

Potential for success: fulfilling the promise of highly able students in secondary schools

Introduction and background

In 2015, the Sutton Trust's Missing Talent report found that 15 per cent of previously high attaining pupils at key stage 2 (KS2) failed to achieve in the top 25 per cent at GCSE, and that this group of 'missing talent' is more likely to include students from disadvantaged backgrounds. Similarly, Ofsted has reported that only 20 per cent of pupils who achieved at least level 5 in English and maths, (the benchmark for high attainment at KS2), who were also eligible for free school meals (FSM) go on to achieve A or A* in these subjects at GCSE, compared to 34 per cent of the same pupils not eligible for FSM.

This report explores how to best support and stretch the highly able, especially those who are from lower socioeconomic backgrounds. It looks at the backgrounds, characteristics and schooling of high attainers. It presents some of the interventions which have been successful in supporting high attainers and finishes with a series of policy recommendations.

Key points

Identification of high attainers

- Until 2010, several initiatives in the UK focused on 'gifted and talented' pupils, including the National Programme for Gifted and Talented Education. Schools were given guidance that students should be identified as gifted and talented if they: were in the top 5 per cent nationally (based on their KS2 scores at the end of primary school); were gifted relative to peers in their year group and school/college; were talented at non-academic subjects such as arts or sport; or had high potential even if they had not yet translated that potential into high achievement.
- These schemes encountered a number of challenges including: large variations in the number of pupils identified as gifted and talented at different schools; and teachers being unwilling to single out pupils as gifted and talented or unable to do so in the light of an overly broad definition. Research by the Sutton Trust found little correlation between identification as Gifted and Talented and subsequent exam results. Only a weak link was established between participation in the programme and entrance to selective universities. The scheme was abandoned in 2010 and has not been replaced.
- When identifying highly able pupils on transition from primary to secondary school, potential as well as attainment should be considered, and lower benchmarks for the definition set for disadvantaged pupils whose test scores at KS2 will have been affected by their background.
- Testing is extensively used in the UK to identify high attainers at the end of KS2. It is essential that all pupils are given an equal opportunity to prepare for any test used to identify the highly able, such as the 11-plus for entry into grammar schools. Better-off students are more likely to be given help outside of the classroom. Previous work by the Sutton Trust examining the tests used for grammar schools has recommended a minimum of ten hours of test preparation is provided to all potential grammar school applicants.
- A further concern is that tests which are heavily focused on previous knowledge or cultural references are likely to disadvantage students from lower socioeconomic backgrounds, who may lack the same knowledge base or wealth of cultural references as other students.
- Previous studies have found that teachers are less likely to refer low-income pupils for programmes aimed at the highly able. They have also been found to be less likely to judge low-income students as having above average ability in reading or in maths – even when this is indicated by the pupils' test scores. Strategies such as checklists for teachers have been deployed in an attempt to counter teacher bias, but they have not been proven to be effective.

Support of high attainers

- Although more work is needed to allow practitioners to have a fully evidence-based approach to interventions for students with the potential for high attainment, there is already a significant body of evidence about effective ways to support high attainers.
- There is a growing body of research showing that strong content knowledge on the part of teachers has an impact on student attainment. For example, a previous Sutton Trust study published in 2005 clearly showed a link between a teacher's level of mathematical understanding and the amount which pupils learn. This and other research studies show how important it is for all students to have access to teachers with a subject specialism.
- Accelerated learning involves highly able students being given more advanced content than other students. It may take the form of working with materials usually reserved for older pupils or providing additional more advanced classes.
- Evidence has shown that if high attainers are grouped and also have enriched, advanced or accelerated learning in



classes, they have been found to outperform equivalent students by two to three months.

- Although setting (pupils grouped according to ability in individual subjects) and streaming (grouping by ability across all subjects) are known to benefit students with high prior attainment, evidence suggests that the practices are detrimental for those with previously low or middle attainment. More worryingly, research has found that pupils from lower socio-economic backgrounds are much more likely to be placed in lower sets or streams; this is often based on teacher judgement rather than prior test scores.
- When students in low and middle sets of similar prior attainment are compared, middle-group students improve more, suggesting that slower-paced teaching contributes to the reduced attainment found in low sets.
- There is evidence that teachers of higher sets are more enthusiastic, and therefore spend more time preparing for their classes. Together, these factors are likely to improve the quality of teaching which top classes experience and reduce the quality of teaching in lower sets or streams.
- Research suggests that differentiation can improve the academic outcomes of highly able students, including those from disadvantaged backgrounds. However, mixed lessons still pose potential problems, as if the potential of highly able disadvantaged students is not identified, they may not be given stretching or challenging activities within their class.
- Mentoring and tutoring programmes are promising interventions for highly able students from disadvantaged backgrounds. One example of such a scheme was the mentoring programme run by the University of Birmingham, named 'Forward Thinking'. This programme was targeted at highly able disadvantaged students between the ages of 12-16 years old. The students carried out activities at the university and received one-to-one mentoring from undergraduates at their school. Evaluation carried out by the University of Birmingham found 93.8 per cent of students achieved 5 GCSEs including English and maths, compared to 85.7 per cent of highly able students not in the programme. The Open GATE tutoring programme in the US has shown similarly positive results.
- Although participation in extracurricular activities has been found to be associated with higher academic attainment and greater future earnings, low-income students are less likely to have access to such activities. Therefore, interventions which ensure that disadvantaged highly able students have access to such activities could potentially help to close the gaps between these students and their better-off peers. However, there has been very little research into the impact of extracurricular activities on highly able disadvantaged students.

The characteristics of high attainers

- This report looked at a small specific group of higher attainers, those who were in the top 10 per cent for performance at KS2.
- Of the 49,929 students with previous high attainment at KS2, 5,059 (10%) were from disadvantaged backgrounds, defined here as students who have at any point been FSM eligible in the last six years (consistent with pupil premium eligibility), up to and including the year in which they sat GCSE exams. Just 4 per cent of all disadvantaged students had high attainment at KS2, compared to 13 per cent of non-disadvantaged students.
- Thirty-six per cent of high attainers from lower socioeconomic backgrounds are black and minority ethnic, compared to only 20 per cent of all high attainers.
- Ten per cent of white students have high attainment at KS2, compared to just 6 per cent of black students, and 11

per cent of Asian students.

- The region where the largest proportion of disadvantaged students were high attainers at KS2 was London, in which 4.8 per cent of students from disadvantaged backgrounds had high attainment at KS2. By contrast, only 2.8 per cent of disadvantaged students in Yorkshire and the Humber had high attainment at KS2.
- In grammar schools, 2.9 per cent of all students are both high attainers and from lower socioeconomic backgrounds, or about 1 in 17 of all high attaining students in those schools. Conversely, in comprehensive schools, 1 per cent of all students are both high attainers and from disadvantaged backgrounds; or 1 in 8 of all high attainers. Disadvantaged high attainers are almost half as likely to attend grammar schools as high attainers overall.
- In 2016, high attainers from disadvantaged backgrounds underperformed overall at GCSE, across several different measures for GCSE performance. The GCSE points for all high attainers on average was 543, but only 506 for disadvantaged high attainers.
- The average Progress 8 (a measure of progress between KS2 and KS4) for disadvantaged high attainers is low at just -0.32, compared to 0.02 for all high attainers, and 0 for all students.
- High attainers in selective schools have higher performance at GCSE than their peers in comprehensive schools, with their GCSE points score just 525 on average per school, compared to 570 at grammar schools. For high attainers from disadvantaged backgrounds, attending a selective school was associated with a similar difference in performance from an average of 496 per school, to 547.
- In terms of regional variation, London had the smallest gap, with average scores for disadvantaged high attainers per school only 19 points, or 3.5 per cent behind those of high attainers overall.

Recommendations

- The Sutton Trust welcomes the recent announcement of the 'Future Talent Fund' (aimed to help raise the attainment of highly able pupils from disadvantaged backgrounds). The government should now ensure that the fund is properly delivered, trials are robustly evaluated, and that findings from the work are implemented in schools as part of a national programme.
- Improving the attainment of highly able pupils from disadvantaged backgrounds, should be monitored and Ofsted inspections should assess a school's provision for its disadvantaged highly able students. GCSE attainment scores for disadvantaged pupils with high prior attainment should be published as part of school league tables.
- Teachers with more experience and subject specialism should be incentivised to teach in more disadvantaged schools and geographical social mobility cold spots. Government or multi-academy trusts could, for example, offer more money and more time out of the classroom.
- To ensure that all students (especially those from disadvantaged backgrounds) have access to work that will fit their needs, programmes should be made widely available where possible, and any grouping or targeting should be flexible and regularly reassessed.
- The government should introduce a means-tested voucher system, or encourage schools to do so, for lower income families to access additional support and enrichment, including extra-curricular activities and one-to-one tuition. Development of essential life skills should be incentivised and rewarded in Ofsted inspection criteria.

The full document can be downloaded from:

<https://www.suttontrust.com/wp-content/uploads/2018/07/PotentialForSuccess.pdf>