



Ms Glenys Stacey  
CEO and Chief Regulator  
Ofqual  
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Herald Avenue  
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30 January 2015

Dear Ms Stacey,

**From the Chair of Council of The Mathematical Association**

**GCSE Mathematics**

Thank you for your letter dated 16th January addressed to our President, Lynne McClure. We are pleased you have acknowledged the growing concern of the mathematics subject associations over the variability in difficulty and demand of the reformed GCSE mathematics sample assessment materials (SAMs).

Selecting an Awarding Body for GCSE mathematics is a critical decision for Heads of Mathematics and Senior Leaders. The introduction of the 2016 Performance Measures has intensified the spotlight on mathematics outcomes to the point where one disappointing set of results could lead to devastating consequences for a school. It is dismissive to play down any urgency because “none of this affects what is to be taught”; Mathematics Departments may only be able to apply for development funds to purchase textbooks and other resources at certain times of the year and Schemes of Work need to be adapted and revised to reflect the approach of their favoured Awarding Body to the assessment of problem solving and reasoning.

There are many risks associated with failing to guarantee a level playing field. If the examinations offered by one Awarding Body are seen to be obviously less demanding than those of their competitors, public confidence in the standard and rigour of the reformed mathematics GCSEs will be eroded. Any attempt to iron out significant variability at the point when grade boundaries are set could create a situation where grades are “bunched” closely together making it difficult to differentiate capable candidates from the most able. A “race to the bottom” appears to be a real possibility as Awarding Bodies with the most difficult accredited SAMs are in the process of drafting more accessible additional sample materials in order to maintain market share and this could certainly lessen the positive impact of the new curriculum.



We understand your wish to conduct a thorough investigation but do not accept your contention that “it is impossible to determine difficulty at this point in time”. The lack of comparability between the accredited SAMs is so significant that any experienced teacher of mathematics could identify the easiest set of papers at a glance and it is they, and not Mathematics PhD students, who are best placed to judge relative difficulty and demand. A professional understanding of the way young people learn elementary mathematics and its applications is vital in this regard: two questions may test exactly the same mathematics but the context or presentation can drastically affect the outcome. We believe it is unnecessary and undesirable to wait until your programme of research is complete before taking any action and, in parallel, Awarding Bodies should be asked to prepare new SAMs which are more closely aligned to the subject criteria for GCSE Mathematics so that the revised documents can be published as quickly as possible, even at the same time as the findings of your research.

If it would be helpful, members of the Teaching Committee of The Mathematical Association would be very willing to meet with you to assist you in bringing this matter to a swift and satisfactory conclusion.

Yours sincerely,

Professor Adam McBride  
Chair of Council

Copy: Mr Nick Gibb MP, Minister for School Reform.