



Qualifications and
Curriculum Authority

Evaluation of participation in GCE mathematics

Appendix M: Report on 2007 case study centre questionnaire for staff

QCA Research Faculty

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Background

The evaluation's 19 case study centres were asked to respond to a short questionnaire between January and February 2007 as they had done at the same point in 2005 and 2006. Nine of the case study centres responded to the questionnaire. This was a slightly lower number than in the previous years and some centres responded in one, two or all three of the years. Five of the centres responded to all three of the questionnaires and the same five centres responded to the second and third questionnaires.

The same questions were asked in 2006/7 as in 2005/6. There were eight questions and all but one related to A level mathematics student numbers. The single exception was the final question, which reviewed 2005/6 exam results. These questions were designed to update or build on the data collected in the previous year's questionnaire.

Since longitudinal data is held for only five of the centres, a judgement was made that the sample would not support a full longitudinal analysis. The data presented in this report therefore generally relates to the nine centres responding in 2007. However, analysis for question 4 was dependent on information collected in the previous year. Longitudinal data for the five centres are therefore presented in the analysis of this question.

Q1. Please give the total number of Curriculum 2000 students (those studying GCEs and/or Vocational Certificates of Education but excluding other Advanced level vocationally related qualifications) in your school/college as at the beginning of September 2006.

Eight of the nine centres returning a questionnaire responded to this question.

C2K, n=8	Mean	Minimum	Maximum	Total
First year	300	17	1264	2396
Second year	246	15	1093	1964

Second year Curriculum 2000 (C2K) numbers are 82% of first year C2K numbers (1964/2396*100).

Q2. Of these students, please indicate the number taking GCE A level mathematics as at the beginning of September 2006.

The data in the following tables are based on the eight centres responding to both question 1 and question 2 for the purpose of the calculation that follows. In the calculations in subsequent questions, it is possible to use all nine responses to this question.

AS, n=8	Mean	Minimum	Maximum	Total
2006/7	77	10	266	613

A2, n=8	Mean	Minimum	Maximum	Total
2006/7	45	15	130	358

25.6% of the C2K year 12 / year one cohort started AS mathematics (613/2396*100).

18.2% of the C2K year 12 / year one cohort started A2 mathematics (358/1964*100).

Q3. How many of these students have dropped GCE A level mathematics between the beginning of September 2006 and the beginning of this term?

AS maths, n=9	Mean	Minimum	Maximum	Total
2007 drop	6	0	29	55
2007 start	74	10	266	665

8.3% of the students starting AS mathematics in September 2006 had dropped the subject by February 2007 (55/665*100).

A2 maths, n=9	Mean	Minimum	Maximum	Total
2007 drop	<1	0	2	3
2007 start	44	15	130	393

At one college one student had dropped A2 mathematics, and at another college two students had dropped it. The mean across the nine centres is therefore less than one student. Less than 1% of the students taking A2 mathematics in September 2006 were still taking the subject in February 2007 ($3/393 \times 100 = 0.8\%$).

Q4. How many students completed AS/A2 mathematics in 2005/6?

Data in the following questions is based on only five responses in order to make the comparisons between last year and this year for which these questions were intended.

2005/6, n=5	Mean	Minimum	Maximum	Total
AS completions	83	0	252	416
AS starts 2004	100	22	305	503

82.7% of the 503 students starting AS mathematics in 2005/6 completed the qualification in that academic year ($416/503 \times 100$).

2005/6, n=5	Mean	Minimum	Maximum	Total
A2 completions	61	22	130	307
A2 starts 2004	64	18	140	319

96.2% of the students starting A2 mathematics in 2005/6 completed the qualification in that academic year ($307/319 \times 100$).

Q5. How many students completing AS mathematics in 2005/6 decided to begin A2 mathematics?

2005/6, n=5	Mean	Minimum	Maximum	Total
AS completions	83	0	252	416
A2 starts 2006	56	15	130	281

67.1% of the students completing AS mathematics in 2005/6 went on to start A2 mathematics in 2006/7 ($281/416 \times 100$).

Q6. How many students not completing AS mathematics in 2005/6 decided to begin A2 mathematics?

Only one of the respondents reported that any students had begun A2 mathematics without first completing AS mathematics, and in this case it was just one student. In the previous year of data collection, two centres reported that several students had started A2 without completing AS, but they did not respond to the questionnaire in the current year.

Q7. Approximately how many of the students completing AS mathematics in 2005/6 do you think originally intended to proceed to A2?

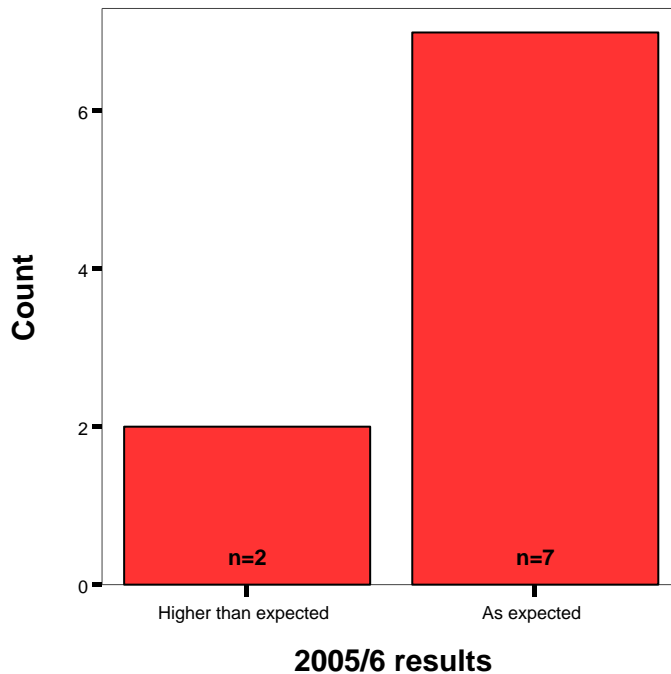
2005/6, n=5	Mean	Minimum	Maximum	Total
Intended A2	63	15	170	316
AS completions	83	0	252	416

According to the figures provided by the respondents, 76% of the students completing AS in 2005/6 originally intended to proceed to A2 ($316/416 \times 100$).

So, whereas 76% of the AS mathematics students originally intended to proceed to A2 mathematics (according to respondents' estimates), 67% of them actually started A2 in 2006/7. Therefore 9% of these AS students changed their mind about mathematics during or at the end of their first year of A level study.

Q8. How did your centre’s 2005/6 exam results for the new mathematics A level compare with your expectations?

All nine centres responded to this question. None of the respondents said that the 2005/6 A level mathematics exam results were lower than expected. Two said that results were higher than expected but seven, by far the majority, said that the results were as they had expected.



This question was also asked in the previous year’s questionnaire and a similar pattern of responses was given. No respondents to that said that results were worse than expected; two said they were higher than expected and 13 said they were as expected. It is worth noting that eight of these 13 centres did not respond to this year’s questionnaire, so the comparison is not longitudinal but may be indicative of a trend.