

## Is Maths Harder than English? [Summer 2002]

Looking at the AS/A2 results and the GCSE results for 2002, I was struck by the differences between results for maths and results for English. Entries for A2 Mathematics in 2002 fell by nearly 20 per cent compared to 2001, whereas for A2 English they fell by only 6 per cent, which is roughly in line with the overall drop in entries. 72 000 students, or whom 70 per cent were female, took A2 English compared with 54 000 students who took A2 Mathematics, of whom 37 per cent were female. So, while male students favour maths over English, female students more markedly favour English over maths. It would appear to be much easier to do really well in Mathematics, with 37 per cent of the entries achieving a grade A this year, than in English with 19 per cent A grades. But on the other hand, 10 per cent failed to achieve a grade in Mathematics, compared with 2 per cent in English.

Everyone had expected the A2 results to show improvements this year compared with previous years, because students who had not done well at AS would not continue to A2. So it is disappointing to find that the percentage failing A2 Mathematics in 2002 is virtually unchanged from 2001.

And what about AS Mathematics which was supposed to be 'easier' this year? Well, 28 per cent failed to get an AS grade in 2001 and this year that figure was 22 per cent. Better; but still far too high.

So why do we make maths so hard to pass? One reason for the latest changes to the AS and A2 syllabuses was pressure from universities, who claimed that undergraduates could not cope with their courses, because of their poor mathematical knowledge and skills. This pressure has backfired somewhat, because there has been a 6 per cent drop this year in admissions to university maths departments, some of which face serious cutbacks.

The difference in performance between maths and English is similar for GCSE examinations, in which 60 per cent of candidates achieved a grade C or better in English, while only 51 per cent did so in Mathematics. Back in 1979, the Cockcroft report highlighted a similar difference then and suggested that this difference was arbitrary and therefore probably unjustified. It is interesting to note, however, that one reason for this difference in 2002 is that Mathematics is unlike most other GCSEs, in that boys do as well as girls. 52 per cent of girls and 51 per cent of boys achieved grade C or above in Mathematics, but for English the figures were 67 per cent and 52 per cent.

What happens at key stages 1, 2 and 3? At KS1, more children achieve the expected grade in maths than in English and there is little difference in the performance of boys and girls. At KS2 in 2001, 70 per cent of boys achieved the expected grade in both English and maths tests. The girls did equally well in maths, but 80 per cent achieved the expected grade in English. Once they get to KS3, there is still no difference between the performance of boys and girls in maths, but 73 per cent of girls achieve the expected grade in English, compared with 57 per cent of boys.

So what can I conclude from all these figures? One observation is that in English, as in most subjects, girls do increasingly better than boys, the older they get, whereas in maths the achievements of boys and girls remain equal. Is this because maths becomes less appealing to girls the older they get, or is it that other subjects become less appealing to boys? Why do so relatively few girls take maths beyond GCSE when their performance at GCSE is equal to that of boys? Well, I suppose that is obvious: girls are performing so much better in other subjects at GCSE.

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