



Education Committee

House of Commons London SW1A 0AA

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From Mr Robin Walker MP, Chair

Letter via email

28 February 2023

Dear Gillian,

I am writing to you following a recent oral evidence session the Education Select Committee held on extending the study of maths to 18. This followed the Prime Minister's announcement in January this year that he was moving towards a system where all children will study some form of maths to 18.

On 7 February, we invited five witnesses to give oral evidence to us on the proposal to extend maths to 18, including representatives from the Royal Society, National Foundation for Educational Research (NFER), National Education Union (NEU), National Numeracy and Association of School and College Leaders (ASCL). Whilst all welcomed the move towards extending some form of maths to 18, some also raised the following concerns about the proposal:

Workforce

Several concerns regarding the recruitment and retention of maths were flagged to us during this session. Witnesses argued that the Department's failure to meet its targets to recruit more maths teachers could have an impact on extending maths to 18 because there are not enough specialist maths teachers. Niamh Sweeny from the NEU told us that the "Government have missed their target on recruiting new maths teachers every year for the last 11 years" and that the "total numbers recruited to initial training in maths is the lowest it has been since 2010-11". She argued that "we are in the depths of the biggest recruitment and retention crisis in education, after years of a pandemic where we have seen educational disadvantage increase". Furthermore, Jack Worth from the NFER told us, "it is very challenging to recruit and retain maths teachers", arguing that the implication of this is that there are "a lot of non-specialist teachers teaching maths", and that this is already significantly impacting pupils' outcomes.

Another issue regarding workforce related to the Department's decision to reduce its recruitment target for maths teachers and how this could potentially impact workforce planning when developing the policy to extend maths to 18. Jack Worth told us:

In terms of workforce planning that had gone into that announcement, none of it had been published. [...] The target reduced between 2019 and recently by 39%. It is lower. The context of that is even more puzzling because the Government used to publish the modelling behind that workforce planning, the teacher supply model, and in the intervening period has reformed that model and it is now the teacher workforce model. [...] The current model does not take into account of delivering any increased ambition for maths teachers. It is also a mystery as to why the target has been reduced.



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He told us that the last published model suggested that the maths target was likely to be around 3,000 per year for the next decade but that we are now looking at a target of 2,000 maths teacher.

Whilst we recognise the Department has introduced new incentives to encourage more teachers into the industry, our witnesses told us that “more creative” ways could be explored to encourage people into teaching maths, and more generally.

Thirdly, we were disappointed to learn that there was no consultation or engagement with the teachers or their representative bodies before the announcement was made. Niamh Sweeney told us “it was an unfortunate announcement that did not come with any consultation or discussion with the Department for Education about those workforce challenges and about the challenges of the system that we are in at the moment”.

In light of the concerns raised above, would you be able to clarify: a) whether the proposal to extend maths to 18 will require more maths teachers to be recruited, and if so, how the Department plans to achieve this; and b) what steps the Department is taking, in light of these proposals, to ensure a workforce plan for mathematics is developed?

Numeracy and maths

Our panel explained that there is considerable confusion between whether the real objective of extending study should be focused on academic maths or numeracy. Niamh Sweeney argued that when the Prime Minister’s announcement was made “lots of the media and lots of people thought ‘A-level’, because that’s what I know”. She argued that “we have to think about whether it is maths or numeracy, and do you just solve the problems that we might have with a competitive, growing economy by bolting on maths for everybody or do we take a brave step and look at our curriculum and ask is it fit for purpose”.

We would welcome clarification from the Department on whether it intends to make maths or numeracy a central focus of these reforms.

Importance of maths education in the early years

Whilst all the panellists believed there are some potential benefits to extending maths to 18, some of our witnesses emphasised the importance of building young people’s confidence with maths in the early years. Sam Sims from National Numeracy told us that in relation to maths, “confidence is often knocked at a very young age”. He explained:

I speak to many adults who have very low numeracy and almost without exception they tell me that they had a very negative experience at school from a young age. They can often even remember the experience that started to knock their confidence and experience maths anxiety. In the system when we go right back even to the early years, then into key stage 3, we need to think about how we support young people to build that confidence, create a positive attitude and see the value



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Whilst the Government's current proposals focus on extending maths to 18, we would urge the Department to consider how to support pupils' confidence and enjoyment of maths from the early years as part of these reforms, so that when it is extended to 18, pupils feel encouraged to participate in these lessons.

Addressing negative attitudes towards maths

Whilst we heard that "a post-16 focus on maths could have a significant advantage for labour market skills and returns for individuals in terms of jobs and wages", we were also told that "without addressing negative attitudes towards maths, we are going to struggle". Sam Sims argued "When we saw the announcement, even if you look at the reaction for the press or in social media, you see "that's the worst thing I could imagine, having to do maths until I was 18". That reaction says something about how we perceive and our attitudes towards maths and numeracy". Some of our witnesses suggested that one of the ways this could be addressed was by making maths more relatable to everyday life.

With this in mind, we hope that as the Department sets out more policy detail around these proposals you will consider the opportunities to provide both more financial education and more work-related mathematics content alongside academic and vocational approaches to mathematics. In general, the Department should try to communicate a positive message about mathematics and numeracy being subjects in which everyone should aspire to attain and to combat the widespread assumption that it is OK to be bad at maths.

Support for those who have not achieved grade 4 in GCSE maths

Almost all of our witnesses emphasised the need for consideration to be given to those pupils who fail GCSE maths, when the policy of extending to maths to 18 is being developed. We were told that there is a "real issue with GCSE resits" in relation to maths, and that those between the ages of 16-18 "have a statistically lower chance of succeeding, of getting that pass" when resitting GCSE maths and this could have an impact on their confidence and how they feel about having to continue studying maths, whilst also preparing for resits. We heard some very worrying evidence about the low proportion of people currently taking resits who ever get a higher grade and the demotivating experience of students having to resit the same exam six or seven times.

We would welcome more detail on how the Department will support those children not meeting the required grade 4 pass mark in GCSE maths, when planning to extend maths to 18. What assessment has been made of the costs and benefits of students having to resit GCSE mathematics on multiple occasions and whether there are any alternatives that would enable them to get some form of qualification or recognition for progress in numeracy without having to retake the whole exam?

We look forward to your response and hearing more about the details of the policy.

Yours sincerely,



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A handwritten signature in black ink, appearing to read 'Rob Walker'.

Mr Robin Walker MP
Chair of the Education Committee