



Rt Hon Nick Gibb MP

Minister of State for School Standards

Sanctuary Buildings, 20 Great Smith Street, Westminster, London, SW1P 3BT

Professor Sir Adrian Smith
Vice-Chancellor
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Senate House
Malet Street
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20 July 2017

Dear Sir Adrian,

Independent review of 16-18 maths education

Thank you for your authoritative and wide-ranging review of how to improve 16-18 mathematics education in England and the 18 recommendations that you make. You have identified a strong case for raising participation in post-16 mathematics and improving both basic and advanced maths skills. The government is determined to give all young people the world-class education they need to fulfil their potential. This means that they must have the opportunities to develop the mathematical and quantitative knowledge and skills appropriate to their chosen careers. In that way we will also ensure that the future workforce will be productive and competitive in the global marketplace.

The report presents clear evidence for the value of mathematical and quantitative skills to students, whichever route they take. You identify a number of systemic challenges that currently hold back participation in mathematics post-16. I agree with your conclusion that government, employers, schools and colleges must take greater action to encourage and support more young people to choose mathematics post-16, particularly in areas where take-up is low. Your report includes recommendations and challenges that are wide-ranging – for example, the need to address negative cultural perceptions of mathematics. These issues will require detailed engagement and action between government, industry, universities, schools and colleges. We will consider your report carefully, and set out our plans across the range of your recommendations in due course, but I am pleased to be able say that work is already underway to address a number of the challenges you highlight, and there are a number of recommendations against which we have been able to take immediate

action.

First, I agree that good quality teaching is vital, and to boost the capacity of schools and colleges to deliver Core Maths and A level mathematics and further mathematics I am pleased to announce a new £16 million Level 3 Maths Support Programme. It will build on the momentum created by the Further Mathematics and Core Maths Support Programmes, and will work with schools and colleges to improve mathematics education by sharing best practice, and delivering knowledge-rich curriculum materials, as well as working to increase participation and attainment in 16-18 mathematics. The programme will work to deliver focused intervention targeted to those who need it most.

Secondly, the government requires students to continue the study of mathematics and English where they do not already hold a GCSE at grade 9-4 in these subjects, and for students with a grade 3 to enrol on GCSE courses. This requirement has resulted in a significant increase in the number of young people successfully retaking their GCSEs. I understand your concern highlighted in recommendation 5 about the need for high-quality alternative curricula and qualifications for students aged 16-18 for whom GCSEs are not appropriate. Students already have access to a range of mathematics and English qualifications as part of their 16-18 education. However, we recognise the need to improve the quality and recognition from employers of alternative qualifications such as Functional Skills. This is why we are reforming these qualifications. The current policy will stay in place in 2017/18, but we will continue to monitor and review the current policy to assess whether it is having the desired impact.

Thirdly, the Department is building a robust technical education system, which will consist of provider-based T levels and work-based apprenticeships, to sit alongside the academic track, delivering the vision set out in the ambitious Post-16 Skills Plan that followed the Sainsbury Review. We are working with employers to ensure that the new technical qualifications include mathematics where employers identify this as a requirement for employment. I agree with your recommendation for the Institute for Apprenticeships to work with the newly constituted Royal Society Advisory Committee on Mathematics Education to ensure appropriate expert advice is given to the employer groups developing T levels.

Fourthly, to support all of this work to improve post-16 mathematics we are taking steps to expand the capacity of the mathematics teaching base. The government is committed to ensuring that teaching is a high-status profession that attracts the best and brightest applicants – whether new graduates or career-changers – and to giving schools the freedoms they need to recruit and retain the teachers they need. We offer generous financial incentives for those training to teach priority subjects such as mathematics, and we are training more mathematics teachers this year than in any of the previous five years. Nevertheless, we know we will have to go further to increase significantly the provision of 16-18 mathematics education over coming

years.

Fifthly, I also welcome your recommendations on encouraging universities to widen access by supporting 16-18 mathematics education. Universities are an important influence on students' post-16 choices. In response to your recommendations, we are working with institutions such as the Royal Society and British Academy to encourage universities and employers to signal the value of level 3 mathematics qualifications for entry to undergraduate courses with a significant quantitative element and for a wide range of job roles.

And lastly, we will build on your recommendations as we determine how best to ensure we have the skills we need, now and in the future, to deliver our modern Industrial Strategy. The Industrial Strategy Green Paper, published earlier this year, demonstrated our commitment to creating a socially mobile, productive and highly skilled workforce. This work includes the entitlement to training for people without the basic maths (and/or literacy and digital) skills they need to get on in life and work, our ongoing work with employers to reform the technical education system to ensure young people have the technical skills businesses need, and addressing shortages in STEM and sector-specific skills. In response to recommendation 18 in your review, we will also be improving the quality and quantity of careers advice in schools and will be publishing a careers strategy later this year.

I am placing a copy of your report and my response in the libraries of the House and on the government's website.

With best wishes.

Yours sincerely,

A handwritten signature in black ink, reading "Nick Gibb". The signature is written in a cursive style with a large initial 'N' and 'G'.

RT HON NICK GIBB MP