

LMS Response to the Education White Paper

Executive Summary

The London Mathematical Society is the major UK learned society for mathematics with an international membership. The Society's main activities include publishing journals and books, providing grants to support mathematics and organising scientific meetings and lectures. The

could extend to the provision of good textbooks and other (e.g. internet-based) resources. The current situation – the endorsement by awarding bodies of text-books which are superficial, narrowly aligned to a syllabus and exam-focused – is much more than a minor problem. It has been stultifying, and should be removed. We note that in high achieving countries, both assessment systems and textbook production remain under some type of government and academic control.

Progression and assessment

A fresh and more coherent view needs to be taken of the progression of (say) the top 25% of students. Most of these students should go on to study mathematics beyond age 16; and, to succeed at higher levels, basic material needs to be mastered much more robustly than is currently required

International comparisons

We welcome moves to compare our examinations with those in other countries. However, international comparisons can be misleading: there are special reasons to question the reliability of results from PISA. Contrary to claims in the White Paper, the results from TIMSS demonstrate marked, even remarkable, improvement at year 5, at least up to 2007. But there is still much that could improve. First, it is not clear whether the gains at year 5 have since become permanently embedded (if only because the focus on mathematics in primary schools has recently weakened). Moreover, if one looks more closely at the progress made in Year 9, one sees that the gains in Year 5 may have been rooted in "backward-looking" drill, rather than in teaching that cultivates "forward-looking" structural methods. This suggests the need for extensive CPD for those teaching at KS2 and KS3.

Changes – whether of teaching styles or examination questions