Appendix B: Existing literature and national policy

This section reflects on recent literature that has been published on and policy developments for supporting disadvantaged high attaining students (often labelled in literature as highly able or gifted and talented). Interventions to support these students and analysis of their attainment outcomes are highlighted as well as international examples of best practice.

B.1: Student outcomes

The Sutton Trust's own report, *Potential for Success*, appears to be one of the most recent pieces of research that investigates attainment for the highly able.[1] It found that disadvantaged students are three times less likely to be in the top 10% for attainment than their more advantaged peers. These disparities persist in secondary education – 72% of non-disadvantaged high attainers achieve 5 A*-A grades or more at GCSE, compared to only 52% of disadvantaged high attainers. This builds on research from the Trust in 2015, which found that highly able Pupil Premium pupils achieve half a grade less than other highly able pupils, on average, with a long tail of underachievement.[2]

A review of Programme for International Student Assessment (PISA) data from 2018, which is an international education survey that tests 15 year-olds, also made some conclusions regarding disadvantaged highly able young people.[3] Disadvantaged highly able students were said to have lower ambitions than their more affluent peers; around one in three high-achieving disadvantaged students did not expect to complete tertiary education compared to fewer than one in ten of more affluent high achievers. This is highlighted alongside statistics on the overall attainment gap, finding that 23% of advantaged 15 year-old students in the United Kingdom, but only 5% of disadvantaged students, were top performers in reading. This meant the attainment gap was around 18 percentage points, compared to the OECD average of around 14 percentage points.

Other recent research has used cohort data to follow a group of students throughout their whole education, finding that disadvantaged students are most likely to fall off the highly able trajectory post-primary school. Looking at data for a cohort born in 1991-92, Crawford and others found that while 8.5% of children from the most deprived households achieved English and Maths level 5s in Key Stage 2, only 906 (11.5%) of them ended up at an elite university.[4]

This compares to 39% of those from the least deprived households obtaining the English and Maths Level 5 at age 11 heading to an elite university when they leave school. High ability pupils from the most deprived group were overtaken by those with average ability from the least deprived group at GCSE. They also saw that 2.5% of Free School Meal eligible pupils achieved at least three A–B grades at A level, but nearly half of those who make it to high-status institutions got the same.

While the authors find the largest socio-economic differences in likelihood of attending an elite university for highly able students between Key Stages 1 and 2, further differences are still seen for further Key Stages, with Key Stage 4 attainment highlighted as particularly important for disadvantaged young people reaching an elite institution. Indeed, other research from Crawford finds that even after accounting for Key Stage 5 attainment, each additional A* GCSE in an EBacc subject is associated with a 0.5 to 1 percentage point increase in the likelihood of attending an elite university.[5] This study does consider a large cohort from primary education all the way to higher education, but the findings apply to students who were in secondary education over 10 years ago. Using more recent NPD and COSMO data to look at how high attainers at Key Stage 2 perform at Key Stage 4 (and beyond, in future waves of the COSMO study) will provide a more up to do date exploration of this issue.

It should be noted that regression to the mean is a key challenge when looking at the trajectories of high achieving students from poorer backgrounds.[6] Studies have argued that because any exam involves some measurement error, that some of those who achieve highly in a particular test will have been 'lucky' to do so. Because disadvantaged pupils tend to have lower levels of attainment generally, they are more likely to have temporarily overperformed in any one test, and thus more likely to 'regress' when measured in a follow up exam.[7] Results presented in this report should be viewed in this context.

B.2: National policy

In England in 2015, Ofsted defined the 'most able' pupils as those "starting secondary school in Year 7 having attained Level 5 or above in English (reading and writing) and/or Mathematics at the end of Key Stage 2".[8] But in 2016, Key Stage 2 grading standards were changed, meaning the data underpinning this threshold was no longer available and a standard definition is no longer place.

The last government-led highly able programme, The Young Gifted and Talented programme (YGTP), ended in 2010. Critics argued the programme lacked direction and was not reaching all eligible pupils: indeed,[9] in 2012, the Sutton Trust commented that those from disadvantaged backgrounds were less likely to be a part of the programme, and that the definition for those eligible was confusing for schools.[10] Although this programme was not replaced, post-2010 many schools continued to run their own programmes as a legacy of this scheme. More detail on this and other policies can be found in a previous report from the Trust, *Potential For Success*.[11]

Since *Potential For Success* was published in 2018, no new policies have been announced regarding highly able students, despite a large-scale new project being expected. The report welcomed the announcement of the £23 million Future Talent Fund programme by the Department for Education (DfE), designed to support disadvantaged high achievers to continue to achieve highly and not fall behind more affluent peers.[12] The Sutton Trust wanted to see projects funded through the programme robustly evaluated and the programme's findings to be implemented in schools through a national programme; however, the funding was cut months after it was announced.[13]

There is currently no explicit mention of highly able students in Ofsted inspection guidance, but it does say that all students at Good and Outstanding schools should have access to opportunities to "nurture, develop and stretch their talents and interests".[14] A review of Ofsted reports from 2018 and 2019 by Potential Plus UK found that over 44% of reports suggested that schools should improve their provisions for the most able pupils, with improvements needed across every Ofsted category.[15] Following their review, the organisation called for changes to Ofsted inspection to ensure support for highly able students is well evaluated and best practice is accurately highlighted.

DEVOLVED NATIONS

Approaches differ in the devolved nations. In Wales, the Seren Network brings together state education providers with universities, local authorities, the government and the third sector to support over 10,000 highly able students from Year 8 upwards to access leading universities.[16] The new Welsh curriculum, introduced in 2022, also includes recommendations to stretch and challenge students who are gifted and talented.[17]

In Scotland, since 2004, the Education (Additional Support for Learning; ASL) Act requires schools to offer extra support to students identified as highly able, such as group projects.[18] However, evaluations have questioned the effectiveness of ASL and the slow rollout of changes brought in since 2021,[19] with one review in 2017 highlighting low awareness of the scheme amongst disadvantaged families.[20]

In Northern Ireland, the most recent guidance from the Council for the Curriculum, Examinations and Assessment (CCEA) for schools teaching KS4 students is to intervene when highly able students are not performing as expected, with interventions including extra-curricular activities and more challenging lesson content.[21]

However, none of these measures are designed to support socio-economically disadvantaged highly able students specifically.

B.3: Identification and interventions

Our last report looking at highly able disadvantaged students, *Potential For Success*, highlighted the importance of early identification and interventions at primary school, as the attainment gap is present even before children reach Key Stage 2.[22] The fact that teachers are less likely to refer low-income students than more advantaged students for programmes aimed at the highly able was also discussed.[23]

In school, subject-specific highly-qualified teachers were seen to be effective for highly able students.[24] Grouping and accelerated learning also appeared as a successful intervention,[25] but there were difficulties noted in identifying students for this and concerns were raised about the impact on those in lower-attaining sets, who may be left behind.[26] Evidence was also found regarding mentoring and tutoring, with the UK's AimHigher university mentor programme (which ran from 2004 to 2011) highlighted as a programme that raised

aspirations as well as GCSE attainment amongst disadvantaged students.[27] Albeit, evidence on this type of intervention largely focused on mentors from universities visiting local schools, thus new interventions may need to consider a wider scope to have enough mentors for students (for example, older students mentoring younger students in the same school).[28]

Furthermore, outside of the classroom, parental and community support were highlighted as important sources of encouragement for students from lower socio-economic backgrounds who may feel less inclined to engage with programmes and activities on top of normal lessons.[29] The potential of extra-curricular activities to facilitate development of essential academic and wider life skills (such as confidence, resilience and communication) was also discussed, with debating clubs highlighted as a notable intervention.[30]

Turning to more recent literature, a 2018 DfE review of the most successful ways to support able disadvantaged students between Key Stages 2 and 4, involving a large group of over 400 secondary schools, found that the most successful interventions cover four areas: academic extension; cultural enrichment; personal development; and removal of financial barriers to achievement (such as covering university visit and entrance fee costs).[31] The most successful schools had a notable strategic commitment to supporting highly able disadvantaged students (including an assigned member of SLT, specific teacher training and designed lesson plans), while schools that were not performing well said they struggled to identify which of their students were 'highly able'.

In another piece using NPD data for a cohort of Year 7s from 2006 to 2011, whose academic performance was followed to GCSE, Cook, Shaw and Morris found that identifying and supporting highly able disadvantaged pupils in a 'gifted and talented programme' upon entry to secondary school was associated with higher GCSE attainment compared to pupils from the same background (including similar prior attainment) but not involved in a programme.[32] These programmes were in the form of summer schools, often offering Maths and English classes to pupils during the summer holidays before arriving at secondary school. Although the authors point out that other confounding factors like Cognitive Ability Test performance may be involved in this relationship, it is notable that programmes at primary school age can influence academic performance several years later at GCSE.

While these studies highlight several effective interventions to support disadvantaged highly- ble students, more research is still needed to evaluate and identify the most impactful interventions. The most recent extensive review of interventions was commissioned by the DfE; more large-scale independent research could highlight how many schools are offering support for disadvantaged highly able students as well as some more detail into the most successful interventions.

Developing interventions to support disadvantaged highly able students to continue to succeed also relies on this group being easily identified, but currently, there is not a universal measure for being classed as 'highly able' nor a method of identifying these students. As highlighted in a later section about international policy, testing from a young age is a common way of identifying highly able students. Assessment can be ongoing throughout a student's time at school, to make sure that those falling behind are quickly identified to be brought back on track and that students missed at one stage have another chance to be identified. However, there are limitations, with tests relying on previous knowledge and an understanding of cultural references potentially being difficult for students from lower socio-economic backgrounds, as they may not have the same knowledge base as other students.[33] Unconscious bias may also come into play, with research finding that teachers are less likely to judge low-income students as having above average ability in reading or in Maths – even when their previous test scores indicate as such.[34]

Identifying highly able students in some way is important, as it allows teachers to monitor students' progress and compare it to their peers, which is particularly important for highly able students from disadvantaged backgrounds at risk of falling behind their peers.[35] A tightened strategy for identifying highly able students and supporting them throughout education would ensure that all highly able pupils across all schools, regardless of their background, are identified and receive the support they need to succeed.

B.4: International practice

Interventions to support highly able students appear to differ globally. The Organization for Economic Cooperation and Development (OECD), a prominent international organisation in many areas of policy including education, reviewed policy approaches for 'gifted' students across member countries in 2020.[36] They found a mixture of enrichment (supporting pupils in school) and acceleration (entering pupils into school or specific year groups early) approaches taking place, with notable examples in Australia,[37] but pointed towards integrative strategies as working best to ensure the most able students are not segregated from others and all pupils can benefit from the changes brought in. For example,

in Finland, there is a differentiated curriculum designed to suit a range of academic abilities which teachers are trained on so that classroom activities can be adapted to suit all students of varying ability.[38]

Identifying highly able students through testing is highlighted as a common approach by the OECD, with IQ tests that cover topics like non-verbal reasoning often included. For instance, in Singapore, primary-aged pupils sit tests so that they can be identified for a national Gifted Education Programme.[39] Frequent testing to identify student ability is also common in China – results are used to determine whether children can start school early, move forward a year or move to a specialist school that focuses on a particular talent, such as sport.[40] Despite the limitations of using testing to identify highly able students (as mentioned above), the method is still commonly used in multiple countries. The method is also a preferred alternative to teacher identification of highly able students – research from the US has shown that economically disadvantaged highly able students are more likely to be missed when the group is identified by teachers.[41]

The OECD review doesn't focus on interventions for disadvantaged highly able students specifically, however it does note that identification and access bias for such programmes was common, with those from lower socio-economic backgrounds less likely to take part in programmes in developed nations like Canada and Australia. They also mention parental involvement in England's gifted and talented schemes pre-2010 as an effective way of encouraging participation for socio-economically disadvantaged pupils.[42]

While the English education system differs to the systems in countries mentioned above, many international practices to support highly able students are similar to approaches taken in England and provide food for thought relevant for new policies. They may also be useful to consider in the context of supporting disadvantaged highly able students specifically.

Despite widespread attention paid to inequalities in access to higher education, and to the most prestigious institutions, and the fact that attainment gaps at school form the basis for much of these issues, the Sutton Trust's 2018 report appears to be one of the most recent pieces on attainment for highly able students from disadvantaged backgrounds, with other reports approaching 10 years since publication. Reviews of best practice have identified what works to support disadvantaged high attainers, but currently none of these are set out in national policy or Ofsted guidance. Furthermore, the devolved nations as well as international countries appear to have more established systems to support highly able students than England.

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