

Royal Statistical Society response to government review on Making maths and English work for all

[Consultation overview:

The Government, through the Minister for Skills and Equalities, Nick Boles, is looking at the choice of routes and qualifications in England available to young people and adults whose maths and English skills could benefit from improvement for their personal and working lives, particularly equipping them with the skills employers value.

GCSE is a recognised brand amongst employers and the public, and Government policy is to enable as many young people as possible to have the chance to take and achieve GCSE maths and English at grade C or above at or around the age of 16.

The **Making maths and English work for all** review is looking at those who could benefit from improving maths and/or English skills to a level equivalent to GCSE A* - C. The review is relevant to current employees and new entrants, learners on Apprenticeships or Traineeships, people seeking work or in offender learning. If re-taking GCSEs is not the most appropriate route to acquiring or demonstrating these skills, what is a valid alternative?

Key to this review is open engagement with employers and stakeholders to seek views on the effectiveness of, and, where necessary, improvements required, on alternative educational routes to ensure current and future employees have the opportunity to achieve a level equivalent to GCSE A* - C in maths and English and can meet life and work needs and expectations.]

Q7: In which of the following subjects do you have a specialist interest?

Maths only

English only

Both maths and English

Q8: Thinking about young people and adults who have not yet achieved maths/English at GCSE A* to C - do you believe they should be expected to pursue GCSE maths and/or English? (Tick one only)

No - there are some for whom alternative routes and qualifications are more appropriate

All young people will need certain elements of mathematics and statistics throughout their adulthood, both in employment and in their everyday lives. GCSE Mathematics is a general qualification intended to prepare young people for both further study in mathematics and to use mathematics in life and work. However for some young people who have not achieved A* to C, preparation for further study in mathematics (as opposed to further study which might use some applications of mathematics) may no longer appear relevant or motivating to them. In every other area of education, the notion of variety and progression is held as important: the post 16 curriculum is in general expected to differ from the pre-16 curriculum. There is no precedent in the UK for post-16 learners to be constrained by a pre-16 general curriculum when something else would be more appropriate.

While we agree that all students up to the age of 18 should attain a qualification equivalent to GCSE mathematics, we believe they, and the country, would be better served by a course

designed to meet their needs at post-16 to prepare for their future. In our view therefore, post-16 study towards a GCSE in mathematics should not be 'one size fits all': there should be the option for those ready for GCSE-level study to pursue a GCSE course that is somewhat different to pre-16 provision. The balance for such a qualification should reflect the greater demand for skills in areas such as financial mathematics and data handling. There would need to be less emphasis on other topics prioritised in pre-16 GCSE provision which would have less applicability to many life and work contexts.

Q11a: Are qualifications the only answer for young people or adults wishing to acquire maths and/or English skills to a level equivalent to GCSE A*- C?

No

Skills can be acquired in a great many ways, so young people could acquire skills to the appropriate level without being subject to assessment. However, qualifications are the only means of accrediting skills. In today's competitive employment landscape, lacking a GCSE Mathematics qualification sets students at a major disadvantage when it comes to signalling to a wide range of employers that they are appropriately skilled. It is therefore, important that good quality post-16 alternatives to GCSE Mathematics are accredited and that such accreditation has currency with employers.

In your view what would be the key characteristics for any such new qualification at this level? Please tick one from each of the following groups (questions 14a to 14c):

Any other characteristics - please specify:

In qualifications of all types and at all levels, the required skills should be accredited in the appropriate way. Assessment should also be closely linked to the requirements of other subjects. There are elements of mathematics and statistics that should be covered at GCSE, or equivalent, that cannot be assessed in an examination. These include, for example, the collection of data for investigation, and computer-based analysis and interpretation. Assessment that consists only of examination papers does not assess the full complement of statistical literacy that should be developed in formal education.

Q22 Do you have any other comments about maths or English skills or qualifications?

The education system should work to ensure that all young people can apply and interpret at least basic statistics by the time they leave secondary education and training at 18 or 19. The development of GCSE mathematics for post-16 learners, as well as any accredited steps toward this, should support wider ongoing engagement in maths and statistics. Provision post-16 should also address the standard of statistical skills. The use of realistic data, and use of technology to analyse it, is still lacking in pre-16 provision, and should also be engaged with post-16.

Q23 Would you be willing to take part in a short research interview about this subject so we could explore some of your views in a little more detail? If yes, we would be very pleased to make contact with you at a time convenient to you.

No

Response submitted on behalf of the RSS' Education Policy Advisory Group by the Policy & Research Manager on 24 February 2015.