

Supporting the teaching of Mathematics GCSE resits: An urgent need for *suitable* interventions



For many students, gaining a Mathematics GCSE can be gateway to an economically richer and more fulfilling life. Supporting older learners to secure this qualification can, however, be challenging. After eleven years of schooling, most have not achieved the target grades. They are likely to feel disaffected and disengaged.

This situation is reflected in the worrying statistics recently tweeted by the Educational Endowment Foundation. A concern accentuated by the doubling of resits over the last four years (over 170,000 entrants this year). Moreover, data from the Joint Council for Qualifications (JCQ) indicates the results are not improving – the percentage passing was down by over 14 percent compared to 2017.

2018 GCSE Results Achieving Grade 4 or better	
Year 11	Post 16
70.1%	23.7%

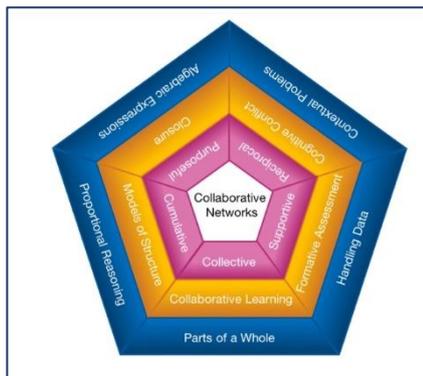
In reaction to these results, David Hughes, Chief Executive of the Association of colleges, said, “*It can be damaging for a young person to have to face an exam they are very unlikely to pass*”. Indeed, the TES reported that over a third of last summer’s Key Stage 5 students had sat the exams at least twice before, with some ending up retaking it as many as eight times.

Government standing firm on policy

In response to this dire situation, the Department for Education, however, is not considering abandoning the policy of requiring post-16 students to retake their maths GCSE until they have achieved at least a grade 4 or equivalent. Instead, a spokesperson stated: “*We committed £50m on top of previous investment to improve maths teaching for post-16 pupils. In addition, we’re putting £4.5m into professional development for teachers to improve the quality of maths and English at post-16 level*”.



Maths-for-Life is a professional development programme specifically designed to improve GCSE resit results



The professional development offered within the Maths-For-Life programme uses evidenced-based resources that focus on five key content areas and five key pedagogies. By forming collaborative networks within local geographical areas, teachers provide support for each other as they learn about new teaching practices.

A successful trial of the resources in 2017-2018

Last year proved a busy, but rewarding one for us curriculum developers at the University of Nottingham and for the 20 post-16 mathematics teachers. The materials were designed and then trialled in over 50 classrooms. We observed many of these lessons, and some were videoed. As Matt Woodford, lead developer, stated:

"It was clear that as teachers took on new practices, students' attitude and behaviour improved enormously. As teachers developed a supportive culture that prioritised understanding rather than performance, students were less inclined to give up at the first hurdle. I found students were more willing to express aloud their thinking, even at the risk of being 'wrong'. In many classrooms I observed there was a great sense of 'we're in this together'".



What participants in the development phase say

The principal of Harlow College commented on how the involvement in the trials has developed teacher practice, improved students' behaviour and boosted results:



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"Our lead teacher, ... has really benefitted from working with teachers from other colleges and schools. He's had the opportunity to share good practice and develop his own understanding of new pedagogies. The early indications are that M4L is making a real difference, not only to student engagement with mathematics, but also to improved resit results."



One Lead Teacher let us know about two students that were in his class and experienced the Maths-for-Life approach.

Rosie was a student on The Prince's Trust. She had a grade D and needed to get a grade 4 GCSE MATHS to study A levels. Rosie was delighted with her result and it is nice to think that the Maths-for-Life resources and approaches contributed to her success.

Tom, a BTEC IT student, improved his grade from a grade 3 to a grade 5. Tom enters the second year of his L3 programme and is highly pleased that this has improved his UCAS application to universities. Tom now also has the opportunity to study Core Maths L3 at his college In Stoke.

Next Steps: participating in the research

The classroom observations, together with many discussions with teachers and students, resulted in the refinement of the resources. Within this process, 20 highly experienced teachers were trained to be professional development leaders. Throughout this year you will be working with one of them.

**We wish to thank all those who contributed to the trial of the resources,
we literally could not have done it without you!**

We are now in a great position for the more extensive trials this year.

We are really looking forward to working with you all!

As Catherine Sezen, Senior Policy Manager at the Association of Colleges writes, "AoC has long called for more research into FE teaching and learning to help students improve their English and maths skills. Maths-for-Life is a good example of this. We look forward to the findings of the project."

Upcoming dates for your diary

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|----------------------------|---|
| 10 th September | You will be asked, via email, to submit basic data about your students. |
| 12 th October | You will be allocated your group: either the intervention or the control.
Watch out for an email about this! |
| 19 th October | The launch, in London, of Maths-For-Life.
All teachers that are part of the intervention group are invited to attend.
Travel is paid for, and lunch is supplied. |

Maths-for-Life is jointly funded by the Education Endowment Foundation and JP Morgan. It has been developed by the University of Nottingham and is independently evaluated by the Behavioural Insights Team.



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