



Educating the Highly Able

Alan Smithers and Pamela Robinson
Centre for Education and Employment Research
University of Buckingham

July 2012

Contents

Foreword by Sir Peter Lampl

Executive Summary and Recommendations **i**

1. Recent Policy **1**

2. Emergence of the Construct **7**

3. Distribution of ‘Gifted and Talented’ Across Schools **13**

4. Validity **20**

5 Current Provision in England **24**

6 High Attainment in Other Countries **39**

7. Conclusions and Recommendations **44**

Appendix 1: Methods **54**

Appendix 2: Highest Achievers in PISA 2009 **56**

Foreword

How schools support our most able students is of vital interest to us all. Ensuring that the brightest pupils fulfil their potential goes straight to the heart of social mobility, of basic fairness and economic efficiency. Yet, as this report outlines, the policy and provision for the highly able is littered by a hotch-potch of abandoned initiatives and unclear priorities. Teachers complain that the highly able have become a neglected group.

The authors argue convincingly that the term ‘gifted and talented’ that has underpinned many schemes is a flawed description. As someone who sat on the Government advisory body for the ‘gifted and talented’ programme, I have to say I agree. Better to talk about the ‘highly able’ in our schools – and what support they need.

The figures on international comparisons provide a brutal insight into England’s current standing. The results of the international PISA tests in 2009 have been widely reported but, nearly always focus on the average performance of the various countries.

When we look at the highest levels of attainment (levels 5 and 6), the performance of the England is extremely worrying. In maths just 1.7% of 15-year-olds attained the very highest PISA level (level 6), compared with an OECD average of 3.1%. Maths in almost all countries is compulsory to the age of 18 except England where almost 90% of students drop Maths after GCSE. So comparisons at the age of 18 would look far worse than the already worryingly poor performance at 15. In Singapore 15.6% reached that level, while in Switzerland 7.8% did so. The few high performing pupils in England come mostly from independent and some from grammar schools, with “almost no pupils” achieving top levels from non-selective state schools. This is a deeply troubling picture for any us who care about our brightest pupils from non-privileged backgrounds.

Why does this matter so much to us at the Sutton Trust? In today’s society it is critical that when we select the most able for positions of leadership and influence, both for reasons of fairness and economic efficiency. The sad truth is that England is both unfair and inefficient in this key respect - because academic performance is so closely related to family background rather than ability. Proper provision for the most able across the whole education system is critical.

Part of the solution lies in the Sutton Trust's 'Open Access' scheme which would democratise entry to the country's leading independent day schools – opening them up to bright pupils from all backgrounds, not just those able to afford fees.

Until the 1970's, these excellent schools were principally state funded and open to all bright children. Under this scheme, which was successfully trialled at the Belvedere School in Liverpool, all places are available on merit alone and parents pay fees according to means. This results in a transformed social mix, a happy school and greatly improved academic results, all of which is achieved at a cost per pupil to the sponsors of less than the cost of a state school place.

At the same time we need to improve the support for the broader group of highly able children across the state system. One of the key recommendations of the report is that we make schools accountable for the progress of the brightest pupils. Just as we ask schools to meet certain floor targets, and meet certain minimums for the number who get C grades and above at GSCE, we should also ask them to account for the outcomes for their highest attainers. These measures are the key drivers of school behaviour.

But we also need to look further at practical steps that can be taken to improve the performance of the most able. That is why the Sutton Trust is announcing a call for proposals to pilot projects supporting and stretching the highly able in non-selective state schools. These projects will be rigorously evaluated and those that are successful and cost effective will be scaled up to many more schools.

I am extremely grateful to Professor Smithers and Dr Robinson for producing such a comprehensive report. I hope it will form the foundation for a new emphasis from both ourselves and others on the provision and policy for the highly able.

Sir Peter Lampl
Chairman, the Sutton Trust
Chairman, the Education Endowment Foundation

Executive Summary

Policy and provision for the highly able in England is in a mess. The Blair and Brown governments attempted a series of initiatives for the ‘gifted and talented’, but each had barely begun before it was ended. The present government has stripped out most of what remained and made some welcome changes to tests and data access, but it has had little to say on provision for those capable of excellence.

When compared to other countries the consequences are stark. In the 2009 PISA tests only just over half as many achieved the highest level in maths as the average of 3.1% for OECD countries. England’s 1.7 per cent has to be seen against the 8.7 per cent in Flemish Belgium and 7.8 per cent in Switzerland. On a world scale, the picture is even more concerning - 26.6 per cent achieved the highest level in Shanghai, 15.6 per cent in Singapore and 10.8 per cent in Hong Kong. In reading, where the test seems to favour English-speaking countries, England is at the OECD average, but only a third get to the highest level compared with New Zealand and only half compared with Australia. The few top performers in England are in independent and grammar schools and almost no pupils in the general run of maintained reach the highest levels.

The root of the problem is that ‘gifted and talented’ is too broad a construct to be the basis of sensible policy. As it has morphed from ‘intelligence’ to ‘gifted’ to ‘gifted and talented’, it has become ever more diffuse. It is not just the conflating of ‘gifted’ and ‘talented’; it is that ‘gifts’ and ‘talents’ are often specific. A gift for mathematics and a gift for creative writing are rarely found in the same person. Few top footballers are also top artists.

When schools were required to report the percentage of ‘gifted and talented’ pupils, they found it very difficult to be accurate. The percentages ranged from zero to 100%. There was only a weak relationship with admission to a selective university - which might be thought a confirmation of potential for excellence. Relatively few pupils eligible for free school meals – strongly associated with school outcomes - were identified as ‘gifted and talented’.

Interviews with headteachers and ‘gifted and talented’ co-ordinators in schools provided the explanation for the unrealistic figures: they were unclear exactly what was meant by ‘gifted and talented’ and were uncertain how to identify the pupils. There was also little opportunity to give a big push to the education of the highly able since funding and staff time were very limited. It was not unusual to hear the complaint that the highly able are a neglected group.

Schools adopted a variety of means of identification. Even when they used the same test, they tended to use different threshold scores. The process was compromised by the government guideline that *each school* should identify its top 5-10% of pupils as ‘gifted and talented’, glossing over the fact that school intakes differ considerably. Some schools refused to play ball and reported their percentage either as zero or 100%.

Given the lack of clarity and the difficulties of identification, it is not surprising that provision by schools has been very uneven. Some schools have attempted to provide for the high attainers within school through arrangements such as setting, streaming,

accelerated learning and extension studies. Other schools have concentrated on out-of-school activities such as master classes, competitions and visits. In some cases, 'gifted and talented' appears to have been more of a rationing device for popular trips than a means of high-level education.

The present government has decided to include the money previously earmarked for 'gifted and talented' in mainstream funding. Some schools welcomed this, but others were afraid that without dedicated funding any progress that had been made would be lost. Some staff had responsibility for both 'special needs' and 'gifted and talented', and they contrasted the substantial resources for the former with the meagre support for the latter.

How can the country move on from this sorry state of affairs? We can see at least three ways forward: clarification, accountability and reforms.

Clarification: The 'gifted and talented' construct has not been easy to implement with any accuracy. It is necessary to be more precise in terms of: (a) what constitutes top performance and (b) in which fields. In our view policy and provision for those with the potential for excellence should focus on the major school subjects. There is already well-developed provision elsewhere for those with exceptional talent in, for example, football and other sports, music and drama.

Accountability: Something that can be done immediately is to direct schools' attention to the highly able through the ways in which they are held to account. Currently, school accountability is delivered through test and examination results, and Ofsted inspections. In particular, schools have to meet floor targets and averages. This leads to concentration on borderline or middling pupils, leaving the highly able as a peripheral issue. More sophisticated accountability is required. The 2011 performance tables contain for the first time information on the progression of pupils with different levels of prior attainment. But this is broadly based with the highly able bundled up with those just above average. On the definition the DfE used a third of the pupils emerge as 'above average'. Even so, the data reveal great unevenness across schools with the percentage of 'above average' ranging from 1% to 98% with the grammars omitted. Very few were in schools serving low income families.

Inspectors also have an important part to play in accountability. The government has decided that schools rated by Ofsted as outstanding need not be re-inspected unless there are triggers for doing so. Under-performance of those who are potentially the highest attainers should be one of those triggers.

Reforms: The five years between the ages of 11 and 16 is a big gap for a progression measure. Since young people are soon to be required to stay in education and training to age 18, national examinations at 14 could, with advantage, replace the GCSE, paving the way for four year programmes of upper secondary education.

The jurisdictions with the strongest performance in maths tend to have education systems in which the high attainers are grouped together in some way. We believe that the government should learn from these countries, perhaps with a view to adapting its

academies and free schools policy to allow a new breed of specialist schools to emerge. Funding has already been set aside by the Chancellor of the Exchequer for new maths specialist schools for 16-18 year-olds. But it would be more appropriate if these were to start at a younger age, say from 14 years-old, on the model of the new university technical colleges.

Recommendations

1. We recommend that the confusing and catch-all construct ‘gifted and talented’ be abandoned.
2. We recommend that the focus, as far as schools are concerned, should be on those capable of excellence in school subjects, pupils we have termed simply as the ‘highly able’.
3. We recommend that Key Stage 2 tests should be used to identify the highly able, using a criterion to be determined in pilot studies (possible criteria would be attaining at least at the 90th percentile, or at least at the 95th percentile, or achieving the new Level 6).
4. We recommend the Key Stage 2 tests should be used to create a numerical map showing which primary schools the highly able children are in, and to which secondary schools they go.
5. Currently some schools, mainly those serving low income homes, have very few high ability pupils, even on the current broad definition adopted by the DfE. We urge the government to consider the plight of these pupils and make provision for them.
6. We recommend that the School and College Performance Tables which now differentiate pupils into three broad bands of prior attainment be further modified to show the progress and performance of the highly able (defined as achieving at least at the 90th percentile, or achieving at least at the 95th percentile, or the percentage achieving the new Level 6).
7. The accountability system should also be designed to recognise and reward secondary schools for bringing to the highest levels pupils who did not show up well in the Key Stage 2 tests.
8. We recommend that evidence of the under-performance of the highly able be a trigger for the inspection of schools rated as outstanding by Ofsted and which otherwise would not be re-inspected.
9. Beyond accountability, England should seek to improve its education system by taking a close look at those jurisdictions, especially those in Europe, such as Flemish Belgium, Switzerland and Germany, where many more reach the highest levels of achievement.

10. High achievers in PISA in England seem to be mainly confined to independent and grammar schools. The data should be analysed further to reveal exactly how many pupils in the general run of maintained schools achieve at the highest PISA levels.
11. We recommend that provision for the highly able should be integral to schools and not a bolt-on.
12. We recommend that provision and accountability for the highly able should be introduced first in the core subjects of the national curriculum followed by the foundation subjects.
13. We recommend that national tests and exams should include more difficult questions, so that there is ample opportunity for the highly able to show what they can do.
14. We propose that the government should consider abandoning GCSEs and instituting a national examination at age 14 to mark the end of lower secondary education and pave the way for four years of upper secondary education.
15. Enhanced opportunities could be provided for the highly able in specialist schools from the age of 13/14 on the university technical college model.
16. We recommend that consideration be given also to the exceptionally able. Since, on average, there would only be about two per year per school, there should be ways of bringing them together, for example, through master classes or in specialist schools.

1. Recent Policy

- 1.1. Ever since the 1965 Circular¹ in which the Labour government of the time requested² the local education authorities to implement “a comprehensive system of education”, England has not been able to make up its mind about how to provide for pupils capable of excellence. The World War II coalition government had no such doubts. Responding in 1944 to the Spens Report of 1938 it passed an Education Act which paved the way for a differentiated secondary education system in which there were to be grammar schools, technical high schools and modern schools, with admission depending on the results of an intelligence test taken in the final year of primary education. The validity of this eleven-plus rested mainly on the work of Cyril Burt, a radical aligned to the Labour Party³, who devoted his life to the measurement of general intelligence.
- 1.2. The grammar schools catered for about 25% of the age cohort and the technical high schools about 7%, and they conferred on those selected a considerable advantage. The grammar schools, particularly, were engines of social mobility. But people missing out – twice as many as were selected – felt cheated. Given its importance in deciding life chances, the eleven-plus came under intense scrutiny and a number of serious imperfections came to light. The public mood turned against it and the Wilson government requested local authorities to abolish it. It was a decision that was charged with emotion. In her biography of her husband, Anthony, Secretary of State for Education, Susan Crosland, recalls him as saying:

If it is the last thing I do, I'm going to destroy every fucking grammar school in England. And Wales. And Northern Ireland.⁴

But grammar schools survive to this day in some areas because the local authorities there refused to comply and they had the power to do so.

- 1.3. The outcomes of this major reorganisation of secondary education are contested to the present day. One dispassionate and respected commentator, Auriol Stevens, who later became editor of the *Times Higher Education Supplement*, concluded in 1980:

The cleverest group are no longer reaching the same level of detailed, disciplined academic work at the age they reached it before. At the same time, the middle range of children have gained self-confidence and certificated success in a whole range of courses, conventional and unconventional.⁵

- 1.4. The passions aroused by the eleven-plus and academic selection have got in the way of all subsequent political attempts to think seriously about how to enable the brightest to achieve their full potential. One of the sacred totems of Labour Party education policy has been that there should be no academic selection in English state school education. (It is, of course, the main means by which oversubscribed independent schools allocate their places, and it is a factor in their success.) Tony Blair to his great credit recognised that the comprehensive system was not really working. But he was hamstrung by history.

¹ Circular 10/65. *The Organisation of Secondary Education*. London: DES.

² The government was undecided whether to ‘require’ or ‘request’ but settled on the softer approach.

³ Murdoch, S. (2007). *IQ: the Brilliant Idea That Failed*. London: Duckworth Overlook, page 140.

⁴ Crosland, S. (1982). *Tony Crosland*. London: Jonathan Cape, page 148.

⁵ Stevens, A. (1980). *Clever Children in Comprehensive Schools*. London: Penguin, page 159.

Box 1.1: Recent ‘Gifted and Talented’ Policy

| | |
|----------------|--|
| March 1999 | Excellence in Cities programme launched, including Gifted and Talented strand. |
| September 2001 | White Paper, <i>Schools Achieving Success</i> , announces Academy for Gifted and Talented Youth. |
| 2002 | National Academy for Gifted and Talented Youth set up at the University of Warwick, funded for five years. |
| From 2006 | Schools required to record percentage of gifted and talented children on the annual January census returns. |
| March 2007 | A new National Programme for Gifted and Talented Education (later re-branded as the Young, Gifted and Talented) launched with CfBT as the managing contractor for three years. |
| May 2007 | Funding totalling £3.6 over four years for nine Excellence Hubs formed by universities, schools and others to run summer schools and offer other provision. |
| August 2007 | Contract with University of Warwick for National Academy ends. |
| September 2007 | Young Gifted and Talented Learner Academy for 4-19-year-olds set up and run by CfBT. |
| November 2007 | National Champion for the Young Gifted and Talented Programme announced: John Stannard. |
| 2008 | Gifted and Talented becomes priority option for High Performing Specialist Schools. Intended to be lead schools in a national secondary G&T network. |
| July 2008 | Gifted and Talented strand of City Challenge (branded cityGATES) announced with funding for three years to raise the attainment and aspirations of Year 10 pupils eligible for free school meals in London, the Black Country and Manchester. |
| Feb 2009 | National Register of Gifted and Talented launched, but discontinued in February 2010. |
| July 2009 | Government announces a move away from the centralised Young Gifted and Talented programme to more locally-based activities; gifted pupils aged 14-19 from deprived backgrounds to be offered scholarships. |
| January 2010 | The then Labour Government planned to offer pupils and parents guarantees, with every school required to confirm to its gifted and talented pupils the particular provision it will make, but this proposal fell in the ‘wash up’ of bills before the May 2010 election. |
| 31 March 2010 | Contract for CfBT programme ends. Capita’s National Strategies expands its G&T provision. |
| March 2011 | Funding for National Strategies ends. G&T materials transferred to an online National Archive. Funding for G & T, including High Performing Specialist Schools, re-routed through Dedicated Schools Grant revenue stream for schools. |

- 1.5. Blair had already survived a scare at the 1995 Labour Party Conference when the leadership was rescued from losing a vote on selection by David Blunkett, Shadow Secretary of State, who said “Watch my lips. No selection, either by examination or interview, under a Labour government.” He later wriggled and said it should have been “No *further* selection”⁶. The constraints under which the future Blair government would have to operate, however, were there for all to see. It wanted an education system that enabled all children to reach their full potential. But ideology stood in the way of dispassionately considering what was right for those capable of the highest levels of attainment. Instead of provision integral to the school system, the government embarked a series of bolt-on measures. These are summarised in Box 1.

Excellence in Cities

- 1.6. There was first an Excellence in Cities programme launched in 1999, designed to transform standards and aspirations in inner city areas. It included a gifted and talented strand, providing up to 40,000 pupils with an enhanced teaching and learning programme. It was aimed at the top 5-10% of pupils in each secondary school in those areas. A senior co-ordinator was to be appointed in each school to be responsible for improving the education of gifted and talented children, and for the design and implementation of an effective whole school policy on the issue⁷.

National Academy for Gifted and Talented Youth (NAGTY)

- 1.7. Excellence in Cities was overtaken by the 2001 White Paper, *Schools Achieving Success*, which announced plans for an Academy for Gifted and Talented Youth, “to support and challenge gifted and talented pupils”. It was set up at the University of Warwick in 2002 and ran to 2007, with Professor Deborah Eyre as its director. In her monograph, *Room at the Top*⁸, she explained:

On an annual budget of £4.75 million, NAGTY was given a particular responsibility as guardians for the development and progress of the national top 5% of the population aged 11-19. As part of the government’s wider gifted and talented strategy it also acted as a catalyst for developing understanding in the teaching profession, by supplying academic and professional expertise to national policy makers and school practitioners.

- 1.8. She claims it as a great success but it was wound up after only five years. She offered an explanation to the House of Commons Children, Schools and Families Committee in February 2010⁹:

It had a remit that started off asking us to work only on out-of-school programmes and on informal learning. We did that and as part of that we discovered an awful lot about what happens to gifted and talented students in the 21st century. Then we were asked to expand the cohort from 20,000 to 200,000 on the same budget and take on school-based provision – also on the same budget.

⁶ Smithers, A. (2001). In Seldon, A. (Ed). *The Blair Effect*. London: Little, Brown, page 406

⁷ Response to the House of Commons Education and Employment Committee (1999). *Highly Able Children*.

⁸ Eyre, D. (2011). *Room at the Top*. London: Policy Exchange, page 39.

⁹ House of Commons Children, Schools and Families Committee (2010). *The Gifted and Talented Programme*. London: The Stationery Office HC 337-i, Oral Evidence Q2, 1 February 2010.

- 1.9. When the contract came up for renewal, “Warwick took the view that what was on offer was not really the right kind of territory for a university, so it indicated that it did not wish to be the delivery partner”.

Young, Gifted and Talented

- 1.10. In truth government thinking had moved on. It now had in mind two strands. CfBT Education Trust¹⁰, the organisation awarded the new contract, reported that these were:

- A core programme based on an interactive website, the Learner Academy. G&T pupils would be included on a national Register. They would each have a modest ‘credit’ to spend on services.
- Regional Partnerships and Excellence hubs, incorporating groups of HE institutions.

The programme was originally called the National Programme for Gifted and Talented Education (NPGATE), but it was soon re-branded as the Young, Gifted and Talented programme (YG&T).

- 1.11. The Learner Academy was to be a “virtual academy”, an online resource and access point for workshops and courses for learners, teachers and providers. Access by the pupils to the website had to be validated by their school. There was also funding for Regional Partnerships, Partnerships Supporting Gifted and Talented Learners (for example with the National Association for Gifted Children), a YG&T helpline, and an online Needs Analysis Tool. The programme also funded nine Excellence hubs (one in each region). They involved universities working with local authorities and schools to provide out-of-school master-classes, residential summer schools, workshops and university visits. The National Register and an associated online analysis tool were developed as part of the YG&T core programme. It was set up as a database of information about schools and learners identified as being G&T within any given authority.
- 1.12. There was also a shift in emphasis from all ‘gifted and talented’ pupils to those from low-income homes. CfBT designed City GATES which became part of the City Challenge Programme focused on breaking the cycle of disadvantage and educational underachievement. Piloted in three areas: London, the Black Country and Manchester, it provided a scholarship of £400 for each pupil eligible for free school meals identified as ‘gifted and talented’. The scholarships were to be spent on workshops; university access programmes; materials, books and local activities; mentoring, coaching and subject specific tuition; and travel and accommodation expenses.

National Strategies

- 1.13. In spite of this flurry of activity the Labour government decided not to renew the contract for YG&T programme. Yet again the government had changed its mind. It now turned to Capita’s National Strategies¹¹ programme even though this was due to end in 2011. The switch involved even more emphasis on bright children from low income homes who were underperforming. The core objectives became, “to strengthen personalised education, social mobility and our strategy for narrowing achievement

¹⁰ Published in House of Commons, Children Schools and Families Committee (April 2010) *The Gifted and Talented Programme*. Oral and written evidence, 1 February 2010. HC337-i. London: The Stationery Office.

¹¹ Gifted and Talented programme: Frequently asked questions. <http://nsonline.org.uk/node/367465>

gaps”¹². The Learner Academy closed and the National Register was discontinued, but materials from the YG&T were adapted for the National Strategies website. City GATES was hosted for its final year.

- 1.14. National Strategies, however, had its own Gifted and Talented programme.¹³ Its National Challenge project was available to schools achieving close to the floor target of 25% of pupils obtaining good GCSEs including English and maths. It focused on “raising the bar and narrowing the gap” and was scheduled to run from 2009 to 2011. Schools in the project received £1,000 as a facilitation payment and also payments to support pupils on the schools’ gifted and talented registers compiled for the annual schools census, £125 in 2009-10 and £250 in 2010-11.
- 1.15. The schools were keen to know whether they would become leading schools for G&T, but the National Strategies website was cautious pointing out that they had been selected “because they have significant capacity to improve further”. The schools may have had in mind the gifted and talented schools within the specialist schools programme. Specialist schools from 2004 were able to designate as High Performing Specialist Schools (HPSS) by taking on a second and perhaps a third specialism. In 2008 a focus on the gifted and talented became a priority, not as a separate option, but as an enhancement to any of their HPSS options¹⁴. They received extra funding, at least half of which they were expected to use on outreach work, both in the community and partner schools.
- 1.16. The Blair-Brown approach to the ‘gifted and talented’ never became embedded. For five years there had been a National Academy, followed by three years of an interactive website, followed by one year as part of the National Strategies. A National Register had been opened and closed. Excellence Hubs had been set up but discontinued. Dedicated funding for a wide range of initiatives came and went. Over the decade the focus shifted from all ‘gifted and talented’ to those on free school meals.

New Government

- 1.17. The coalition government elected in May 2010 took the view that the Gifted and Talented Programme had ended on 31 March 2010. “It was for the schools to decide what – if any – additional or more tailored support was appropriate for their G & T pupils.”¹⁵ The gifted and talented resource materials were relegated to an online National Archive. Dedicated funding for specialisms in schools, including those with enhanced gifted and talented provision came to an end and was added to the general funding. Instead of the numerous ring-fenced grants, from April 2011 the government decided there would only be two revenue grant funding streams for schools: the Dedicated Schools Grant and the Pupil Premium Grant¹⁶. Given the many changes of direction by the previous Labour governments it is not surprising that the new government should want to do some tidying up. But it leaves the question: what of ‘gifted and talented’ children now?
- 1.18. There have been two recent developments that will enable the progress of highly able pupils to be tracked more accurately. The School and College Performance Tables since the 2011 results contain data on the progress made by pupils at three levels of

¹² <http://nsonline.org.uk/>

¹³ The National Strategies (2009). *Excellence for All: A Gifted and Talented Approach to Whole-School Improvement*. London: DCSF.

¹⁴ PriceWaterhouseCoopers (2009) *HPSS Final Evaluation Report* London: DCSF Research Report 109.

¹⁵ Hansard Written answers for 31 January 2012.

¹⁶ Hansard Written answers for 10 January 2011.

prior attainment: 'high attaining', 'performing at expected levels' and 'low attaining'¹⁷. Following the Bew Report¹⁸ on *Key Stage 2 Testing, Assessment and Accountability* the first steps have been¹⁹ taken to introduce Level 6 tests so the highly able have more of a chance to show what they can do.

- 1.19. But the government's recent review of the national curriculum²⁰ is notable for having little to say about the 'gifted and talented', even though that was part of its brief. The annual report of the Chief Inspector of Schools in 2011 highlights the needs of those capable of excellence: "the level of challenge for more able pupils is a particular issue"²¹. Under the present government there seems to be no overall policy for enabling those capable of excellence to achieve it.

¹⁷ DfE Website, published December 2011 for primary schools and January 2012 for secondary schools.

¹⁸ Bew (June 2011). *Independent Review of Key Stage 2 Testing, Assessment and Accountability. Final Report*. www.education.gov.uk

¹⁹ Standards and Testing Agency (2012). *Assessment and Reporting Arrangements Key Stage 2*. Externally marked Level 6 tests in reading and maths available to schools to administer to eligible pupils on an optional basis. A Level 6 test in writing available for internal marking.

²⁰ DfE (December 2011). *The Framework for the National Curriculum. A Report by the Expert Panel for the National Curriculum Review*.

²¹ The Annual Report of Her Majesty's Chief Inspector of Schools 2010/11, paragraph 121, page 52.

2. Emergence of the ‘Gifted and Talented’ Construct

- 2.1. The difficulties that the Blair and Brown governments had in framing consistent and coherent policies for the ‘gifted and talent’ stem in part from a lack of clarity in the construct itself. It is accepted that in any given activity some people can do a lot better than others, but whether their potential can be identified in advance is much disputed. The fuzziness in the underlying construct has meant that it has been difficult to find a generally accepted name for it. Even Francis Galton, celebrated as the first person to publish quantitative studies in the field, thought that he had got the name wrong. His seminal book published in 1869 was called *Hereditary Genius*. But this led to some misunderstanding and Galton admitted later²² that he wished he had used ‘talent’ rather than ‘genius’. His first studies were of eminent people so the book is essentially about exceptional ability that had actually been realised. Most of those identified as eminent were beyond child bearing age, thwarting Galton’s wish to test whether the brainpower of the human race could be improved by selective mating.

Intelligence

- 2.2. ‘Gifted and talented’ is a particular aspect of the controversies surrounding ‘intelligence’²³. The somewhat tortuous path from ‘genius’ to ‘gifted and talented’ is outlined in Box 2.1. Charles Spearman, an army officer who had studied psychology, was stationed in Guernsey during the second Boer War (1899-1902), conveniently near a school. He found that there were statistical associations between grades in the school subjects and various sensory abilities, such as being able to discern different musical pitches. Grades in classics correlated with grades in French, English and maths in that order, but less so with grades in music. Spearman proposed that there is a ‘general intelligence’ - frequently now designated *g* - which is the basis of thinking, and there are also ‘specific intelligences’ in fields such as music. Classics was interpreted as a good indicator of general intelligence. But it was not the measure of the innate ability which Spearman was wanting.
- 2.3. A measure had, however, been developed on the other side of the Channel by Binet and Simon. The French government had passed a law requiring all children to attend school. Previously children who had not been able to keep up with school work had tended not to go. Now there had to be provision for them and administrators opened special schools. But they needed a way of identifying those who should go to them. Binet was charged with devising a diagnostic tool and with Simon he created a test which combined the scores of 30 tasks of increasing difficulty. At first these scores were no help at all, but they became useful when mental age was compared with chronological age.
- 2.4. The Binet-Simon test was carried to America by Henry Goddard where, translated, it became used for a wide variety of purposes including diagnosing mental handicap, sorting school pupils by ability, and turning back feeble-minded would-be immigrants. Binet was uneasy. He wrote, “We have not attempted to treat, in all its scope, this problem of fearful complexity, the definition of intelligence”.

²² Forrester, D.W. (1974). *Francis Galton - The Life and Work of a Victorian Genius*. London: Elek Books, page 88.

²³ Our account owes much to Stephen Murdoch (2007). *IQ – The Brilliant Idea That Failed*. London: Duckworth Overlook.

Box 2.1: Emergence of ‘Gifted and Talented’ Construct

| | |
|----------------------------|---|
| 1869 | Galton, F. <i>Hereditary Genius</i> . London: Macmillan. Galton attempted to tease out the origins and characteristics of ‘eminence’ – exceptional attainment. |
| 1905 | Spearman publishes a two-factor theory of intelligence: general and specific. Classics was the best predictor of ‘general intelligence’, while musical ability was a ‘specific intelligence’. |
| 1905 | Binet and Simon create a 30-item test for assessing children, with the aim of identifying the retarded. |
| 1908 | Goddard returns to America from Europe with the Binet-Simon test and translates it into English, where he uses it for diagnosing feeble-mindedness. |
| 1916 | The Binet-Simon test adapted and standardised by Terman, a Stanford psychologist, to become the Stanford-Binet IQ test. Terman devises the intelligence quotient of mental age divided by chronological age multiplied by 100. A child of ten performing at the level of a 14-year-old would thus have an IQ of 140. |
| 1921 | Terman in 1921 initiated a longitudinal study of gifted children called <i>Genetic Studies of Genius</i> which resulted in five books. The children were in the top 2% on the test with an IQ of at least 140. Terman died before the fifth book was completed, but the study continued to be supported by Stanford University. It dispelled the view of the time that ‘giftedness’ was associated with insanity and showed that most, but not all, of those identified as ‘gifted’ led healthy and successful lives. |
| 1929 | Leta Stetter Hollingworth publishes <i>Gifted Children: Their Nature and Nurture</i> which takes the debate on from inheritance to the importance of home background and schooling. In 1936 she opened a school for gifted children in New York. |
| 1930 | Wechsler created what became the standard IQ measure comparing performance with the mean for the general population of the same age. |
| Aftermath Second World War | Emphasis in intelligence testing shifted from identifying those with low intelligence - who in the United States and Nazi Germany had been subject to death or sterilization, and in Britain to sequestration – to the most gifted. |
| 1944 | Intelligence tests used to allocate children in Britain to one of three types of secondary school: grammar, technical or modern. |
| 1954 | National Association of Gifted Children founded in the United States. |
| 1958 | In the wake of Sputnik, the US passes the National Defence Education Act which releases substantial funds to promote gifted education. |
| 1967 | Guilford publishes <i>The Nature of Human Intelligence</i> which describes a structural model of intelligence consisting of numerous factors along the dimensions of content, operations and products. |
| 1972 | The Marland Report, broadens the notion of ‘gifted’ to: ‘Children capable of high performance include those with demonstrated achievement/or potential ability in any of the following areas, singly or in combination: general intellectual ability; specific academic aptitude; creative or productive thinking; leadership ability; visual and performing arts; or psychomotor ability.’ Psychomotor ability subsequently dropped. |
| 1988 | Gifted and Talented Education Act, sometimes called the Javits Education Act passed in the United States. |
| 2002 | No Child Left Behind Act switches emphasis in USA away from high performers to trying to ensure all children meet certain minimum standards. |

- 2.5. Terman, a Stanford psychologist, had no such reservations. “To demand, as critics of the Binet method have sometimes done, that one who would measure intelligence should first present a complete definition of it, is quite unreasonable...electric currents were measured long before their nature was well understood.”²⁴ His adaptation of the Binet-Simon test, known as the Stanford-Binet test, was to become the standard intelligence test for a generation. He expressed his results as an Intelligence Quotient (originally developed by the German psychologist William Stern) by dividing mental age by chronological age and multiplying by 100. A child of ten performing at the level of a 14-year-old would thus have an IQ of 140. Self-evidently, this formulation can only be applied to children. To accommodate adults David Wechsler, a Romanian-born American psychologist, in 1930 redefined IQ as performance compared with that of a sample of the general population of the same age. This version survives to the present day.
- 2.6. There have been a number of challenges to the notion of general intelligence. During the Second World War, J P Guilford, as head of the psychological research unit at US Army Air Forces Training Command, identified eight specific intellectual abilities that were involved in successfully flying a plane. After the war he continued to research different aspects of intelligence and developed his famous Structure of the Intellect consisting of numerous intellectual abilities and behavioural abilities²⁵. Although this fell out of favour it did pave the way for other alternative theories of intelligence, of which the best known is Gardener’s theory of multiple intelligences²⁶. In his 1983 book, *Frames of Mind*, he listed seven intelligences: linguistic, logical-mathematical, spatial, musical, bodily-kinesthetic, intrapersonal and interpersonal. He has since added naturalistic intelligence and accepts that spiritual and existential intelligences could also be included.

Gifted

- 2.7. Terman was commissioned as a major in World War I and tested a wide range of army recruits for intelligence, which he defined “as ability to carry on abstract thinking”. He regarded those in the top two per cent, scoring 140 or above, as ‘gifted’. Thus early notions of intelligence and giftedness became intertwined. Terman is best known for the longitudinal study begun in 1921 of 1,500 Californian children who came within this top 2 per cent. It continued for nearly 40 years, even after his death. The first book, published in 1925, *Genetic Studies of Genius*, found that gifted students were qualitatively different in school. But few clear patterns emerged as the children were followed into adulthood.
- 2.8. Leta Stetter Hollingworth, who conducted a longitudinal study of 50 gifted children in New York, moved beyond the assumption that ‘giftedness’ is inherited to consider, as the title of her famous book, *Gifted Children: Their Nature and Nurture* suggests, the part played by home environment and schooling²⁷. She advocated grouping gifted children with others of similar high ability and, in 1936, opened a school in New York, the Speyer School for Gifted Children.
- 2.9. The strong emotions aroused by intelligence testing have their roots in some of the uses to which it was put in the run up to, and during, the Second World War. In both the United States and Germany it was used to commit those whose performance was judged defective to institutions, to justify forced sterilization and, in Nazi Germany, to provide

²⁴ *Ibid*, page 56.

²⁵ Guilford, J.P. (1967). *The Nature of Human Intelligence*. New York: McGraw-Hill.

²⁶ Gardener, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.

²⁷ Hollingworth, L. (1929). *Gifted Children: Their Nature and Nurture*. London: Macmillan.

an excuse for death camps²⁸. In post-war Britain, intelligence testing was used to assign children to one of three types of secondary school – grammar, technical and modern – which greatly affected life chances.

- 2.10. Intelligence testing was rescued to some extent during the cold war when the West had an urgent need to identify and develop those capable of the highest levels of achievement, particularly in the sciences, maths and engineering. In the United States, federal funds were made available for these fields in 1950. The mood of the times led, in 1954, to a National Association of Gifted Children being formed²⁹. But the West was stung into even more urgent action by the Soviet Union's successful launch in 1957 of the artificial satellite, Sputnik. In 1958, the United States passed the National Defence Education Act which put \$1 billion of federal funds into the education of bright students in science, mathematics and technology. Bright students were identified by intelligence tests.

Gifted and Talented

- 2.11. A major attempt to discover how effective the education system had been in meeting the needs of gifted students was begun 1969 by the United States Department of Education. Its findings, published as the Marland Report in 1972, added 'talented' to 'gifted' and proposed the first formal definition of 'gifted and talented':

Children capable of high performance include those with demonstrated achievement/or potential ability in any of the following areas, singly or in combination: general intellectual ability; specific academic aptitude; creative or productive thinking; leadership ability; visual and performing arts; or psychomotor ability.³⁰

This all-encompassing view informs much of the thinking about what is 'gifted and talented' to the present day, though in later revisions 'psychomotor ability' was dropped. The report also led to the US Office of Education setting up the Office of the Gifted and Talented.

- 2.12. Since the Marland Report the United States has periodically returned to gifted and talented children and their education. In 1983 *A Nation at Risk* reported that comparisons with other countries showed that US students were falling behind³¹. Among other things, it recommended an increased emphasis on gifted education programmes and the creation of standards for the identification of giftedness. A Gifted and Talented Students Education Act³² was passed in 1988 as part of the Elementary and Secondary Education Act. The Javits Act, as it is sometimes called, provided annual funding for a National Research Centre on the Gifted and Talented and grants to states, districts and colleges.

²⁸ Stephen Murdoch (2007). *IQ – The Brilliant Idea That Failed*. London: Duckworth Overlook, Chapters 8 and 9.

²⁹ www.nagc.org/index.aspx?id=607 which has also been drawn upon for the main contributions to the emergence of the gifted and talented construct.

³⁰ Marland, S.P. Jr. (1972). *Education of the Gifted and Talented*. Report to the Congress of the United States by the U.S Commissioner of Education. Two volumes. Washington DC: U.S. Government Printing Office.

³¹ National Commission on Excellence in Education (1983). *A Nation at Risk: the Imperative for Educational Reform*. A Report to the nation and the Secretary of Education U.S Department of Education.

³² U.S. Department of Education (1982). *No Child Left Behind Act of 2001*.

- 2.13. This was the policy scene in the United States when the Blair government came to power in Britain wanting to do something to enhance the education of the potentially top performers. The Labour government adopted a similar wide-ranging definition of ‘gifted and talented’ and established a National Centre, but was more cautious when it came to funding.
- 2.14. Meanwhile policy objectives in the United States were changing. The No Child Left Behind Act, 2002, a reauthorization of the Elementary and Secondary Education Act, contained this definition³³:

The term ‘gifted and talented’, when used with respect to students, children, or youth, means students, children, or youth who give evidence of high achievement capability in areas such as intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services or activities not ordinarily provided by the school in order to fully develop those capabilities.

It implies that provision for the ‘gifted and talented’ has to be something beyond the school curriculum, perhaps provided outside school.

- 2.15. More importantly, the No Child Left Behind Act also presaged a change in emphasis from securing the development of potential top performers to getting all young people up to basic standards. States and schools were held accountable for those standards being met. Sanctions were attached to failing so that effort had to be concentrated on the poorest performers.

Working Definition Adopted in England

- 2.16. The picture that emerges is of a seemingly straightforward construct becoming ever more complex. It hardly constituted a secure platform on which to build practical policies. As we saw in Chapter 1, the Blair and Brown governments made a number of attempts to develop a coherent framework for ‘gifted and talented’ education, but the frequent changes indicate they were not content with what emerged. The working definition adopted by the government department responsible was:

‘Gifted and talented’ describes children and young people with an ability to develop to a level significantly ahead of their year group (or with the potential to develop those abilities): ‘gifted’ learners are those who have abilities in one or more academic subjects, like maths and English; ‘talented’ learners are those who have practical skills in areas like sport, music, design, or creative and performing arts³⁴.

- 2.17. ‘Gifted’ was thus taken to mean potential for excellence in academic subjects and ‘talented’ as having potential for high level practical skills. This is not the only possible distinction. Gagné (1999) who challenged the idea that intelligence is fixed, drew a distinction between ‘gifts’ - natural abilities and ‘talents’ – what is developed from those gifts³⁵.

³³ Title IX, Part A, Section 9101 (22), page 544.

³⁴http://www.direct.gov.uk/en/Parents/Schoolslearninganddevelopment/ExamsTestsAndTheCurriculum/DG_10037625

³⁵ Gagné, F. (1999). My convictions about the nature of abilities, gifts and talents. *Journal for the Education of the Gifted*, 22, 109-136.

From Policy to Practice

- 2.18. 'Gifted and talented' policy and provision in England has been in the melting pot for almost five decades. National schemes have barely begun before being abandoned. Schools have had only a very broad definition of 'gifted and talented' with which to work. How have they fared? In the next chapter we consider the outcomes through analyses of national statistics and interviews with those on the ground.

3. Distribution of ‘Gifted and Talented’ Across Schools

- 3.1. We have traced the emergence of the construct of ‘gifted and talented’ and how this has been translated into policy by recent UK governments for schools in England. But what has happened in practice? In this chapter we report on the proportions of pupils identified as ‘gifted and talented’ by schools, drawing on published statistics and analysing databases which we created from the January 2010 schools census returns. We also explore through interviews³⁶ what schools have understood by ‘gifted and talented’ and how they go about identifying those pupils to be categorised in this way.

Statistical First Releases

- 3.2. Between 2006 and 2011 schools were required to report the percentage of gifted and talented pupils in their annual January census returns. In Chart 3.1 we show the averages for primary and secondary schools as they appear in the annual Statistical First Releases. A marked difference emerges between the two phases, with the secondary schools identifying appreciably more. The trend was for an increase in both primary and secondary schools until 2010, but the percentages fell back somewhat in 2011. We cannot not know whether this would have continued since the government dropped the ‘gifted and talented’ item from the 2012 census³⁷.

Chart 3 1: %G&T by Year

| Year | Primary | Secondary |
|-------------------|---------|-----------|
| 2006 ¹ | - | 10.5 |
| 2007 | 6.9 | 12.5 |
| 2008 | 8.1 | 13.6 |
| 2009 | 8.7 | 14.2 |
| 2010 | 8.9 | 14.7 |
| 2011 | 8.6 | 14.2 |

1. No published data for primary 2006.

Source: Annual DfE Statistical First Releases:
Schools, Pupils and their Characteristics.

Spread of Scores Across Schools

- 3.3. We have been able to look in more detail at ‘gifted and talented’ by age by analysing the data bases compiled for 2010. Schools in England vary considerably in the age ranges for which they cater. Chart 3.2 shows that the percentage identified as ‘gifted and talented’ increased with age range from 6.7% in infants and first schools to 15.4% in secondary schools with sixth-forms.

Chart 3.2: %G&T by School Age Range

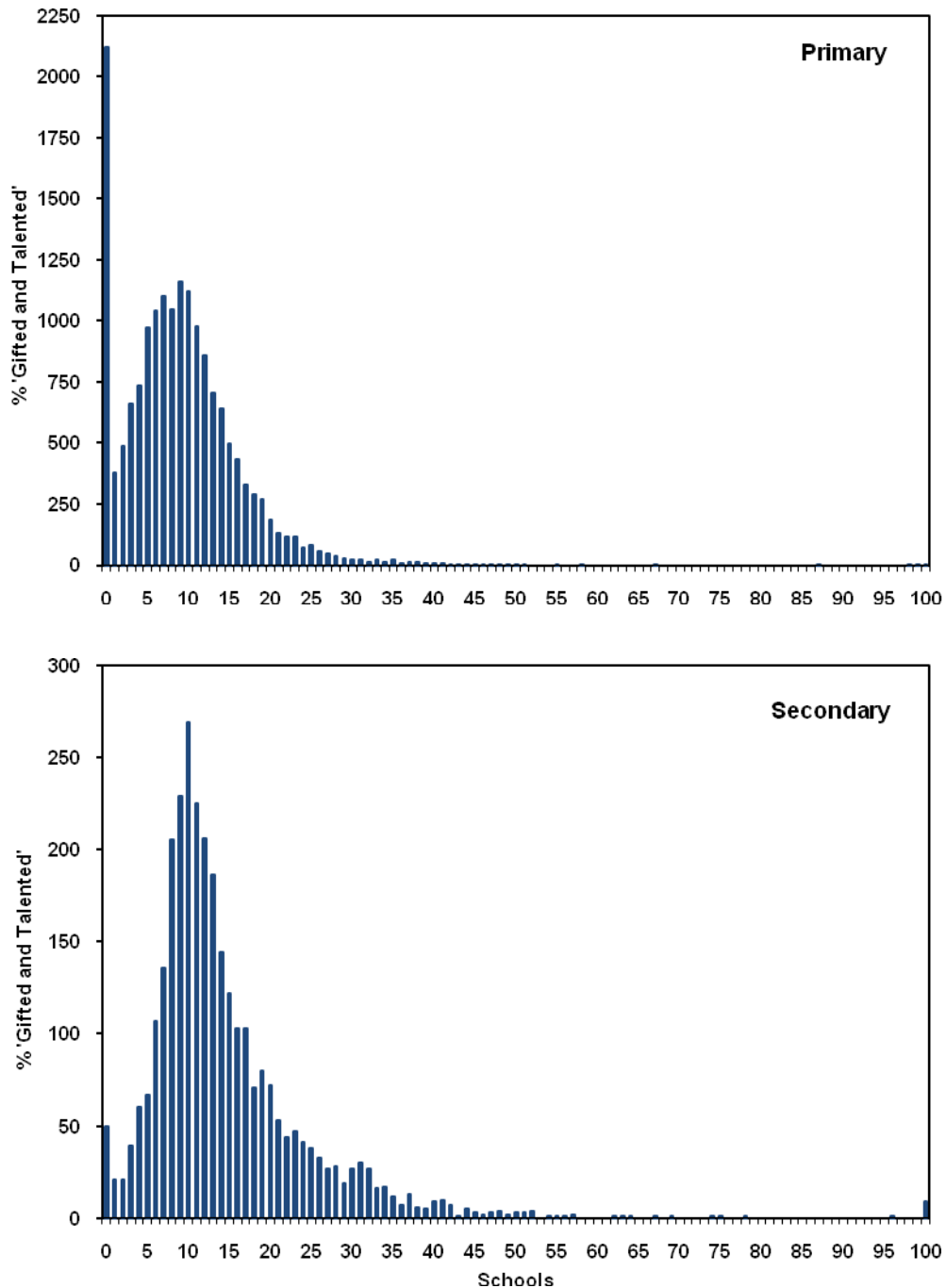
| School Age Range | N | %G&T |
|----------------------------------|--------|------|
| Primary to Age 9 | 2,370 | 6.7 |
| Primary to Age 10/11 | 14,531 | 9.3 |
| Middle to Age 12 | 70 | 9.4 |
| Middle to Age 14 | 247 | 12.8 |
| Secondary to Age 16 | 1,078 | 13.1 |
| Secondary to Age 18 ¹ | 2,007 | 15.4 |

³⁶ Details of the methods are given in the Appendix.

³⁷ DfE Data and Statistics Division, School Census 2012, Preparation and Guidance, issued 11 November 2011.

In Chart 3.3 we unpack the average scores by showing the distribution across schools. The modal value for schools, where at least some pupils have been returned as ‘gifted and talented’, is not very different in the primary phase, where it is nine, from the secondary phase, where it is ten. But what greatly reduces the primary average is the 2,123 schools (out of 16,901, 12.6%) which said they had no ‘gifted and talented’ pupils. In contrast only 50 secondary schools did so (out of 3,085, 1.6%).

Chart 3.3: Distribution of Gifted and Talented Across Schools¹



1. Does not include middle schools whether deemed primary (N=70) or secondary (N=247)

- 3.4. Both distributions are positively skewed with three primary schools and nine secondary schools reporting all their children to be ‘gifted and talented’. Of the nine secondary schools, eight are grammars, taking the view that as their pupils had passed the eleven-plus, they all must be gifted and talented. (There was also one 11-16 comprehensive in

the North East, which did not reply to our emails so we do not know how it arrived at 100% ‘gifted and talented’.) Conversely, nine of the grammar schools returned zero, presuming the classification to be irrelevant to them. But, as Chart 3.4 shows, most of the grammars returned a high percentage giving them the highest average among the secondary schools taking pupils to age 18. This was more than double that for comprehensive and modern schools and two-and-a-half times that of the first tranche of academies.

Chart 3.4: %G&T by Secondary to Age 18

| School Age Range | N | %G&T |
|------------------|-------|------|
| Grammar | 164 | 31.5 |
| Technical | 7 | 17.0 |
| Comprehensive | 1,470 | 14.2 |
| Modern | 247 | 14.2 |
| Academy/CTC | 206 | 12.2 |

- 3.5. Chart 3.4 suggests that there may be some validity in the label ‘gifted and talented’, and we explore this in more detail in the next chapter. But there has to be considerable doubt about how meaningful it is when eight of the selective schools return all their pupils in the category and nine put none. The confusion which this points to is general as the extracts from interviews presented in Boxes 3.1 and 3.2 show.

Interpretation and Identification

- 3.6. The **confusion over the meaning** of ‘gifted and talented’ clearly emerges in comments like these:

To be honest it’s not very clear because there are so many ways and there is no one set way.

The word ‘gifted’ implies pupils need make no effort - that giftedness is innate and a given characteristic.

Throughout my career, and we are talking about over 30 years in teaching, very rarely do you come across a child that is really ‘gifted’, but you do come across children who are very able. So, as a whole staff, we decided to go for ‘able’, ‘gifted’ and ‘talented’.

The gifted and the talented lists are quite separate. The theory behind this is that it gives kids at any stage the opportunity to blossom. Just because you are not recognised as ‘gifted’ in Year 7 doesn’t mean further up the school you can’t be recognised as ‘talented’.

- 3.7. But there was also a marked **reluctance to label**.

The current label is extremely divisive because you are in fact saying ‘if you are not on it you are not gifted and you are not talented’

The school is reluctant to use the term ‘gifted and talented’. If you are dealing with students who are G&T does that mean the rest are not?

We think every child is gifted and talented. We think that all children have gifts whether it is in different areas of life or generally.

Box 3.1: Teachers' Interpretations of 'Gifted and Talented'

"We have gone on courses which have provided some sort of guidance about what constitutes a gifted and talented pupil. To be honest it's not very clear because there are so many ways and there is no one set way."

Girls, Comprehensive, 11-16, South East

"The school is reluctant to use the term 'gifted and talented'. If you are dealing with students who are G&T does that mean the rest are not? We don't actually like the term 'more able' either because that again implies that others are less able."

Coed, Comprehensive, 11-18, Yorks & Humb

"G&T isn't really about the students; it's about filling in the information for the school census. In reality we have a data system that tells us about pupil progress, what they start with, where they are going and where we want them to be. Ultimately, we are not going to try and give them other labels."

Coed, Comprehensive, 11-16, Eastern

"G&T is something I drink! I do prefer 'extremely able' or 'most able', particularly in the context of our school. The current label is extremely divisive because you are in fact saying 'if you are not on it you are not gifted and you are not talented'. It also varies with every single subject, each of which has its own definition."

Girls, Grammar, 11-18, Eastern

"I think there are issues with labelling. These are twofold: (i) trying not to make the label sound elitist; and (ii) because using the word 'gifted' implies pupils need make no effort - that giftedness is innate and a given characteristic."

Coed, Comprehensive, 11-18, South West

"The gifted and the talented lists are quite separate. The theory behind this is that it gives kids at any stage the opportunity to blossom. Just because you are not recognised as 'gifted' in Year 7 doesn't mean further up the school you can't be recognised as 'talented'. This method avoids the pitfalls of the one previously in place. I had the misery of having a lad in my languages group who was a genius in maths but in language lessons he just used to clam up, but as he was G&T I was expected to get him an A grade."

Coed, Academy, 11-18, East Midlands

"We think every child is gifted and talented. We think that all children have gifts whether it is in different areas of life or generally. We talk to each child about the areas of learning they like and where they think their interests lie. That is why we record one hundred per cent as gifted and talented for the school census".

Junior, South West

"Throughout my career, and we are talking about over 30 years in teaching, very rarely do you come across a child that is really 'gifted', but you do come across children who are very able". So we have registers for the 'able', the 'gifted' and the 'talented'".

Junior, Outer London

"My personal feelings are that I don't agree with the concept. I very much believe that every child has something really special about them and we should have all of them on the G&T register, at least for something, even if it is a gift for making friends, anything at all".

Infant/Junior, North West

"I think G&T is a useful label amongst staff certainly because we need to make sure that we are providing for those children. If we don't categorise them there is a chance that they could just be left behind and not pushed enough. But we try and play it very low key with the children."

Junior, South East

Box 3.2: Identification of 'Gifted and Talented'

"What G&T looks like in our school is completely different from the school down the road. I find it difficult because we don't have any kind of generic identification of pupils. But there again, I have worked in a low achieving school earlier this year supporting them and their top end would be our middle".

40-45% Infant/Junior, Outer London

"We use MIDYIS test results in Year 7 to pick out those with high verbal and non-verbal scores. There is also some baseline assessment and staff use their professional judgement. Lots of boys have a high differential between their verbal and non-verbal scores, and they are often some of the more able in other subjects. In terms of the talented I have actually said to staff to be a lot more stringent, so if they feel they have only five per cent truly talented individuals then only highlight them, don't feel obliged to stick to ten per cent.

30-40% G&T, Boys, Modern, 11-18, South East

"Anyone who has a Level 9 in one of the three stanines on the CAT test at the end of Year 7 will be counted as G&T core. In addition, subject teachers identify their G&T students for the start of year eight. This second tier of identification can pick out pupils in anything up to eight subjects, plus two areas from the pastoral system, leadership and creativity. This is to try and give an overview of things that may not have emerged through a particular subject. We end up with, including the core definition, about ten possible areas where a student could be identified as G&T."

40-50% G&T, Coed, Comprehensive, 11-18, Yorks & Humb

Until the last year about 25% of pupils were listed on the G&T register. The criterion used was a CAT score of 129 in any **one** of the three strands. In order to make the numbers manageable, it was decided to raise the bar. Gifted pupils are now identified as those with an **average** CAT score of 129 or more. *"The threshold is quite harsh. They truly are the absolutely high flyers".* Alongside the 'gifted' group the school identifies an additional tranche of pupils described as 'talented', based on subject teacher nominations across any of the curriculum areas. A pupil can have several subject nominations but not be listed on the main or 'gifted' register. *"One girl has six nominations. I'm then thinking I should just transfer her to the gifted list."*

10-15% G&T, Coed, Academy 11-18, East Midlands

Pupils are identified as 'able and talented' as they enter and as they progress through the school. The criteria include test results from CAT and Key Stage 2 as well as monitoring and reporting procedures in years 7 to 10. In addition to numerical information, the school also relies on information from the primary school; teacher recommendations; discussion with pupils and consultation with parents. 'Able' pupils listed on the register are those who have a CAT score of 115 in any one of the three standard tests.

5-10% G&T Coed, Comprehensive, 11-16, South West

"The school follows DfE guidelines and identifies ten per cent of its pupils as gifted and talented. However, within this group, we distinguish between the more able, about seven per cent, and those we regard as truly gifted and talented, the top three per cent. It's mainly teacher identification, either through observation or through our testing. We generally use the QCA optional SATs. But we also look at reading ages and spelling ages".

0-2% G&T, Junior, South East

All our children have gifts: it is a matter of in what. We have devised a questionnaire which is gone through with each child, which we call 'How Intelligent, How Smart am I?' It tells us whether they are 'word smart', 'number order smart', 'body smart', 'nature smart', 'music smart', 'picture smart' and so on.

100% G&T, Junior, South West

My personal feelings are that I don't agree with the concept. I very much believe that every child has something really special about them.

3.8. Only one of the 20 interviewees was **wholeheartedly positive**:

I think G&T is a useful label amongst staff certainly because we need to make sure that we are providing for those children. If we don't categorise them there is a chance that they could just be left behind and not pushed enough.

3.9. But even if they were reluctant or uncertain most schools went ahead. As one interviewee caustically put it: "G&T isn't really about the students; it's about filling in the information for the school census".

3.10. Not only did schools differ in their conceptions of 'gifted and talented', but they also used a variety of means for identifying the pupils. Even when they used the **same test they interpreted it differently** in order to get a percentage with which they felt comfortable. The guideline was for 5-10 per cent but the schools' intakes differ so widely that, to get anywhere near it, they had to use different cut-off points:

Until the last year about 25% of pupils were listed on the G&T register. The criterion used was a CAT score of 129 in any one of the three strands. In order to make the numbers manageable, it was decided to raise the bar. Gifted pupils are now identified as those with an average CAT score of 129 or more.

'Able' pupils listed on the register are those who have a CAT score of 115 in any one of the three standard tests.

Anyone who has a Level 9 in one of the three stanines [that is, in the top 4% on any one dimension] on the CAT test at the end of Year 7 will be counted as G&T core.

3.11. **Other tests** that have been used include MIDYIS, the QCA optional SATs, and sometimes one that the school has devised. Schools also rely on **teacher nominations** mainly for 'talents' for particular subjects or activities.

In terms of the talented I have actually said to staff to be a lot more stringent, so if they feel they have only five per cent truly talented individuals then only highlight them, don't feel obliged to stick to ten per cent.

Alongside the 'gifted' group the school identifies an additional tranche of pupils described as 'talented', based on subject teacher nominations across any of the curriculum areas. A pupil can have several subject nominations but not be listed on the main or 'gifted' register.

In addition, subject teachers identify their G&T students for the start of year eight. This second tier of identification can pick out pupils in anything up to eight subjects, plus two areas from the pastoral system, leadership and creativity.

What Does It Mean?

3.12. Relatively stable average percentages of pupils identified as 'gifted and talented' were recorded over the six years in which schools were required to provide this information. But the very different understandings of what was intended, the reluctance to categorise pupils in this way, and the different interpretations of test results raise questions about how much meaning is contained in the numbers which emerged. How can it be that some grammar schools report that none of their pupils is 'gifted and talented' and others

that all are? 'Gifted and talented' for some evidently means truly exceptional ability, while for others it is enough ability to pass the entrance test. A wide range of outcomes qualify so that it is impossible to tell from a school's return what is included. Schools which perform poorly in academic terms may score highly on, for example, sporting prowess. How valid then is the exercise of identifying the 'gifted and talented'? It is to this question we now turn.

4. Validity

- 4.1. Does the percentage of pupils returned as ‘gifted and talented’ predict how well the schools do in national tests and examinations? Chart 4.1 is encouraging. All the correlations with achievement, for both phases, are significant beyond the one per cent level. They are, however, correlations not causes. It is just as likely that pupils performing especially well in tests and examinations get to be labelled ‘gifted and talented’ as that ‘gifted and talented’ identifies potential for high attainment. Chart 4.1 further shows that ‘gifted and talented’ is predictive in the sense that it is related at the school level to A-level achievement and acceptance at university, including the selective universities.

Chart 4.1: Validity of ‘Gifted and Talented’ Identification

| Achievement Measure | N | Pearson’s r |
|---|-------|-------------|
| % Key Stage 2 Achievement ¹ | 9,521 | 0.066** |
| % GCSE Achievement ² | 2,892 | 0.146** |
| % A-level Points per Student ² | 1,401 | 0.172** |
| % Accepted at University ² | 1,401 | 0.108** |
| % Accepted at Selective University ² | 1,401 | 0.198** |

1. **Primary Schools excluding middle schools.** Percentage of pupils achieving Level 4 in both English and maths. In 2010 about a quarter of primary schools boycotted the tests, but the correlations were similar in 2008, $r=0.060^{**}$ ($N=13,049$) and 2009, $r=0.056^{**}$, ($N=13,158$).

2. **Secondary Schools excluding grammar schools and middle schools.** Percentage of pupils achieving five GCSEs or equivalent at grades A*-C including English and maths.

- 4.2. Chart 4.1 does not include grammar schools. If they had been in the mix, the correlations would have been stronger. With GCSE achievement it would have been 0.318, with A-level achievement, 0.359, and with entry to selective universities, 0.397. It may be, therefore, that the fears expressed about the interpretation and identification of ‘gifted and talented’ in the previous chapter are unjustified.
- 4.3. A quite different picture emerges, however, when the ‘gifted and talented’ variable is compared with other possible predictors of school achievement. Chart 4.2 shows the regression of a number of variables on Key Stage 2 achievement in primary schools and on GCSE achievement in secondary schools.

Chart 4.2: Regression on Achievement¹

| Variable | Primary ² ($R=0.527$) | | Secondary ³ ($R=0.735$) | |
|--------------------------------------|------------------------------------|-------|--------------------------------------|-------|
| | Beta | t | Beta | t |
| % Eligible for Free School Meals | -0.359 | -31.2 | -0.477 | -24.2 |
| % Special Needs – without statements | -0.215 | -20.3 | -0.297 | -17.3 |
| % Special Needs - statemented | -0.117 | -13.0 | -0.075 | -5.3 |
| % White British | -0.067 | -6.8 | -0.253 | -15.0 |
| % Chinese | 0.051 | 5.6 | 0.131 | 9.2 |
| % G&T | 0.054 | 6.0 | 0.067 | 4.8 |
| % Girls | 0.029 | 3.2 | 0.065 | 4.7 |

1. For primary, percentage of pupils achieving Level 4 in both English and maths and, for secondary, percentage of pupils achieving five GCSEs or equivalent at grades A*-C including English and maths.

2. All except Middle Deemed Primary (Degrees of freedom =9,179).

3. All except Grammars and Middle Deemed Secondary (Degrees of freedom = 2,841).

- 4.4. In both phases it is possible to predict rather well. About half the variance is accounted for in secondary schools (again minus the grammars) and about a quarter in primary schools. The patterns for the phases are very similar with the main contributions in both coming from the inverse of the percentage eligible for free schools and the inverse of the percentage identified as having non-statemented special needs. In the primary phase, these are followed by the percentage of pupils with special needs who are statemented and, in the secondary phase, by the negative correlation with percentage of pupils classified as White British. Among the ethnic groups, the percentage of Chinese had the strongest positive correlation.
- 4.5. What is striking in the present context is how far ‘gifted and talented’ comes down the list. For secondary schools it is a less good predictor than eligibility for free school meals, special needs and ethnic background. It is on par with the percentage of girls in the school. For primary schools, ‘gifted and talented’ again comes well below free schools meals, special needs and also the percentage of White British. Thus, it appears that if you want to tell how well a school is likely to do in national tests and examinations you would be better off looking at these factors than how many pupils the school has identified as ‘gifted and talented’. The concerns expressed in Chapter 3 are not misplaced.

Free School Meals

- 4.6. National statistics, summarised in Chart 4.3, show that pupils from low income backgrounds are much less likely to be classed as ‘gifted and talented’. This is a sensitive issue. Should these data be interpreted as evidence of bias: a failure to recognise the qualities of these children because they are from poor homes?

Chart 4.3: %G&T by Year

| Year | Primary | | Secondary | |
|-------------------|------------------|-------|------------------|-------|
| | FSM ¹ | Other | FSM ¹ | Other |
| 2006 ² | | | 6.0 | 11.3 |
| 2007 | 5.0 | 7.2 | 6.8 | 14.4 |
| 2008 | 5.7 | 8.5 | 7.2 | 14.6 |
| 2009 | 6.0 | 9.2 | 7.2 | 15.3 |
| 2010 | 6.2 | 9.5 | 7.5 | 15.9 |
| 2011 | 5.8 | 9.1 | 7.3 | 15.4 |

1. Eligible for free school meals.

2. No published data for primary 2006.

Source: Annual January publication of DfE Statistical First Releases: *Schools, Pupils and their Characteristics*.

- 4.7. We can explore this further by looking at the small group of schools which are at least one standard deviation above the mean on both eligibility for free school meals and ‘gifted and talented’. This group of 25 schools comprises ten comprehensives to age 16, eight comprehensives to age 18, and seven academies/CTCs. Rather than being better at spotting the ‘gifted and talented’, Chart 4.4 shows that these schools appear to be identifying the pupils on grounds other than their potential for achievement. The schools were appreciably below other schools in GCSE performance, A-level performance and the percentage going to selective universities. What marked them out were the low proportion with English as the first language and the high percentage with non-statemented special needs. The over-identification could have been the result of giving the benefit of the doubt to pupils whose first language is not English. More pragmatically, the schools could have been making themselves eligible for the National

Strategies funding for ‘gifted and talented’ pupils from low income backgrounds (see page 5).

Chart 4.4: High G&T and High FSM Secondary Schools¹

| Characteristic | High %GT/ High %FSM ¹ (N=25) | Others ² (N=2,896) |
|---|---|----------------------------------|
| % Gifted & Talented | 31.9 | 13.5 |
| % Eligible for Free School Meals | 38.3 | 16.0 |
| % Special Needs – without statements | 36.1 | 21.4 |
| % White British | 41.0 | 77.2 |
| % First Language English | 58.7 | 87.7 |
| % Five Good GCSEs inc Eng and Maths | 41.0 | 53.8 |
| % Average A-level Points Per Pupil ³ | 580.0 | 693.0 |
| % Accepted at Selective University ³ | 6.5 | 17.3 |

1. High FSM and High GT group defined by being at or above 1SD on both dimensions, in the case of FSM having a percentage at or above 28.05 and in the case of ‘gifted and talented’ a percentage at or above 24.92.

2. All other secondary schools except grammar schools and middle deemed secondary schools.

3. Ns respectively, GTFSM=6 and Others=1395 (Sutton Trust data).

High Performing Specialist Schools

- 4.8. In contrast, as Chart 4.5 shows, the High Performing Specialist Schools did do better than the general run. They had above average GCSE results, A-level results and percentages accepted at selective universities. Characteristically, they also had below average percentages for free school meals and special needs. They identified a somewhat higher percentage as ‘gifted and talented’, but the difference was smaller than for free school meals and special needs, which we found in Chart 4.2 to be the variables most strongly associated with attainment.

Chart 4.5: High Performing Specialist Schools¹

| Characteristic | HPSS (N=94) | Other ² (N=2,827) |
|---|----------------|---------------------------------|
| % Gifted & Talented | 16.4 | 13.6 |
| % Eligible for Free School Meals | 9.4 | 16.4 |
| % Special Needs – without statements | 16.3 | 21.7 |
| % White British | 77.7 | 76.8 |
| % First Language English | 89.6 | 87.3 |
| % Five Good GCSEs inc Eng and Maths | 66.6 | 53.2 |
| % Average A-level Points Per Pupil ³ | 776.3 | 689.1 |
| % Accepted at Selective University ³ | 27.1 | 16.9 |

1. Secondary schools designated as High Performing with a focus on Gifted and Talented. The Department for Education provided us with a list of 119 schools designated by June 2010, comprising 32 comprehensives to age 16, 60 comprehensives to age 18, 2 secondary modern and 25 grammars. Grammars excluded from comparison because greatly overrepresented among HPSS.

2. Other schools include all secondary schools except the HPSS, grammar schools and middle deemed secondary.

3. Number of schools respectively HPSS, N=55 and Other, N=1,346 (Sutton Trust data).

Validity?

- 4.9. Classification as 'gifted and talented' does appear to carry some meaning. At the school level, it correlates with high academic achievement and acceptance at the leading universities. But in regression analysis, free school meals, special needs and ethnic composition are much better predictors of results in national tests and examinations than is the percentage of 'gifted and talented'. Only about one in a hundred schools scored high for both free school meals and 'gifted and talented'. These schools had poorer examination performance than the other secondary schools (minus the grammars) taken as a group, so they were no better at identifying potential high flyers among those from low income homes. They appeared to be placing pupils in the 'gifted and talented' category for other reasons. In Chapter 3 we saw that schools understood the 'gifted and talented' construct in different ways and even when using the same diagnostic tool tended to interpret it differently. All of this causes us to doubt the validity of the construct. It seems that the present government shares our scepticism since it dropped the item from the 2012 schools census.

5. Current Provision in England

- 5.1. Schools have been required to identify the ‘gifted and talented’, but not given a reliable tool for doing so. They have been left to themselves. Most have maintained a register for the ‘gifted and talented’, but some have listed the ‘gifted’ and ‘talented’ separately. In one of our schools there was also a register for the ‘able’. The national statistics show that there was wide variation in the percentages of pupils identified as ‘gifted and talented’ and at the school level the correlation with examination results and the percentages going to selective universities were only modest. This is not surprising given the range of ‘gifts’ and ‘talents’ that could be included and the unreliable identification. The policies though well intentioned seemed in the national statistics analysed in Chapters 3 and 4 not to have convincing outcomes. But what, in fact, was happening on the ground? In this chapter we explore various aspects of the provision for the ‘gifted and talented’ with headteachers and schools’ gifted and talented co-ordinators³⁸.

Provision

- 5.2. Broadly speaking provision for the ‘gifted and talented’ can be divided into school-based and out-of-school, with some overlap when, for example, the school runs a centre elsewhere or has a menu of extension classes.

School-Based

- 5.3. Most schools took the view that provision for the ‘gifted and talented’ should be **embedded in the curriculum and school organisation**. As an 11-18 comprehensive in Yorkshire and Humberside put it: “Basically what we are trying to get away from is saying ‘you’re clever, let’s go on a trip’.” Box 5.1 indicates that these schools thought high ability pupils could be catered for by differentiation within classes and setting, streaming and acceleration. As well as providing the opportunities, it was necessary to monitor pupils’ progress through data analysis. In their own words:

It tends to be about starting in the classroom with differentiation. Then it moves to cohort-based things such as setting and early entry for GCSE.

If our G&T are falling below their targets the spreadsheets give the warning light.

- 5.4. School-based provision can also involve **extension classes and activities**. There are examples in Box 5.1. In addition, an academy in the East Midlands told us: “We have an English teacher with a freed-up timetable who does extension classes. Anything from studying different modules like fine art, philosophy and physics. Interesting mind-bending stuff to get them really thinking.” A primary school in the North West said: “It could be that a child is particularly able at maths so one of their targets might be to develop investigation skills which they then do through x, y, and z extension activities.”

- 5.5. But there was also **questioning** whether these approaches are enough:

In lessons we have good differentiation, but whether we are really challenging our very, very top girls enough I’m not so sure.

If schools were to think that by setting and streaming they had done enough for their G&T, their most able kids would be missing out.

³⁸ See Appendix, page 53.

Box 5.1: School-Based

"It tends to be about starting in the classroom with differentiation. Then it moves to cohort-based things such as setting and early entry for GCSE (three subjects) and things like leadership opportunities in various areas."

Coed, Comprehensive, 11-18, Yorks & Humb

"We stream and we set, we do a lot of it in most of our subjects. But it is not enough. I think if schools were to think that by setting and streaming they had done enough for their G&T, their most able kids would be missing out."

Coed, Comprehensive, 11-18, South West

"Our lessons are always pitched with very high expectations of our pupils. We are always trying to promote independent thinking. We do masses of data analysis at this school, a phenomenal amount. There is a data sheet for every module, every half term. You can see if the G&T are on track, and who is falling below their expected grade in any subject. If our G&T are falling below their targets the spreadsheets give the warning light."

Academy, East Midlands

"In all our core lessons we have accelerated groups, so our top Y9s will be starting their Y10 courses early and there will be different courses for them in Y10 and Year11. As a policy we would be expecting what you would call an average student to attain three sub-levels within a year; for our G&T students our aim is four. So it is also about the quality of teaching. Every six weeks we monitor the progress of every student in the school in every subject. At the moment we are developing a system on SIMS to flag up the G&T pupils, so we can readily see if they are on track to achieve those four sub-levels."

Boys, Modern, 11-18, South East

"In lessons we have good differentiation, but whether we are really challenging our very, very top girls enough I'm not so sure. For potential Oxbridge candidates there is a special support programme, but I think there is more scope there. Outside of lessons, each year the school devises a programme of activities that pupils can opt in to. Basically it's what the staff choose to offer. It's very, very diverse, from psychology, science, drama, silver-smithing, flavourings and much more."

Girls, Grammar, Eastern

*"Getting the A*s is what we want. Some of our most able pupils don't get A*s and they need to. We (the vice-principal and G&T co-ordinator) go round lessons now and again and have a look at what provision is in place for those pupils and whether it is different. We talk to pupils and ask if they feel they are being stretched in lessons. So we try and quality assure like that."*

Coed, Comprehensive, 11-16, South East

"Each pupil who is on the register has an Individual Development Plan which the teacher writes with the child and their parent. It's very much about how that child is going to be challenged and enriched both within the classroom and outside. It could be that a child is particularly able at maths so one of their targets might be to develop investigation skills which they then do through x, y, and z extension activities. There is lots of class support within normal lessons."

Infant/Junior, North West

"We cater for 'able', 'gifted' and 'talented' children within our planning and within the lessons. In a standard differentiation there might be extension activities or those children might have to look at things in a bit more depth and breadth than other children. We also have quite a few opportunities for children outside of school. We have close links with our secondary school and some of our G&T pupils will go there for workshops in science, maths and ICT and so on."

Junior, South East

Box 5.2: Out of School

“We show the subject leaders which courses have come through from the local authority for their particular areas. They then nominate pupils from the register to go on them. Two years ago there was virtually nothing. Nobody ever nominated any girl as G&T. It was so much at the bottom of everybody’s list of priorities. I took over along with another teacher and we got an organised register.”

Girls, Comprehensive, 11-16, South East

“It’s about accessing national and local competitions and things like that where G&T pupils and others can go and partake and mix with other students, including the annual local debating competition.”

Coed, Comprehensive, 11-16, Eastern

“There is a wide range of opportunities outside of lesson time and out of school. Some, which are aimed at years ten and eleven, have arisen out of the Independent State School Partnership we belong to. Other activities such as residential courses and summer schools are offered through charitable bodies.”

Girls, Grammar, Eastern

“Our nominated Excellence Hub was just too far away so we didn’t join, it was just too far. We have had some things from the local university, but that was more to do with the university doing its outreach programme.”

Coed, Comprehensive, 11-18, South East

“Some of our G&T pupils go over to the university science department to do work there. We are also part of the university’s initiative to get bright, state pupils into medicine. A very small number of pupils are involved in projects with the university maths department. A link has been set up with another HEI promoting sports careers particularly in PE teaching and sports science.”

Coed, Comprehensive, 11-16, South East

“We have a centre in France and we are taking a whole load of kids over there who are G&T. They will go over and do a whole load of things. That’s something you can’t make open to all but it’s open to the G&T. We have also had people for sciences, maths, and art going to the Sutton Trust’s summer schools. It was part of our NACE application.”

Academy, East Midlands

“We bring in primary school children, we do some special G&T things in a number of subjects like maths, French, science and art and design.”

Coed, Comprehensive 11-18, South West

“Courses are run outside of school on Saturdays by various secondary schools and some primary schools in our local authority. They do all sorts of courses, maths, art, design and technology, ICT, drama and a host of games, cricket, tag rugby. The children who are invited to go are on my register.”

Junior, Outer London

“We are part of a confederation of primary and secondary schools which has been trying to put on workshops for G&T pupils.”

Junior, South East

“The school organises two residential opportunities each year for those on the register. They are pitched at those extension skills they wouldn’t get in normal lessons. It is a joint venture with other local schools, so they are mixing with like-minded children.”

Infant/Junior, East Midlands

- 5.6. Whatever the intentions, implementation was very variable. An 11-16 comprehensive in the South East told us: “Some of our most able pupils don’t get A*s and they need to. We (the vice-principal and G&T co-ordinator) talk to pupils and ask if they feel they are being stretched in lessons. So we try and quality assure like that.” A primary school in the South East explained differentiation to us as follows: “In a standard differentiation there might be extension activities or those children might have to look at things in a bit more depth and breadth than other children.”
- 5.7. But it may also be that the ‘gifted and talented’ are **not being pinpointed with sufficient accuracy**. The category covers a very wide range of abilities and in any field the top 1-2% will differ markedly from the top 10% or 25%. While current provision may be an improvement on what went before it is hit and miss. A junior school in the South East exemplifies the way schools have struggled: “The school follows the DfE guidelines and identifies ten per cent of its pupils as ‘gifted and talented’. However, within this group, we distinguish between the more able, about seven per cent, and those we regard as truly gifted and talented, the top three per cent”.

Out-of-School

- 5.8. Much of the ‘gifted and talented’ provision is out of school. Box 5.2 shows that it takes a wide variety of forms and is organised in a wide variety of ways.
- **Local Authority:** “We show the subject leaders which courses have come through from the local authority for their particular areas. They then nominate pupils from the register to go on them.”
 - **University:** “Some of our G&T pupils go over to the university science department to do work there. We are also part of the university’s initiative to get bright, state pupils into medicine. A very small number of pupils are involved in projects with the university maths department. A link has been set up with another HEI promoting sports careers, particularly in PE teaching and sports science.”
 - **Charitable Trust:** “We have also had people for sciences, maths, and art going to the Sutton Trust’s summer schools.”
 - **Schools Working Together:** “Courses are run outside of school on Saturdays by various secondary schools and some primary schools in our local authority. They do all sorts of courses, maths, art, design and technology, ICT, drama and a host of games, cricket, tag rugby.”
 - **Independent-State School Partnerships:** “There is a wide range of opportunities outside of lesson time and out of school. Some, which are aimed at years ten and eleven, have arisen out of the Independent State School Partnership we belong to.”
 - **National and Local Competitions:** “It’s about accessing national and local competitions and things like that.”
 - **Residential:** “The school organises two residential opportunities each year for those on the register. They are pitched at those extension skills they wouldn’t get in normal lessons. It is a joint venture with other local schools, so they are mixing with like-minded children.”

- 5.9. All look to be good ways of enhancing the school experience, but how specific are they to the 'gifted and talented'? Master classes by universities can be seen in this way. But for many of the other activities, like residential courses, the 'gifted and talented' register seems to be more of a rationing device. Given the lack of precision in the identification process, one has to feel for the pupils who are not chosen. Sometimes the outside opportunities seemed to have been put on more as window-dressing than for educational benefit ("It was part of our NACE application").
- 5.10. The impression the interviews left us with is that there is a lot going on. (These were schools that had agreed to be interviewed and were proud of what they were doing). But not much of it seemed sufficiently focused. It was unclear to us how many of the activities were directed towards enhancing the learning of those capable of the highest achievement. Some activities seemed more to keep the fast learners occupied. While extra-curricular activities should continue to play a part in the education of all children, in our view the school curriculum is the key to the education of the highly able.

Support

- 5.11. A wide range of support was available to schools as they devised their within and out-of-school provision for the 'gifted and talented'. Box 5.3 shows that the most frequently mentioned source of support was the **local authority**:

The support from the local authority is still in place. Our LA co-ordinator is very good at fishing these things out like the Quality Standards from the Schools Standards Site. We have used them from an audit point of view. It has been quite useful to reflect on our provision.

The local authority co-ordinator arranges cluster meetings. I have been to a couple when they were free. But they are now chargeable so I don't attend anymore.

- 5.12. The next most frequently mentioned outside source of help was the **Challenge Award of the National Association for Able Children in Education (NACE)**:

A central plank in developing policy and provision was the decision to apply for the NACE Challenge Award. The whole point of applying was to work through a framework, the purpose of which was improvement.

We have got the NACE Challenge Award. We were the first school in the borough to get it. We had to do a tremendous amount: assess every child; have registers going; clubs going; CPD; governing body knowledge; and lots more.

- 5.13. In addition a variety of **charities** were mentioned as providing support including the Sutton Trust, the Villiers Trust, the National Association for Gifted Children and the Youth Sports Trust:

We have also had people for sciences, maths, art, going to the Sutton Trust's summer schools.

We did find the website of the Villiers Trust useful as an online tool.

We use support from NACE and NAGC.

In the PE department we use the Youth Sports Trust a lot. Where they have had initiatives to boost the talented students we have certainly taken that on board.

Lapsed Support from Government

- 5.14. One of the problems that schools have had in navigating the ‘gifted and talented’ landscape is that it has been continually changed. It is not uncommon for governments to promote initiatives and then withdraw. As one of our interviewees said: “There is funding and a high profile and then suddenly they are saying ‘that’s it, the funding stream is finishing it’s now down to the schools to continue with this provision’.” But the difficulties have been exacerbated by the frequent changes of mind.

- 5.15. Are the schools missing the schemes which have been scrapped? The passing of the National Academy for Gifted and Talented Youth, as the comments in Box 5.4 show, is regretted by those who used it. But the CfBT-run Young, Gifted and Talented programme seems to have been less of a loss:

There was NAGTY, that, I believe was the way to do it. The move to YG&T (CfBT website), that website, was not useful or helpful. I didn’t send any students to it because I was embarrassed by it compared to what had been available through NAGYT.

The closure of the NAGTY site was a bit of a blow. I had been using links from that so that pupils could access it. That all went out of the window.

- 5.16. The National Strategies website was also missed:

I also used the Institutional and the Classroom Quality Standards guidance from the National Strategies website which I also passed on to the subject departments.

Some of the things we used to use have gone since the National Strategies website was closed down, I’m pretty sure they have. We haven’t been able to find the subject specific criteria.

- 5.17. The Excellence Hubs, by which universities provided support, were generally appreciated, but there is concern that their funding has ended:

I like ‘Excellence East’ (the local Excellence Hub). Their activities are very good. But they have sent a letter round recently asking if we wanted to subscribe to a membership scheme because their funding has ended.

- 5.18. The ending of other ring-fenced funding has given rise to fears about the future of ‘gifted and talented’ provision:

Within the specialism budget we did have funding for G&T. Now that the SSAT has gone, that money has gone.

We used to have support from the local authority, but that has been cut within the last year. There was a co-ordinator, but she has probably lost her job like everyone else.

Box 5.3: External Support

“The support from the local authority is still in place. Our LA co-ordinator is very good at fishing these things out like the Quality Standards from the Schools Standards Site. We have used them from an audit point of view. It has been quite useful to reflect on our provision.”

Coed, Comprehensive, 11-16, South West

“We used to have support from the local authority, but that has been cut within the last year. There was a co-ordinator, but she has probably lost her job like everyone else. I think when I first took on the role here I went to a couple of meetings.”

Coed, Comprehensive, 11-16, South East

“Last year we used our local authority co-ordinator when he led a whole staff workshop on the quality standards. I don’t know if he is still there.”

Boys, Academy, 11-18, South East

“The county runs courses for G&T co-ordinators and they have been good. But in the main the information I have is only what I have been accessing myself.”

Girls, Grammar, 11-18, Eastern

“The local authority co-ordinator arranges cluster meetings. I have been to a couple when they were free. But they are now chargeable so I don’t attend anymore. Being a small school we just don’t have the finances to support it.”

Infant/Junior, East Midlands

“The local authority has had little impact on supporting G&T education in the school. Information about activities usually comes via e-mails. I have never been contacted personally or spoken to by anybody in the LA. I have never liaised with a local authority co-ordinator.”

Infant/Junior North-West

“A central plank in developing policy and provision was the decision to apply for the NACE Challenge Award. The whole point of applying was to work through a framework, the purpose of which was improvement. The School Standards Site was sourced for information.”

Coed, Academy, 11-18, East Midlands

We have got the NACE Challenge Award. We were the first school in the borough to get it. We had to do a tremendous amount: assess every child; have registers going; clubs going; CPD; governing body knowledge; and lots more. It was quite a burdensome task but it was worth it. The main benefit has been prestige really, with the parents. It goes on the headed notepaper. I’ve been asked to give talks in other boroughs, so prestige for myself as well.”

Junior, Outer London

“We use support from NACE and NAGC. They are the two main ones we have always consulted and to help us through the policy formation as well.”

Coed, Comprehensive, 11-16, South West

“The Sutton Trust has offered students some opportunities. We were thinking of applying for the NACE challenge award but decided not to, because of all the time and hassle it involves.”

Coed, Comprehensive, 11-18, Yorkshire & Humberside

“Feedback from other schools suggests that NACE Challenge Award is somewhat unmanageable. It would take more investment than we have got time to do really. That’s not a criticism of it. It is just not something for us. We did find the website of the Villiers Trust useful as an online tool.”

Coed, Academy, 11-18, South West

Box 5.4: Lapsed Government Support

“There was NAGTY, that, I believe was the way to do it. The move to YG&T (CfBT website), that website, was not useful or helpful. I didn’t send any students to it because I was embarrassed by it compared to what had been available through NAGTY.”

Coed, Comprehensive, 11-18, South East

I think it’s a great shame that the National Academy (NAGTY) as such has disappeared. It did have this motivating effect. Pupils did get a buzz from knowing they were enrolled there. They could go on-site and get the newsletter and lots of other materials. I think it was a great loss.”

Coed, Comprehensive, 11-18, South West

“The closure of the NAGTY site was a bit of a blow. I had been using links from that so that pupils could access it. That all went out the window.”

Coed, Academy, 11-18, East Midlands

I feel I have to be careful here. The CfBT website for instance was an attempt to recognise G&T nationally and I don’t think it worked very well. We certainly didn’t pay much attention to it. Parents didn’t either despite all the mail shots that went out through tutor groups.”

Coed, Comprehensive, 11-16, South West

“I like ‘Excellence East’ (the local Excellence Hub). Their activities are very good, so they go out in our newsletter saying, ‘these are coming up over half term if you daughter is interested’. But they have sent a letter round recently asking if we wanted to subscribe to a membership scheme because their funding has ended.”

Girls, Grammar, 11-18, Eastern

“Our nominated Excellence Hub was just too far away so we didn’t join, it was just too far.”

Coed, Comprehensive, 11-18, South East

“I also used the Institutional and the Classroom Quality Standards guidance from the National Strategies website which I also passed on to the subject departments. I collated it all to find out where the school felt it was strong and weak. We felt we were really good at all the extra-curricular things but lesson provision was where we felt we were weakest. This matched my gut feeling, which was quite nice. We then used that to run a couple of bits of INSET to try and raise people’s awareness of what they could do, because it is in lessons that pupils aren’t being challenged.”

Coed, Comprehensive, 11-18, South East

“Some of the things we used to use have gone since the National Strategies website was closed down, I’m pretty sure they have. We haven’t been able to find the subject specific criteria. We’ve since tried to look for that and haven’t been able to find it, because there is obviously a need for the departments to have these conversations and that particular document was very helpful.”

Coed, Comprehensive, 11-16, Eastern

“We’ve lost all our specialism money. We are losing our Independent State School Partnerships and Leading Edge funding. All these were sources where G&T used to come from. They have all gone as well as the reduction in the actual main school budget. So it is going to make it extremely difficult.”

Girls, Grammar, 11-18, Eastern

“Within the specialism budget we did have funding for G&T. The previous co-ordinator had £500 per year that he could use to support workshops and things. Now that the SSAT has gone that money has gone.”

Coed, Comprehensive, 11-18, South East

We've lost all our specialism money. We are losing our Independent State School Partnerships and Leading Edge funding. All these were sources where G&T used to come from. They have all gone as well as the reduction in the actual main school budget. So it is going to make it extremely difficult.

Funding

- 5.19. Although there have been ambitions for 'gifted and talented' education, they do not seem to have been backed by much money at the school level. There has been funding for, among other things, the National Academy for Gifted and Talented Youth, the CfBT website and programme, the National Strategies, Excellence Hubs and local authority co-ordinators. But, as Box 5.5 makes clear, little seems to have found its way down to 'gifted and talented' budgets in schools:

The budget is minimal, absolutely minimal to cover photocopying and things like that.

I endlessly need more money to do certain things.

If extra resource became available, there is no doubt that the out-of-class activities would be revived. I think a lot of schools are paying lip-service to G&T education because of the resource problem.

- 5.20. There were concerns that the present government's decision to move the small amount of dedicated 'gifted and talented' funding into mainstream school funding will make matters even worse:

The removal of specialist school funding has meant the school having to review how it is going to fund its G&T policy and provision. It is unlikely that G&T education will have its own budget.

Gifted and talented education used to have a separate budget and the money allocated to the co-ordinator. With G&T education now embedded in school development and improvement, funding has gone into departmental budgets.

The G&T money was ridiculously small anyway, particularly at primary level. Although the G&T programme has been going on for at least ten years it was aimed mainly at secondary schools.

- 5.21. Not all schools were so pessimistic. Some welcomed the greater control over how to spend their allocations:

We've never had that much funding to do with G&T so the withdrawal of funding at a national level doesn't necessarily affect us. The label 'gifted and talented' or, for want of a better phrase, 'able and talented' is one parents have grown to know and recognise what it's all about, so to continue that through our own policy with our own students is actually quite beneficial to us.

- 5.22. Others thought they would be able to manage:

The previous co-ordinator had £500 per year to support the workshops and other activities but this came through the specialism budget. But we do

have a training budget for the coming year and because we want to make sure provision in the classroom is right, the training budget will be used to support this policy.

Staffing

Secondary Schools

- 5.23. Secondary schools usually have a person designated with responsibility for ‘gifted and talented’ education. It can be member of the senior leadership team, advanced skills teacher, head of subject department, other teacher, or in a specially created role such as head of learning. A key issue, that emerges in Box 5.6, is how much ‘clout’ does that person have:

Two years ago the school created this joint role of head of learning. It is really great because it means that I am not only driving G&T education but also working with heads of department across the board on teaching and learning. So I have much bigger status, I suppose, to be able to push through the G&T agenda.

We had an AST running G&T and actually we felt even that person didn’t have enough clout within the school. So next year an assistant headteacher has responsibility for it.

This is a department-led school, so it is all about what individual departments do and I have just tried to raise awareness of certain topics like higher order thinking.

- 5.24. A Head of Learning Support in charge of both **special needs and ‘gifted and talented’** contrasted the provision at the two ends of the spectrum:

So I have a voice. I feel that everyone just flounders with G&T. With SEN there is a real role. For that I have over 20 teaching assistants. I have specialist teachers. You have this great big package so you have the energy and the drive behind you to get on with it. In G&T the role of the co-ordinator is very much to keep a watching brief, to provide an overview of departmental input to G&T education in the school. Someone else maintains the register and database of activities.

- 5.25. As well as status there was often an issue with time. Since responsibility for ‘gifted and talented’ tended to be wrapped up with other responsibilities our respondents found it difficult to be precise about how much time they were allocated, but it was often minimal:

I get no extra school time for the job. It’s all down to evenings really.

I had an hour a fortnight. I’ve got an hour a week this year because I made a noise about it. I haven’t had the chance to do as much as I would have liked to.

I have about four free lessons a week. The ordinary teacher gets three frees a week. I’ve got four, so in theory I can be working on it for at least one hour per week.

Box 5.5: Funding

"I endlessly need more money to do certain things". In a school of over 900 pupils the annual G&T budget is about £1,000. Although the Senior Leadership Team and governors are very supportive I get no extra school time for the job. It's all down to evenings really."

Boys, Modern, 11-18, South East

"Gifted and talented education used to have a separate budget and the money allocated to the co-ordinator. With G&T education now embedded in school development and improvement, funding has gone into departmental budgets. The sums of money have not been huge. The most expensive workshop we have had was about £270; some are only about £20 or £30. All I can say is we have never been unable to put something on through lack of funding. We've always found a way round it, even if it has meant going to the governors and asking for money. A lot of the cost is our teachers' time."

Coed, Comprehensive, 11-18, South West

"The removal of specialist school funding has meant the school having to review how it is going to fund its G&T policy and provision. It is unlikely that G&T education will have its own budget. The previous co-ordinator had £500 per year to support the workshops and other activities but this came through the specialism budget. But we do have a training budget for the coming year and because we want to make sure provision in the classroom is right, the training budget will be used to support this policy."

Coed, Comprehensive, 11-16, South East

"The budget is minimal, absolutely minimal, to cover photocopying and things like that. The school is losing specialist school, 'Leading Edge' and Independent State School Partnership funding, which have been used to resource G&T education. They have all gone as well as a reduction in the main school budget. So it is going to be extremely difficult."

Girls, Grammar, 11-18, Eastern

"We've never had that much funding to do with G&T so the withdrawal of funding at a national level doesn't necessarily affect us. The label 'gifted and talented' or for want of a better phrase 'able and talented' is one parents have grown to know and recognise what it's all about, so to continue that through our own policy with our own students is actually quite beneficial to us."

Coed, Comprehensive, 11-16, South West

"The G&T money was ridiculously small anyway, particularly at primary level. Although the G&T programme has been going on for at least ten years it was aimed mainly at secondary schools."

Infants, South East

"It seems to me the initiative is put in place, there is funding and a high profile and then suddenly they are saying, that's it the funding stream is finishing and it's now down to the schools to continue with provision, but with what? In this school the key thing is extra staff time. If extra resource became available, there is no doubt that the out-of class activities would be revived. I think it worked really well with those pupils able to come out of class sometimes and have activities above and beyond their normal curriculum work in class, having that additional time in small groups, even when vertically grouped, there are activities that you can do to challenge children. I think a lot of schools are paying lip-service to G&T education because of the resource problem."

Junior, Outer London

Box 5.6: Staffing

As Head of Learning Support which incorporates the dual role of SENCO with responsibility for G&T education, the co-ordinator is part of the extended leadership team and attends SLT meetings on a periodic basis. *“So I have a voice. I feel that everyone just flounders with G&T. With SEN there is a real role, I’m here and I have over 20 teaching assistants. I have specialist teachers. You have this great big package so you have the energy and the drive behind you to get on with it. In G&T the role of the co-ordinator is very much to keep a watching brief, to provide an overview, of departmental input to G&T education in the school. Someone else maintains the register and database of activities.”*

Coed, Comprehensive, 11-16, South East

“It is down to me as co-ordinator, but also the G&T co-ordinator in each department to really sink their teeth into it. I have made sure I have led whole school staff meetings and CPD on G&T. It matters to me and I want to make sure others in the school are doing it”.

Boys, Modern, 11-18, South East

A senior assistant headteacher oversees G&T education and there is a G&T Lead Teacher for the day-to-day management of the programme. As a mathematician, the G&T lead teacher is also responsible for tracking and data analysis.

Coed, Comprehensive, 11-18, South West

“We had an AST running G&T and actually we felt even that person didn’t have enough clout within the school. So next year an assistant headteacher has responsibility for it.”

Coed, Comprehensive, 11-18, South East

“Two years ago the school created this joint role of head of learning. It is really great because it means that I am not only driving G&T education but also working with heads of department across the board on teaching and learning. So I have much bigger status, I suppose, to be able to push through the G&T agenda. G&T takes up about 40% of my leadership work. I also teach English.”

Coed, Comprehensive, 11-18, South West

It is up to the headteacher, as co-ordinator, to keep abreast of developments in G&T education. She attends meetings organised by the local authority co-ordinator. The school pays a nominal fee to attend three updating meetings a year.

Infants, South East

The school does not appoint a member of staff as G&T co-ordinator on the grounds that all of the teachers carry this responsibility as part of their teaching role. *“We are a very tiny village school, there are only four classes. We know each other very well. We work in teams of four classes, four members of staff. So as a team we are responsible. We are all responsible for all the curriculum areas. We identify and assess all the areas, foundation and the core curriculum, so we can see if children are doing more than anybody else and how we can help and support them.”*

Junior, South West

The headteacher has overall responsibility for G&T, but a co-ordinator maintains the register, monitors what is happening in lessons, tracks pupil progress, provides advice and support to staff and devises a programme of extra-curricular activities.

Junior, South East

Primary Schools

- 5.26. In primary schools it is often the headteacher who has overall responsibility for ‘gifted and talented’ with day-to-day matters perhaps in the hands of a co-ordinator:

It is up to the headteacher, as co-ordinator, to keep abreast of developments in G&T education. She attends meetings organised by the local authority co-ordinator. The school pays a nominal fee to attend three updating meetings a year.

The headteacher has overall responsibility for G&T, but a co-ordinator maintains the register, monitors what is happening in lessons, tracks pupil progress, provides advice and support to staff and devises a programme of extra-curricular activities.

One of the senior leadership team is responsible for the day-to-day management of the G&T programme.

- 5.27. Where a classroom teacher was the co-ordinator there was usually very limited, if any, time allocation:

I get two or three afternoons a year - an afternoon every term.

- 5.28. In small schools responsibility can be diffused throughout the staff:

We are a very tiny village school, there are only four classes. We know each other very well. We work in teams of four classes, four members of staff. So as a team we are responsible.

Looking to the Future

- 5.29. The schools were divided, as Box 5.7 shows, in their response to the coalition government’s decision to transfer earmarked ‘gifted and talented’ grants to mainstream school funding and take a hands-off approach.

- 5.30. Some schools were **positive**:

I think personally the government should be hands-off. This is maybe because I am in a school that is really, really hot on assessment and knowing our children. Trust should be put back to the schools to decide what is appropriate and what isn’t. I feel that it should just be part of the curriculum as we do it anyway. Then perhaps have non-statutory suggestions and ideas, but it doesn’t have to be this official thing.

- 5.31. But more were **fearful** that without being a priority and without dedicated funding ‘gifted and talented’ education would lose impetus:

With the current limited budget going to schools and with the absence of a strong national voice to refer to, it’s going to be a dark time for G&T education.

G&T pupils tend to be hardworking enthusiastic and well-behaved. So quite often they are less on your radar than the needy and badly behaved.

Box 5.7: What Next?

“Although the government has decided not to go any further with G&T because of the austerity measures, I think schools are, well we are, in a very strong position to keep it going.”

Coed, Comprehensive, 11-16, South West

“The government needs to convey to schools the importance of G&T education. In some schools I have worked in the whole notion of gifted and talented education is not taken very seriously and is almost sniggered at because it is labelled ‘G&T’ and it’s a case of ‘oh yes, you’ve got to do it’ in the same way as schools who have very few SEN kids don’t take that seriously either.”

Academy, East Midlands

“Historically, I think G&T pupils have been a neglected group really. The Department of Education has again apparently decided to take ‘a back seat’ regarding G&T education. I am sorry the support has gone. The last government did try to put some sort of steer on it but there are still wide variations in provision among schools. I suppose the danger is if government ignores it, schools won’t see it as a priority.”

Coed, Comprehensive, 11-18, South West

“The government’s hands-off approach is because G&T policy is not a priority. In schools at the moment the emphasis is on behaviour issues and disruption and that kind of thing.”

Girls, Comprehensive 11-16, South East

“I really think that ultimately what you need is somebody who has done it and been there to be available to schools. I would have loved to have had somebody with the knowledge I have now to come to me, sit me down and say, ‘this isn’t as bad as it looks, it is quite manageable’. I had to pick through a lot of rubbish really, trying to get the policy right and to fine tune it. I suppose in a sense we didn’t have the guidance we would have wanted.”

Academy, East Midlands

“You need to have senior leadership who are sympathetic and who have the cash spare, and then someone who has got the time to drive it through. With the current limited budget going to schools and with the absence of a strong national voice to refer to, it’s going to be a dark time for G&T education.”

Coed, Comprehensive, South East

“I think there needs to be more awareness of the importance of providing for these children. There has been a lot of money and resources spent on children from disadvantaged backgrounds and children that are not high achieving, so a lot of time spent on catch-up. But there doesn’t seem to be the same amount of focus on those children that actually need the challenge.”

Junior, South East

“I think personally the government should be hands-off. This maybe is because I am in a school that is really, really hot on assessment and knowing our children. Trust should be put back to the schools to decide what is appropriate and what isn’t. I feel that it should just be part of the curriculum as we do it anyway. Then perhaps have non-statutory suggestions and ideas, but it doesn’t have to be this official thing.”

Junior, North West

“I think G&T is a useful label amongst staff certainly because we need to make sure that we are providing for those children. If we don’t categorise them there is a chance that they could just be left behind and not pushed enough. But we try and play it very low key with the children.”

Junior, South East

Historically, I think G&T pupils have been a neglected group really. The Department of Education has again apparently decided to take ‘a back seat’ regarding G&T education. I am sorry the support has gone. The last government did try to put some sort of steer on it but there are still wide variations in provision among schools. I suppose the danger is if government ignores it, schools won’t see it as a priority.

- 5.32. In thinking about what they would like to see for the future, our schools made a number of specific points:

Clarification: “The latest guidance is all a bit hazy. But in a way that has been quite nice for us. It is such a limited and subjective assessment.”

Guidance: “I was very grateful for the guidance that existed on the Department’s website before it was all taken apart.”

National Centre: “A body that would ‘fly the flag’ for G&T”

Teacher Training: “I think there needs to be more emphasis on G&T in training programmes in ITT and for existing teachers to tap into.”

Resources: “I think there needs to be more resources that schools could use so that we could provide for children within class, so it doesn’t always have to be sending them out on workshops.”

Accountability: “There should be some mention in the Ofsted report to be honest. To make sure those top students are being progressed and challenged. But I would want to move away from all of the form-filling and the paperwork side. Pushing the students to me is far more important than completing an IQS audit.”

- 5.33. There was a consensus that proper provision for the ‘gifted and talented’ should be integral to the school’s work and not just an add-on. Out-of-school activities provided valuable enrichment, but to be effective they had to complement the curriculum. All the schools publicly decried the ‘your-clever-let’s-go-a-trip’ mentality. But one school put its finger on the difficulty of embedding ‘gifted and talented’ education within the curriculum:

From what I understand G&T pupils are supposed to be a minority, one or two in a class. It is not just your general top set girl. I think that would be difficult to put in place. Even within the 25 in a top set of seven there will be a range of abilities. In a school with two sets now there is a massive ability range. So I don’t think setting would be a practical way forward.

- 5.34. Recent ‘gifted and talented’ policies have never been clear about who the pupils really are. Whereas setting plus enrichment caters for say the top quarter, what of the exceptionally able? We offer possible ways forward in our final chapter. But first we look at high attainment in other countries.

6. Highly Able in Other Countries

- 6.1. Our argument so far has been that in England there has been a lack of clarity about how to provide an education for the highly able and, in consequence, they may not be reaching their full potential. But this is an internal perspective. It is interesting, therefore, to compare the performance of England's 15-year-olds with those of other countries in the latest round of the OECD's Programme for International Student Assessment (PISA)³⁹. The results are often popularly reported as league tables of mean scores. But here we are interested in the proportions at different levels of attainment, also published by PISA⁴⁰, which receive much less attention. Six levels of attainment are distinguished (plus a column for those not reaching the minimum level). In maths the threshold score for the highest level, Level 6, is 669, while the mean is 488. It is achieved by 2.8 per cent in the OECD overall. In reading the corresponding figures were 698, 492 and 1.0 per cent. Since Level 6 is pitched at a very high level our analyses also look at Level 6 combined with Level 5 to give a broader picture.

Maths

Level 6

- 6.2. We begin with Level 6 maths comparing 37 countries (the 34 of the OECD, substituting England for UK, plus 3 top performers). Chart 6.1 shows the England figure compared with both the OECD average (of countries) and the OECD total (for all countries), and lists the ten most successful countries at Level 6.

Chart 6.1: PISA 2009 Maths Level 6

| Country/Region | Top Performers | | Overall Score | | Difference in Ranks ¹ |
|---------------------------|----------------|------|---------------|------------------|----------------------------------|
| | %Level 6 | Rank | Mean | Rank | |
| Shanghai | 26.6 | 1 | 600 | 1 | 0 |
| Singapore | 15.6 | 2 | 562 | 2 | 0 |
| Hong Kong | 10.8 | 3 | 555 | 3 | 0 |
| Korea | 7.8 | 4= | 546 | 4 | 0 |
| Switzerland | 7.8 | 4= | 534 | 6 | +2 |
| Japan | 6.2 | 6 | 529 | 7 | +1 |
| Belgium ² | 5.8 | 7 | 515 | 11 | +4 |
| New Zealand | 5.3 | 8 | 519 | 10 | +2 |
| Finland | 4.9 | 9 | 541 | 5 | -4 |
| Germany | 4.6 | 10 | 513 | 13 | +3 |
| England | 1.7 | 29 | 493 | 24= ⁴ | -5 |
| OECD Average ³ | 3.1 | | 496 | | |
| OECD Total ³ | 2.8 | | 488 | | |

1. Negative indicates fewer top performers than to be expected from the mean.

2. Flemish Belgium 8.7%. If Belgium had been represented only by the Flemish Community, it would have been placed fourth (PISA 2009, Vol 1, Table S.1.s, page 256).

3. Average is the mean of the country percentages; total is the percentage for the OECD as a whole.

4. With Czech Republic.

Sources: PISA 2009, Vol 1, Table 1.3.1, page 221 and Table S.1.s, page 256.

³⁹ Originally described as the testing of "the ability to use knowledge and skills to meet real life challenges." (OECD, 2001, *Knowledge and Skills for Life: First Results from PISA 2000*. Paris: OECD), but more recent commentaries reflect a more wide-ranging interpretation.

⁴⁰ OECD (2010). *PISA 2009 Results: Volume I What Students Know and Can Do. Student Performance in Reading, Mathematics and Science*. Paris: OECD.

- 6.3. Our concerns about the education of the highly able seem to be borne out by these figures. Only 1.7 per cent of 15-year-olds in the England achieved Level 6 compared with the average of 3.1 per cent for OECD countries and 2.8 per cent for the OECD as a whole. This is disturbing enough, but it is thrown into even sharper relief by comparisons with the top performing jurisdictions. In round figures, over a quarter of the 15-year-olds taking part in Shanghai reached Level 6, 16 per cent did so in Singapore and 11 per cent in Hong Kong.
- 6.4. Chart 6.1 also highlights another important facet of the PISA scores. The picture that emerges from the highest level of attainment is different from that obtained by comparing mean scores. Switzerland, Japan, Belgium, New Zealand and Germany all have more at the highest level than to be expected from their mean scores, while Finland has fewer. England comes even lower for Level 6 than it does on means, 29th instead of equal 24th. Four of the five countries (New Zealand is the exception) with positive differences have differentiated school systems. This observation challenges PISA's claim, based on means: "that, in general, school systems that seek to cater for different students' needs through a high level of differentiation in the institutions, grade levels and classes have not succeeded in producing superior overall results, and in some respects have lower-than-average and more socially inequitable performance"⁴¹.
- 6.5. It is also notable that the four top performers at Level 6 operate differentiated educational systems. But they are all Asian. And this reminds us that the PISA results may have little to do with the way the education system *per se* is organised. It could reflect different abilities, motivations and aspirations, the importance attached to education within a country, differences in the quality of teaching⁴², or something as mundane as the amount practice given to the test-takers. Nevertheless, the huge difference between England and other jurisdictions in maths at Level 6 does cry out for further investigation.

Levels 5 and 6

- 6.6. The broader picture provided by combining Levels 5 and 6 offers further evidence that the England is a long way off the pace in educating the highly able in maths. Chart 6.2 shows that while about ten per cent of England's 15-year-olds achieve at least a PISA Level 5 in maths, in Shanghai five times more do so. Let us repeat: in the England only 10 per cent reach the level attained in maths by over 50 per cent in Shanghai. Compared to England, more than three times as many reach this level in Singapore and Hong Kong, and twice as many or more in Korea, Switzerland, Finland, Japan, Belgium and the Netherlands. There may well be specific features of these jurisdictions that would repay closer attention when it comes to educating the highly able. But, at the very least, the data provide a wake-up call.
- 6.7. The rank order in terms of Level 5 and 6 is, as to be expected, closer to the rankings of mean scores. But the differences again point to the differentiated systems doing rather well. Switzerland and Belgium do relatively better at the higher levels than on average and Finland somewhat worse. Germany from the Level 6 list is overtaken by the Netherlands - another differentiated educational system – when Levels 5 and 6 are combined.

⁴¹ PISA 2009 Results Vol IV: What Makes a School Successful, page 104.

⁴² Whelan, F. (2009). *Lessons Learned: How Good Policies Produce Better Schools*. London: Fenton Whelan.

Chart 6.2: PISA 2009 Maths Levels 5 and 6

| Country/Region | Top Performers %5+ 6 | Rank | Overall Score Mean | Rank | Difference in Ranks ¹ |
|---------------------------|-------------------------|------------------|-----------------------|------------------|-------------------------------------|
| Shanghai | 50.4 | 1 | 600 | 1 | 0 |
| Singapore | 35.6 | 2 | 562 | 2 | 0 |
| Hong Kong | 30.7 | 3 | 555 | 3 | 0 |
| Korea | 25.5 | 4 | 546 | 4 | 0 |
| Switzerland | 24.1 | 5 | 534 | 6 | +1 |
| Finland | 21.6 | 6 | 541 | 5 | -1 |
| Japan | 20.9 | 7 | 529 | 7 | 0 |
| Belgium ² | 20.4 | 8 | 515 | 11 | +3 |
| Netherlands | 19.8 | 9 | 526 | 9 | 0 |
| New Zealand | 18.9 | 10 | 519 | 10 | 0 |
| England | 9.9 | 27= ⁴ | 492 | 24= ⁵ | -3 |
| OECD Average ³ | 12.7 | | 496 | | |
| OECD Total ³ | 11.7 | | 488 | | |

1. Negative indicates fewer top performers than to be expected from the mean.

3. Flemish Belgium 29.9% would have been placed fourth.

3. Average is the mean of the country percentages; total is the percentage for the OECD as a whole.

4. With United States.

5. With Czech Republic.

Sources: PISA 2009, Vol 1, Table 1.3.1, page 221 and Table S.1.s, page 256.

Chart 6.3: PISA 2009 Reading Level 6

| Country/Region | Top Performers %Level 6 | Rank | Overall Score Mean | Rank | Difference in Ranks |
|---------------------------|----------------------------|------------------|-----------------------|------------------|------------------------|
| New Zealand | 2.9 | 1 | 521 | 7 | +6 |
| Singapore | 2.6 | 2 | 526 | 5 | +3 |
| Shanghai | 2.4 | 3 | 556 | 1 | -2 |
| Australia | 2.1 | 4 | 515 | 9 | +5 |
| Japan | 1.9 | 4 | 520 | 8 | +4 |
| Canada | 1.8 | 6 | 524 | 6 | 0 |
| Finland | 1.6 | 7 | 536 | 3 | -4 |
| USA | 1.5 | 8 | 500 | 15 | +7 |
| Sweden | 1.3 | 9 | 497 | 18 | +9 |
| Hong Kong ¹ | 1.2 | 10 | 533 | 4 | -6 |
| England | 1.0 | 13= ³ | 495 | 22= ⁴ | +9 |
| OECD Average ² | 0.8 | | 493 | | |
| OECD Total ² | 1.0 | | 492 | | |

1. Flemish Belgium 1.2% would have tied with Hong Kong in 10th spot.

2. Average is the mean of the country percentages; total is the percentage for the OECD as a whole.

3. With Korea, Iceland and Israel.

4. With Denmark.

Sources: PISA 2009, Vol 1, Table 1.2.1, page 194 and Table S.1.a, page 232.

Reading

Level 6

- 6.8. Level 6 for reading was pitched higher than for maths or at least proved more difficult to attain. Chart 6.3 shows that the average reaching this level across OECD countries was 0.8 per cent compared with 2.8 per cent for maths. England's percentage of top performers in reading at one per cent is the same as that for the OECD as a whole. But it is less than half that for New Zealand, Singapore, Shanghai and Australia. Six of the top ten jurisdictions were the same as for maths though in a different order. They were joined by Australia, Canada, USA and Sweden. The English-speaking countries did particularly well with New Zealand in first place, Australia fourth, Canada sixth and the USA eighth. Singapore, Sweden and Hong Kong might also be considered as honorary English-speakers. Quite why English should appear to confer an advantage should be investigated, but it could have something to do with its role as a world language. Although England is down in equal 13th spot (with Korea, Iceland and Israel) for the highest achievers in reading, this is relatively better than for its mean score where it was 22nd out of the 37, on par with Denmark.

Levels 5 and 6

- 6.9. So few 15-year-olds reached Level 6 in reading that there was not much difference in absolute terms between countries. Levels 5 and 6 combined, shown in Chart 6.4, spreads them out more. England's performance at Levels 5 and 6 is at about that of the OECD as a whole, but it is only about half as many as in Shanghai, New Zealand and Singapore.

Chart 6.4: PISA 2009 Reading Levels 5 and 6

| Country/Region | Top Performers %5+ 6 | Rank | Overall Score Mean | Rank | Difference in Ranks ¹ |
|---------------------------|-------------------------|------------------|-----------------------|------------------|-------------------------------------|
| Shanghai | 19.4 | 1 | 556 | 1 | 0 |
| New Zealand | 15.8 | 2 | 521 | 7 | +5 |
| Singapore | 15.7 | 3 | 526 | 5 | +2 |
| Finland | 14.5 | 4 | 536 | 3 | -1 |
| Japan | 13.4 | 5 | 520 | 8 | +3 |
| Korea | 12.9 | 6 | 539 | 2 | -4 |
| Canada | 12.8 | 7= | 524 | 6 | -1 |
| Australia | 12.8 | 7= | 515 | 9 | +2 |
| Hong Kong | 12.4 | 9 | 533 | 4 | -5 |
| Belgium ² | 11.2 | 10 | 506 | 11 | +1 |
| England | 8.1 | 17= ⁴ | 495 | 22= ⁵ | +5 |
| OECD Average ³ | 7.6 | | 493 | | |
| OECD Total ³ | 8.0 | | 492 | | |

1. Positive score indicates a higher proportion of top performers than to be expected from the average score.

2. Flemish Belgium 29.9%. If Belgium had been represented only by the Flemish Community, it would have been placed fourth.

3. Average is the mean of the country percentages; total is the percentage for the OECD as a whole.

4. With Switzerland.

5. With Denmark.

Sources: PISA 2009, Vol 1, Table 1.2.1, page 194 and Table S.1.a, page 232.

- 6.10. Eight of the top ten jurisdictions at Levels 5 and 6 for reading also appeared in the list for maths – Shanghai, New Zealand, Singapore, Finland, Japan, Korea, Hong Kong and Belgium (particularly Flanders) – which suggest that there could be something about

these educational systems which get the best out of their pupils. The other two countries in the top ten for reading were Australia and Canada, and the question arises: are these English-speaking countries doing something for the highly able that England is not?

England's Top Performers.

- 6.11. These striking and depressing figures for England would bear investigation in their own right. Who are the top performers and why are there not more of them? The England sample aims to be representative of the schools and comprises independent and grammar schools as well as non-selective secondary schools. Pupils in independent schools, who make up 6.3 per cent of the sample, score on average more than 50 points higher than those in maintained schools (with the grammar schools included) in both maths (546 against 490) and reading (553 against 492). They along with the grammar school pupils are likely, therefore, to dominate the Level 6 positions, reached in this country by only 1.8 per cent in maths and 1.0 per cent in reading. It is an open question: just how many pupils in maintained schools, leaving aside the grammars, reach even Level 5? The position for high ability pupils in non-selective schools is likely to be even worse than the overall figures suggest. The evidence of this chapter is that we have much to learn from other countries about how to enable the highly able to achieve their full potential.

7. Conclusions and Recommendations

- 7.1. The past two decades have seen policy after policy intended to enable highly able children fulfil their potential. But barely has an initiative begun before it has been abandoned. Something fundamental must be wrong. Far fewer pupils attain the highest levels than do so in other countries. In the 2009 PISA round only just over half as many achieved the highest level in maths as the average for OECD countries. England's 1.7 per cent has to be seen against the 8.7 per cent for Flemish Belgium and 7.8 per cent for Switzerland. On a world scale the picture is far worse. In Shanghai 26.6 per cent achieved the highest level in maths, in Singapore it was 15.6 per cent, and in Hong Kong 10.8 per cent. In reading, where the test seems to confer some advantage on English-speaking countries, England is at the OECD average, but achieves only a third as well as New Zealand and half as well as Australia.
- 7.2. At the root of the problem is the construct 'gifted and talented'. It has endured a chequered history and has a great deal of emotional baggage attached. Not surprisingly, governments have found it difficult to frame policies, and schools have struggled to implement them. The Blair government defined 'gifted' as very able academically and 'talented' as showing great promise in, among other things, music, art, design, drama and sport. But some schools interpreted 'gifted' as being an outstanding all-rounder and 'talented' as being especially good in particular subjects. As one languages teacher put it: "I had the misery of having a lad in my languages group who was a genius in maths but in language lessons he just used to clam up, but as he was 'gifted and talented' I was expected to get him an A grade." Psychologists also use the terms in different ways. Gagné (1999), for example, took 'gifts' to mean natural abilities and 'talents' to refer to what is developed from them⁴³.
- 7.3. Schools have used a great variety of ways of attempting to identify the 'gifted and talented'. Even when the same test has been used, the interpretation of the scores has been different to cope with very different intakes. Some schools have relied mainly on teacher nominations. The percentages of children identified - by whatever means - varied in our analysis from zero to 100. Sometimes the use of the extremes arose through wholesale rejection of the label. ("I very much believe that every child has something special about them and we should have all of them on the 'gifted and talented' register, at least for something, even if it is a gift for making friends, anything at all.") Primary schools sometimes took the view that it was too early to tell whether their children were 'gifted and talented' or, conversely, that all children had something. Grammar schools seemed genuinely baffled, unable to decide whether all of their pupils are, by virtue of the entrance test, 'gifted and talented', or whether the category did not apply to them. In our analysis, of the 164 grammars, eight put all of their pupils in the 'gifted and talented' category and nine put none. The situation regarding 'gifted and talented' was succinctly summed up by one of our interviewees: "To be honest it's not very clear because there are so many ways and no set way."
- 7.4. Our conclusion from the evidence of this report is that the construct 'gifted and talented' has taken policymakers down a number of blind alleys.

We recommend that the confusing and catch-all construct 'gifted and talented' be abandoned.

⁴³ Gagné, F. (1999). My convictions about the nature of abilities, gifts and talents. *Journal for the Education of the Gifted*, 22, 109-136.

- 7.5. We expect that our blunt proposal will be met with disdain from those within the fold. We also expect the term to continue to be used because it is the source of identity for a number of pressure groups. But it is important, nevertheless, that it be jettisoned, at least as far as schools are concerned, so as to be able to pinpoint exactly which children and how best to provide for them.

We recommend that the focus, as far as schools are concerned, should be on those capable of excellence in school subjects, pupils we have termed simply as the 'highly able'.

The Highly Able

- 7.6. The highly able come at one end of a continuum. There is, therefore, unlikely to be a means of identification that will satisfy everyone. High attainment depends on a combination of qualities, including ability, personality, motivation, background and support. The best indicator of high attainment is high attainment.

We recommend that Key Stage 2 tests should be used to identify the highly able, using a criterion to be determined in pilot studies (possible criteria would be attaining at least at the 90th percentile, or at least at the 95th percentile, or achieving the new Level 6).

- 7.7. In the days when there were grammar schools throughout the country about a quarter of children were selected by the 11+ tests. In guidelines for the now discontinued 'gifted and talented' register, the recommendation was for 5-10% of pupils to be identified *in each school*. But since there are huge differences in the intakes of even non-selective schools⁴⁴, the capabilities of the top performers in them will also be very different. In countries like Singapore and South Korea, 'gifted' means the top one per cent nationally. So in referring to the 'gifted and talented' we could have in mind the top one percent or the top 25 per cent or more.
- 7.8. Any definition to be of value would have to be capable of being implemented. If we were to think in terms of the highly able being the top ten per cent across the state school system (independent schools are free to go their own way), then there would be about 60,000 highly able in each year group. Taking a round figure for secondary schools of 3,000, this means that there would be, on average, about 20 per school per year, enough for a highly able top set. But there is considerable variation in intakes between schools, with concentrations in some, including grammars and the favoured comprehensives, and hardly any in others. We need a numerical map of where the highly able children currently are. It does not have to be the top ten per cent; five per cent would be an even sharper focus. An appropriate criterion should be arrived at empirically.

We recommend the Key Stage 2 tests should be used to create a numerical map showing which primary schools the highly able children are in, and to which secondary schools they go.

Performing Above Expected Level

- 7.9. The DfE has moved some way in this direction. The 2011 Performance Tables⁴⁵ (published for secondary schools in January 2012) grouped pupils into three levels of Key Stage 2 attainment: 'low', 'high' and 'performing at expected level'. While this is

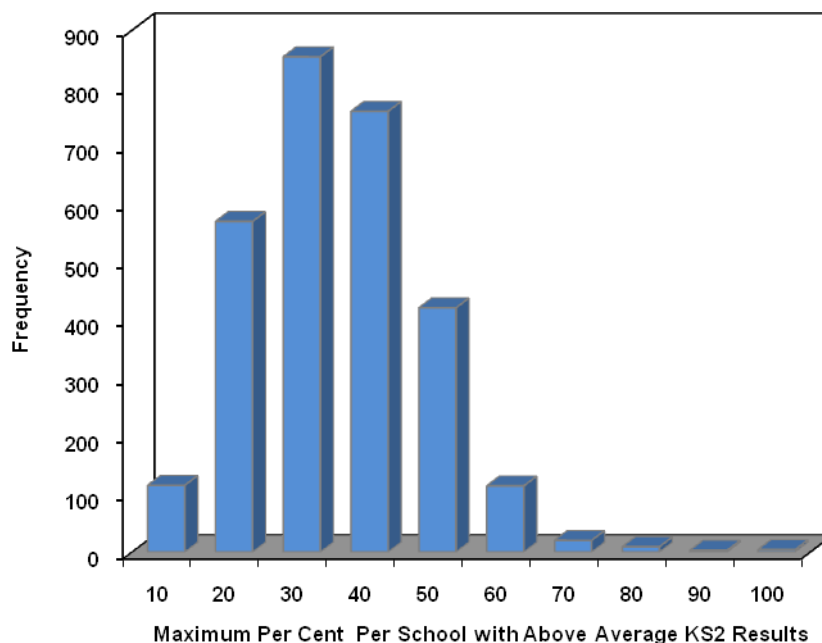
⁴⁴ Smithers, A. and Robinson, P. (2010). *Worlds Apart: Social Variation Among Schools*. London: The Sutton Trust.

⁴⁵ DfE website, published December 2011 for primary schools and January 2012 for secondary schools.

a welcome step, ‘high attainment’⁴⁶, as defined in these tables is very broad, spanning the highly able to those just above average. A third of pupils (33.2%)⁴⁷ were put in this category compared with the five or ten per cent we envisage⁴⁸.

- 7.10. Nevertheless the DfE’s new data are very revealing. Figure 7.1 shows the distribution of non-selective schools by the percentage of above average pupils they admit. The range is astonishing: from 1-98 per cent. The schools also vary considerably in the proportion of pupils eligible for free school meals – from zero to 76 percent. Schools which are intended to be alike are, in fact, very different.

Figure 7.1: Prior Attainment of Secondary Schools¹



1. Maintained non-selective: grammars and independents excluded.

Source: Data set for secondary school performance tables published January 2012

- 7.11. Altogether 115 schools (out of 2871, 4.0%) had ten per cent or fewer of their pupils classified by the DfE as ‘above average’. These were mainly schools with a high proportion of the pupils eligible for free school meals (there was a negative correlation between high attainment and eligibility for free school meals of -0.62, N=2823). In 60 per cent of the schools eligibility for free school meals was at one standard deviation or more above the mean. Only 3.8 per cent of the high free school meal schools had 30 per cent or more of their pupils above average on Key Stage 2 achievement compared with 93.5 per cent of the low free school meal schools⁴⁹.
- 7.12. It emerged that schools could have as few as just one pupil in Year 11 who had performed above average at Key Stage 2. One wonders what this pupil’s development will have been like compared to those who had gone to schools where all, or nearly all, of the pupils had high prior attainment. A picture emerges of some very highly able pupils, often from low income homes, rattling around in schools where few pupils are of

⁴⁶ Pupils achieving Level 5 in English and maths.

⁴⁷ 49.0% at expected level and 17.9% below expected level.

⁴⁸ Since the DfE has taken to calling these the highly able there is the strong possibility of confusion and we may eventually have to adopt the term exceptionally able.

⁴⁹ One standard deviation below the mean – below 5%.

comparable ability. How can we ensure that they have every chance to reach their full potential?

Currently some schools, mainly those serving low income homes, have very few high ability pupils, even on the current broad definition adopted by the DfE. We urge the government to consider the plight of these pupils and make provision for them.

Designing Provision for the Highly Able

- 7.13. Accountability measures⁵⁰, backed by Ofsted inspections, have been the means by which recent governments have sought to determine the direction of schools. The current main accountability measure for secondary schools is the percentage of Year 11 achieving five GCSEs or equivalent, including English and maths, at grade C and above. For primary schools, it is the percentage of children in Year 6 achieving both English and maths at Level 4 and above. These are geared to the performance of the typical pupil. There has also been emphasis on levering up performance from the bottom by floor targets. Currently, the floor target for secondary schools is 35 per cent of the pupils achieving five good GCSEs, including English and maths, and the intention is to raise it to 50 per cent by the end of this parliament. Any school failing to reach the floor target is flagged as underperforming and is subject to a number of possible sanctions, including in extreme cases merger or closure.
- 7.14. Schools have thus been held to account through floor targets for how well their weakest pupils do and through standards for how well the average pupil should do. But there is nothing to direct their attention specifically to the highly able.

Starting from where England's school system is now, the education of the highly able should be given greater prominence through modifying the performance measures and accountability arrangements.

- 7.15. The accountability measures have been much criticised for causing schools to drive up test scores and exam grades by any means possible, whether or not it is conducive to good education⁵¹. We share these reservations because tests and examinations are not precise measuring instruments, in the way of thermometers and rulers, but are rather summations of the way a series of tasks set by some humans are tackled by others. The numbers that emerge depend very much on how the tasks are perceived, how they are treated and the importance attached to the outcomes. But the accountability measures nevertheless do flag up to schools how they should be spending their time. And the main message that comes across at present is that it is the low and middle-range performers who are the priority. This risks the potential high flyers being neglected because they easily meet the accountability standards - although they are not achieving all that they could.
- 7.16. The government has recognised this problem and alongside the accountability measure (which has sanctions attached) it has introduced performance measures (for information). The 2011 performance tables included information on those performing above Level 4 in English and maths. We should like to see the government go further

⁵⁰ The government draws a distinction between accountability measures and performance measures (Nick Gibb evidence to the Education Select Committee, 27 April 2011). The difference is that accountability measures have sanctions attached whereas performance measures are for information. It regards the five good GCSEs including English and maths as an accountability measure and the EBacc as a performance measure. In our view there is no real difference since schools respond to both as signals as to what they should be doing.

⁵¹ Mansell, W. (2007). *Education by Numbers: The Tyranny of Testing*. London: Politico's.

and distinguish the highly able. We have recommended that studies be carried out to determine the most practicable basis for defining the highly able.

We recommend that the School and College Performance Tables which now differentiate pupils into three broad bands of prior attainment be further modified to show the progress and performance of the highly able (defined as achieving at least at the 90th percentile, or achieving at least at the 95th percentile, or the percentage achieving the new Level 6).

- 7.17. Let us emphasize in identifying the highly able we do not envisage that they would be placed in a box and other pupils excluded. The prime purpose is to ensure that the highly able are not neglected.

The accountability system should also be designed to recognise and reward secondary schools for bringing to the highest levels pupils who did not show up well in the Key Stage 2 tests.

- 7.18. Accountability for the highly able in secondary and primary schools would take different forms, but the Key Stage 2 tests would be important to both. This raises the question of whether the Key Stage tests are up to it. Current Key Stage 2 tests have a number of limitations when it comes to identifying the highly able. They were designed for another purpose and as the primary school accountability measure is framed in terms of Level 4 performance schools may be content for their children to achieve at just this level. The tests, therefore, may not differentiate as well as they could. Following the Bew Report⁵² the tests are being further developed and tests for Level 6 in maths and reading are being piloted.

We welcome the piloting of Level 6 tests at Key Stage 2 and it may be that in future these could be used in the identification of the highly able.

- 7.19. Schools' provision for potential high-flyers also needs to be observed by inspectors, not just inferred from results. A school may have good results and generally good provision, but still not be catering as they should for those capable of the highest levels of achievement.

We recommend that evidence of the under-performance of the highly able be a trigger for the inspection of schools rated as outstanding by Ofsted and which otherwise would not be re-inspected.

Learning from Other Countries

- 7.20. We have so far concentrated on modifying the accountability arrangements, since they seem to us to be the best immediate hope of incentivising schools to pay greater attention to the highly able. But more fundamental changes may be required. We saw in Chapter 6, and summarized in the first paragraph of this chapter, how other countries seem to be able to get many more to the highest levels of attainment. It is sometimes argued that Asian countries are so different from us that it is not possible to transpose the approaches that bring them great success. But some of our European neighbours also do very much better. In Switzerland and Flemish Belgium, for example, more than four times as many reached the top level in maths in PISA 2009, and in Germany it was over two and half times as many. What is it, if anything, about the organisation of their education systems that enables them to achieve these heights?

⁵² Bew (June 2011). *Independent Review of Key Stage 2 Testing, Assessment and Accountability. Final Report.* www.education.gov.uk

Beyond accountability, England should seek to improve its education system by taking a close look at those jurisdictions, especially those in Europe, such as Flemish Belgium, Switzerland and Germany, where many more reach the highest levels of achievement.

- 7.21. As far as England is concerned we need to consider just who are the top performers. The PISA sample contains pupils from independent and grammar schools. Since those pupils perform far above those in the general run of schools and so few in this country attain PISA Levels 5 and 6 in maths and reading, it is likely that hardly any pupils in non-selective schools reach these levels.

High achievers in PISA in England seem to be mainly confined to independent and grammar schools. The data should be analysed further to reveal exactly how many pupils in the general run of maintained schools achieve at the highest PISA levels.

Major School Subjects

- 7.22. One specific issue that we wish to nail by scrapping the construct ‘gifted and talented’ is: high ability in what? For us, as far as schools are concerned, it is the major school subjects. It follows that we see provision for the highly able as integral to schools.

We recommend that provision for the highly able should be integral to schools and not a bolt-on.

- 7.23. What schools do is determined by the national curriculum and the syllabuses of national tests and examinations, as well as the signals given by the accountability measures. The national curriculum therefore points the way to how high ability should be manifesting itself.
- 7.24. England did not have a national curriculum till 1988 and it still has not settled on one. What the latest review⁵³ has published so far has said little about those capable of the highest attainment. On page 5 of the interim report it says: “Further work is needed on outstanding issues such as transitions between key stages and, in particular, on more detailed consideration of provision for children with learning difficulties, special educational needs and disabilities and/or those regarded as high attainers”. Curiously, it also suggests in paragraph 8.25, page 51, that if improvements were to be made, “we would expect results not to exhibit the bell-curve of normal distribution, but a skewed curve where the majority achieve at the higher end.” This would, of course, only come about if the examinations did not allow the potentially top performers to show all that they could do.
- 7.25. There is one hopeful sign, however, in that the new review points to an organising principle for the national curriculum. In paragraph 4.8, page 24, it introduces the criterion of ‘sufficient disciplinary coherence’. By this it means having a distinctive means of making sense of the world⁵⁴ and the body of knowledge, skills and understanding so accumulated. Applying this criterion it relegates design and technology, information and communication technology and citizenship to what it calls ‘the basic curriculum’ - which also includes personal, social, health and economic education - to be left to schools. It also distinguishes between the core subjects of

⁵³ DfE (December 2011). *The Framework for the National Curriculum*. A Report by the Expert Panel for the National Curriculum Review

⁵⁴ Our examples would include: maths – deduction from axioms; science- empirical testing; English literature - illumination.

English, maths, science and the foundation subjects of geography, history, modern foreign languages, art & design, music and PE.

- 7.26. This helps us to be more specific about what we mean when we talk of the potential for excellent performance in schools. In our view it can be shown in all these subjects, and not necessarily by the same pupils. But there have to be priorities. We would envisage that new provision and accountability for the highly able be rolled out first in the core subjects of English, maths and science with a view to narrowing the gap between England and the high performing countries. Then once the methods have been proven the approach adopted could be extended to the foundation subjects.

We recommend that provision and accountability for the highly able should be introduced first in the core subjects of the national curriculum followed by the foundation subjects.

National Tests and Examinations

- 7.27. Accountability and performance measures will only be meaningful if the national tests and examinations are strong enough to bear the weight of them. This entails being able to distinguish accurately, reliably and validly. Recent evidence suggests that the tests and examinations may be buckling. Ofqual is conducting an urgent review and the House of Commons Education Select Committee has undertaken an inquiry. The Secretary of State is reported as saying that “large scale” reform of the exam system is needed to counteract “the race to the bottom” in GCSEs and A-levels⁵⁵.
- 7.28. If accountability and performance measures are to play a part in ensuring schools support and provide opportunities for those capable of achieving at the highest levels then the baseline and outcome tests and examinations must be capable of showing excellent performance. It is no good having, as it were, a long jump pit unable to record the leaps of the top performers because they would jump off the end. The Expert Panel’s report on the national curriculum seems to envisage relatively low level exams with improved performance resulting in the top end of the bell of the normal curve being cut off.

We recommend that national tests and exams should include more difficult questions, so that there is ample opportunity for the highly able to show what they can do.

- 7.29. We are not alone in advocating tougher examinations. Pearson, the company which owns one of the awarding bodies, Edexcel, has released a consultation document which proposes more searching papers for the high flyers⁵⁶.

Shape of the Education System

- 7.30. We have proposed that schools be held accountable for the progress of pupils identified as highly able in the Key Stage 2 tests. But the first national assessment after Key Stage 2 is the GCSE examination. For most pupils this is a gap of five years and a lot can happen in those years. School inspectors would be able to provide some assurance, but to monitor the progress of all on a regular basis may require some re-design of the education system.

⁵⁵ Front page *The Daily Telegraph*, 22 December, 2011.

⁵⁶ Pearson UK (January 2012). *Leading on Standards: A Consultation on the Future of Examinations*. www.leadingonstandards.com

- 7.31. There is a strong case of national assessment at age 14. There used to be Key Stage 3 tests at this age, but they were abandoned because of administrative difficulties. It was also thought that national tests and examinations at 14, 16, 17 and 18 were too much. But there is another way round over-testing at these ages and that would be to drop the GCSE examinations. All pupils in future are going to be required to stay in education or training to the age of 18. The GCSE thus loses its point as a school leaving examination. It could, therefore, with advantage be replaced by a national examination at age 14. This would be in line with the practice in many other countries which distinguish lower secondary education from a three- or four-year upper secondary education⁵⁷.

We propose that the government should consider abandoning GCSEs and instituting a national examination at age 14 to mark the end of lower secondary education and pave the way for four years of upper secondary education.

- 7.32. We recognise that this recommendation challenges the policy of the present government which is to encourage all pupils to study the same six subjects to the age of 16 through the promotion of the EBacc⁵⁸. But we would urge it to think again. Not only does the EBacc sit more easily with lower secondary education where the aim is to give all pupils an appreciation of the main ways of making sense of the world so that they can discover which has most meaning for them, but also the reasons for choosing age 16 may be based on a misunderstanding. Two recent reports⁵⁹ have led it to suppose that this is what successful education systems elsewhere do. But it is only the case if the analysis is in terms of ages. The starting age for formal schooling in other countries tends to be one or two years earlier than in England. In most other countries with comprehensive secondary school systems (many of course have differentiated education systems) the opening up of different routes occurs after nine or ten years of schooling. In terms of years of school experience, our age 14 is equivalent to age 15 or 16 in other countries.
- 7.33. If primary education and lower secondary education have accomplished what they are intended to do, young people will be much clearer about what they are good at, what they like and what they want to do with their lives. Inevitably, they will be wanting to head in different directions. Given the impossibility of fitting everything into one timetable in the later years of secondary schooling, the logic would seem to be to have different pathways from age 14. With the raising of the participation age in education and training to 18, the opportunity is there to create coherent four-year courses instead of the cramped two-year courses post-16 that are envisaged at present.
- 7.34. While selection at age 11 is an anathema to many, at the ages of 16 and 18 it is readily accepted and is to be extended. ‘Free schools’, like the London Academy of Excellence⁶⁰, established for 16-18 year-olds are able to operate selective entry. The Chancellor of the Exchequer’s Autumn Forecast in 2011 announced financial support

⁵⁷ Smithers, A. and Robinson, P. (2010). *Choice and Selection: the Experience of Other Countries*. London: The Sutton Trust.

⁵⁸ DfE (2010). *The Importance of Teaching – the Schools White paper 2010*. Cm 7980. London: The Stationery Office.

⁵⁹ Wolf, A. (March 2011). *Review of Vocational Education - The Wolf Report*. And DfE (December 2011). *The Framework for the National Curriculum*. A Report by the Expert Panel for the National Curriculum Review.

⁶⁰ <http://londonacademyofexcellence.com/faqs>

for new Maths Free Schools for 16-18 year-olds to “give our most talented young mathematicians the chance to flourish”⁶¹.

- 7.35. It seems only a small step to have different pathways from the age 14 with pupils getting on to the different routes through a choice-selection process. Some new pathways are already being created through the establishment of the university technical colleges (UTCs)⁶² and studio schools⁶³, which focus on honing practical skills⁶⁴. This approach could be developed to provide enhanced opportunities for the highly able. The government could allow genuinely specialist schools⁶⁵ in the sciences, maths, languages and other subjects to emerge on the UTC model. A number of countries with the highest percentages of top performers in the PISA tests, including Singapore, Japan, South Korea, have specialist schools. The United States does too. One school, the Bronx High School of Science in New York, boasts six Nobel Prize winners among its alumni.

Enhanced opportunities could be provided for the highly able in specialist schools from the age of 13/14 on the university technical college model.

- 7.36. Let us emphasize that our recommendation is to allow genuinely specialist schools to emerge, not to impose them from the centre. Change would be facilitated, not mandated. There need be no great upheaval in the use of school buildings. As we have seen, there is already a great variety of starting and leaving ages. Over time schools could be encouraged to adapt to age 14 as a new major punctuation point.

Exceptionally Able

- 7.37. Among the highly able, there is a sub-group of exceptionally able, perhaps one per cent of the age cohort. General provision for the highly able may not help them. We have in mind here a lad we encountered in our research. He attended a very reputable grammar school but for much of his school career was bored and lonely. He was bored because he found the work too easy and lonely because the other pupils thought him odd since he always seemed to get top marks in maths and the sciences without any effort. His school, even though it was a grammar, was not taking him to the level he needed. He was rescued by his parents who were desperately afraid he would not realise his potential and continually pushed him. Happily they succeeded. At A-level he gained four A* including 100 per cent in both maths and further maths, and went on to Balliol College, Oxford, where he extremely happy.
- 7.38. If we take the top one per cent of the age cohort as exceptionably able, we would have 6,000 pupils per year cohort across the country, or on average two per secondary school per year. It would be for individual schools to recognise them and challenge them in interesting and fulfilling ways. But there would also need to be opportunities to meet

⁶¹ http://www.hm-treasury.gov.uk/press_136_11.htm

⁶² Peter Wilby, *The Guardian*, 1 March 2011, www.guardian.co.uk/.../university-technical-colleges-Kenneth-baker

⁶³ Studio Schools Trust, www.studioschoolstrust.org/

⁶⁴ We have not said much about practical skills in this report, not because we think them unimportant, but because we believe they belong to a quite different way of organising knowledge, skills and understanding to the subjects. The development of practical learning as it relates to employment is best accomplished in employment settings and therefore falls outside the boundary we set for ourselves of excellence in schools.

⁶⁵ Smithers, A. and Robinson, P. (2009). *Physics Participation and Policies: Lesson from Abroad*. Buckingham: Carmichael Press.

each other so they could see what other children with their abilities were able to achieve.

We recommend that consideration be given also to the exceptionally able. Since, on average, there would only be about two per year per school, there should be ways of bringing them together, for example, through master classes or in specialist schools.

Beyond Schools

- 7.39. We have addressed ourselves mainly to provision in schools since that is a matter for national policy⁶⁶. This is not to underestimate what can be achieved outside schools. It is to be hoped there would continue to be a rich menu of master-classes, competitions and visits, from among which schools could choose. Universities, professional bodies, sports clubs, orchestras and bands, art classes and many others can contribute to enabling young people to flower in a multitude of ways. If organisations for the ‘gifted and talented’ want to be involved, their support is to be welcomed on its merits.

Conclusion

- 7.40. Policy and provision for the highly able is in a mess. The root of the problem is that ‘gifted and talented’ is too broad a construct to be the basis of sensible policy. The focus should be on those with the potential for excellence in the major school subjects. Secondary schools should be held to account for the progress of the highly able. More fundamentally, England should seek to improve its education system by taking a close look at those jurisdictions, especially those in Europe such as Flemish Belgium, Switzerland and Germany, where many more reach the highest levels of attainment.

⁶⁶ We have left aside the resource implications because we have been mainly concerned with the principles of what should be done and have not wanted to get bogged down in discussing what is reasonable at a time of austerity. We do not believe that costs would be the barrier to what we are proposing.

Appendix 1: Methods

- A.1. Evidence was collected by two main methods: analyses of national and international statistics; and in-depth interviews.

Numerical Picture

- A.2. School-level datasets, for primary and secondary schools separately, were prepared for the project by:
- selecting and adapting variables from the National Pupil Databases prepared from the 2010 schools census aggregated to the school level;
 - feeding in the percentages of pupils identified as ‘gifted and talented’ in the annual school census January 2010. These data were provided on request by the Department for Education as an excel file in May 2011;
 - adding into the dataset for secondary schools, three variables based on information collected by the by the Sutton Trust in connection with its study, *Degrees of Success: University Chances by Individual School* - average A-level points by school, percentage going to university, and percentage going to selective universities.

Interviews

- A.3. Representatives from twenty schools, twelve secondary and eight primary schools, were interviewed in depth about their ‘gifted and talented’ provision. Originally, it was intended to have a larger sample, but schools seemed reluctant to participate, especially if they had identified only a few as ‘gifted and talented’. Our respondents are, therefore, those who were sufficiently proud of what they were doing to want to talk about it. Thus, the interviews, although illuminating, are likely to have presented us with a rosier picture than actually existed.
- A.4. Headteachers were contacted by letter in early June 2011 to ask if they would be willing to participate in the research project. Schools were first listed in rank order (high to low) which ranged from all pupils identified as ‘gifted and talented’ to no pupils in this category. The list for secondary schools was subdivided by school type into comprehensive, grammar, secondary modern and academy. Ignoring those schools with no pupils in the G&T category equal numbers of schools ranked at the top and bottom of the lists were selected. The sub-groups of secondary schools comprised 50 comprehensive, 8 secondary modern, 8 grammar and 8 academies. From the primary ranking, 72 schools were selected. Schools which agreed to help were asked to return a pro-forma giving the name of the person to approach, a telephone number, and a convenient time to make contact.
- A.5. In the secondary school group of twelve schools there were three single-sex (two girls’ and a boys’) and nine co-educational schools spread across the ten government regions. They ranged in size from around 500 pupils to over 1,800. In seven of the twelve schools the age range was 11-18, while five schools only went up to 16. One of the schools was a grammar school, one a secondary modern and ten were comprehensive. All but one of the schools was designated as specialist.
- A.6. One of the secondary schools, a high performing specialist school, had chosen ‘gifted and talented’ as an additional option. Of the twelve schools, one was an academy and three were becoming academies. The list also included four community, two voluntary

aided and two foundation schools. Seven of the twelve schools returned high percentages of 'gifted and talented' and five low.

- A.7. Half of the eight primary schools covered the full age range of 5 to 11 years. Three had only junior age pupils, 7 to 11, and one was an infant school, from 5 to 7 years. The schools varied greatly in size from very small, under 100 pupils, to larger than average with over 500 pupils. Three of the schools were located in Outer London. The others were in the South East, North West and South West regions. Two of the eight schools recorded less than one per cent of pupils as gifted and talented.
- A.8. Teachers in the participating schools agreed to be interviewed by telephone and allowed the conversation to be recorded to provide an accurate record. In the primary schools the interviews were with either the headteacher (three and one acting head) or deputy headteacher (four). In six of the eight schools the head or deputy was also the 'gifted and talented' co-ordinator. The situation in the secondary schools was very different. The majority of interviews (8) were with the G&T co-ordinator who doubled up this role with their subject specialist teaching or more senior responsibilities such as head of learning. Four of the interviews were with a member of the senior leadership team - deputy headteacher, assistant headteacher or vice-principal - with overall responsibility for G&T education, but who were able to delegate day-to-day activities to a G&T co-ordinator.
- A.9. The interviews were semi-structured and focussed on: (i) gifted and talented pupils – the proportion identified, variation with year group, how they were identified and the perceived usefulness of the categorisation; (ii) the development of policy and provision in and beyond the school; (iii) support for gifted and talented education in the school - staffing and funding; (iv) support outside of school - from the local authority, charitable organisations and government; and (v) their views on future policy and provision nationally. The interviews were carried out in June and July 2011.

Appendix 2: Highest Achievers in PISA 2009

Table A1: High Level Performance in Maths in OECD Countries

| Country | Level 6 | | Levels 5+6 | |
|---------------------------------|------------|-----------|-------------|------------|
| | % | OECD Rank | % | OECD Rank |
| Korea | 7.8 | 1= | 25.5 | 1 |
| Switzerland | 7.8 | 1= | 24.1 | 2 |
| Japan | 6.2 | 3 | 20.9 | 4 |
| Belgium ³ | 5.8 | 4 | 20.4 | 5 |
| New Zealand | 5.3 | 5 | 18.9 | 7 |
| Finland | 4.9 | 6 | 21.6 | 3 |
| Germany | 4.6 | 7 | 17.8 | 9 |
| Australia | 4.5 | 8 | 16.4 | 10 |
| Netherlands | 4.4 | 9= | 19.8 | 6 |
| Canada | 4.4 | 9= | 18.3 | 8 |
| Slovenia | 3.9 | 11 | 14.2 | 11 |
| Slovak Republic | 3.6 | 12 | 12.7 | 15 |
| France | 3.3 | 13 | 13.7 | 12 |
| Czech Republic | 3.2 | 14 | 11.7 | 17 |
| Iceland | 3.1 | 15 | 13.6 | 13 |
| Austria | 3.0 | 16 | 12.9 | 14 |
| Denmark | 2.5 | 17= | 11.6 | 18 |
| Sweden | 2.5 | 17= | 11.4 | 19 |
| Luxembourg | 2.3 | 19 | 11.3 | 20 |
| Estonia | 2.2 | 20= | 12.0 | 16 |
| Poland | 2.2 | 20= | 10.4 | 21 |
| Hungary | 2.0 | 22 | 10.1 | 23 |
| USA | 1.9 | 23= | 9.9 | 24= |
| Portugal | 1.9 | 23= | 9.6 | 26 |
| Norway | 1.8 | 25 | 10.2 | 22 |
| England | 1.7 | 26 | 9.9 | 24= |
| Italy | 1.6 | 27 | 9.0 | 27 |
| Spain | 1.3 | 28= | 8.0 | 28 |
| Turkey | 1.3 | 28= | 5.7 | 31= |
| Israel | 1.2 | 30 | 5.9 | 30 |
| Ireland | 0.9 | 31 | 6.7 | 29 |
| Greece | 0.8 | 32 | 5.7 | 31= |
| Chile | 0.1 | 33 | 1.3 | 33 |
| Mexico | 0.0 | 34 | 0.7 | 34 |
| OECD Average¹ | 3.1 | | 12.7 | |
| OECD Total² | 2.8 | | 11.7 | |
| Shanghai | 26.6 | | 50.4 | |
| Singapore | 15.6 | | 35.6 | |
| Hong Kong | 10.8 | | 30.7 | |

1. Mean of OECD country percentages.

2. Percentage in OECD as a whole.

3. Flemish Belgium 8.7% at Level 6 and 26.9% at Levels 5 and 6.

Sources: *PISA 2009, Vol 1, What Students Know and Can Do*, Table 1.3.1, page 221 and Table S.1.s, page 256.

Table A2: High Level Performance in Reading in OECD Countries

| Country | Level 6 | | Levels 5+6 | |
|---------------------------------|------------|------------|------------|------------|
| | % | OECD Rank | % | OECD Rank |
| New Zealand | 2.9 | 1 | 15.8 | 1 |
| Australia | 2.1 | 2 | 12.8 | 5= |
| Japan | 1.9 | 3 | 13.4 | 3 |
| Canada | 1.8 | 4 | 12.8 | 5= |
| Finland | 1.6 | 5 | 14.5 | 2 |
| USA | 1.5 | 6 | 9.9 | 8 |
| Sweden | 1.3 | 7 | 9.0 | 11 |
| Belgium ³ | 1.1 | 8= | 11.2 | 6 |
| France | 1.1 | 8= | 9.6 | 10 |
| Korea | 1.0 | 10= | 12.9 | 4 |
| Iceland | 1.0 | 10= | 8.5 | 12 |
| England | 1.0 | 10= | 8.1 | 14= |
| Israel | 1.0 | 10= | 7.4 | 17 |
| Norway | 0.8 | 14 | 8.4 | 13 |
| Netherlands | 0.7 | 15= | 9.8 | 9 |
| Switzerland | 0.7 | 15= | 8.1 | 14= |
| Poland | 0.7 | 15= | 7.2 | 18 |
| Ireland | 0.7 | 15= | 7.0 | 19 |
| Germany | 0.6 | 19= | 7.6 | 16 |
| Estonia | 0.6 | 19= | 6.0 | 21 |
| Greece | 0.6 | 21 | 5.6 | 24 |
| Luxembourg | 0.5 | 22 | 5.7 | 23 |
| Italy | 0.4 | 23= | 5.8 | 22 |
| Czech Republic | 0.4 | 23= | 5.1 | 25 |
| Austria | 0.4 | 23= | 4.9 | 26 |
| Hungary | 0.3 | 26= | 6.1 | 20 |
| Denmark | 0.3 | 26= | 4.7 | 28 |
| Slovenia | 0.3 | 26= | 4.6 | 29 |
| Slovak Republic | 0.3 | 26= | 4.5 | 30 |
| Portugal | 0.2 | 30= | 4.8 | 27 |
| Spain | 0.2 | 30= | 3.4 | 31 |
| Turkey | 0.0 | 32= | 1.8 | 32 |
| Chile | 0.0 | 32= | 1.3 | 33 |
| Mexico | 0.0 | 32= | 0.4 | 34 |
| OECD Average¹ | 0.8 | | 7.6 | |
| OECD Total² | 1.0 | | 8.0 | |
| Singapore | 2.6 | | 15.7 | |
| Shanghai | 2.4 | | 19.4 | |
| Hong Kong | 1.2 | | 12.4 | |

1. Mean of OECD country percentages.

2. Percentage in OECD as a whole.

3. Flemish Belgium 1.2% at Level 6 and 12.5% at Levels 5 and 6.

Sources: PISA 2009, Vol 1, *What Students Know and Can Do*, Table 1.2.1, 194 and Table S.1.a, page 232.