

Time for change - a new qualification for post-16 mathematics?

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The Wolf Report or *Review of Vocational Education*, commissioned by the Secretary of State for Education in 2010 and published in 2011, set out recommendations for an improvement in further education for students aged 16 to 19.

The recommendations within the report were lauded by the government. In the introduction to the document, the then Secretary of State for Education, Michael Gove, described the report as 'brilliant, and ground-breaking', and thus a change to post-16 education which impacts hundreds of thousands of students in England was set in motion.

Decreed

As a direct result of Recommendation 9, from 2015 it was decreed that all 16 to 19-year-olds in further education who had not yet achieved a grade C (or 4) in GCSE mathematics and/or English must be enrolled on a specific mathematics or English course to receive funding for their main programme of study:

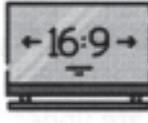
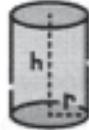
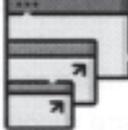
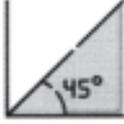
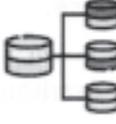
Students who are under 19 and do not have GCSE A*-C in English and/or Mathematics should be required, as

part of their programme, to pursue a course which either leads directly to these qualifications, or which provides significant progress towards future GCSE entry and success.

In evidence delivered to the House of Commons Education Committee in October 2019, Baroness Wolf revisited her report and recommendations. Nearly ten years after the initial report, while she still acknowledges the need for mathematics and English to be studied after the end of secondary school, she does not believe that a GCSE is the correct qualification for this purpose.

There are calls for a new mathematics qualification in further education. The Nuffield Foundation are currently running a consultation to ascertain whether it is feasible to formulate a GCSE in mathematics which is solely for FE learners - one which has mathematical skills which it deems 'appropriate' for GCSE resit students. They state in their project outline that a diet of 'more of the same can be very demotivating', with the current mathematics GCSE being conceived with 14 to 16-year-olds in mind, not 16 to 19-year-olds.

However, this does not have an impact on our current learners. As part of our work as

<p>FF01</p> <p>Types of number</p> 	<p>FF02</p> <p>Using number</p> 	<p>FF03</p> <p>Simple Probability</p> 	<p>FF04</p> <p>Ratio</p> 	<p>FF05</p> <p>Measures</p> 
<p>FF06</p> <p>Rounding and approximation</p> 	<p>FF07</p> <p>Perimeter, area and volume</p> 	<p>FF08</p> <p>Proportion</p> 	<p>FF09</p> <p>Simplify and solve</p> 	<p>FF10</p> <p>Percentages</p> 
<p>FF11</p> <p>Angle properties</p> 	<p>FF12</p> <p>Representing data</p> 	<p>FF13</p> <p>Solve and graph</p> 	<p>FF14</p> <p>Averages and spread</p> 	<p>FF15</p> <p>Transformations</p> 

one of the Centres for Excellence in Maths, my team at Grimsby Institute have been investigating the use of a stripped-down GCSE curriculum for our learners.

The Centres for Excellence in Maths is a DFE-funded project charged with the research and development of teaching and learning in maths in FE. There are 21 Centres across England which are hubs for action research, training and the sharing of successful practice over the whole FE sector. C4ME (Centre for Maths Excellence) is the name of Grimsby Institute's Centre - we emphasise the *for* part of the programme, the fact that we are looking for that excellence.

Forensically

The C4ME team have devised a scheme of work called 'The Focused 15'. Examination data from the first two sittings of the 9-1 maths GCSE was forensically analysed. This covered well over a million items of data and, as a result, the topics that grade 4 students were more competent in compared to the average grade 3 student were identified. The

scheme was refined over the next exam series.

There are fifteen interconnected topics which vary in size and difficulty, but build over time to give a rounded, good level of mathematical understanding - for the exam and a student's future.

It is recognised that students who are enrolled onto a GCSE maths resit course have covered the material before, and that the resit course should build on this prior learning to develop each student's gaps in knowledge. If a learner is able to fill the gaps in these fifteen areas, they will pass their GCSE comfortably and have a set of usable skills for the future.

We hope that this approach will bridge the gap between the current circumstances and the formation of a new, suitable, qualification for post-16 learners. We welcome your comments and observations:
C4ME@grimsby.ac.uk.

