice and classroom management. As argued by Francis (2007), the points of record might include:

- How much time is spent communicating with boys and girls? This involves recording which girls and boys will supply a more nuanced reflection of interaction that recognizes factors such as ethnicity and social class.

- What sort of attention is given to pupils in the class? Do boys (or girls) tend to require more discipline? Is praise given proportionately to different groups in the class?

- Do boys and girls have equal assess to different classroom resources, and are they encouraged to utilise these?

- What sort of language is the teacher using? Does it differ depending on the gender (or other social factors) of the child?

- What sort of language are the children using? Does gender or sexuality take a prominent role, e.g. making references to 'pretty girls, tough boys'; or accusations such as 'acting like a mummy's boy'?

- What is the social status/power dynamics among pupils in the class? Are some pupils 'silenced' by others? How does gender inform these patterns?

## 5.3    The holistic approach

By the time that pupils reach secondary school, it can appear to staff that gendered identities are entrenched and any attempts to ameliorate stereotyping are futile (see e.g. Francis et al., 2004). In addition, this is a period in which the peer group is the most influential and therefore staff may feel that their own attempts to address stereotypical subject choice are ineffectual. In their study of gender and schooling, Rowan et al. (2002: 38) quote a female teacher who attempted to find ways of encouraging girls into non-traditional areas as saying:

> *I've spoken to the girls, I've invited in guest speakers to tell them about the ways physics can be, or is, useful in a lot of professions. And they just don't want to do it. I'm not stopping them. Their parents aren't stopping them. But they just won't do it. What more am I supposed to do?*

It is important to remember that gender differences are deeply embedded in societal expectations, underpinning ideas about what it is to be a socially acceptable person. Pupils (and adults) have strong reasons to maintain their gender constructions at both a conscious and an unconscious level. Consequently, 'one off' interventions are

unlikely to make an impact - breaking down girls' and boys' stereotypical attitudes and expectations requires a *holistic* approach on the part of the school.

Addressing entrenched notions about boys and girls as learners and their relationships to the curriculum requires an approach that does not ignore power relations and current inequalities, but that works to address these through a social justice framework. One method of doing this is the 'Productive Pedagogies' approach developed in Queensland, Australia (Lingard et al., 2003; Keddie and Mills, 2007) – 'productive pedagogies' refers to teaching practices that bring out the best in children's learning within a democratic educational framework. We shall draw on these research-based recommendations, together with the findings from the DfES study by Molly Warrington and Mike Younger on schools who are successful in raising achievement (Younger et al., 2005; Warrington et al., 2006), to inform our suggestions for good practice here.

These bodies of research emphasize the importance of a whole-school approach – a commitment to practice which is understood, agreed and practiced through all the facets and levels of the school. It is emphasized that such an approach is crucial to the effectiveness of strategies introduced to address cultures of gender difference (Francis, 2000). For example, various studies have shown how for any attempt to change school culture to be effective, staff at all levels need to be included, supportive, and in communication (Pickering, 1997). Further, as we have seen, isolated strategies to address these cultures and/or raise achievement are unlikely to make an impact: Warrington et al. (2006) and the Productive Pedagogies researchers (e.g. Lingard et al., 2003; Keddie and Mills, 2007) stress the importance of a holistic approach that takes up the suggested strategies *together*, rather than in isolation.

So, looking at the whole-school approach, Warrington et al. (2006) and Younger et al. (2005) identified three key aspects which enabled the 'achievement framework' to be effective. These were the leadership provided by the headteacher, partnership and teaching practices. Together these create a culture in which pupils and teachers are supported and provide the elements through which achievement can be realised. Warrington et al. (2006: 192-93) set out the components of this culture:

- *Behaviour:* this involves the school establishing an expectation of high levels of self-discipline, supporting this by prompt attention to misdemeanours and responding in a constant and ongoing manner to issues of behaviour. Staff should show courtesy to pupils.

- *Equal opportunities:* this involves a commitment to valuing diversity through curriculum content, classroom grouping arrangements, school activities and worship.

- *Fostering pride and achievement:* this involves a school placing emphasis on pride in work and behaviour, as well as having high expectations of responsibility and independence. Pupils are aware that staff care for their progress and happiness.

- *Imaginative thinking*: this concerns the ways in which pupils can become engaged in the life of the school, and the willingness of the school to ensure that individual pupils become involved in its activities.

- *Values and aims:* these need to be transparent, consistent, shared by colleagues, and permeate all the work of the school.

We shall go on to look at the various aspects supporting the whole school approach noted by Younger et al. (2005), beginning with the head teacher and leadership.

**Leadership by the headteacher**
The headteacher has been identified in the national, longitudinal study by Warrington et al. (2006) as the lynchpin in raising pupils' achievements. The commitment and leadership of the headteacher is also crucial to the success of the gender equality duty. Effective leadership among headteachers was characterised by an emphasis on teamwork (which was demonstrated in their practices with staff and pupils); the initiation of policies where people and relationships were at the heart of practice and process; and a willingness to take risks. These headteachers actively supported their staff by allocating time, training and resources to focus on all aspects of achievement - in its widest sense. Furthermore, effective leaders ensured that the frameworks which were devised in schools (for example, frameworks that set out expectations relating to attendance and behaviour) were given a high profile and were seen to be implemented and monitored (Younger et al., 2005). Various studies have shown how, in implementing social justice strategies, the headteacher's support and commitment is central, both in practically facilitating measures and ensuring a whole-school approach; and in legitimating the idea and the related strategies in the eyes of fellow staff.

**Partnership**
The issue of partnership has to some extent been covered above in relation to a whole-school approach, but the heading is useful in highlighting the democratic, inclusive and mutually supportive aspects of this approach. The implementation of

successful strategies to address gender cultures and raise achievement involves democratic partnerships between all those involved in the school - including the children. So a major challenge is for schools to ensure that participation and empowerment is central to policy and strategies. This requires the involvement of teachers, pupils, school governors, parents, administrative staff and so forth. It requires effective teamwork and open and honest dialogue. Thus schools which develop a sense of belonging in pupils, which generate feelings of responsibility and in which students perceive they are listened to and that their voices occupy a place in school policy and practice have been the most successful in raising pupils' achievements (Younger et al., 2005; Warrington et al., 2006). The GED requires schools to undergo consultation with key stakeholders in order to set gender equality objectives. This is both a legal requirement and a key factor in developing an effective strategy to promote gender equality. Such approaches are also of course in keeping with the ethos espoused in *Every Child Matters*,[13] with its commitment to 'building a culture of participation' and ensuring children's 'views are heard'. Citizenship initiatives can facilitate all of these aspects (for example, the development of, and status awarded to, schools councils, circle time (where young children sit together to discuss events where the aim is to develop empathy and relationship skills), and pupils' responsibilities enterprises (where children determine the particular responsibilities they have to the school, themselves and each other).

**Teaching practice**

Good teaching practice has been shown to underpin achievement, and to be essential in raising achievement. For example, that includes well-planned, structured lessons with clear learning aims and outcomes; approaches to encourage children to reflect on their learning practices; pupils' involvement in self and peer assessment, and so on (Younger et al., 2005). However, these approaches will benefit boys and girls alike, they will not of themselves address gender gaps in achievement (either those favouring boys or girls). To reduce gender gaps, the gender cultures underpinning gendered patterns in behaviour have to be addressed in classroom practice. The work on Productive Pedagogies provides advice for good teaching practice necessary for 'producing improved and more equitable student outcomes' (Martino et al., 2005: 251-52). Martino et al. (2005: 252) explains that effective pedagogies are characterised by:

> … *a high degree of intellectual quality, high levels of connectedness in terms of curriculum content and its application to the students' lives outside school, supportive classroom environments where students feel*

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[13]  See http://www.everychildmatters.gov.uk/

*valued and are encouraged to take risks in their learning, along with a strong recognition and celebration of difference.*

Four themes are identified within Productive Pedagogies that enable positive learning experiences:

- Connectedness (to young people's interests and concerns).
- Intellectual engagement (including high expectations).
- Social support.
- Recognition and valuing of diversity and difference.

The GED requires schools to carry out a Gender Impact Assessment (GIA) on all new and exisiting policies. A GIA is a tool that can help schools ensure that neither gender are disadvantaged by a particular policy or practice, and identify opportunities to promote gender equality. This doesn't have to be an onerous task and schools may already have processes in place that they can build on for undertaking GIAs, for example those required to conduct self-evalutation.

## 5.4   Examples of teaching practice

These themes are indicative of the democratic, whole-school ethos discussed above. Hence the recommended broad approach is clear and will help deliver the aims of the gender duty. Yet it is difficult for us to make specific research-based recommendations for classroom practice drawn from the literature, as unfortunately there is no collection which provides strategies for teachers to draw on. Many of the studies on raising achievement and addressing gender cultures talk generally about the components required to effect such work, and sometimes provide one or two examples, but these do not tend to be extensive or in any way constitute a compendium for teachers. Other books tend to focus either on gender cultures or on raising achievement, rather than necessarily bringing these together; and even here practical ideas for teachers tend to be relatively thin on the ground.[14]

A recent addition to the literature which teachers may find useful in addressing cultures of gender difference is the collection of articles edited by Kate Myers, *Genderwatch: still watching* (Myers, 2007). This reviews  research in broad-ranging aspects of schooling and curriculum from a gender equity perspective and in each case provides teachers with practical ideas and tools for classroom practice in order to address gender inequality in these areas. The forthcoming practice-based book

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[14] For exceptions, see for example Mills (2001) on addressing male aggression and violence in school; or Salisbury and Jackson (1996) for challenging aspects of gender culture (particularly relating to masculinity). These books include extensive suggestions for classroom materials, exercises and workshops.

emerging from the Productive Pedagogies approach (Keddie and Mills, 2007) will likewise provide case studies and specific suggestions for teaching practice in this regard. We are aware that such a resource is urgently needed to support teachers in Britain in addressing gender cultures to facilitate educational achievement, and we return to this in our recommendations at the end of this report.

However, in the absence of such a comprehensive resource for teachers, we attempt in the following sections to suggest a few practical approaches to challenging gender cultures and assumptions of gender difference, drawing on the existing literature. When considering teaching practice in this area, it is important to start from the premise that children, and young children especially, tend to be keen to stay within the perimeters of what they and others regard as acting as a 'proper boy' or 'typical girl'. Children are understandably wary about adopting behaviours or showing an interest in activities that might exclude them from their peer group. Even children in the early years of schooling often exhibit strong conservatism and tend to be discomforted by people and things that deviate from their own understandings of how boys and girls should be (e.g. Davies, 1989; MacNaughton, 2000). Strategies to encourage children to reflect on and even to challenge gendered behaviours will then need to be attuned to the extent to which many children are invested in these behaviours, and the risks involved in 'standing out from the crowd'. The positive side is that a raft of work with children and young people in the classroom has found them to be eager to discuss gendered behaviour, and quickly and enthusiastically to engage with ideas that have such a strong bearing on their day-to-day experiences.

So the task here is to encourage children to reflect on their attitudes and expectations according to gender by sharing these with other children in the class, and by exploring popular assumptions around gender behaviour. In this way, children can be encouraged to recognise how gender differences are not 'natural' or 'in-born', but are a consequence of how society sees males and females. Furthermore, such strategies enable children to recognise that there is no 'one' image and discussing the differing representations of being 'girl' or 'boy' with teachers and classmates encourages them to re-think their views of themselves.

Bronwyn Davies has carried out extensive classroom-based research with early years and primary aged children endeavouring to seek examples of exercises and approaches facilitating the deconstruction of gender difference. She has reported widely on the results in terms of pupils' reactions, the results of their engagement, and her reflections on these. Her work will be useful for practitioners interested in these practices and outcomes (Davies and Banks, 1992; Davies, 1993; Davies, 1997).

In Appendix 4, we include a number of examples for teaching practice (some provided in the existing literature), reflecting a variety of different approaches and with different age-groups. In looking at these, it is important to keep in mind that equity and diversity strategies should not be 'top-down' approaches, but iterative and open to young people's input. On the other hand, Epstein (1993) points out that with any equity agenda, it is important that the teacher offers strong principled guidance in facilitating discussion, to ensure for example that children are protected from unchecked sexist and/or racist statements by classmates, and that particular children are not 'silenced' by others in open discussion. Children's opinions need to be heard and respected (Keddie and Mills, 2007), but this within a social justice framework: that is, where the focus is on a recognition of equity and equality for all people irrespective of age, social class, gender, ethnicity, able-bodiedness, sexuality and so forth.

## 5.5   Examples of whole school approaches to raising achievement

It is clear from the above that a 'whole school approach' requires schools, at the outset, to determine what in its current position in relation to achievement is in order to redress it. The starting points are then for a school to ascertain:

- What do we mean by 'achievement' now and do we want to change this? Do students, staff and other members of the school share the same understandings of 'achievement'?

- How is our school organised? What expectations are there about behaviour and how are these fulfilled? Who makes the decisions? How are these decisions communicated? What strategies can we adopt to ensure everyone shares responsibility for what the school expects and also takes part in decision making?

- What information do we have about the patterns of success and failure amongst different groups in the school?

- What information do we have about the ways in which teachers and pupils see themselves and each other (what part does gender, social class, ethnicity, sexuality and so forth feature in these perspectives?)

Each school will have a different set of responses to these questions. In keeping with the recommendations of Younger et al. (2005), Warrington et al. (2006) and Keddie and Mills (2007), it is the context that is of key importance in developing strategies to address issues of gender and achievement. It is in this individual context that this is also important to the implementation of the gender equality duty. The GED requires

schools to gather both quantitative and qualitative information in order to find out what their major gender equality objectives are. In relation to achievement, this information could include statistical data on pupil performance and also qualitative data on the views of both pupils and staff around gender stereotyping. Having said that, four broad areas have been identified as having a potential impact on achievement: teaching practice, individual contexts, organisational contexts and socio-cultural contexts.

**Teaching practice**

Four elements are needed to enable children's ability to reflect on themselves as learners. These are Connectedness (whereby teachers start with where young people are in terms of their interests and concerns); Intellectual engagement (where young people are encouraged to reflect critically on the messages about gender and other aspects of identities that are associated with these interests and concerns); Social support (which enables joint, democratic means of being a member of the school); and Recognition and valuing of diversity and difference.

In their book *Raising Boys' Achievement in Secondary Schools,* Mike Younger and Molly Warrington reflect on how pedagogy has become reduced to an emphasis on learning styles. Often these are utilised in an uncritical way and they offer cautionary advice about schools doing so. However, they identify how learning styles can enable the learning of some boys and girls listing a number of factors that are 'pre-conditions for successful implementation' (Younger et al., 2005: 89). They go on (pp. 89-91) to list these as:

- *Placing specific emphasis on raising awareness of how learning takes place, through keynote presentations to staff and students about different modes and styles of learning.* A number of schools, working together, used tutorials or Personal and Social Health programmes to focus on appropriate study skills and how students might acquire different study skills for different contexts. Simultaneously, a high profile was given to the identification and acknowledgement of students' and teachers' preferred learning styles. This ensured that students had a much better understanding of themselves as learners.

- *As an extension of this, enabling students to recognise the implications of knowing about their preferred learning styles and to realise what this meant for their own learning and private study.* In one school, boys talked about the crucial importance of realising that they would only learn properly when they could access learning styles which were not their natural preferences.

- *Similarly for staff, planning lessons which explicitly addressed a variety of preferred learning styles and enabled them to become more creative in their teaching, planning and assessing.* Many teachers need explicit support, encouragement and clear exemplification of effective strategies if they are to feel really confident to use more open ended and perhaps high risk strategies, for example role play and interactive group work. There is a need for continuing in-service support to enable teachers confidently to develop and implement different teaching styles related to a range of different learning styles.

- *A recognition that these teaching practice initiatives need to be established with a wide range of staff, to provide some measure of consistency of expectation for the students, and to ensure that the gains achieved - in terms of students' attitudes, engagement and motivation - are sustained as they progress through school.* A group of boys involved in a project on Macbeth (which utilised a range of learning styles) found it difficult to sustain their interest and rate of progress in English once the project had ended. In another school, the initiative failed because despite its enthusiastic promotion by an enthusiastic and charismatic teacher in a school leadership role, other staff were slow to identify with its potential.

**Individual contexts**

Target setting (where pupils set their own individual learning goals) and mentoring (where a pupil has regular discussions with teacher/older student/'significant other' to share problems, ideas, progress) are well established initiatives at raising achievement. However, these are not always successful (Sukhnandan et al., 2000; Colley, 2003) for reasons associated with trust, training, and timing amongst others. Again, there is the *potential* for target setting and mentoring to enable achievement provided these are within an overall policy. Younger et al. (2005) set out a number of characteristics of successful target setting and mentoring practices, which are discussed below. However, before these can be set into place, a key element is that pupils need to know they are recognised as individuals. Keddie and Mills (2007: 66-67) provide an example of a female English teacher in a secondary school faced with a class of disaffected boys. Her approach was to present her pupils with a questionnaire which asked them to identify 'five things about them I should know' and to follow this up with a class quiz about these items. She considered that by taking the time to get to know the pupils:

> *I could get on really well with the class and I've never actually had a discipline problem with that class. It's just – I think I started off on the right foot. I just put the books away for a couple of lessons to get to know the kids and that made such a difference … like they told me topics they were*

*interested in and I could go up to them during the year when they were scratching their head about what to write about in their short story and say 'well you know you like mythical creatures - why don't you incorporate that?' And you could just see their eyes light up that I would actually know that.*

If students know that they are recognised and understood as individuals, the target setting and mentoring programme of a whole school policy is more likely to succeed. Younger et al. (2005: 114) list the importance for students to:

- Understand and 'buy into' the reasons for target-setting, when they feel sufficient autonomy to be in control of their own learning profile, and develop the skills and attributes of independent learners.

- Perceive the tone of the scheme as being to support, enable and to help the student to reach their potential rather than being another, official, means of monitoring their progress.

- Understand that potential data create realistic expectations of what is possible, and gain a sense of self-esteem and confidence as learners when they realise what is indeed possible, given the historic trends within the school.

- Are encouraged to make a comparison between their past self, their present self and their aspirations for their future self as learners. That is, students are given opportunities to reflect on how they have developed and how they see and feel about themselves as learners through the mentoring and target setting approaches they have been taking part in.

- Appreciate that they are offered choice by their mentor, and are (made) aware of the responsibility conferred by choice.

- Are offered a context where boys (in particular) can be offered an escape from the needs to conform to a laddish, macho image, by the challenge and demands made by the mentor.

**Organisational contexts**

The question most frequently asked in relation to classroom organisation and gender is 'should we teach in single-sex classes?' This has been discussed at length in Chapter 3, but it is worth revisiting at this point in the light of this discussion. Crucially, single-sex classes can easily lead to a reinforcement of gender stereotyping and gendered expectations that contribute to differences in achievement. As such the only case that can be made in favour or single-sex classes

is where they feature as part of a whole school policy which promotes high expectations and achievement of *all* pupils. With this framework in place, there are further preconditions for the effective use of single-sex classes. Firstly, there must be consensus and commitment amongst staff as to the purposes of single-sex teaching. Secondly, and relatedly, teachers must receive support through training and development to be able to modify their teaching styles to meet the varied learning needs of the boys and girls in their classes. Thirdly, as identified by Younger et al. (2005), effective single-sex teaching occurs when teachers establish a 'community' of learning. Collaboration was sustained through references to 'everyday' life such as sport, fashion or popular culture. Furthermore:

> *…. the most effective teaching in single-sex classes took place when common expectations had been clearly established and were accepted by all, when it was understood that learning required high standards of behaviour, work and commitment, and that disruptive behaviour or failure to complete work, especially homework and coursework, would not be tolerated.*
> (Younger et al., 2005: 133)

**Socio-cultural contexts**

This fourth dimension has been discussed at length in the earlier part of this chapter. The emphasis and importance accorded to the need to break down gender stereotypes held by students (and indeed staff) are increasingly being identified as the key characteristic in enhancing opportunities for achievement (Haynes et al., 2006; Lindsay and Muijs, 2006; Warrington et al., 2006). In following the broad guidance set out here and the more detailed information provided by Younger et al. (2005); Warrington et al. (2006) and Keddie and Mills (2007), schools will put themselves in a position to develop the learning achievement of all their pupils.

**5.5 Summary**

This analysis of the strategies that have been adopted by schools to raise boys' achievement has shown that:

1. A key reason why some schools have experienced such disappointing results is that they have encouraged teachers and pupils to view boys and girls as gender stereotypes.

2. A whole-school approach needs to be undertaken for a strategy to raise achievement to succeed. The three key aspects to this approach were the role played by the headteacher; the establishment of effective partnerships, for example between teachers, pupils, school governors and parents; and the nature of the teaching practice.

3.   There is an urgent need for case studies and specific strategies to support teachers in Britain to address gender cultures to facilitate educational achievement.

# 6.   CONCLUSIONS

During the last ten years, 'boys' underachievement' has been given top priority by government agencies such as the DfES, Ofsted and the Teachers' Training Agency (now the Training and Development Agency). Alongside that has been a concern by government over the underachievement of particular minority ethnic groups. At the same time, with the exception of the attention given to Black Caribbean boys, there has been a tendency to look at the performance of gender *or* minority ethnic pupils. This emphasis on specific groups has meant that larger gaps in achievement, which can be seen through the *interplay* of social class, ethnicity and gender, have largely been ignored by policymakers. As a consequence, schools have been encouraged to focus on, for example, 'boys and English'. Over a short period of time, government agencies produced several guidance documents for teachers to follow to raise boys' achievement, particularly in literacy, as well as providing information on the DfES Gender and Achievement website (DfES, 2003; Ofsted, 2003a, 2003b). Some of those who have worked with this guidance have claimed success (for example, Breakthough Project), but others have reported disappointing results from adopting the strategies (Gray and Wilson, 2006). The point that we would make is that the strategies recommended have been divisive and often counterproductive in terms of their emphasis on gender *differences* and give the impression that all that was needed was to treat the two sexes as separate, homogenous groups.

Furthermore, there is now greater awareness of the need for a more nuanced understanding of what is involved when we talk about 'gender and achievement': for example, that educational achievement is not solely a matter of examination success and that pupils' identities and engagement with learning are shaped by the interrelationship of a range of factors and are not simply attributable to gender.

What has been recognised in this report is the importance of seeing educational achievement as more than just performance in the Foundation Level Profile, SATs and GCSE and A level examinations. Further, that gender is just one element of pupils' identities which contributes to achievement; schools need to recognise this and to look across the range of factors making up identity and achievement to see where there are differences between particular social/cultural groups.

The proposal set out here is that schools adopt a holistic framework to tackle gender stereotypes in achievement. In discussing practical ways in which to take such work forward, we have drawn widely here on the work of others (notably Younger et al., 2005; Warrington et al., 2006; Keddie and Mills, 2007). These studies were undertaken with schools, teachers and pupils who were actively engaged in

deconstructing gender stereotypes and raising achievement in order to break down stereotypes. We have, through the case studies provided in Chapter 5, given some examples of how and where teachers might pick up on events and use these with pupils in order to break down gender stereotypes. At the same time, we recognise that there is an evident lack of classroom resources and materials for teachers to draw on and recommend the development of such helpful materials.

We have seen how a key factor is good teaching practices applied to *all* pupils. But what comes through the studies undertaken by those such as Younger et al. (2005) and Keddie and Mills (2007) is the clear message that in order to impact on achievement, strategies to eliminate inequalities must be at the heart of the ethos of the school, influencing and informing the culture, relationships, organisation and management, and teaching practices.

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## APPENDIX 1  Achievements at Key Stage (for English) and GCSE, 2006 by free school meals

### Table A1.1  Achievement at KS1 for reading by free school meals, 2006

|  | Eligible pupils | | | % achieving | | |
|  | Boys | Girls | Total | Boys | Girls | Total |
|---|---|---|---|---|---|---|
| FSM | 48,989 | 47,025 | 96,014 | 63 | 76 | 69 |
| Non-FSM | 236,738 | 224,461 | 461,199 | 84 | 91 | 88 |
| Unclassified | 1,360 | 1,205 | 2,565 | 44 | 51 | 47 |
| All pupils | 287,087 | 272,691 | 559,778 | 80 | 89 | 84 |

*Notes*:    Data shown are for teacher assessments.
*Source*:    DfES, 2007c: Table 33.

### Table A1.2  Achievement at KS2 for English by free school meals, 2006

|  | Eligible pupils | | | % achieving | | |
|  | Boys | Girls | Total | Boys | Girls | Total |
|---|---|---|---|---|---|---|
| FSM | 48,804 | 46,835 | 95,639 | 54 | 68 | 61 |
| Non-FSM | 245,822 | 234,717 | 480,539 | 78 | 88 | 83 |
| Unclassified | 1,202 | 948 | 2,150 | 53 | 66 | 59 |
| All pupils | 295,828 | 282,500 | 578,328 | 74 | 84 | 79 |

*Source*:    DfES, 2007c: Table 1.

### Table A1.3  Achievement at KS3 for English by free school meals, 2006

|  | Eligible pupils | | | % achieving | | |
|  | Boys | Girls | Total | Boys | Girls | Total |
|---|---|---|---|---|---|---|
| FSM | 46,460 | 44,214 | 90,674 | 40 | 59 | 50 |
| Non-FSM | 261,800 | 250,703 | 512,503 | 70 | 84 | 77 |
| Unclassified | 2,116 | 1,779 | 3,895 | 47 | 65 | 55 |
| All pupils | 310,376 | 296,696 | 607,072 | 65 | 80 | 73 |

*Source*:    DfES, 2007c: Table 4.

**Table A1.4  Achievement at KS4 GCSE by free school meals, 2006**

|  | Eligible pupils | | | % achieving 5 or more A* - C | | |
|---|---|---|---|---|---|---|
|  | **Boys** | **Girls** | **Total** | **Boys** | **Girls** | **Total** |
| FSM | 39,498 | 38,589 | 78,087 | 29 | 38 | 33 |
| Non-FSM | 261,971 | 252,545 | 514,516 | 56 | 66 | 61 |
| Unclassified | 814 | 717 | 1,531 | 42 | 48 | 45 |
| All pupils | 302,283 | 291,851 | 594,134 | 53 | 62 | 57 |

*Source*:        DfES, 2007c: Table 7.

## APPENDIX 2  Achievement at Key Stage (for English) and GCSE, 2006 by ethnicity and free school meals

**Table A2.1  Achievement at KS1 for reading by ethnicity and free school meals, 2006**

| Ethnicity | | Eligible pupils | | | % achieving | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | | Boys | Girls | Total | Boys | Girls | Total |
| **White** | Non-FSM | **197,542** | **187,291** | **384,833** | **85** | **92** | **88** |
| | FSM | **33,763** | **32,668** | **66,431** | **62** | **75** | **68** |
| White British | Non-FSM | 190,236 | 180,432 | 370,668 | 85 | 92 | 89 |
| | FSM | 31,731 | 30,857 | 62,588 | 62 | 75 | 68 |
| Irish | Non-FSM | 816 | 833 | 1,649 | 88 | 93 | 90 |
| | FSM | 189 | 185 | 374 | 57 | 65 | 61 |
| Traveller of Irish Heritage | Non-FSM | 81 | 76 | 157 | 19 | 33 | 25 |
| | FSM | 160 | 116 | 276 | 26 | 41 | 32 |
| Gypsy/Roma | Non-FSM | 242 | 209 | 451 | 33 | 54 | 43 |
| | FSM | 188 | 148 | 336 | 30 | 44 | 36 |
| Any other White background | Non-FSM | 6,167 | 5,741 | 11,908 | 77 | 83 | 80 |
| | FSM | 1,495 | 1,362 | 2,857 | 63 | 74 | 68 |
| **Mixed** | Non-FSM | **7,575** | **7,210** | **14,785** | **86** | **93** | **89** |
| | FSM | **2,750** | **2,706** | **5,456** | **67** | **79** | **73** |
| White and Black Caribbean | Non-FSM | 2,214 | 2,182 | 4,396 | 83 | 92 | 88 |
| | FSM | 1,153 | 1,124 | 2,277 | 65 | 78 | 72 |
| White and Black African | Non-FSM | 799 | 813 | 1,612 | 84 | 91 | 87 |
| | FSM | 323 | 329 | 652 | 74 | 81 | 77 |
| White and Asian | Non-FSM | 1,793 | 1,687 | 3,480 | 89 | 94 | 92 |
| | FSM | 388 | 430 | 818 | 68 | 79 | 74 |
| Any other Mixed background | Non-FSM | 2,769 | 2,528 | 5,297 | 86 | 92 | 89 |
| | FSM | 886 | 823 | 1,709 | 66 | 80 | 73 |
| **Asian** | Non-FSM | **18,058** | **16,829** | **34,887** | **80** | **87** | **83** |
| | FSM | **5,244** | **5,011** | **10,255** | **69** | **78** | **74** |
| Indian | Non-FSM | 5,844 | 5,473 | 11,317 | 87 | 92 | 90 |
| | FSM | 648 | 578 | 1,226 | 75 | 83 | 79 |
| Pakistani | Non-FSM | 7,342 | 6,798 | 14,140 | 75 | 83 | 79 |
| | FSM | 2,706 | 2,661 | 5,367 | 66 | 76 | 71 |

| Ethnicity | | Eligible pupils | | | % achieving | | |
|---|---|---|---|---|---|---|---|
| | | **Boys** | **Girls** | **Total** | **Boys** | **Girls** | **Total** |
| Bangladeshi | Non-FSM | 2,627 | 2,444 | 5,071 | 77 | 83 | 80 |
| | FSM | 1,422 | 1,347 | 2,769 | 70 | 80 | 75 |
| Any other Asian background | Non-FSM | 2,245 | 2,114 | 4,359 | 83 | 88 | 86 |
| | FSM | 468 | 425 | 893 | 73 | 82 | 78 |
| **Black** | Non-FSM | **7,162** | **7,148** | **14,310** | **79** | **88** | **84** |
| | FSM | **5,090** | **4,671** | **9,761** | **68** | **77** | **72** |
| Black Caribbean | Non-FSM | 2,595 | 2,568 | 5,163 | 79 | 88 | 83 |
| | FSM | 1,246 | 1,174 | 2,420 | 67 | 80 | 73 |
| Black African | Non-FSM | 3,739 | 3,762 | 7,501 | 79 | 88 | 83 |
| | FSM | 3,338 | 3,020 | 6,358 | 68 | 76 | 72 |
| Any other Black background | Non-FSM | 828 | 818 | 1,646 | 81 | 87 | 84 |
| | FSM | 506 | 477 | 983 | 68 | 81 | 74 |
| **Chinese** | Non-FSM | **750** | **787** | **1,537** | **88** | **95** | **91** |
| | FSM | **90** | **84** | **174** | **73** | **89** | **81** |
| **Any other ethnic group** | Non-FSM | **2,158** | **1,868** | **4,026** | **73** | **82** | **77** |
| | FSM | **1,150** | **1,073** | **2,223** | **64** | **73** | **68** |
| | | | | | | | |
| **All pupils[1]** | Non-FSM | **235,734** | **223,488** | **459,222** | **84** | **91** | **88** |
| | FSM | **48,679** | **46,751** | **95,430** | **63** | **76** | **69** |

*Notes*:     [1] Includes unclassified pupils. Data are provisional.

*Source*:     DfES, 2006: Table 14.

**Table A2.2  Percentage of pupils achieving Level 5 or above at KS3 in English by ethnicity and free school meals, 2006**

| Ethnicity | | Eligible pupils | | | % achieving | | |
|---|---|---|---|---|---|---|---|
| | | Boys | Girls | Total | Boys | Girls | Total |
| **White** | Non-FSM | **226,477** | **217,066** | **443,543** | **70** | **84** | **77** |
| | FSM | **33,404** | **31,687** | **65,091** | **37** | **57** | **47** |
| White British | Non-FSM | 220,354 | 211,193 | 431,547 | 70 | 84 | 77 |
| | FSM | 31,768 | 30,151 | 61,919 | 37 | 56 | 47 |
| Irish | Non-FSM | 871 | 876 | 1,747 | 79 | 89 | 84 |
| | FSM | 184 | 198 | 382 | 43 | 64 | 54 |
| Traveller of Irish Heritage | Non-FSM | 40 | 31 | 71 | 28 | 35 | 31 |
| | FSM | 45 | 59 | 104 | 4 | 19 | 13 |
| Gypsy/Roma | Non-FSM | 121 | 124 | 245 | 17 | 43 | 30 |
| | FSM | 105 | 106 | 211 | 14 | 29 | 22 |
| Any other White background | Non-FSM | 5,091 | 4,842 | 9,933 | 68 | 80 | 74 |
| | FSM | 1,302 | 1,173 | 2,475 | 42 | 63 | 52 |
| **Mixed** | Non-FSM | **6,189** | **6,021** | **12,210** | **72** | **86** | **79** |
| | FSM | **1,860** | **1,980** | **3,840** | **47** | **66** | **57** |
| White and Black Caribbean | Non-FSM | 2,157 | 2,207 | 4,364 | 67 | 83 | 75 |
| | FSM | 831 | 899 | 1,730 | 45 | 64 | 55 |
| White and Black African | Non-FSM | 590 | 560 | 1,150 | 69 | 84 | 77 |
| | FSM | 210 | 213 | 423 | 50 | 68 | 59 |
| White and Asian | Non-FSM | 1,329 | 1,207 | 2,536 | 78 | 88 | 83 |
| | FSM | 261 | 280 | 541 | 55 | 74 | 65 |
| Any other Mixed background | Non-FSM | 2,113 | 2,047 | 4,160 | 74 | 87 | 80 |
| | FSM | 558 | 588 | 1,146 | 47 | 66 | 57 |
| **Asian** | Non-FSM | **14,460** | **13,287** | **27,747** | **68** | **82** | **75** |
| | FSM | **5,604** | **5,150** | **10,754** | **50** | **69** | **59** |
| Indian | Non-FSM | 6,142 | 5,571 | 11,713 | 78 | 90 | 84 |
| | FSM | 735 | 718 | 1,453 | 61 | 77 | 69 |
| Pakistani | Non-FSM | 5,060 | 4,658 | 9,718 | 58 | 75 | 66 |
| | FSM | 2,776 | 2,513 | 5,289 | 46 | 64 | 55 |
| Bangladeshi | Non-FSM | 1,378 | 1,341 | 2,719 | 60 | 79 | 70 |
| | FSM | 1,509 | 1,459 | 2,968 | 52 | 73 | 62 |

| Ethnicity | | Eligible pupils | | | % achieving | | |
|---|---|---|---|---|---|---|---|
| | | Boys | Girls | Total | Boys | Girls | Total |
| Any other Asian background | Non-FSM | 1,880 | 1,717 | 3,597 | 69 | 80 | 75 |
| | FSM | 584 | 460 | 1,044 | 52 | 65 | 57 |
| **Black** | Non-FSM | **7,166** | **7,397** | **14,563** | **63** | **81** | **72** |
| | FSM | **3,531** | **3,528** | **7,059** | **46** | **62** | **54** |
| Black Caribbean | Non-FSM | 2,943 | 3,110 | 6,053 | 59 | 80 | 70 |
| | FSM | 1,053 | 1,005 | 2,058 | 47 | 66 | 57 |
| Black African | Non-FSM | 3,263 | 3,420 | 6,683 | 67 | 82 | 75 |
| | FSM | 2,064 | 2,114 | 4,178 | 44 | 60 | 52 |
| Any other Black background | Non-FSM | 960 | 867 | 1,827 | 63 | 81 | 71 |
| | FSM | 414 | 409 | 823 | 48 | 64 | 56 |
| **Chinese** | Non-FSM | **918** | **883** | **1,801** | **75** | **86** | **80** |
| | FSM | **127** | **125** | **252** | **75** | **82** | **79** |
| **Any other ethnic group** | Non-FSM | **1,687** | **1,472** | **3,159** | **62** | **76** | **69** |
| | FSM | **983** | **904** | **1,887** | **44** | **64** | **54** |
| **Unclassified[1]** | Non-FSM | **4,903** | **4,577** | **9,480** | **66** | **81** | **73** |
| | FSM | **951** | **840** | **1,791** | **42** | **59** | **50** |
| | | | | | | | |
| **All pupils** | Non-FSM | **261,800** | **250,703** | **512,503** | **70** | **84** | **77** |
| | FSM | **46,460** | **44,214** | **90,674** | **40** | **59** | **50** |

*Notes*:  [1]  Includes information refused or not obtained and pupils categorised using the old ethnic group classifications.

*Source*:    DfES, 2007c: Table 9.

**Table A2.3  Achievement at KS4 GCSE and equivalent by ethnicity and free school meals, 2006**

| | | | Eligible pupils | % achieving | | |
|---|---|---|---|---|---|---|
| | | | | 5 A* to C | 5 A* to C including English & Maths | Any passes |
| | | | Number | | | |
| **White** | Non-FSM | Boys | **226,037** | **56.0** | **43.5** | **97.4** |
| | | Girls | **217,990** | **65.7** | **52.0** | **98.3** |
| | FSM | Boys | **27,356** | **24.4** | **13.9** | **91.1** |
| | | Girls | **26,901** | **31.6** | **18.4** | **93.8** |
| White British | Non-FSM | Boys | 220,081 | 56.0 | 43.4 | 97.5 |
| | | Girls | 212,013 | 65.6 | 51.9 | 98.3 |
| | FSM | Boys | 26,011 | 24.0 | 13.6 | 90.9 |
| | | Girls | 25,655 | 31.3 | 18.1 | 93.8 |
| Irish | Non-FSM | Boys | 848 | 63.4 | 52.6 | 96.5 |
| | | Girls | 939 | 70.8 | 59.7 | 98.1 |
| | FSM | Boys | 182 | 26.4 | 16.5 | 92.3 |
| | | Girls | 192 | 32.8 | 22.4 | 93.2 |
| Traveller of Irish Heritage | Non-FSM | Boys | 36 | 22.2 | 11.1 | 77.8 |
| | | Girls | 36 | 41.7 | 27.8 | 88.9 |
| | FSM | Boys | 21 | 0.0 | 0.0 | 61.9 |
| | | Girls | 33 | 3.0 | 0.0 | 69.7 |
| Gypsy/Roma | Non-FSM | Boys | 101 | 10.9 | 3.0 | 72.3 |
| | | Girls | 70 | 15.7 | 7.1 | 72.9 |
| | FSM | Boys | 72 | 6.9 | 1.4 | 84.7 |
| | | Girls | 69 | 5.8 | 4.3 | 82.6 |
| Any other White background | Non-FSM | Boys | 4,971 | 58.4 | 46.8 | 96.9 |
| | | Girls | 4,932 | 68.9 | 55.8 | 98.1 |
| | FSM | Boys | 1,070 | 36.1 | 20.6 | 96.3 |
| | | Girls | 952 | 43.5 | 26.6 | 96.6 |
| **Mixed** | Non-FSM | Boys | **5,123** | **55.8** | **43.8** | **97.1** |
| | | Girls | **5,346** | **66.4** | **52.7** | **97.9** |
| | FSM | Boys | **1,377** | **29.2** | **18.2** | **93.5** |
| | | Girls | **1,474** | **40.4** | **25.1** | **95.3** |

| | | | Eligible pupils | % achieving | | |
| | | | | 5 A* to C | 5 A* to C including English & Maths | Any passes |
| | | | Number | | | |
|---|---|---|---|---|---|---|
| White and Black Caribbean | Non-FSM | Boys | 1,803 | 43.6 | 31.6 | 96.2 |
| | | Girls | 1,978 | 58.9 | 42.7 | 97.8 |
| | FSM | Boys | 613 | 26.8 | 15.0 | 93.6 |
| | | Girls | 647 | 38.2 | 20.6 | 94.4 |
| White and Black African | Non-FSM | Boys | 475 | 56.2 | 43.2 | 97.9 |
| | | Girls | 475 | 67.2 | 53.5 | 97.5 |
| | FSM | Boys | 126 | 34.1 | 20.6 | 92.9 |
| | | Girls | 165 | 44.2 | 29.1 | 95.2 |
| White and Asian | Non-FSM | Boys | 1,050 | 70.2 | 60.3 | 98.3 |
| | | Girls | 1,036 | 77.4 | 67.9 | 98.1 |
| | FSM | Boys | 163 | 34.4 | 27.0 | 94.5 |
| | | Girls | 196 | 42.9 | 34.2 | 95.4 |
| Any other Mixed background | Non-FSM | Boys | 1,795 | 59.6 | 46.7 | 97.0 |
| | | Girls | 1,857 | 68.1 | 54.7 | 98.1 |
| | FSM | Boys | 475 | 29.3 | 18.7 | 93.3 |
| | | Girls | 466 | 41.2 | 26.2 | 96.4 |
| **Asian** | **Non-FSM** | **Boys** | **13,863** | **59.8** | **46.6** | **98.0** |
| | | **Girls** | **12,881** | **70.6** | **56.5** | **99.0** |
| | **FSM** | **Boys** | **5,502** | **43.0** | **27.2** | **97.3** |
| | | **Girls** | **5,111** | **56.7** | **36.5** | **98.3** |
| Indian | Non-FSM | Boys | 6,202 | 69.2 | 56.7 | 98.9 |
| | | Girls | 5,732 | 78.3 | 66.6 | 99.5 |
| | FSM | Boys | 824 | 48.3 | 33.4 | 98.2 |
| | | Girls | 749 | 62.6 | 45.5 | 98.0 |
| Pakistani | Non-FSM | Boys | 4,627 | 48.9 | 34.5 | 97.7 |
| | | Girls | 4,249 | 60.5 | 43.0 | 98.4 |
| | FSM | Boys | 2,624 | 37.8 | 23.0 | 96.9 |
| | | Girls | 2,359 | 52.4 | 31.2 | 98.0 |
| Bangladeshi | Non-FSM | Boys | 1,304 | 52.8 | 39.6 | 97.2 |
| | | Girls | 1,322 | 64.4 | 46.5 | 99.4 |
| | FSM | Boys | 1,553 | 48.2 | 31.3 | 97.7 |
| | | Girls | 1,628 | 59.7 | 38.5 | 99.3 |
| Any other Asian background | Non-FSM | Boys | 1,730 | 60.6 | 47.8 | 96.1 |
| | | Girls | 1,578 | 75.0 | 64.5 | 98.7 |
| | FSM | Boys | 501 | 45.3 | 26.7 | 96.2 |
| | | Girls | 375 | 59.5 | 43.5 | 96.8 |

| | | | Eligible pupils | % achieving | | |
|---|---|---|---|---|---|---|
| | | | | 5 A* to C | 5 A* to C including English & Maths | Any passes |
| | | | Number | | | |
| **Black** | Non-FSM | Boys | **7,456** | **44.5** | **31.2** | **97.0** |
| | | Girls | **7,601** | **59.3** | **44.5** | **98.5** |
| | FSM | Boys | **3,350** | **31.1** | **17.7** | **95.8** |
| | | Girls | **3,344** | **43.9** | **28.2** | **97.3** |
| Black Caribbean | Non-FSM | Boys | 3,177 | 38.8 | 25.0 | 96.6 |
| | | Girls | 3,333 | 55.9 | 39.4 | 98.9 |
| | FSM | Boys | 1,024 | 27.1 | 14.7 | 94.9 |
| | | Girls | 1,054 | 41.6 | 23.9 | 97.3 |
| Black African | Non-FSM | Boys | 3,272 | 50.6 | 38.0 | 97.4 |
| | | Girls | 3,348 | 62.9 | 50.4 | 98.4 |
| | FSM | Boys | 1,939 | 33.7 | 20.1 | 96.9 |
| | | Girls | 1,956 | 44.5 | 30.4 | 97.4 |
| Any other Black background | Non-FSM | Boys | 1,007 | 42.9 | 29.0 | 96.9 |
| | | Girls | 920 | 58.8 | 41.5 | 97.4 |
| | FSM | Boys | 387 | 28.4 | 13.4 | 92.5 |
| | | Girls | 384 | 47.3 | 28.7 | 96.4 |
| **Chinese** | Non-FSM | Boys | **1,019** | **75.8** | **60.7** | **99.0** |
| | | Girls | **954** | **84.9** | **73.6** | **98.7** |
| | FSM | Boys | **123** | **65.0** | **46.3** | **98.4** |
| | | Girls | **130** | **80.0** | **60.0** | **99.2** |
| **Any other ethnic group** | Non-FSM | Boys | **1,700** | **55.5** | **43.2** | **96.9** |
| | | Girls | **1,521** | **66.3** | **52.9** | **97.4** |
| | FSM | Boys | **934** | **41.0** | **26.0** | **95.5** |
| | | Girls | **796** | **53.1** | **33.4** | **96.4** |
| | | | | | | |
| **All pupils[1]** | Non-FSM | Boys | **262,154** | **55.8** | **43.2** | **97.4** |
| | | Girls | **252,625** | **65.7** | **52.0** | **98.3** |
| | FSM | Boys | **39,554** | **28.3** | **16.6** | **92.5** |
| | | Girls | **38,625** | **37.0** | **22.3** | **94.9** |

*Notes*: [1] Includes unclassified pupils. Data are provisional.

*Source*: DfES, 2006: Table 32.

**APPENDIX 3  Achievement at A levels**

**Table A3.1  Achievement at GCSE A level by subject and grade, 16-18 year old males, 2005/06**

| Subject | Grade (%) | | | | Total entries |
|---|---|---|---|---|---|
| | **A** | **B** | **C** | **A-E** | |
| Biological Sciences | 23.3 | 21.1 | 20.5 | 95.2 | 19,300 |
| Chemistry | 30.6 | 23.5 | 18.7 | 96.5 | 17,720 |
| Physics | 28.2 | 21.1 | 18.7 | 95.3 | 18,687 |
| Other Science | 23.7 | 20.8 | 20.2 | 96.3 | 2,616 |
| | | | | | |
| Mathematics | 41.8 | 20.6 | 15.7 | 97.3 | 30,637 |
| Further Mathematics | 57.5 | 19.2 | 11.7 | 98.7 | 4,595 |
| | | | | | |
| Design and Technology | 14.0 | 21.8 | 26.9 | 96.7 | 9,696 |
| Computer Studies | 15.6 | 18.3 | 22.3 | 94.3 | 4,639 |
| ICT | 6.3 | 14.3 | 23.7 | 93.2 | 7,849 |
| | | | | | |
| Home Economics | [1] | [1] | 26.2 | 100.0 | 61 |
| | | | | | |
| Accounting and Finance | 10.4 | 18.2 | 24.6 | 92.7 | 1,924 |
| Business Studies | 15.6 | 25.2 | 28.2 | 98.1 | 17,801 |
| Economics | 34.0 | 27.0 | 20.1 | 98.8 | 9,510 |
| Geography | 21.8 | 25.4 | 25.5 | 98.5 | 15,525 |
| Government and Politics | 28.8 | 27.9 | 22.5 | 98.3 | 5,744 |
| History | 22.4 | 25.9 | 24.3 | 98.0 | 20,546 |
| Law | 17.3 | 20.9 | 24.2 | 95.1 | 5,374 |
| Psychology | 11.7 | 19.2 | 25.5 | 94.3 | 12,392 |
| Sociology | 16.7 | 23.1 | 27.5 | 97.0 | 5,674 |
| Other social studies | 19.8 | 25.2 | 27.0 | 97.3 | 1,523 |
| | | | | | |
| Art and Design | 24.6 | 22.7 | 23.7 | 97.2 | 11,558 |
| Drama | 14.2 | 28.9 | 31.8 | 98.7 | 4,492 |
| English | 21.7 | 24.5 | 27.1 | 98.8 | 24,223 |
| Media/Film/Television Studies | 10.3 | 24.3 | 33.6 | 98.4 | 10,007 |
| Other Communication Studies | 13.3 | 32.6 | 33.7 | 98.8 | 3,897 |

| Subject | Grade (%) | | | | Total entries |
|---|---|---|---|---|---|
| | **A** | **B** | **C** | **A-E** | |
| French | 36.8 | 27.7 | 17.9 | 98.9 | 3,897 |
| German | 41.2 | 25.0 | 17.1 | 98.6 | 2,076 |
| Spanish | 41.8 | 28.1 | 16.6 | 98.8 | 1,707 |
| Other modern languages | 40.6 | 32.6 | 15.4 | 96.5 | 2,209 |
| Classical Studies | 35.8 | 26.9 | 21.0 | 99.1 | 2,438 |
| Religious Studies | 25.6 | 28.3 | 24.3 | 98.5 | 4,743 |
| Music | 15.1 | 19.6 | 25.5 | 96.1 | 5,031 |
| Physical Education | 10.3 | 18.8 | 26.0 | 96.2 | 12,533 |
| General Studies | 11.8 | 15.6 | 22.0 | 91.5 | 27,603 |
| **All subjects** | **22.8** | **22.4** | **23.0** | **96.6** | **328,227** |

*Notes*:    [1]  Figures not shown due to very small numbers.

*Source:*      DfES, 2007a: Table 3m.

## Table A3.2  Achievement at GCSE A level by subject and grade, 16-18 year old females, 2005/06

| Subject | Grade (%) | | | | Total entries |
|---|---|---|---|---|---|
| | **A** | **B** | **C** | **A-E** | |
| Biological Sciences | 25.6 | 21.9 | 20.7 | 96.0 | 27,324 |
| Chemistry | 32.7 | 25.2 | 19.0 | 97.5 | 16,814 |
| Physics | 36.0 | 22.6 | 17.4 | 97.3 | 4,970 |
| Other Science | 21.1 | 22.3 | 23.7 | 97.6 | 983 |
| Mathematics | 45.7 | 22.2 | 15.3 | 98.1 | 19,168 |
| Further Mathematics | 58.3 | 20.1 | 11.9 | 99.3 | 1,921 |
| Design and Technology | 21.1 | 26.4 | 26.8 | 98.5 | 7,012 |
| Computer Studies | 17.2 | 24.3 | 25.1 | 95.0 | 378 |
| ICT | 10.0 | 19.4 | 26.9 | 96.1 | 4,332 |

| Subject | Grade (%) | | | | |
|---|---|---|---|---|---|
| | **A** | **B** | **C** | **A-E** | **Total entries** |
| Home Economics | 17.5 | 24.8 | 24.3 | 98.5 | 395 |
| | | | | | |
| Accounting and Finance | 13.8 | 17.5 | 23.5 | 94.3 | 1,134 |
| Business Studies | 19.0 | 25.5 | 27.9 | 98.2 | 12,135 |
| Economics | 39.4 | 27.1 | 18.7 | 99.3 | 4,068 |
| Geography | 31.2 | 27.6 | 22.4 | 99.2 | 12,758 |
| Government and Politics | 36.0 | 26.7 | 18.7 | 98.4 | 3,849 |
| History | 26.4 | 26.5 | 24.1 | 98.5 | 20,127 |
| Law | 21.8 | 22.9 | 24.1 | 96.0 | 8,137 |
| Psychology | 20.5 | 24.5 | 24.5 | 96.9 | 36,179 |
| Sociology | 22.0 | 27.8 | 25.4 | 98.0 | 18,566 |
| Other social studies | 22.9 | 25.4 | 23.5 | 96.2 | 1,386 |
| | | | | | |
| Art and Design | 30.9 | 25.8 | 23.1 | 98.2 | 25,778 |
| Drama | 21.3 | 31.8 | 29.3 | 99.4 | 10,459 |
| English | 21.8 | 25.5 | 27.4 | 99.1 | 53,924 |
| Media/Film/Television Studies | 15.1 | 30.3 | 32.7 | 99.3 | 12,979 |
| Other Communication Studies | 16.7 | 31.5 | 30.9 | 99.1 | 5,690 |
| | | | | | |
| French | 33.7 | 27.5 | 20.1 | 99.0 | 8,293 |
| German | 35.1 | 26.3 | 19.4 | 98.6 | 3,458 |
| Spanish | 35.0 | 28.3 | 19.8 | 99.1 | 3,495 |
| Other modern languages | 49.7 | 28.0 | 11.5 | 96.8 | 2,875 |
| Classical Studies | 40.6 | 30.5 | 17.6 | 99.2 | 3,203 |
| | | | | | |
| Religious Studies | 27.7 | 29.7 | 24.3 | 98.9 | 10,157 |
| | | | | | |
| Music | 20.8 | 24.7 | 24.0 | 98.2 | 3,979 |
| | | | | | |
| Physical Education | 20.6 | 23.7 | 25.0 | 97.8 | 9,000 |
| | | | | | |
| General Studies | 12.1 | 17.5 | 23.5 | 93.8 | 32,050 |
| | | | | | |
| **All subjects** | **25.1** | **25.0** | **23.8** | **97.7** | **386,976** |

*Source:*     DfES, 2007a: Table 3f.

## APPENDIX 4   Perceptions of children and teachers

**Children's Perceptions**

In class/tutor group sessions **younger** children should be encouraged to think about and discuss:

- What are your favourite television programmes, films, music, books? What are the different characters (race, class, gender)?
- What do these say about being the 'correct' ways of being a boy or a girl?
- Are there other ways of being a 'proper boy' or a 'proper girl'?
- What kinds of work or other roles do your family, friends and men and women in your neighbourhood do?

**Older** pupils might consider:

- What are the images of masculinity and femininity associated with different jobs/careers? To what extent are these raced, classed and gendered?
- What are the images of masculinity and femininity available to young people (in music, film, television, theatre, magazines, newspapers etc). What do these say about being the 'correct' ways of being a male or a female? Are there other ways of being male or female?
- What kinds of work or other roles do your family, friends and men and women in your neighbourhood do? Are these all the same i.e. what are the different ways of being male and female in the local area? Are these the same everywhere (city/country/world)?

**Teachers' Perceptions**

School staff should ascertain what gender constructions the pupils bring with them into the school setting and which they draw on in constructing their own identities. For example:

- What types of work or other roles do men and women take on in the local community?
- What are pupils preferred television programmes, films, music, books?
- What representations of masculinities and femininities can be found in these favourite forms of media? How are these shaped by minority ethnic and/or social class stereotypes?
- What do these tell pupils about the 'correct' ways of being a boy or a girl?
- In their activities in the classroom and on the playground, what images of masculinities and femininities are pupils acting out?
- What messages are the children getting about the way to be a 'proper' (classed/raced) boy or girl from the materials they use in the classroom?

**Example 1: Opportunistic discussion**

Occasions for **intellectual engagement** around gender issues can be developed opportunistically from classroom talk or from events in broader society. For example, children might be discussing a football match, or perhaps a major sporting event is taking place (either in or outside the school). This offers the opportunity for reflecting with children about how sport is presented in the media in relation to gender. Questions raised might include:

- What sports are celebrated in the media?
- Who is shown undertaking these sports and how are they portrayed?
- What sports are played at the school? Are these open to all?
- Why might some girls not be attracted to sport?
- Is playing sport positive (health, social status)?
- How can the different sports be made appealing to all pupils?

**Example 2: Drawing on popular culture**

An increasingly popular means of **connecting** with the interests of pupils is through popular culture. Jackie Marsh's (2003) 'Bat Cave' provides an excellent example here. Marsh worked with primary teachers to devise ways in which children's interest in 'superheroes' could be used to stimulate interest in literacy for those groups of girls and boys who were underperforming in this area.

Girls might be interested in superhero stories, but put off by masculine storylines. Also superheroes tend to be Bat *Man* and Super *Man*, but *Batgirl* and *Supergirl.*

The 'Bat Cave' was developed with the teacher talking to pupils and allowing them to decide what it should contain and how the literacy-related materials could be used. Children's **intellectual engagement** with gender in relation to superhero stories was promoted by asking questions such as:

- What does a superhero do/look like?
- How do they think/act?

*(Tips: If children describe differently according to gender ask them to think about why they have been allocated different characteristics. If boys and girls come up with different [and gender stereotypical] storyline plots according to the gender of the superhero, enable them to think about why they have chosen these storylines, for example, can only female superheroes take care of others? Can/do only male superheroes have adventures?)*

**Example 3: Using IT**

A further example of developing literacy achievement alongside the breaking down of stereotypes is provided by Rowan et al. (2002), in which teachers **connected** with the interests the boys and girls articulated in relation to computer games. Games were often gender stereotypical, so children were asked:

- What are computer skills? Are there different kinds of skills needed for different computer games?
- How did you acquire your computer skills? Are there different ways pupils in the class acquired their skills?
- What different computer games are there? What groups of people are these marketed at?

To promote **intellectual engagement**, Rowan et al. (2002) suggest that teachers should:

- Provide children with an opportunity to become experts in a new computer game they have devised. (This may include asking them to develop 'cheat sheets' for that game - the teacher's role is to identify these skills as literacies and to emphasise their relevance to other, everyday literacies).
- Enable children to think critically about the characters they devise for their games and to identify and reflect on the gendered (raced and classed) roles they have given them. (Rowan et al. found some children gave characters non-stereotypical traits).
- Ask children to teach the new computer games to each other. What skills did they use in showing how the games worked to other children?

NB   This example could be adapted for use with primary or secondary age pupils.

**Example 4: Discussion gender roles in texts**

Various research studies have shown the effectiveness of thinking about stories of various types, and the characters within them, in encouraging children to think critically about gender. Interventions in the primary school have often involved encouraging children to analyse fairy stories, juxtaposing traditional tales with reworked/feminist stories and, after reflecting on differences, asking children to write their own fairy stories.[15]

In applying this approach with secondary school pupils, various texts can provide useful vehicles for illustration of, and reflection on, gender stereotypical expectations and behaviour. These might include:

- Newspaper coverage (for example, tabloid articles including descriptions of women's physical appearance - 'Blonde Katy, 21' etc - or presenting women in particular ways in contrast to presentations of men).
- Television programmes (particular storylines with a gender angle).
- Magazines (such as 'Heat', with their preoccupation with women's bodies and demonisation of particular female celebrities).
- Novels (including for example set texts from the syllabus).
- Plays (again possibly including set texts such as Shakespeare).
- Non-traditional/contemporary texts (e.g. those which present women and men in non-gender traditional roles).
- Computer games.

It is particularly effective to juxtapose 'classic' texts with contemporary texts: after pupils have identified the ways in which men and women are presented in these texts (and the differences therein), pupils can be asked to reflect on what has changed in gendered expectations and what has stayed the same. (This approach helps to illustrate both that gendered behaviour is socially constructed, and its resilience). A class might be broken into small groups, and each provided with an example from a variety of texts (or alternatively all can consider the same text). Groups can be asked to identify gendered storylines, approaches to reporting, or behaviour; and what might be the explanations for such gender differentiation. After groups have reported back, classroom discussion might consider how the various texts position men/boys and women/girls (including reflection on issues of ethnicity and social class where possible), the consequences of such trends, and so on. Careful facilitation by the teacher may encourage young people to apply their reflections to gendered patterns within the school (perhaps using information such as that provided in this report).

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[15] For elaboration, see the work of Davies (1989; 1997), Wing (1997) or Yeoman (1999).