

Really raising standards in GCSE English : responding effectively to the new specifications and Progress 8

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Understanding and using Progress 8 (King's College London, 14 December 2015).*

Introduction

The changes to the new GCSEs are unparalleled in that a general school examination is being reformed simultaneously in all its aspects: specifications, content, demand, assessment process, grading and school accountability. When GCSE replaced GCE Ordinary Level and the Certificate of Secondary Education (CSE) in 1986, only specifications and content were changed. Demand and assessment process remained unchanged, reflecting the previous two components; the A – G grading system simply unified those of O Level and CSE; and school accountability (such as it was) was unaffected. Schools are accordingly facing an unprecedented challenge at present with implications of which they may not be fully aware owing to lack of sufficient guidance from the DfE and Ofqual.

Many of the changes have been publicised in previous years. These include the move in 2017 to wholly end-of-course examinations taken only in June; for English, increased demand in terms of unseen and set texts and more open-ended questions requiring evaluation and comparison; the requirement that only GCSE can count in the English 'slot' for Progress 8; greater similarity between specifications with close control by Ofqual of examination papers, marking and awarding; a move from grades A* – G to 9 – 1; and a move to a value-added measure of school accountability (Progress 8) which compares students' attainment in a specified range of GCSE subjects with their attainment in the KS2 tests.

A feature relating only to English is that English Language or English Literature is double-weighted for students who sit both, but that this does not apply to early entries in 2016 which are treated as 'legacy' GCSEs for Progress 8 in 2017. Schools with an early entry policy will therefore need to interrupt this in 2016 if they are to attain maximum Progress 8 in 2017, though they can resume early entries in 2017. On the other hand, the other English GCSE grade can appear in students' non-EBacc group of subjects if it is one of the three highest, so that English can account for 30 per cent of students' Attainment 8 and Progress 8.

There are four other less evident factors which are likely to have a profound effect on teaching and learning so that schools that are aware of them will be at an advantage over others. These are:

- in relation to Attainment 8 estimates (expected grades indicated by students' Key Stage 2 fine-level scores), Progress 8 will reward progress by less able students at all levels of prior attainment particularly highly
- Ofqual's published policy indicates much higher grade boundaries for the new GCSEs consonant with its obligation to raise standards in international terms
- the number of students awarded grades 9 – 7 (and 6 – 4) will be fixed in advance so that schools will compete for them; in particular, grade 8 will be much more difficult to attain than grade A
- the end of 'gaming' by entering students for low-demand qualifications.

These matters have not been publicised by the DfE or Ofqual because they provide limited guidance for schools. This in turn arises partly from the Coalition's and current Governments' wish to promote competition between schools as the most effective way of raising attainment, a policy that also underlies the promotion of academies and free schools, and partly from a reaction against the centrally-led, heavily target-driven policies on raising attainment of the Labour governments between 1997 and 2010.

This paper outlines the background to the cross-party policies which require higher standards at GCSE and, in particular, higher attainment by young people who leave school with poor qualifications or none. It then provides evidence for the four unpublicised aspects of the new GCSE arrangements listed above and suggests how schools might respond most successfully to them, particularly in relation to maximising grades in GCSE English.

1 POLITICAL BACKGROUND

Origins of current policies

There is cross-party political agreement on the need to:

- raise school attainment in England towards that of other higher-achieving jurisdictions
- reduce the 'tail' of students leaving school with poor qualifications or none.

These aims were set out in the Coalition White Paper *The Importance of Teaching* in November 2010 (DfE 2010) and did not feature in the 2015 General Election campaign because there is no political disagreement about them. They and the decision to use GCSE as the chief means of raising standards are based on international comparisons – PIRLS, TIMSS, PISA and PIAAC – which show attainment in England's secondary schools as flatlining for the past 20 years and lower than in a number of other advanced economies (Smith 2015A, Appendix 1).

Political response to the first issue – low overall attainment – began under the previous Labour Government. Since 1997 guidance for teachers had been provided by the National Strategies, led by the DfE and delivered by Capita, which had created a formulaic approach to lesson delivery; and since 1990 a curriculum and assessment advice body, eventually called the Qualifications and Curriculum Development Agency (QCDA), had promoted ever more detailed assessment of students' work as a way of raising attainment with, in sequence, National Curriculum sublevels, assessment focuses underpinning National Curriculum tests in Years 2, 6 and 9 and finally Assessing Pupil Progress (APP).

Neither the Strategies' nor QCDA's approach was based on any significant research and by October 2008 the Government had accepted that neither had delivered improvements in education in England as measured by international comparisons, not only PISA but the longer established PIRLS and TIMSS. The Secretary of State (Ed Balls) abolished the KS3 National Curriculum tests and announced that the Strategies would be wound up and not replaced when Capita's contract ended in March 2011.

The decision to legislate to create Ofqual was taken at the same time. This was in response to the fact that, since 1988, GCSE and A Level grade rates had risen year after year but that this rise was not reflected in international comparisons. The Government accepted that the rise was caused by grade inflation in turn caused by the Awarding Bodies competing for market share. Ofqual was created by the Apprenticeships, Skills, Children and Learning Act 2009 with a statutory remit to ensure consistency of standards between the various examinations year on year, beginning its work in April 2010.

QCDA was left in existence and abolished in 2012 following transfer of its regulatory powers to Ofqual in 2010 and its responsibility for the remaining National Curriculum tests to the Standards and Testing Agency in 2011. These changes enabled HM Inspectorate, which had been reduced to a training and supervisory role during the Strategies period, to resume its former role of providing advice on teaching and learning – see page 17 below.

Governments' commitment to reducing the 'tail' of students leaving school with poor qualifications or none has not been widely noticed. It is strongly stated by the Prime Minister and Deputy Prime Minister in the foreword to the Coalition White Paper *The Importance of Teaching* in November 2010 (DfE 2010):

The third lesson of the best education systems is that no country that wishes to be considered world class can afford to allow children from poorer families to fail as a matter of course. For far too long we have tolerated the moral outrage of an accepted correlation between wealth and achievement at school; the soft bigotry of low expectations. Children on free school meals do significantly worse than their peers at every stage of their education. They are just half as likely to get good GCSEs as the average. More children from some private schools go to Oxbridge than from the entire cohort of children on free school meals.

This vast gap between rich and poor is not pre-ordained. In Finland and Canada the gap is much smaller.

While this disregards the social and economic causes of inequality – for example, Finland and Canada are more egalitarian societies with negligible independent school sectors providing separate education for children of affluent and influential families – it responds to a problem that public policy has ignored until now. The relatively poor attainment of students on completing compulsory education in England is confirmed by the first PIAAC survey in 2012 which, for adults aged 16-24, places England 22nd of 24 countries for literacy and 21st of 24 for numeracy. Unlike in most other countries, these young adults performed no better than adults aged 55-65. 16-18 year olds in England came bottom for literacy and second-to-bottom for numeracy. These findings repeat those of earlier surveys (Department for Business Innovation and Skills 2014) and have been confirmed subsequently. The 2014 Sustainable Economic Development Assessment found that Britain's education system scored 74 of 100 against a Western European average of 82 with a comparative decline in tertiary enrolment (Boston Consulting Group 2014) and OECD has found British 16 – 24 year olds not in education and training to have the lowest literacy and problem-solving skills of all 19 countries surveyed. British graduates also scored poorly on these criteria (OECD 2015).

All the main political parties accept that this represents a large waste of potential and harms England's international competitiveness.

Decisions on raising attainment for all

The Coalition Government determined, and Labour accepted, that GCSE should be:

- **more demanding** in examination (end-of-course only), content and assessment (more challenging questions)
- **consistent in standard** between the various Awarding Bodies
- **internationally referenced** to standards in more successful jurisdictions
- **referenced to national standards over time** by national reference tests in English and Mathematics
- **used to assess value added since Year 6** (Progress 8)
- **equitable** so that all grades, not only the top four, count towards Attainment 8 and Progress 8
- **focussed on effective teaching** by removing Ofsted's requirement of detailed evidence of tracking progress and by funding academic research into effective teaching methods, chiefly through the Education Endowment Foundation.

The timing of the introduction of the new specifications and their new 9 – 1 grades are well known. However, several other apparently technical features seem less well understood although they will significantly affect schools' results when the new GCSEs are examined. These include: under Ofqual's policy of comparable outcomes, each grade group having the same proportion of students as at present (A*/A = 9 – 7, B/C = 6 – 4, D to G = 3 – 1) with grades within these fixed arithmetically; abandonment of any element of criterion referencing at least in the first year; predetermination of the national proportions of candidates attaining grades 9 – 7 at 20:40:40¹; and alignment of new mid-grade 5 with average performance in several higher-achieving jurisdictions (Ofqual 2014).

Under the 2009 Act there is now a statutory requirement for examinations provided by the various Awarding Bodies to be comparable in standard and consistent year by year.

Ofqual's statutory remit is in fact to ensure that the standards of papers and marking are so similar between Awarding Bodies that the system will perform like a single examination as in other countries. This will be achieved as the new GCSEs are introduced by:

- new specifications written to tight requirements laid down by Ofqual, so very similar
- inter-Board screening of marking by Ofqual to ensure consistency; Ofqual has the power to require Boards to change their grade boundaries before awarding
- National Reference Tests in English and Mathematics, trialled in 2016 and used fully in 2017 to moderate GCSE standards; taken annually thereafter and used from 2018 as a check on GCSE standards (Ofqual 2014).

An Awarding Body that set an easier paper than others or marked a paper more generously would be required to change its grade boundaries to give the same proportion of, say, grade 7s as other Bodies. As Ofqual's statutory remit is to ensure consistency of standards between Awarding Bodies and year on year, the proportion of, say, grade 7s awarded would therefore be permitted to rise only if the National Reference Test showed the year's cohort to be more able than the previous year's. In this circumstance, all the Awarding Bodies would be permitted the same increase. A necessary corollary of this is that, if an Awarding Body persisted in attempting to set easier papers or marking more generously, Ofqual would require it to adjust its awarding until it conformed to the national standards.

¹ These proportions currently apply to English Language, English Literature and Mathematics, but may change slightly. Ofqual is currently consulting about awarding procedures for the higher grades (Ofqual 2016). Ofqual proposes that grade 9 should be 'tailored' to the proportion of students gaining grades 9 – 7 and for English and Mathematics will be approximately 20 per cent. The 7/8 grade boundary will be placed equidistant between the 8/9 and 6/7 grade boundaries.

Decisions on raising the attainment of the less able – ‘closing the gap’

The Coalition Government’s policies, supported by Labour and continued by the current Conservative Government, are:

- pupil premium paid to schools to improve the education of disadvantaged children
- £110 million invested through the Education Endowment Foundation on research on how to raise attainment of disadvantaged children
- secondary schools to be judged primarily on a value-added measure (Progress 8)
- Progress 8 designed to require schools to improve the teaching and learning of moderately and less able students at all levels of prior attainment
- Ofsted to focus more closely on how well schools ‘close the gap’.

In his Spending Review and Autumn Statement on 25 November 2015, the Chancellor of the Exchequer confirmed that the pupil premium would continue unchanged although there had been lobbying by headteacher associations for the money to be transferred to general school budgets. This indicates the present Government’s continuing commitment to raising attainment by disadvantaged students.

2 IMPLICATIONS OF PROGRESS 8

School accountability

From 2016 schools will publish 4 measures:

- Attainment 8 - students’ average attainment in their best 8 subjects (within specified requirements)
- Progress 8 – showing students’ progress compared with their Key Stage 2 (Year 6) test scores in Reading and Mathematics;
- percentage of students achieving a threshold measure in English and Mathematics (currently grade C; grade 5 as the new mid grade of 9 – 1); and
- percentage of students achieving the English Baccalaureate.

Progress 8 will be the most important of the four performance measures because inspections and ‘coasting’ will be decided solely in relation to it. Schools that achieve a Progress 8 score of plus 1.0 or more (i.e. at least a GCSE grade) will be exempt from routine Ofsted inspections in the next academic year. Schools that achieve a Progress 8 score of less than minus 0.5 (i.e. half a GCSE grade) will be liable to Ofsted inspection (DfE 2016, page 8). **This policy change is significant because it places decisions about inspections on a wholly objective basis based on value-added rather than simple**

attainment. As part of overarching Government policy to reduce unnecessary expenditure, routine inspections will be conducted only on the basis of Progress 8 so schools will know in advance whether they will be inspected in any given year.

Under the Education and Adoption Act 2016, a school will be coasting if in three consecutive years it falls below a Progress 8 measure to be set for this purpose. This measure will be higher than the absolute floor standard of minus 0.5 (DfE 2015, paragraph 22).

Calculating Attainment 8 and Progress 8

Attainment 8 is each student's best 8 GCSE results comprising:

- | | |
|--|----|
| • English Language or English Literature
(double weighted if both taken at same time) | 2 |
| • Maths (double weighted) | 2 |
| • 3 other EBacc subjects | 3 |
| • 3 others from a prescribed list | 3 |
| | — |
| | 10 |

For their Progress 8, each student's Attainment 8 score is:

- divided by 10
- related to a matrix of fine-level scores in the KS2 English and Mathematics tests² to give the student's Progress 8 score (see Appendix 1).

This matrix presents students' national KS2 test scores in 2010 in a form that enables comparison with their average scores in their Attainment 8 GCSEs in 2015. It will be updated and republished by the DfE each year, comparing KS2 scores in 2011 with GCSE scores in 2016 and so on year by year. (An important caveat is that the KS2 fine-level scores do not represent National Curriculum levels. They are a mathematical construct which enables KS2 scores and GCSE scores to be compared – see DfE 2016, pages 16/17).

A school's Progress 8 score is the average of its individual students' Progress 8 scores.

The matrix shows national expectations year by year so, as Progress 8 will be calculated on the new numerical GCSE grades 9 – 1, a school achieving +1.0 will have raised its students'

² From 2017 fine level scores will be calculated from Reading and Mathematics rather than English and Mathematics, excluding Writing which is teacher-assessed (DfE 2016, page 30).

attainment by an average of one GCSE grade above national expectations based on their KS2 scores. A school achieving minus 0.5, regarded as the absolute minimum, will have reduced its students' attainment below national expectations by half a grade.

Schools' Attainment 8, Progress 8 and other accountability measures will be calculated by the DfE on the basis of students' KS2 test scores and GCSE grades reported to it by the Standards and Testing Agency and Awarding Bodies in the same way as RAISEonline.

Schools will be required to publish their overall Attainment 8 and Progress 8 scores on their website year by year in a standard format for easy comparison by parents and others. It seems that they will also be required to publish their average point score for each subject.

Progress 8 and students' ability

Each year the DfE publishes the Attainment 8 scores attained by students nationally at GCSE in relation to each of the KS2 fine level scores. The current table, relating 2015 GCSE scores to 2010 KS2 fine level scores, is published as Annex B to DfE 2016. This is reproduced as Appendix 1 to this paper.

The DfE cautions against using the Attainment 8 scores as targets because of possible changes in GCSE entry patterns in coming years (DfE 2016, pages 20/21). However, their purpose is to provide guidance for schools because no other guide to the effects of the new accountability system is available. As the DfE indicates, transition matrices available in RAISEonline are subject to the same changes in entry pattern as the Attainment 8 estimates (page 21). The 2015 Attainment 8 estimates are very similar to the 2014 estimates published in DfE 2015, reflecting similar GCSE entry patterns in the two years, but these may change as the new specifications come into use.

Raising a student's expected performance from grade 2 to 3 has equal value for Attainment 8 to raising it from grade 7 to 8 but, within this, **students with a low KS2 fine level score in relation to their next grade above expectation will obviously achieve a higher Progress 8 score if they achieve that grade than those with a higher KS2 fine level score.** Each KS2 fine level score gives an expected Attainment 8 score and students who attain this will have a Progress 8 of zero. But students who are taught well enough to attain grades above expectation will achieve a commensurately higher Progress 8 score.

The Progress 8 scores for each KS2 score where, on average, the student attains the next grade above expectation are given at Appendix 2. It is not to be assumed that attaining higher grades will be easy, especially given the greater demand of the new GCSE specifications. But as Appendix 2 shows, **similar Progress 8 scores can be achieved by students with all levels of prior attainment as shown by their KS2 fine-levels. This provides a strong incentive for schools to rethink their teaching and learning policies.**

This effect can be demonstrated in greater detail with a series of examples covering a range of levels of prior attainment. In each case, the student's expected Attainment 8 score as provided by Appendix 1 (DfE 2016, page 29) is divided by 10, that is, the student's best 8 permitted subjects with English Language or English Literature and Mathematics double-weighted.

Example 1. A student who enters Year 7 with a KS2 fine level score of 2.9 has an expected Attainment 8 score of 21.88 = expected average GCSE grades 2.19 (2.2).

She is therefore expected to attain grade 3 in four Attainment 8 subjects and grade 2 in the four others including English and Maths ($4 \times 3 + 6 \times 2 = 24$ divided by $10 = 2.4$). If she does, her Progress 8 score will be +0.2 ($2.4 - 2.2$).

If one of the grade 3s is in English Language/Literature or Maths, Progress 8 will be +1.02; if both, +2.02.

Each additional grade 3 will bring an additional +1 Progress 8.

If this student attains an average of grade 3 in all 8 subjects (=30), her Progress 8 will be +8.12 ($30 - 21.88$).

Example 2. A student who enters Year 7 with a KS2 fine level score of 3.7 has an expected Attainment 8 score of 32.11 = expected average GCSE grades 3.21 (3.2).

If he attains grade 4 in five Attainment 8 subjects and grade 3 in the three others including English and Maths, his Attainment 8 will be 31 ($5 \times 4 + 5 \times 3 = 35$ divided by $10 = 3.5$). If he does, his Progress 8 score will be +0.3 ($3.5 - 3.2$).

If one of the grade 4s is in English Language/Literature or Maths, Progress 8 will be +1.03; if both, +2.03.

Each additional grade 4 will bring an additional +1 Progress 8.

If this student attains an average of grade 4 in all 8 subjects (=40), his Progress 8 will be +7.89 ($40 - 32.11$).

Example 3. A student who enters Year 7 with a KS2 fine level score of 4.9 has an expected Attainment 8 score of 55.03 = expected average GCSE grades 5.50 (5.5).

He is therefore expected to attain grade 6 in five Attainment 8 subjects including English or Maths and grade 5 in the others including English or Maths ($6 \times 5 + 5 \times 5 = 55$ divided by 10 = 5.5). His Progress 8 score will be zero.

If he attains grade 6 in both English Language/Literature and Maths, his Progress 8 will be +1.

Each additional grade 6 will bring an additional +1 Progress 8.

If this student attains an average of grade 6 in all 8 subjects (=60), his Progress 8 will be +4.97 ($60 - 55.03$).

Example 4. A student who enters Year 7 with a KS2 fine level score of 5.2 has an expected Attainment 8 score of 61.51 = expected average GCSE grades 6.15 (6.2).

She is therefore expected to attain grade 7 in two Attainment 8 subjects and grade 6 in the others six including English and Maths ($2 \times 7 + 8 \times 6 = 62$ divided by 10 = 6.2). Her Progress 8 score will be zero.

If one of the grade 7s is in English Language/Literature or Maths, her Progress 8 will be +1; if both, +2.

Each additional grade 7 will bring an additional +1 Progress 8.

If this student attains an average of grade 7 in all 8 subjects (=70), her Progress 8 will be +8.49 ($70 - 61.51$).

It will be seen that significant progress, reflected in Progress 8, can be achieved at all levels of prior attainment. **In line with government policy on ‘closing the gap’ which underpins Progress 8, schools therefore have a strong incentive to maximise the attainment of all their students. Teaching and learning policies will need to be reconsidered to ensure the highest possible attainment of students of all abilities.**

It may be argued that, as Attainment 8 gives average national performance, only a certain percentage of students can exceed their estimate by one whole grade per subject with the implication that a corresponding proportion will attain a grade less than their estimate. This may be an apparent initial effect in that students at schools that rethink teaching and learning appropriately will make greater gains than those at schools that do not.

However, this is not the case in the longer term because the Attainment 8 estimates on which Progress 8 is based are not absolute figures: they are *comparative* figures, comparing attainment at GCSE with attainment in the KS2 tests taken five years previously. Eventually the Attainment 8 estimates are likely rise in response to higher attainment at GCSE, showing a rise in attainment nationally, as is the aim of Government policy underpinning the GCSE reforms. In this case a majority of students will have exceeded their attainment estimate.

Background issues

The Attainment 8 scores on which Progress 8 is based are national estimates of *average* attainment for each KS2 fine-level score, so that, adding all students' Attainment 8 scores together, the *national* outcome will be zero for each point on the scale. This is a consequence of using averages. However, **Progress 8 scores will vary between schools because they will depend directly schools' effectiveness in preparing their students for the new GCSE specifications. Variation is likely to be greater than in the past for several reasons:**

- Ofqual's move to almost wholly norm-referenced assessment to ensure comparable outcomes will require schools to compete for a predetermined number of grades in each grade-group.
- Ofqual's greater focus on consistency of marking and awarding, and prospective changes in Ofsted policy, will remove opportunities for 'gaming' between specifications.
- Schools that understand and respond to the changes in teaching and learning required by the new specifications will achieve better grades than others.
- In particular, schools that focus on improving attainment by students currently assessed as relatively low ability, attaining GCSE grades D – G or non-GCSEs, will achieve significantly higher Progress 8 scores.

In relation to 'gaming', concern has arisen following a blog by Tom Sherrington about a meeting of Partners in Excellence (PiXL) at which school leaders were advised to enter whole cohorts for low-demand qualifications such as the European Computer Driving Licence and AS levels in Use of Mathematics and Creative Writing in order to maximise students' Progress 8 scores (Sherrington 2016). It is reported that Ofsted inspectors will be instructed to penalise schools employing such tactics in terms of student outcomes and leadership judgements (Busby 2016) and that Ofqual is likely to disallow such qualifications from 2019 (Adams 2016).

In any case Ofqual is already phasing out these low-demand qualifications. The European Computer Driving Licence no longer appears in Ofqual's list of regulated qualifications; AS Use of Mathematics can be sat for the last time in 2016 (last resits in 2017) and AS Creative

Writing is last examinable in 2019. As Ofqual's document *Timings for the withdrawal of legacy GCSEs AS and A Levels* (Ofqual 2016A) shows, all current low-demand qualifications are being withdrawn.

As with the need to end grade inflation by the GCSE Boards, there is cross-party agreement that higher standards require a tightly controlled examination system in which all the qualifications have comparable demand. Some schools' attempts to evade this, apparently encouraged by PiXL, will be systematically prevented.

Progress 8 is solely a school accountability measure. Obviously it will not be relevant to students' future – acceptance for further or higher education or employment will still depend on their grades, not on the progress they have made since Year 6. But Progress 8 could be a strong motivating factor for moderately and less able students depending on how schools decide to use it. Students attaining high grades will have this satisfaction although their Progress 8 score is likely to be low. But students attaining lower grades may well have the satisfaction of achieving a high Progress 8 score if the school informs them of it and could receive certificates or awards if the school wishes.

In summary, Progress 8 has been designed to require schools to focus their energies on the second of the Government's (and cross-party) policy aims – raising the attainment of those who currently leave school with poor qualifications or none by improving the teaching and learning of students who currently attain grades D to G. This is consonant with requiring almost all students to be entered for GCSEs rather than vocational alternatives and with requiring 90 per cent of students to attain the English Baccalaurate. As schools' headline accountability figure, Progress 8 will provide public focus on schools which favour more able students at the expense of the less and therefore fail to 'close the gap' in terms of Government policy or, with able students, are coasting.

A misunderstanding

A misunderstanding has arisen from an Education Datalab blog by Rebecca Allen (Allen 2016) reported in the Times Educational Supplement (Wiggins 2016). This is that "schools serving more affluent pupil communities are likely to achieve much better Progress 8 scores ... those with lower ability intakes are far more likely to fall below the announced floor standard of minus 0.5". This derives from an analysis of the 2015 national Progress 8 scores.

Allen suggests that this situation is caused by schools with higher ability intakes being better aligned to the requirements of Progress 8 (more students take a full range of 8 or more GCSEs and attain better grades) and by a range of interconnected factors affecting schools with lower ability intakes including social and economic deprivation, less parental support for learning, teacher turnover rate and difficulties of staff recruitment.

This analysis is entirely plausible, but relates solely to Progress 8 calculated on 2015 GCSE results, reflecting entry policies in 2013 and earlier. It does not relate at all to the entry policies for 2017 and thereafter which are predicated on very different requirements. In the past, schools in less affluent areas with lower ability intakes were much more likely to enter students for non-GCSE qualifications. From 2017 only GCSEs in English and Mathematics will count for Progress 8 and this will require schools to enter almost all their students for these qualifications.

Similarly in 2015 only grades A* – C counted in schools' results, so less able students typically received less support and often less effective teaching than students predicted to attain grade C and above. With the move to grades 9 – 1 this will no longer apply and schools will need to maximise progress by all their students.

The essential point is that Allen's analysis is a snapshot of Progress 8 in 2015 without reference to changes that Government policy is designed to bring about. There is no reason why schools with higher ability students should continue to do better under Progress 8. They may, in fact, perform less well because their students enter with high KS2 scores and the scope for adding value is more limited. This may be particularly true when the numbers of grades 7 – 9 nationally are capped.

However, Allen's analysis is helpful if it draws attention to the major changes in teaching and learning that schools with a full range of ability will need to implement.

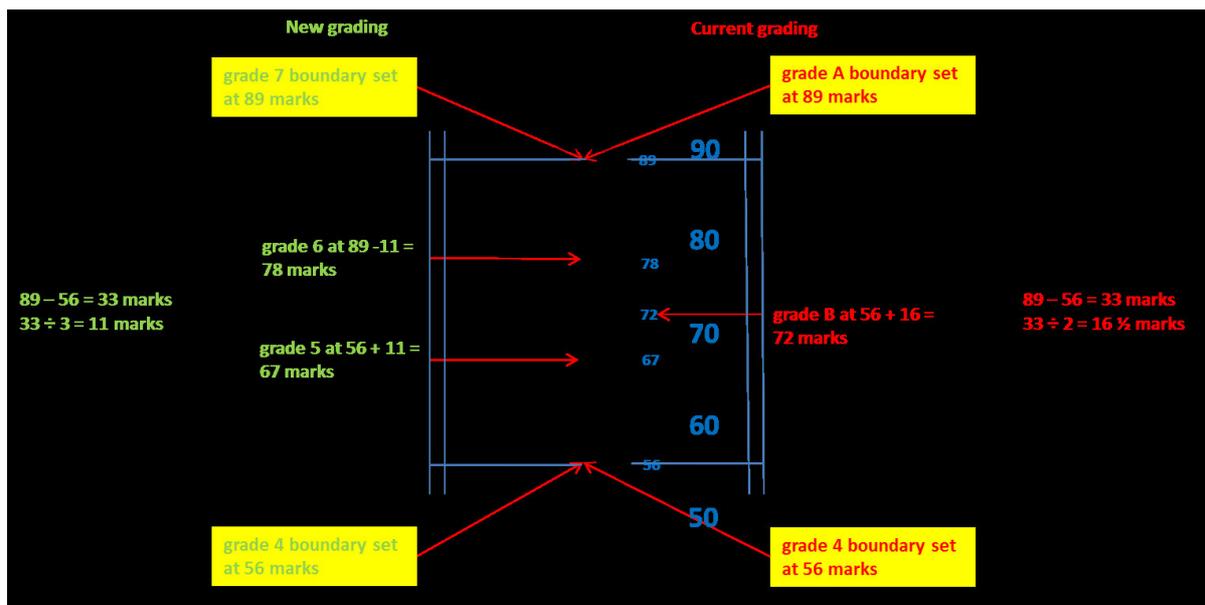
There is good evidence that attainment by less able students rises more slowly than that of more able ones because of cognitive and attitudinal factors, so that schools will need to devote more resources to their less able students to maximise their Progress 8 score.

3 GRADING AND TARGET SETTING

Ofqual's indicative grade boundaries

Ofqual is committed by DFE policy to raising the outcomes of GCSE towards the average attainment of 16 year olds in higher-attaining countries such as Finland, Canada, the Netherlands and Switzerland. The new threshold measure will therefore be grade 5 (the mid-grade of the new system) which is to be set at the top third of the marks for the current grade C and the bottom third of the marks for the current grade B ((Ofqual 2014, paragraph 5a).

How this decision affects other grade boundaries is indicated by the discussion of setting grade boundaries other than by statistical prediction (Ofqual 2014, paragraphs 88 – 93) and illustrated by the following diagram at paragraph 91:



According to this illustration, grade 4 requires 56 - 66 per cent, grade 5 requires 67 - 77 per cent and grade 6 requires 78 - 88 per cent.

The mark ranges for grades 9 to 7 are therefore 89 - 100 per cent. These will be allocated in the ratios 20:40:40 for English and Mathematics so grade 7 requires 89 - 93 per cent, grade 8 requires 94 - 98 per cent and grade 9 requires 99 - 100 per cent³. These highest mark ranges may seem extraordinarily narrow and demanding, but they are supported by other evidence discussed below.

Ofqual has not clarified the basis for awarding grades 3 - 1 apart from stating that the same proportion of candidates will receive these grades as are awarded D - G at present. Ofqual's aim is to "provide more discrimination than now in the middle to higher levels of the scale and less discrimination at the lowest levels" (paragraph 34). Pending further clarification, it is simplest to treat grades 3 - 1 as having equal but somewhat wider mark ranges as grades 6 - 4. Grade F and G currently have the same mark-ranges (paragraph 69) and the same principle may apply to all three new grades. Treating 10 per cent as the highest feasible mark for Ungraded as usually at present and dividing 11 to 55 marks in three equal mark-ranges of 15, grade 1 would require 11 - 25 per cent, grade 2 = 26 - 40 per cent and grade 3 = 41 - 55 per cent.

These suggested mark ranges are tabulated at Appendix 3. They are then compared with the current Uniform Mark Scale (UMS) for reporting GCSE grades and with two popular AQA papers in English Language and English Literature (Appendix 4). **Grade C and grade 5 are**

³ The actual mark ranges are grade 8 = 94 - 97.6 per cent and grade 9 = 97.7 - 100 per cent, but these have been rounded for practical purposes. As noted in the footnote on page 5, Ofqual is consulting about 'tailoring' the proportions of higher grades to the subject.

shown in red to indicate the extent to which grade 5 will be more demanding than grade C and the comparative effect of this on other grade boundaries.

Effect on grades 9 – 7

To secure comparable outcomes between 2016 and 2017, the same proportion of candidates will be awarded grades 9 – 7 in 2017 as attained A*/A in 2016. Unlike other grades, the proportions of candidates awarded these three grades will be fixed in advance in the ratio 20:40:40 for English and Mathematics. The likely numbers have been calculated using the total number of UK candidates attaining A* and A in June 2015 as follows (Joint Council for Qualifications 2015).

English Number sat June 2015	Grade	Percentage	Number	New grade	Proportion	Number
520 524	A*	3.1	16 136	9	20%	15 200
	A	11.5	59 860	8	40%	30 398
				7	40%	30 398
Total		14.6	75 996			75 996

English Literature Number sat June 2015	Grade	Percentage	Number	New grade	Proportion	Number
436 546	A*	4.9	21 390	9	20%	18 946
	A	16.8	72 340	8	40%	37 892
				7	40%	37 892
Total		21.7	94 730			94 730

The reductions in numbers of candidates attaining the highest grades (A* and 9) are not great: 937 fewer (1.23%) for English and 2444 fewer (2.57%) for English Literature. This is in line with Ofqual's decision to align the proportion of grade 9s as closely as possible with the proportion of A*s (Ofqual 2014, paragraphs 55 – 68). **But the reductions in number of**

awards for the next highest grades (A and 8) are substantial: 29,462 (49.2%) fewer for English and 34,448 (47.6%) fewer for English Literature. As a consequence of replacing two grades (A*/A) with three (9 – 7), grade 8 will be very much more difficult to achieve than grade A.

The other relevant feature of the new arrangements is the restriction of any element of criterion referencing in the awarding of the new grades. Currently grade boundaries are fixed each year by comparing candidates' performance with that of previous years as well as statistical information. In the first year of a new GCSE examination, the new grades will be awarded on the basis of statistical information and arithmetical calculation only, so the numbers of each will be known in advance. In subsequent years, the grading standards established in the first year will be carried forward using a combination of statistics and examiner judgement, but also with reference to the outcomes of the new National Reference Tests in English and Mathematics (Ofqual 2016B). In consequence, schools will compete for a limited number of the highest grades.

4 EFFECTIVE SCHOOL RESPONSES

The underlying problem

Schools will need to respond most effectively to the facts that:

- from 2016, their performance will be judged primarily on their Progress 8 score
- Progress 8 is designed especially to encourage schools to improve the teaching and learning of moderately and less able students as shown by their prior attainment (KS2 fine-level score)
- the new threshold measure (grade 5) will be significantly more demanding than grade C; grade 8 will be significantly more difficult to attain than grade A; and schools will compete for the higher grades.

The effect of these developments is to present challenges for teachers and students at each part of the new grading scale: at grades 1 – 4 because progress disregarded by the current examination system will count towards Progress 8; at grade 5 as the more demanding threshold measure; and at grades 7 – 9 as the numbers of grades will be fixed and schools will compete for them.

As mentioned at the beginning of this paper, the underlying problem for schools is that the new GCSEs are unparalleled in that they have been radically and simultaneously reformed in all aspects: specification, content, demand, assessment process, grading and school accountability. **In these unprecedented circumstances the GCSE Awarding Bodies can give schools only limited help because they themselves have no experience of how the new papers will perform.** Their specifications are wholly new, written to Ofqual's tight

requirements, and their marking of the first examinations in 2017 will be closely scrutinised by Ofqual which has the power to require Awarding Bodies to alter grade boundaries.

Similarly professional advisers and consultants, whether independent or employed by local authorities or academy chains, have no experience of preparing students for the new GCSEs. **Accordingly the only advice which they or anyone can reasonably give is that which is based on academic research so repeated and robust as to be incontrovertible. Anything less risks allowing schools and their students to underperform in the new GCSEs.**

Raising attainment with research-led teaching

Three areas of research have produced evidence of consistently higher attainment. They relate to all GCSEs, but the third has particular relevance to English. They are:

- HMI surveys and advice especially relating to questioning, discussion and feedback, supported by evidence on oracy and Assessment for Learning
- cognitively stimulating teaching programmes
- mixed attainment grouping

This evidence is now outlined.

(a) HMI's expectations and advice; oracy; Assessment for Learning

From 1997 HM Inspectorate had been limited to a training and monitoring role on behalf of Ofsted while guidance on teaching and learning was provided by the National Strategies and assessment was led by QCDA and its predecessors. By October 2008 the Government had accepted that the National Strategies/QCDA approach had failed to raise educational standards as shown by international comparisons. The KS3 tests were abolished immediately, Capita's contract to deliver the National Strategies was terminated when it expired in March 2011 and the decision was taken to legislate to create Ofqual.

Following these decisions, HMI began to reassert its traditional role of surveying good practice in schools and publishing advice. For English, there were a series of progressive reports culminating in two major surveys which provided the necessary basis for rethinking English teaching: *Excellence in English* (Ofsted 2011) and *Moving English forward : action to raise standards in English* (Ofsted 2012). The second lists the other reports compiled during the period.

On the basis of its surveys of good practice, from 2011 the then HMI Subject Adviser for English, Phil Jarrett, and his colleagues set about persuading DfE (and teachers at meetings

to which they were invited) that the worst excesses of the National Strategies approach needed modifying, in particular:

- outstanding English departments focus on learning rather than teaching.
- it is a myth that outstanding teaching is achieved by the teacher working hard.
- pace should be the pace of learning, not the pace of teaching.
- too many lessons attempted too many things – pupils need time to think.
- learning objectives should be seen as longer term than the lesson – what is the purpose of the unit and how does the lesson fit into this?

Ofsted's survey *Moving English forward* (March 2012) indicates a change in what Ofsted expects as good English teaching - away from the teacher-led, fast-paced, several-part lessons recommended by the National Strategies to a more pupil-focussed, reflective, Assessment-for-Learning-style approach. Its central recommendations are:

- flexible teaching, responding to pupils' needs as the lesson develops
- pupils given adequate time to think, plan, discuss, write and test out ideas
- using questions to extend thinking skills; giving pupils time to think
- developing independent learning through problem-solving
- increasing the challenge of KS3 lessons; need to refresh the KS3 English curriculum.

In addition to raising students' attainment, following Ofsted's recommendations is strategically sound now that privately-employed inspectors are no longer used for inspections. HM English Inspectors can reasonably be expected to follow Ofsted's published recommendations when making their judgements.

HM Inspectorate's recommendations are supported by evidence from leading researchers. Two themes are particularly relevant: oracy and Assessment for Learning. The case for oracy has been helpfully made by Robin Alexander in a detailed paper, *Improving oracy and classroom talk in English schools: achievements and challenges* presented at a DfE seminar on 20 February 2012 (Alexander 2012).

Both HM Inspectorate and researchers like Alexander, Neil Mercer and Guy Claxton draw on copious evidence of the limitations of instruction. Instruction is sometimes called IRE – *Initiation-response-evaluation* – in which the teacher asks a closed question and the student recalls the correct answer if possible which the teacher confirms if correct or corrects (or asks another student) if incorrect. This has been identified as the 'essential teaching

exchange' that differentiates classroom interaction from human interaction elsewhere, and it is the default teaching mode in Britain, the United States and perhaps worldwide.

It has long been evident that instruction is an inefficient method of developing students' understanding because it relies on their working with information provided by the teacher solely in ways prescribed by her. For English, there is urgent need for more effective teaching because the new GCSE examinations:

- use more challenging unseen and studied texts than at present
- award most marks for evaluation and comparison questions
- need to be taken by all students including those assessed as less able.

To achieve higher level responses to unseen texts, students will need regular opportunities to develop the skills of inference and deduction in a literary context and, to do this, they will need to explore the implications of a variety of texts with careful but light-touch guidance by the teacher rather than instruction. The case is well summarised by Alexander:

Pupils need, for both learning and life, not only to be able to provide relevant and focused answers but also to learn how to pose their own questions, and how to use talk to narrate, explain, speculate, imagine, hypothesise, explore, evaluate, discuss, argue, reason and justify ...

... we now have robust and replicable evidence, from studies using pre-test/post-test with experimental and control groups, that talk that is cognitively demanding, reciprocal, accountable and/or dialogic has a direct and positive impact on measured standards in English, mathematics and science. (Alexander 2012, pages 4 & 5)

For English, talk of this kind needs to be exploratory but not unfocussed. To achieve cognitive development effectively, discussion needs to be carefully focussed on literary features of text such as genre, mood, tone, the writer's purposes, language, structure, and figurative devices.

Assessment for Learning (AfL). Interest has been led by Paul Black and Dylan Wiliam who reviewed over 250 studies in which educational innovations had led to quantitative evidence of learning gain (Black and Wiliam 1998A). They summarised their findings in a booklet, *Inside the black box* (Black and Wiliam 1998B) which has now sold over 50,000 copies worldwide. They write in the latter: "All of these studies show that innovations which include strengthening the practice of formative assessment produce significant, and often substantial, learning gains. These studies range over ages (from five-year olds to university undergraduates), across several school subjects, and over several countries." (page 3).

In relation to the 40 studies in which evidence was sufficiently rigorous (with experimental group and control group, and pre-and post-tests for both groups to determine differential

improvement), Black and Wiliam calculate the effect size of the learning gains in the studies as between 0.4 and 0.7 and note, for example, that “An effect size of 0.4 would improve performances of pupils in GCSE by between one and two grades” (page 4). Five activities are described as central to the formative assessment that produces this effect:

- sharing success criteria with learners
- open-ended questioning
- comment-only marking
- peer- and self-assessment
- formative use of summative tests

Each of these activities was the focus of further development with teachers. For example, work on effective questioning explored not only the greater value of open-ended questions, but also the concept and practice of ‘wait time’ (pupils given time to explore answers together), ‘wrong answers are as helpful as correct ones’ (because they enable pupils to rectify misunderstandings by discussion) and therefore ‘no hands’ (pupils not to put up their hands because all are expected to answer at any time because ‘I don’t know ‘ is acceptable) (Black et al 2002, page 6). A further development is ‘traffic lighting’ by which learners, often as a group, signal whether they have understood (green), are unsure (amber/yellow) or do not understand (red) what is being taught (see for example Stobart, page 148).

Conceptually, AfL seeks to move teaching and learning from the traditional model that “teaching is telling and learning is listening” (Watkins 2003, p.10) to one in which “building knowledge is part of doing things with others” (Watkins 2003, page 14). As Stobart usefully puts it: “The key assumptions of AfL are that learning is

- an active, social process
- in which the individual makes meaning
- which is best done by building on what is known already” (Stobart, page 150).

Fundamentally, AfL “takes an *incrementalist* approach to learning which emphasises effort and *improving* competence. This contrasts with an *entity* approach which attributes learning to ability and is focused on *proving* competence through grades and comparisons” (Stobart, page 145, drawing on Dweck and Watkins). This distinction is crucial and underpins AfL (and cognitive acceleration) at the deepest level. Under the entity approach, ability is fixed and can be demonstrated by providing appropriate opportunities. Under the incrementalist approach, ability can be increased by structured challenge.

In 2002 AfL was adopted as part of the Government’s KS3 strategy and by 2004 AfL had been adopted by the National Strategy as one of its policies for whole-school improvement. The DfES published a suite of documents, Powerpoint presentations and a CD rom

designed to change the 'culture' of teaching and learning on a whole-school basis. Further publications followed and a significant piece of action research was published as *Assessment for learning 8 schools project report* (DfES 2007).

However, Capita whose contract for delivering the National Strategies was due for renewal in April 2008 sought a more closely focussed assessment programme to promote in schools and adopted Assessment Pupil Progress (APP) which had been developed experimentally by QCDA. From May 2008 this was promoted by the Strategies in place of AfL which has never been given the opportunity to be successful because the necessary training and support for teachers was discontinued.

(b) Cognitively stimulating teaching programmes

The approaches to teaching and learning recommended by HMI, oracy and AfL, and related programmes such as Guy Claxton's Building Learning Power, are based on solid research and are unquestionably successful in raising students' attainment. However, implementing them requires teachers to develop their approach to teaching through adapting their existing practice by rethinking how their lessons are delivered. To be effective, this requires initial training and ongoing support on a collaborative, preferably whole-school, basis over an extended period. Schools generally do not have the resources or commitment for this, particularly at a time of radical curricular change.

At the same time the requirement to raise students' attainment in response to the new GCSEs makes improved pedagogy urgent. **There is accordingly a strong argument for using one of the established programmes for increasing students' cognitive skills for which well-designed and thoroughly trialled lessons are provided.**

Only three teaching programmes have been repeatedly proven in international trials to increase students' cognitive (reasoning) skills substantially: Lipman's Philosophy for Children, Feuerstein's Instrumental Enrichment, and Adey and Shayer's Cognitive Acceleration. All three provide a sequence of rigorously trialled lessons which teachers can deliver effectively with appropriately focussed training.

Of these, only Cognitive Acceleration (CA) relates directly to school subjects – English, Mathematics and Science with more limited programmes in Visual Art, Drama and Music. Cognitive Acceleration in Science Education (CASE) is the longest established of the CA programmes, having been developed during the 1980s. It is firmly based on principles defined by Vygotsky focussing on social construction, facilitated challenge, feedback, and metacognition, and is assessed in terms of Piaget's stages of cognitive development. **The programme has been repeatedly shown to increase attainment by between one and two GCSE grades (Adey and Shayer 1994, Adey 2012, CASE 2013).**

In addition to the international studies listed at CASE 2013, there is other support for the effectiveness of Cognitive Acceleration.

- The “robust and replicable evidence” to which Alexander refers above includes Cognitive Acceleration in Science Education (CASE) as a prime example.
- The Education Endowment Foundation Teaching and Learning Toolkit, based on research carried out by the University of Durham for the Sutton Trust, identifies metacognition, self-regulation and feedback as the most effective of all 30 interventions, adding an average of 8 months’ attainment.
- Hattie (2011) carries out meta-analyses of evidence of 150 interventions in schools in terms of their effectiveness of raising students’ attainment. He places Piagetian programmes like CASE second highest of the 150 with an average effect size of +1.28 which is the equivalent of 1.5 GCSE grades.
- Black and Wiliam write approvingly of Cognitive Acceleration: “The emphasis paid to creating cognitive conflict rather than giving answers, to the importance of dialogue to serve the social construction of knowledge, and to metacognition involving learners’ reflection on their own learning, makes it clear that formative assessment practices are an essential feature of these (CA) programmes... whilst the programme of instruction is distinctive, formative assessment principles lie at the core of its implementation” (Black and Wiliam 2009, p.19).

Cognitive Acceleration has now been renamed Let’s Think and an English programme (Let’s Think in English) has been developed since 2009 on exactly the same principles as CASE.

Initial outcomes are of the same order as Science, showing significant rises in attainment for all students but especially for students assessed as moderately and less able – see Appendix 5. Students’ cognitive (reasoning) abilities are increased through challenging group-based discussion based on texts – fiction, non-fiction, poetry, drama and film – and are gradually reflected in writing showing improved grammar and enhanced vocabulary. 30 lessons are provided for teaching fortnightly over two years at KS3 with a growing number available for GCSE.

In summary, the Let’s Think in English (LTE) programme provides:

- fortnightly lessons which guide students in interrogating unseen texts effectively
- deepening experience in swift, perceptive inference and deduction
- ‘verbal drafting’ of responses through group discussion and feedback
- experience in recognising higher-order features of writing such as pace, irony, wit, suspense, variety of structure, unreliable narrator, etc
- enjoyable, high-interest lessons which stimulate memory
- suites of KS3 and GCSE lessons which develop awareness of 19th to 21st century literary history as a basis for ‘placing’ unseen texts

- optional practice GCSE test questions
- bridging to related texts.

A specific advantage of the Let's Think pedagogy is that it provides a framework for the guided discussion that develops higher-order thinking which is assessed incrementally in terms of Piaget's stages of cognitive development. These can be mapped onto the new GCSE English grades enabling the teacher to track and enhance attainment, providing evidence of the power of Let's Think in English to raise attainment at all levels of ability. This is discussed further at Smith 2015D, page 5 and Appendix 4.

Another particular strength of the Let's Think programmes is their influence on teachers' wider practice, for example, improving the quality of their questioning and encouraging students' critical thinking. When HMIs have observed Let's Think in English lessons, they have rated them highly – see Appendix 6.

Further information about Let's Think in English is available at www.letsthinkinenglish.org With regard to the next section, all Let's Think in English lessons have been fully trialled and shown to be effective in mixed-attainment as well as attainment groupings.

(c) Mixed-attainment grouping

There is strong repeated research evidence that teaching and learning in mixed attainment groups raises the attainment of students assessed as moderately and less able while not disadvantaging more able students. ('Mixed attainment' is preferred to mixed ability because students are normally allocated to teaching groups by testing a limited range of easily testable skills rather than ability, particularly reasoning ability.)

Mixed attainment groupings were common in comprehensive schools until the development of governments' target-driven policy from 1990 with its requirement to show students making levels of progress and schools being judged on their percentage of A – C (subsequently A* – C) grades. With this focus on the results of able and reasonably able students only, streaming and setting by attainment was understandable and became the norm.

The removal of levels from the National Curriculum, the requirement that all GCSE grades count towards Attainment 8 and Progress 8 and the design of Progress 8 now make teaching by attainment groupings less appropriate. Government policy has also called into question the only objective advantage of ability setting, which is that high-attaining students achieve more highly when they undertake a differentiated curriculum matched to their attainment and in these circumstances can take an examination a year or more early and perform as well as others taking the examination later. This advantage is less relevant now that early entry is discouraged by allowing only the first result to count, early entry will need to be interrupted in 2016 for the purpose of double-weighting.

Progress 8 requires schools to weigh early entry for a small number of able students against substantial evidence that attainment grouping does not enable most students, able as well as less able, to achieve their best. The evidence has recently been summarised by Baines and by Francis and Wong:

- less able students perform less well in attainment groupings than in mixed attainment settings, but this is not true of able students; able students also benefit from mixed attainment groups which promote the use of elaboration, explanation and collaborative discussion between peers – all essential ingredients for developing high level understanding and high level thinking skills
- teachers' expectations are lower with groups of lower-attainment students; they naturally provide them with less challenging work and this is reflected in poorer results
- students are sometimes misallocated to attainment groups for reasons such as poor performance in tests, erratic motivation or untidy written work, but once allocated to an attainment group movement from it is unusual
- students assessed as lower-attainment often underestimate their ability and resort to "learned helplessness" (e.g. Hattie 2011, page 53); they develop a negative view of their ability which limits their willingness to work and can cause poor behaviour
- schools typically allocate their less experienced/effective teachers to lower attainment groupings
- by international surveys like PISA, the more countries group by attainment, the lower their students' performance overall; for example, Finland, which is one of the most successful countries educationally, abandoned attainment grouping in 1985 (Sahlberg 2011, page 22).

From a Progress 8 perspective, attainment-grouping is harmful because it reduces the opportunities for progress by the moderately and less able. The Education Endowment Foundation Toolkit summarises research into the 30 best ways of spending the pupil premium to raise the attainment of disadvantaged pupils. **Of the 30 approaches, attainment grouping is one of only two to have a negative effect on students' attainment, exceeded only by requiring students to repeat a year.** The EEF comments:

Low attaining learners fall behind by one or two months a year, on average, when compared with the progress of similar students in classes without attainment grouping. It appears likely that routine setting or streaming arrangements undermine low attainers' confidence and discourage the belief that attainment can be improved through effort. (Education Endowment Foundation Teaching and Learning Toolkit)

Schools may find moving from attainment-grouping to mixed attainment challenging to manage because it requires changes in teaching approach. Schools may also fear

resistance from some parents although this is likely to diminish when the benefits of mixed attainment teaching and the imperatives of government policy are explained so that, as seems likely, a move to mixed attainment teaching becomes common.

An alternative is to introduce mixed attainment teaching incrementally from Year 7 although, if this begins in September 2016, it would leave students in Year 8 and above to prepare for the new GCSE examinations in attainment groupings.

As an interim measure already adopted by some schools using Let's Think in English, schools may wish to arrange for one lesson per week to be taught in mixed attainment groups, using this lesson for the fortnightly Let's Think/Cognitive Acceleration programme with the other lesson used to 'bridge' to other similar work – all Let's Think/ Cognitive Acceleration lessons include suggestions for bridging. All Let's Think lessons have been fully trialled with mixed attainment classes and shown to work very well in terms of cognitive growth and student engagement.

Schools will naturally be concerned about maintaining their numbers of high grades, even without early entry. This concern may be heightened by the fact that, owing to restrictions on numbers of awards, grade 9 will be somewhat more difficult to attain than A* and grade 8 very much more difficult to attain than A. Schools will need to balance the public demand through Progress 8 for higher attainment by students assessed as moderately and less able with other students' aspiration for the highest grades. This could be achieved by establishing mixed attainment teaching as the norm with additional classes for those assessed as most able, as primary schools commonly provide for pupils aiming for Level 6 in the KS2 test, secondary schools often provided for students taking the extension paper in the KS3 test and schools have commonly provided for Oxbridge or Russell Group candidates in otherwise mixed attainment A Level classes. This would also allay some parental concerns.

CONCLUSION

National grade rates will be held steady for English and Mathematics between 2016 and 2017 by Ofqual's policy of comparable outcomes, ensuring that the same proportion of students achieve grades 9 – 7 in 2017 as A*/A in 2016, grades 6 – 4 as B/C and grades 3 – 1 as D to G. (The same will apply when other new GCSEs are examined for the first time in 2018 and 2019.) However, individual schools' grade rates are likely to vary considerably between the two years owing to a combination of two factors:

- students' preparedness for the higher demand of the new specifications, in particular (in English) for the evaluation and comparison questions for which most marks will be awarded; and
- the school's response to issues like providing opportunities for moderately and low ability students to achieve high Progress 8 scores, the capping of numbers of higher

grades so that schools compete for them and the greater difficulty of attaining grade 8.

It should be remembered that it will not be possible to compare grades directly between 2016 and 2017 because English and Mathematics will be graded on a 9 point scale in 2017 rather than the current 8 point scale (A* – G). Comparison between the two years will be solely through Attainment 8 and Progress 8.

In these circumstances schools will be more successful if they review and develop their teaching and learning in the light of the imperatives of the new grading and accountability system, especially Progress 8, earlier rather than later. All schools will need to undertake this development and those that do so earlier will be at an advantage. As the reforms to GCSE are unprecedented in their scope, the only reliable guide to the necessary development is repeated, robust, independent research of the kind outlined above.

The cross-party policies underlying the changes are appropriate to the country's future educational needs and economic growth; and the changes themselves, though demanding to implement, are thorough and coherent. When understood and implemented, they will not only raise the attainment of students, especially those assessed as moderately and less able, for the purpose of international comparisons. Their focus on cognitive development rather than instruction should raise the quality of education in England for all secondary students by making teaching and learning more stimulating, effective, equitable and enjoyable. As standards rise in secondary schools but not in primary, the current mismatch between primary and secondary pedagogies and assessment policies will eventually be resolved in favour of the latter.

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and

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Appendix 1 – 2015 Attainment 8 estimates [DfE 2016, page 29]

The estimated Attainment 8 score is the average Attainment 8 score of all pupils nationally with the same prior attainment at key stage 2 (KS2). The following table shows the Attainment 8 estimates for each KS2 average fine level, based on the 2015 cohort averages.

Changes to national subject entry patterns and performance will cause these estimates to change in future years, as they will be derived from averages from later cohorts. As such they should be treated with caution if extrapolating to cohorts beyond 2015.

Table B.1 2015 Attainment 8 estimates for each KS2 fine level

KS2 average fine level (English & Maths) 2010	2015 Attainment 8 estimate	KS2 average fine level (English & Maths) 2010	2015 Attainment 8 estimate	KS2 average fine level (English & Maths) 2010	2015 Attainment 8 estimate
1.5a	13.20	3.7	32.11	4.9	55.03
2.0b	17.79	3.8	33.63	5.0	56.16
2.5c	19.39	3.9	35.27	5.1	59.32
2.8d	20.38	4.0	36.48	5.2	61.51
2.9	21.88	4.1	38.80	5.3	63.92
3.0	23.37	4.2	40.62	5.4	66.31
3.1	23.91	4.3	42.55	5.5	68.67
3.2	24.42	4.4	44.49	5.6	71.61
3.3	26.15	4.5	45.87	5.7	74.18
3.4	27.71	4.6	48.50	5.8e	76.28
3.5	28.58	4.7	50.71	***	*****
3.6	30.24	4.8	52.76	***	*****

- a. Pupils with mean KS2 fine grade score of less than 1.5 are assigned a KS2 score of 1.5
- b. Pupils with mean KS2 fine grade score between 1.6 and 2.0 are assigned a KS2 score of 2.0
- c. Pupils with mean KS2 fine grade score between 2.1 and 2.5 are assigned a KS2 score of 2.5
- d. Pupils with mean KS2 fine grade score between 2.6 and 2.8 are assigned a KS2 score of 2.8
- e. Pupils with mean KS2 fine grade score of more than 2.8 are assigned a KS2 score of 2.8

Appendix 2 – Progress 8 for next grade above expectation (page 8)

KS2 average fine level (English & Maths) 2010	2015 Attainment 8 estimate	Progress 8 when next grade attained above expectation	KS2 average fine level (English & Maths) 2010	2015 Attainment 8 estimate	Progress 8 when next grade attained above expectation	KS2 average fine level (English & Maths) 2010	2015 Attainment 8 estimate	Progress 8 when next grade attained above expectation
1.5	13.20	6.80	3.7	32.11	7.89	4.9	55.03	4.97
2.0	17.79	2.21	3.8	33.63	6.37	5.0	56.16	3.84
2.5	19.39	0.61	3.9	35.27	4.73	5.1	59.32	0.68
Average	gain a.	3.21	4.0	36.48	3.52	Average	gain e.	5.20
2.8	20.38	9.62	4.1	38.80	1.20	5.2	61.51	8.49
2.9	21.88	8.12	Average	gain c.	5.58	5.3	63.92	6.08
3.0	23.37	6.63	4.2	40.62	9.38	5.4	66.31	3.69
3.1	23.91	6.09	4.3	42.55	7.45	5.5	68.67	1.33
3.2	24.42	5.58	4.4	44.49	5.51	Average	gain f.	4.90
3.3	26.15	3.85	4.5	45.87	4.13	5.6	71.61	8.39
3.4	27.71	2.29	4.6	48.50	1.50	5.7	74.18	5.82
3.5	28.58	1.42	Average	gain d.	5.59	5.8	76.28	3.72
Average	gain b.	5.44	4.7	50.71	9.29	Average	gain g.	5.97
3.6	30.24	9.76	4.8	52.76	7.24			

a. By attaining grade 2 on average in Attainment 8

b. By attaining grade 3 on average in Attainment 8

c. By attaining grade 4 on average in Attainment 8

d. By attaining grade 5 on average in Attainment 8

e. By attaining grade 6 on average in Attainment 8

f. By attaining grade 7 on average in Attainment 8

g. By attaining grade 8 on average in Attainment 8

APPENDIX 3 – OFQUAL’S INDICATIVE GRADE BOUNDARIES (page 14)

Grade	Mark range (-/100)
9	99 – 100
8	94 – 98
7	89 – 93
6	78 – 88
5	67 – 77
4	56 – 66
3	41 – 55
2	26 – 40
1	11 – 25
U	0 – 10

Appendix 4 – Ofqual’s GCSE indicative mark ranges compared with current mark ranges (page 14)

New grade	Indicative mark range	Current grade	Uniform Mark Scale (UMS)	AQA English Language Unit 3 (ENL03)	AQA English Literature Unit 3 (97153)
9	99 – 100	A*	90 – 100	90 – 100	90 – 100
8	95 – 98		80 – 89	81 – 89	80 – 89
7	89 – 94				
6	78 – 88	B	70 – 79	70 – 80	65 – 79
5	67 – 77				
4	56 – 66	C	60 – 69	58 – 69	52 – 64
3	41 – 55	D	50 – 59	46 – 57	40 – 51
2	26 – 40	E	40 – 49	35 – 45	30 – 39
1	11 – 25	F	30 – 39	24 – 34	20 – 29
		G	20 – 29	12 – 23	10 – 19
U	0 – 10		0 – 19	0 – 11	0 – 9

Please note:

1 Ofqual’s indicative mark ranges are for grades 4 to 6. The mark ranges for the other grades have been extrapolated as explained on pages 13/14.

2 The Uniform Mark Scale is used by all the GCSE Awarding Bodies for aggregating and reporting examinations which consist of several papers (units) on a standardised basis. Each qualification is allocated a total uniform mark. For GCSE this is typically 200 for a full course and 100 for a short course. The total uniform mark is divided between the papers (units) in proportion to their importance (weighting). For example, in a specification allocated 200 uniform marks which has two equally weighted papers, each paper is allocated 100 uniform marks. If one paper carries three times the weight of the other, it will be allocated 150 uniform marks and the other 50 uniform marks.

If a paper is allocated 120 uniform marks, the range of marks allocated to grade B is 84 to 95 (70% to 79% of 120); for grade C, 72 to 83 (60% to 69% of 120).

3 The two AQA units give the scaled mark grade boundaries in 2015 scaled up to 100 per cent by way of illustration. Most of the other units in these examinations consist of higher and lower tiers with different C and D grade boundaries for each tier. The two units chosen are not tiered. AQA English Language Unit 3 has a top mark of 80, AQA English Literature Unit 3 a top mark of 40. The marks for each grade boundary have been scaled up as if the top mark in each case is 100 (AQA 2015).

Appendix 5 – Raising attainment with Let’s Think in English (LTE)

Case Study 1 – The London Schools Excellence Fund Trial (2013 – 2015)

35 secondary schools and 8 primary schools, all new to Let’s Think in English, were recruited in London and their staff trained and supervised in delivering LTE lessons fortnightly. In secondary schools, two Year7/Year 8 classes experienced LTE lessons (trial classes) and two other KS3 classes received no LTE lessons (comparison classes). 5 primary schools provided one trial and comparison class and 3 provided two of each. All the classes took pre- and post-tests (GL Assessment’s Progress in English tests) which assess spelling, grammar and punctuation as well as comprehension both fiction and non-fiction.

Owing to delay in the awarding of funding, the schools undertook the LTE programme for two terms (first year) or three terms (second year).

The expected gain in one year as assessed by the Progress in English tests is +3.0.

The LTE primary classes’s average gain exceeded that of the comparison classes by +2.45 (= almost 10 months).

The LTE secondary classes’s average gain exceeded that of the comparison classes by +2.9 (= 11+ months).

The LTE classes therefore made almost double the progress on one year or less than the comparison classes.

Case study 2 – able students

Ruth Pringle is KS3 English Coordinator at a mixed comprehensive school in South London. She used Let’s Think in English fortnightly with her top set Year 8 class for a full year. Her class and the parallel Y8 top set had the same end-of-year assessment (an imaginative writing task and a response to a Shakespeare scene, both under controlled conditions), as had her previous year’s top Y8 set. These were cross-moderated to ensure consistent marking. The results were:

	Level 4	Level 5	Level 6	Level 7
Y8.1 class with LTE	1	4	11	14
Parallel Y8.1 class without LTE	0	19	11	0
Teacher’s previous Y8.1 class without LTE	1	13	13	0

The full case study is available at <http://www.letsthinkinenglish.org/evidence-of-success/>

Case study 3 – lower attainment and disadvantaged students

Six schools in Hampshire provided two teachers each. They were trained in July 2013 and taught LTE lessons fortnightly to Year 8 and Year 9 classes throughout 2013/14, attending half-termly joint support sessions led by Leah Crawford, Hampshire Inspector/Adviser, and myself.

All of the schools set the students by attainment. As the teachers' timetables turned out, at least half of the classes were assessed as lower ability with a significant number of students on free school meals (FSM). The students were teacher-assessed at the beginning and end of the year for Reading and Writing and took two different APP tasks in response to an unseen text in timed conditions with a shared mark scheme in September 2013 and June 2014.

All the students made better progress than expected with the FSM students making greater progress than others, for example:

Year 8 TA Reading – 3+ sublevels progress : All students 28% FSM 38%

Year 8 APP Reading – 2+ sublevels progress : All students 61% FSM 90%

Year 8 TA Writing – 2+ sublevels progress : All students 65% FSM 100%

Year 9 TA Reading – 4+ sublevels progress : All students 15% FSM 28%

Year 9 APP Reading – 3+ sublevels progress : All students 42% FSM 50%

Year 9 TA Writing – 3+ sublevels progress : All students 38% FSM 44%

4+ sublevels progress : All students 15% FSM 28%

Average sub-level gain

One group in Year 8 and two in Year 9 stood out as particularly low attaining classes at the start of the year. Significantly, the average gain across these groups was greater than for the students as a whole (below).

	TA reading	APP reading	TA writing
All students	2.1	Select table column	1.81
3 lowest attaining classes	2.35	-	2.25

One school (see table below) was able to present data from a parallel ability group who had experienced the same curriculum but not the LTE intervention. These were both Year 9 low attaining groups, in which the students were working largely at L4a/5c at the start of the year. The comparative data, presented in terms of the average sublevel gain for these groups is particularly compelling.

	TA reading	APP reading	TA writing
LTE group	2.55	-	2.73
Control group	1.27	-	1.09

These outcomes were achieved in one year. Let's Think in English (LTE) is designed to be used for at least two years and raises attainment by similar amounts each year.

Appendix 6 – Some comments on Let's Think in English lessons

“... pupils were challenged to discuss their ideas about a story based on very limited information. Skilful questioning probed pupils' understanding and engaged them in quite a sophisticated debate which developed their critical thinking very well.”

Ofsted report on a London school judged Outstanding, June 2015

“Teaching the LTE lessons and discussing the process with colleagues has given me a lot of confidence in setting higher aspirations for students. It has allowed me to reflect on students' learning and the impact of strategic questioning”. – London teacher, 2015

“Let's Think has encouraged me to consider the impact of student responses to a variety of material. Because the emphasis is on individual opinion and how to express that articulately, this has had an impact on their ability to think critically. It has made me slow down in my teaching in their lessons, and others and consider that some detailed work on a smaller piece of text can have a bigger impact overall.” – London teacher, 2015

“LTE has made me rethink the types of questions I ask during my lessons and plan for a wider range of questions in order to elicit more thoughtful responses. I've also noticed the students have been empowered to ask more insightful questions themselves - some of which I can respond to and others which we have to investigate further, helping the students see learning as a lifelong process.” – London teacher, 2015

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