



Qualifications and
Curriculum Authority

Evaluation of participation in GCE mathematics

Appendix G: Analysis of participation questionnaire 2007

QCA Research Faculty

November 2007

QCA/07/3388

Analysis of QCA Participation in A level mathematics questionnaire 2007

Where data are reported as 'All centres' have been weighted to the following proportions, which mirror the national centre type proportions, and are used for the annual UCAS/QCA survey of Curriculum 2000 provision.

Centre type	%
Further education	10.7
Independent	20.1
Sixth-form college	4.9
State secondary	64.3
Total	100.0

Where data are reported by centre type, they are unweighted and in the proportions in which they were received.

Weighted frequencies 2007

Centre type	Frequency	%
Further education	20	10.7
Independent	38	20.1
Sixth-form college	9	4.9
State secondary	123	64.3
Total	191	100.0

Weighted frequencies 2006

Centre type	Frequency	%
Further education	20	10.7
Independent	38	20.1
Sixth-form college	9	4.9
State secondary	121	64.3
Total	188	100.0

Unweighted frequencies 2007

Centre type	Frequency	%
Further education	10	5.2
Independent	71	37.2
Sixth-form college	11	5.8
State secondary	99	51.8
Total	191	100.0

Weighted frequencies 2006

Centre type	Frequency	%
Further education	18	9.6
Independent	48	25.5
Sixth-form college	17	9.0

State secondary	105	55.9
Total	188	100.0

Section A: About your centre and you

QA5. Role of person completing questionnaire

Role	2006		2007	
	Frequency	%	Frequency	%
Assistant Headteacher	5	2.7	9	4.8
Head of Maths / other leadership roles	158	85.4	134	71.7
Maths teacher/lecturer	22	11.9	32	17.1
Maths second in charge	0	0.0	6	3.2
Other	0	0.0	6	3.2
Total	185	100.0	187	100.0
Missing	3		4	

In 2006 the vast majority of those completing the questionnaire were either the head of mathematics or had another leadership role in mathematics (85.4%); compared with 2007 having 71.7% in these roles. Including mathematics teachers and lecturers, these respondents accounted for 97.3% of all responses in 2006, compared with 88.8% in 2007.

QA6. Your GCE A level mathematics awarding body

Awarding Body	2006		2007	
	Frequency	%	Frequency	%
AQA	21	11.2	26	13.6
Edexcel	112	59.6	110	57.6
OCR (including MEI)	29	15.4	24	12.6
OCR (not MEI)	25	13.3	30	15.7
Missing	1	0.5	1	0.5
Total	188	100.0	191	100.0

The profile was broadly the same for all centre types. This does not reflect the national weighting of awarding body distribution – which is: Edexcel 40%; OCR 35%; and AQA 25% – where particularly appropriate additional analyses have been carried out by awarding body type to see if there are differences at this level.

Section B: Participation and retention

QB1a. Number of AS students at beginning of September 2006

Excluding centres indicating 0

	No.	Minimum	Maximum	Sum	Mean	Std. Deviation
All centres	161	4	4627664	47.57	47.90	
Further education	6	30	120404	67.33	38.32	
Independent	63	5	1152443	38.78	24.88	

Sixth-form college	8	60	462 1586	198.25	126.66
State secondary	87	4	130 3358	38.60	24.74

September 2005 data

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
All centres	186	2	379 8388	45.18	50.52	
Further education	18	8	246 1555	86.39	68.80	
Independent	48	2	107 1251	26.06	22.59	
Sixth-form college	17	30	379 2887	169.82	94.08	
State secondary	103	3	129 3562	34.58	26.30	

For this question the year-on-year data shows an increase in the mean number of students at the beginning of the year in all instances, except for further education colleges. For all centres the mean is 45.2 in the 2006 survey compared with 47.6 in the 2007 survey.

QB1b. Number of A2 students at beginning of September 2006.

Excludes centres indicating 0

	No.	Minimum	Maximum	Sum	Mean	Std. Deviation
All centres	157	1	308 4738	30.10	35.14	
Further education	6	10	50 179	29.83	15.84	
Independent	63	1	85 1842	29.24	20.96	
Sixth-form college	8	29	308 1015	126.88	106.26	
State secondary	84	1	118 2024	24.10	19.96	

September 2005 data

	No.	Minimum	Maximum	Sum	Mean	Std. Deviation
All centres	185	1	217 4930	26.72	29.20	
Further education	18	5	132 726	40.33	36.63	
Independent	48	1	72 919	19.15	16.32	
Sixth-form college	17	22	217 1580	92.94	54.90	
State secondary	102	1	124 2206	21.63	19.81	

For this question the year-on-year data also show an increase in the mean number of students at the beginning of the year in all instances, except for further education colleges. For all centres the mean is 26.7 in the 2006 survey compared with 30.1 in the 2007 survey.

The data from questions B1a and B1b were then analysed further to compare the sizes of AS and A2 groups within centres with at least one candidate in each group (where $QB1a > 0$ and $QB1b > 0$). A2 is expressed as a percentage of AS.

All centres – Sept 2006

	No.	Sum	Mean
AS September	156	7574	48.67
A2 September	156	4730	30.39

A2 on average = 62.4% of AS numbers at start of September 2006

A2 on average = 58.8% of AS numbers at start of September 2005

Further education– Sept 2006

	No.	Sum	Mean
AS September	6	404	67.33
A2 September	6	179	29.83

A2 on average = 44.3% of AS numbers at start of September 2006

A2 on average = 46.7% of AS numbers at start of September 2005

Independent – Sept 2006

	No.	Sum	Mean
AS September	62	2367	38.18
A2 September	62	1841	29.69

A2 on average = 77.8% of AS numbers at start of September 2006

A2 on average = 73.5% of AS numbers at start of September 2005

Sixth-form college – Sept 2006

	No.	Sum	Mean
AS September	8	1586	198.25
A2 September	8	1015	126.88

A2 on average = 64.0% of AS numbers at start of September 2006

A2 on average = 54.7% of AS numbers at start of September 2005

State secondary –Sept 2006

	No.	Sum	Mean
AS September	83	3318	39.98
A2 September	83	2018	24.31

A2 on average = 60.8% of AS numbers at start of September 2006

A2 on average = 61.9% of AS numbers at start of September 2005

In September 2006 the average A2 group was 62.4% of AS for all centres, slightly more than the 58.8% in 2005. Independent schools had the highest proportion A2 compared with AS at 77.8% (compared with 73.5% in 2005). Sixth-form schools showed the largest change from 54.7% of the AS numbers at A2 in 2005 to 64.0% in 2006. State secondary and further education colleges showed a more modest shift, with the proportion of A2 students declining slightly.

QB1c. Number of A level in one year students at beginning of September 2006.

	No.	Minimum	Maximum	Sum	Mean	Std. Deviation
All centres	44	1	58	486	11.12	10.73
Further education	2	3	20	23	11.50	12.02
Independent	31	1	35	303	9.77	9.25
Sixth-form college	5	2	58	115	23.00	23.00
State secondary	15	1	27	143	9.53	6.75

September 2005 data

	No.	Minimum	Maximum	Sum	Mean	Std. Deviation
All centres	50	1	33	496	9.92	8.59
Further education	7	1	30	67	9.57	12.67
Independent	16	1	26	142	8.88	7.48
Sixth-form college	10	1	33	148	14.80	10.44
State secondary	21	1	29	199	9.48	7.22

For this question the year-on-year data also shows an increase in the mean number of students at the beginning of the year in all instances, except for further education colleges. For all centres the mean is 9.92 in the 2006 survey compared with 11.12 in the 2007 survey.

QB2a. Numbers of AS students dropping between September 2004 and February 2005.

The analysis here expresses the numbers of AS students dropping mathematics between September and February as a percentage of the AS total (Q1ba >0 and QB2a >0).

All centres 2007

	No.	Sum	Mean
AS September	160	7617	47.59
AS Drop	160	677	4.23

Overall drop in numbers of 8.9% between September 2006 and February 2007

All centres 2006

	No.	Sum	Mean
AS September	185	8319	45.08
AS Drop	185	833	4.51

Overall drop in numbers of 10% between September 2005 and February 2006

Further education 2007

	No.	Sum	Mean
AS September	6	404	67.33
AS Drop	6	61	10.17

Overall drop in numbers of 15.1% between September 2006 and February 2007

Further education 2006

	No.	Sum	Mean
AS September	18	1555	86.39
AS Drop	18	220	12.22

Overall drop in numbers of 14.1% between September 2005 and February 2006

Independent 2007

	No.	Sum	Mean
AS September	61	2355	38.61
AS Drop	61	73	1.20

Overall drop in numbers of 3.1% between September 2006 and February 2007

Independent 2006

	No.	Sum	Mean
AS September	48	1251	26.06
AS Drop	48	53	1.1

Overall drop in numbers of 4.2% between September 2005 and February 2006

Sixth-form college 2007

	No.	Sum	Mean
AS September	8	1586	198.25
AS Drop	8	164	20.5

Overall drop in numbers of 10.3% between September 2006 and February 2007

Sixth-form college 2006

	No.	Sum	Mean
AS September	17	2887	169.82
AS Drop	17	231	13.59

Overall drop in numbers of 8.0% between September 2005 and February 2006

State secondary 2007

	No.	Sum	Mean
AS September	87	3358	38.6
AS Drop	87	301	3.46

Overall drop in numbers of 9.0% between September 2006 and February 2007

State secondary 2006

	No.	Sum	Mean
AS September	102	3542	34.73
AS Drop	101	364	3.6

Overall drop in numbers of 10.3% between September 2005 and February 2006

This analysis showed, in 2007, an average drop for all centres of 8.9% (compared with 10% in 2006). The highest percentage drop was 15.1% in further education (14.1% in 2006), the lowest was in independent.

In order to provide a clearer idea of the frequency and extent of student drop out from AS mathematics the following table groups the percentages of students dropping per centre.

	2006/7 (%)	2005/6 (%)
0%	29.3	22.3
1-10%	42.7	41.9
11-25%	24.2	25.7
26-50%	2.5	8.4
51-75%	0.6	0.6
76-99%	0.6	1.1
100%	0.0	0.0
Total	100.0	100.0

This shows around 30% of all centres reporting no drop out at all (a higher proportion than in 2006). As in 2006, around 90% of centres reported a drop-out rate of 25% or less.

QB2b. Proportion of A2 students dropping out between September 2004 and February 2005.

The analysis here expresses the numbers of A2 students dropping mathematics between September and February as a percentage of the A2 total (Qb1b>0 and Qb2b>0).

All centres 2007

	No.	Sum	Mean
A2 September	149	4414	29.65
A2 Drop	149	180	1.21

Overall drop in numbers of 4.1% between September 2006 and February 2007

All centres 2006

	No.	Sum	Mean
A2 September	172	4673	27.17
A2 Drop	172	242	1.41

Overall drop in numbers of 5.2% between September 2005 and February 2006

Further education 2007

	No.	Sum	Mean
A2 September	6	179	29.83
A2 Drop	6	6	1.00

Overall drop in numbers of 3.4% between September 2006 and February 2007

Further education 2006

	No.	Sum	Mean
A2 September	17	721	42.41
A2 Drop	17	25	1.47

Overall drop in numbers of 3.5% between September 2005 and February 2006

Independent 2007

	No.	Sum	Mean
A2 September	58	1759	30.33
A2 Drop	58	36	0.62

Overall drop in numbers of 2.0% between September 2006 and February 2007

Independent 2006

	No.	Sum	Mean
A2 September	43	855	19.88
A2 Drop	43	59	1.37

Overall drop in numbers of 6.9% between September 2005 and February 2006

Sixth-form college 2007

	No.	Sum	Mean
A2 September	7	766	109.43
A2 Drop	7	45	6.43

Overall drop in numbers of 5.9% between September 2006 and February 2007

Sixth-form College 2006

	No.	Sum	Mean
A2 September	16	1510	94.38
A2 Drop	16	25	1.56

Overall drop in numbers of 1.7% between September 2005 and February 2006

State secondary 2007

	No.	Sum	Mean
A2 September	80	1970	24.62
A2 Drop	80	89	1.11

Overall drop in numbers of 4.5% between September 2006 and February 2007

State secondary 2006

	No.	Sum	Mean
A2 September	96	2064	21.5
A2 Drop	96	134	1.4

Overall drop in numbers of 6.5% between September 2005 and February 2006

This analysis showed an average drop for all centres of 4.1% (compared with 5.2% in 2006). The highest percentage drop is reported in independent schools and is 6.9% (compared with 2.0% in 2006), and the lowest in further education colleges (3.4% compared with 3.5% in 2006). As with AS, all centre types showed a decrease in drop-out rates, with the exception of sixth-form colleges (1.7% in 2006 and 5.9% in 2007).

In order to provide a clearer idea of the frequency and extent of student drop-out from A2 mathematics the following table groups the percentages of students dropping out per centre.

	2006/7 (%)	2005/6 (%)
0%	66.7	68.6
1-10%	20.0	17.4
11-25%	8.0	9.9
26-50%	2.7	1.7
51-75%	0.0	1.2
76-99%	1.3	0.6
100%	1.3	0.6
Total	100.0	100.0

This shows over 66% of all centres reporting no drop out at all (68.6% in 2004/5). As in 2005/6 and 2006/7, over 90% of centres reported drop out of 25% or less.

Drop-out rates at AS are higher than at A2 in 2006 and in 2005.

QB2c. Proportion of students doing A level in a year who dropped out between September 2006 and February 2007.

The analysis here expresses the numbers of students doing A level in a year who dropped mathematics between September and February as a percentage of the total number of students doing A level in a year (Qb1c >0 and Qb2c >=0).

All centres 2007

	No.	Sum	Mean
A level 1 year Sept	41	435	10.55
A level 1 year Drop	41	38	0.92

Overall drop in numbers of 8.7% between September 2006 and February 2007

All centres 2006

	No.	Sum	Mean
A level 1 year Sept	48	490	10.13
A level 1 year Drop	48	49	1.01

Overall drop in numbers of 10.0% between September 2005 and February 2006

Further education 2007

	No.	Sum	Mean
A level 1 year Sept	2	23	11.50
A level 1 year Drop	2	0	0

Overall drop in numbers of 0.0% between September 2006 and February 2007

Further education 2006

	No.	Sum	Mean
A level 1 yr Sept	7	67	9.57
A level 1 yr Drop	7	6	0.86

Overall drop in numbers of 9.0% between September 2005 and February 2006

Independent 2007

	No.	Sum	Mean
A level 1 year Sept	28	300	10.71
A level 1 year Drop	28	15	0.54

Overall drop in numbers of 5.0% between September 2006 and February 2007

Independent 2006

	No.	Sum	Mean
A level 1 year Sept	14	135	9.64
A level 1 year Drop	14	7	0.5

Overall drop in numbers of 5.2% between September 2005 and February 2006

Sixth-form college 2007

	No.	Sum	Mean
A level 1 year Sept	4	57	14.25
A level 1 year Drop	4	3	0.75

Overall drop in numbers of 5.2% between September 2006 and February 2007

Sixth-form college 2006

	No.	Sum	Mean
A level 1 year Sept	10	148	14.8
A level 1 year Drop	10	21	2.1

Overall drop in numbers of 14.2% between September 2005 and February 2006

State secondary 2007

	No.	Sum	Mean
A level 1 year Sept	15	143	9.53
A level 1 year Drop	15	22	1.47

Overall drop in numbers of 15.4% between September 2006 and February 2007

State secondary 2006

	No.	Sum	Mean
A level 1 year Sept	21	199	9.48
A level 1 year Drop	21	22	1.05

Overall drop in numbers of 11.1% between September 2005 and February 2006

This analysis showed an average drop for all centres of 8.7% (compared with 10.0% in 2006). The highest percentage drop is reported in further education and sixth-form colleges and are 0% and 5.2% (compared with 9.0% and 14.2% in 2006), and the lowest in independent schools (5% compared with 5.2% in 2006). As with AS, all centre types showed a decrease in drop-out rates, with the exception of state secondary (11.1% in 2006 and 15.4% in 2007).

The total number of centres and students involved is much lower than for those using the more usual AS/A2 route. However, the proportions dropping are generally higher than the other groups.

QB3. Proportion dropping GCE AS mathematics between September 2006 and February 2007 compared with 2005–6.

All centres 2007

	Frequency	%
Higher than 2005-6	18	11.0
Lower than 2005-6	30	18.3
Same as 2005-6	116	70.7
Total	164	100.0
Missing	27	

All centres 2006

	Frequency	%
Higher than 2004-5	12	6.5
Lower than 2004-5	45	24.3
Same as 2004-5	128	69.2
Total	185	100.0
Missing	3	

The proportion reporting 'higher than 2005–6' has risen from 6.5% in 2006 to 11.0% in 2007. Those reporting a rate the same as last year is 70.7% compared with 69.2% in 2006. The proportion reporting a lower drop out is 18.3%, compared with 24.3% in 2006.

Centre type		Frequency	– 2007 (%)	– 2006 (%)
Further education	Higher than previous year	3	42.9	5.9
	Lower than previous year	0	0.0	23.5
	Same as previous year	4	57.1	70.6
	Total	7	100	100
Independent	Higher than previous year	4	6.6	6.3
	Lower than previous year	10	16.4	16.7
	Same as previous year	47	77.0	77.1
	Total	61	100	100
Sixth-form college	Higher than previous year	1	12.5	0.0
	Lower than previous year	3	37.5	35.3
	Same as previous year	4	50.0	64.7
	Total	8	100	100
State secondary	Higher than previous year	10	11.4	7.8
	Lower than previous year	17	19.3	26.2
	Same as previous year	61	69.3	66.0
	Total	88	100	100

In all centre types, except further education colleges, there is a larger percentage of centres reporting lower drop-out rates this year than higher, although in all cases the majority report no change.

QB3a. What wider issues do you think had an influence on this change in the proportion dropping AS mathematics? (Please select all that apply.)

(New question in 2007.)

All centres 2007

	Frequency	%
Difficulty, or perceived difficulty, of course	32	16.8
GCSE is insufficient preparation	16	8.4
Attitude of students insufficiently positive	19	9.9
Student not able to use mathematics at a high enough level	19	9.9
Workload pressure	10	5.2
Likelihood of achieving a good grade	23	12.0
Other (please specify)	7	3.7

NB. All above responses are divided by total number of respondents of 191.

% Frequency	Total	Further education	Independent	Sixth-form college	State secondary
Difficulty, or perceived difficulty, of course	16.8%	7.9%	6.8%	1.0%	1.0%
GCSE is insufficient preparation	8.4%	1.6%	3.1%	0.0%	3.7%
Attitude of students insufficiently positive	9.9%	1.6%	2.1%	0.5%	5.8%
Student not able to use mathematics at a high enough level	9.9%	0.5%	3.7%	0.5%	5.2%
Workload pressure	5.2%	1.0%	1.6%	0.0%	2.6%
Likelihood of achieving a good grade	12.0%	0.5%	4.2%	1.0%	6.3%
Other (please specify)	3.7%	0.0%	0.0%	1.0%	2.6%

NB. All above % (%) responses are divided by 191, the total number of respondents.

QB3b. Proportion dropping GCE A2 mathematics between September 2006 and February 2007 compared with 2005–6.

All centres 2007

	Frequency	%
Higher than 2005–6	13	8.1
Lower than 2005–6	19	11.9
Same as 2005–6	128	80.0
Total	160	100.0
Missing	31	

All centres 2006

	Frequency	%
--	-----------	---

Higher than 2004–5	12	6.7
Lower than 2004–5	24	13.4
Same as 2004–5	143	79.9
Total	179	100.0
Missing	9	

The proportion reporting higher than 2005–6 has risen from 6.7% in 2006 to 8.1% in 2007. Those reporting a rate the same as last year is 80% compared with 79.9% in 2006. The proportion reporting a lower drop out is 11.9%, compared with 13.4% in 2006.

Centre type		Frequency	2007 (%)	2006 (%)
Further education	Higher than previous year	1	16.7	11.8
	Lower than previous year	0	0.0	11.8
	Same as previous year	5	83.3	76.5
	Total	6	100	100
Independent	Higher than previous year	4	6.6	2.1
	Lower than previous year	5	8.2	6.4
	Same as previous year	52	85.2	91.5
	Total	61	100	100
Sixth-form college	Higher than previous year	0	0.0	0.0
	Lower than previous year	2	25.0	35.3
	Same as previous year	6	75.0	64.7
	Total	8	100	100
State secondary	Higher than previous year	8	9.4	9.2
	Lower than previous year	12	14.1	13.3
	Same as previous year	65	76.5	77.6
	Total	85	100	100

In all centre types, except further education colleges, there is a larger percentage of centres reporting lower drop-out rates this year than higher, although in all cases the majority report no change.

QB3c. What wider issues do you think had an influence on this change in the proportion dropping A2 mathematics? (Please select all that apply.)
(New question in 2007.)

	Frequency	%
Difficulty, or perceived difficulty, of course	15	7.9
GCSE is insufficient preparation	5	2.6
Attitude of students insufficiently positive	10	5.2
Student not able to use mathematics at a high enough level	10	5.2
Workload pressure	8	4.2

Evaluation of participation in GCE mathematics – Appendix G

Likelihood of achieving a good grade	17	8.9
Other (please specify)	5	2.6

NB. All above responses are divided by total number of respondents of 191.

% Frequency		Total	Further education	Independent	Sixth-form college	State secondary
Difficulty, or perceived difficulty, of course		7.9%	0.5%	4.2%	0.0%	3.1%
GCSE is insufficient preparation		2.6%	0.0%	1.6%	0.0%	1.0%
Attitude of students insufficiently positive		5.2%	0.0%	1.6%	0.0%	3.7%
Student not able to use mathematics at a high enough level		5.2%	0.0%	2.1%	0.0%	3.1%
Workload pressure		4.2%	0.0%	1.6%	0.0%	2.6%
Likelihood of achieving a good grade		8.9%	0.0%	3.7%	0.0%	5.2%
Other (please specify)		2.6%	0.0%	0.0%	1.0%	1.6%
Other specific (number)						
	Better guidance to students originally selecting maths for A level				1	
	Just a different cohort					1
	College policies				1	
	Many went before September					1
	Very little change					1

NB. All above % responses are divided by 191, the total number of respondents.

QB4. How many of your students completed AS mathematics last year?

Included cases where AS completer ≥ 0 .

All centres 2007

	No.	Sum	Mean
AS completer	143	5663	39.50

2007

Centre type	No.	Sum	Mean
Further education	6	285	47.50
Independent	60	2091	34.85
Sixth-form college	8	1212	151.50
State secondary	74	2351	31.77

All centres 2006

	No.	Sum	Mean
AS completer	180	6741	37.39

2006

Centre type	No.	Sum	Mean
Further education	18	1225	68.06
Independent	47	1100	23.40
Sixth-form college	17	2306	135.65
State secondary	99	2829	28.58

QB5. How many of the students completing AS mathematics last year *did not* move on to A2 mathematics this year?

Analysis of QB8 and QB9 was carried out to examine the proportion of those completing AS who continued with A2. ($QB8 \geq 0$ and $QB9 \geq 0$), QB9 was expressed as a percentage of QB8.

All centres 2006

	No.	Sum	Mean
AS completer	143	5663	39.5
AS not A2	143	1457	10.2

For all centres 25.7% of those completing AS did not progress to A2.

2006

Centre type		No.	Sum	Mean
Further education	AS completed	6	285	47.50
	Did not progress to A2	6	103	17.17
Independent	AS completed	60	2091	34.85
	Did not progress to A2	60	469	7.82
Sixth-form college	AS completed	8	1212	151.50
	Did not progress to A2	8	309	38.63
State secondary	AS completed	74	2351	31.77
	Did not progress to A2	74	588	7.95

All centres 2005

	No.	Sum	Mean
AS completer	180	6741	37.4
AS not A2	180	2186	12.1

For all centres 32.4% of those completing AS did not progress to A2.

2005

Centre type		No.	Sum	Mean
Further education	AS completed	18	1225	68.06
	Did not progress to A2	18	471	26.17
Independent	AS completed	47	1100	23.4
	Did not progress to A2	47	288	6.13
Sixth-form college	AS completed	17	2306	135.65
	Did not progress to A2	17	793	46.65
State secondary	AS completed	99	2829	28.58
	Did not progress to A2	99	871	8.8

2007

Centre type	All centres	Further education	Independent	Sixth-form college	State secondary
% not progressing to A2	25.7%	36.1%	22.4%	25.5%	25.0%

2006

Centre type	All centres	Further education	Independent	Sixth-form college	State secondary
% not progressing to A2	32.4%	38.4%	26.2%	34.4%	30.8%
		2.3%	3.8%	8.9%	5.8%

Comparing 2007 with 2006 there is a lower percentage of AS completing students who did not progress to A2 in 2007 – a higher retention rate. At centre level there is quite a large reduction in rate in sixth-form colleges (25.5% in 2007 compared to 34.4% in 2006), and in state secondary schools 25% in 2007 compared with 30.8% in 2006. There was a slightly lower retention rate in further education colleges (36.1% compared with 38.4%) and Independent schools (22.4% compared with 26.2%).

QB6. Of the students who completed AS mathematics last year, how many of the students do you think intended originally to complete the full A level?

Analysis was carried out using only centres who answered QB8 (>0), QB9 (>=0) and QB10 (>=0) to calculate the difference between actual and predicted attrition between AS and A2.

All centres 2007

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
AS completer	135	1	220	5218	38.70	34.30
AS not A2	135	0	60	1378	10.22	10.93
AS intended A2	138	0	156	3934	29.17	25.12

Proportion intending to progress = 75.4%

Proportion actually progressing = 73.6%

Difference = 1.8% of those completing AS

All centres 2006

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
AS completer	169	1	284	6350	37.59	41.372
AS not A2	169	0	82	2023	11.97	14.662
AS intended A2	169	0	250	5103	30.2	34.885

Proportion intending to progress = 80.4%
 Proportion actually progressing = 68.1%
 Difference = 12.2% of those completing AS

The figures here indicate a reduction in the proportion intending to progress (from 80.4% in 2006 to 75.4% in 2007). But they also show an increase in the proportion actually progressing (to 73.6% from 68.1%), indicating a very narrow difference in 2007 of 1.8% of those AS completers not carrying on with mathematics who teachers thought intended to, compared with 12.2% in 2006.

Centre type		No.	Sum	Mean
State secondary	AS completer	70	2306	32.94
	AS intended A2	70	572	8.17
	AS not A2	70	1890	27.00
Proportion intending to progress = 82.0% Proportion actually progressing = 75.2% Difference = 6.8% of those completing AS				
Further education college	AS completer	6	285	47.50
	AS intended A2	6	103	17.17
	AS not A2	6	217	36.17
Proportion intending to progress = 76.1% Proportion actually progressing = 63.9% Difference = 12.3% of those completing AS				
Sixth-form college	AS completer	7	853	121.86
	AS intended A2	7	258	36.86
	AS not A2	7	425	60.71
Proportion intending to progress = 49.8% Proportion actually progressing = 69.8% Difference = -19.9% of those completing AS				
Independent	AS completer	55	1937	35.22
	AS intended A2	55	440	8.00
	AS not A2	55	1448	26.33
Proportion intending to progress = 74.8% Proportion actually progressing = 77.3% Difference = -2.5% of those completing AS				

2007

% of AS completers who were predicted to progress to A2 but did not.

Centre type	All centres	Further education	Independent	Sixth-form college	State secondary
	1.8%	12.3%	-2.5%	-19.9%	6.8%

The findings here are interesting as they show, in the case of independent schools and sixth-form colleges, indications that some students who did not intend to progress to A2 after AS actually did do (hence the negative figures). There are quite significant differences between this year and figures for 2006, below.

2006

Centre type		No.	Sum	Mean
State secondary	AS completer	91	2627	28.87
	AS intended A2	91	808	8.88
	AS not A2	91	2167	23.81
	Proportion intending to progress = 82.5%			
Proportion actually progressing = 69.2%				
Difference = 13.2% of those completing AS				
Further education college	AS completer	18	1225	68.06
	AS intended A2	18	471	26.17
	AS not A2	18	974	54.11
	Proportion intending to progress = 79.5%			
Proportion actually progressing = 61.6%				
Difference = 18.0% of those completing AS				
Sixth-form college	AS completer	16	2056	128.5
	AS intended A2	16	683	42.69
	AS not A2	16	1585	99.06
	Proportion intending to progress = 77.1%			
Proportion actually progressing = 66.8%				
Difference = 10.3% of those completing AS				
Independent	AS completer	45	1071	23.8
	AS intended A2	45	249	5.53
	AS not A2	45	839	18.64
	Proportion intending to progress = 78.3%			
Proportion actually progressing = 76.8%				
Difference = 1.6% of those completing AS				

2006

Percentage of AS completers who were predicted to progress to A2 but did not.

Centre type	All centres	Further education	Independent	Sixth-form college	State secondary
	12.2%	18.0%	1.6%	10.3%	13.2%

Section C: Recruiting students

QC1. What entry criteria do you use for A level mathematics?

All centres

	Frequency	%
Grade A* only	0	0.0
Grade A or above	30	20.7
Grade B or above (higher tier)	49	33.8
Grade B or above (any tier)	42	29.0
Grade C	18	12.4
No entry criteria	5	3.4
Other (please specify)	1	0.7
Total	145	100.0

% of centres	State secondary	Futher education	Sixth-form college	Independent
Grade A or above	15.8	0.0	0.0	45.2
Grade B or above (higher tier)	36.8	20.0	25.0	32.3
Grade B or above (any tier)	30.3	60.0	50.0	11.3
Grade C	14.5	20.0	12.5	4.8
No entry criteria	2.6	0.0	0.0	6.5
Other (please specify)	0.0	0.0	12.5	0.0
Total	100.0	100.0	100.0	100.0

NB. One case specified 'other' as 'entry criteria based on marks then grades and/or extra requirements'.

All centres 2006

	Frequency	%
Grade A or above	23	12.5
Grade B or above (higher tier)	62	33.7
Grade B or above (any tier)	58	31.5
No entry criteria	1	0.5
Other (please specify)	40	21.7
Total	184	100.0

By centres 2006

% of responses	State secondary	Further education	Sixth-form college	Independent
Grade A or above	11.1	0.0	0.0	26.3
Grade B or above (higher tier)	35.0	15.8	11.1	42.1
Grade B or above (any tier)	34.2	42.1	33.3	15.8
No entry criteria	0.0	0.0	0.0	2.6
Other (please specify)	19.7	42.1	55.6	13.2
Total	100.0	100.0	100.0	100.0

When 'other' comments are included - the numbers change slightly (as some have stated existing criteria as 'other') but not the profile.

	Frequency	%
Grade A or above	23	11.6
Grade B or above (higher tier)	67	33.8
Grade B or above (any tier)	61	30.8
No entry criteria	1	0.5
Other (please specify)	46	23.2
Total	198	100.0

The summary of 'other' comments is:

Other comments	Frequency
Grade C (any tier)	18
Teacher recommendation	6
Entry criteria based on marks then grades and/or extra requirements	2
No entry criteria	1
Only in exceptional circumstances	4
No grade necessary, only a higher GCSE	1
Total	32

The figures indicate an increase in demands for all centres, with 54.5% requiring a B at higher tier or above in 2007, compared with 46.2% requiring this level in 2006.

By admission policy:

% of responses	Selective	Non-selective
Grade A or above	47.8	6.6
Grade B or above (higher tier)	30.4	38.2
Grade B or above (any tier)	11.6	34.2
Other (please specify)	10.1	21.1
Total	100.0	100.0

2006

% of responses	Selective	Non-selective
Grade A or above	30.8	3.4
Grade B or above (higher tier)	43.1	28.0
Grade B or above (any tier)	16.9	38.1
Other (please specify)	9.2	30.5
Total	100.0	100.0

QC1a. Do you make exceptions to the entry criteria for some students? (New question for 2007.)

All centres

	Frequency	%
Frequently	3	2.1
Occasionally	94	66.2
Never	45	31.7
Total	142	100.0

% of centre	State secondary	Further education	Sixth-form college	Independent
Frequently	2.7	0.0	0.0	1.7
Occasionally	61.6	83.3	87.5	67.8
Never	35.6	16.7	12.5	30.5
Total	100.0	100.0	100.0	100.0

QC1b. Are you making these exceptions more, less or about the same amount as last year?
(New question for 2007)

All centres

	Frequency	%
More	8	8.3
Less	18	18.8
About the same	70	72.9
Total	96	100.0

% of centre	State secondary	Further education	Sixth-form college	Independent
More	10.6	0.0	0.0	9.8
Less	25.5	20.0	14.3	2.4
About the same	63.8	80.0	85.7	87.8
Total	100.0	100.0	100.0	100.0

QC2. Which groups of GCSE students do you generally target for recruitment to A level mathematics?

	Frequency	%
All students	4	2.6
Higher & intermediate tier	25	16.4
Higher tier only	119	78.3
Other (please specify)	4	2.6
Total	152	100.0

% of responses	State secondary	Further education	Sixth-form college	Independent
All students	1.3	0.0	12.5	3.2
Higher & intermediate tier	22.4	66.7	25.0	3.2
Higher tier only	73.7	33.3	62.5	90.3
Other (please specify)	2.6	0.0	0.0	3.2
Total	100.0	100.0	100.0	100.0

The summary of 'other' comments is:

Other comments	Frequency
Mainly higher, but also promising intermediate candidates	4

2006

	Frequency	%
All students	4	2.2
Higher & intermediate tier	35	19.0
Higher tier only	137	74.5
Other (please specify)	8	4.3
Total	184	100.0

2006

% of responses	State secondary	Further education	Sixth-form college	Independent
All students	1.0	5.9	11.8	0.0
Higher & intermediate tier	19.6	35.3	47.1	2.1
Higher tier only	76.5	52.9	29.4	93.8
Other (please specify)	2.9	5.9	11.8	4.2
Total	100.0	100.0	100.0	100.0

The summary of 'other' comments is:

Other comments	Frequency
Higher only for A, higher and intermediate for 2 year AS	1
D or above at AS maths	1
Based on enthusiasm, not merit	1
Grade C intermediate for A level statistics	1
No recruitment policy	1
Recruitment not done by teachers	1
Total	6

By admission policy:

% of responses	Selective	Non-selective
All students	1.4	3.9
Higher & intermediate tier	2.9	28.6
Higher tier only	91.3	66.2
Other (please specify)	4.3	1.3
Total	100.0	100.0

2006

% of responses	Selective	Non-selective
All students	1.5	2.5
Higher & intermediate tier	1.5	28.8
Higher tier only	93.8	64.4
Other (please specify)	3.1	4.2
Total	100.0	100.0

Section D: Further mathematics

All centres –2007

Response	No.	%
No	20	13.6
Yes	127	86.4
Total	147	100.0

All centres –2006

Response	No.	%
No	35	24.0
Yes	111	76.0
Total	146	100.0

2007

Centre type	Response	No.	%
State secondary	No	15	19.7
	Yes	61	80.3
	Total	76	100.0
Further education	No	0	0.0
	Yes	6	100.0
	Total	6	100.0
Sixth-form college	No	0	0.0
	Yes	8	100.0
	Total	8	100.0
Independent	No	3	4.8
	Yes	59	95.2
	Total	62	100.0

2006

Centre type	Response	No.	%
State secondary	No	23	30.7
	Yes	52	69.3
	Total	75	100.0
Further education	No	2	13.3
	Yes	13	86.7
	Total	15	100.0
Sixth-form college	No	1	6.3
	Yes	15	93.8
	Total	16	100.0
Independent	No	7	16.3
	Yes	36	83.7
	Total	43	100.0

By awarding body – 2007

	Response	No.	%
AQA	No	2	11.8
	Yes	15	88.2
	Total	17	100.0

Edexcel	No	11	12.8
	Yes	75	87.2
	Total	86	100.0
OCR (MEI)	No	3	14.3
	Yes	18	85.7
	Total	21	100.0
OCR (not MEI)	No	2	7.1
	Yes	26	92.9
	Total	28	100.0

By awarding body – 2006

	Response	No.	%
AQA	No	0	0.0
	Yes	18	100.0
	Total	18	100.0
Edexcel	No	28	32.6
	Yes	58	67.4
	Total	86	100.0
OCR (MEI)	No	1	4.3
	Yes	22	95.7
	Total	23	100.0
OCR (not MEI)	No	4	19.0
	Yes	17	81.0
	Total	21	100.0

QD1a. Is this because there is a lack of:

2007

Response	Frequency
Available staff	0
Experienced staff	1
Funding	1
Student demand	16
Other (please specify)	3
Total	21

The summary of 'other' comments is:

Other comments	Frequency
Offered in sister school	1
Plans to offer AS FM in Sept 2007	2

2006

Response	Frequency
Available staff	2
Experienced staff	0
Funding	0
Student demand	28
Other (please specify)	7
Total	37

The summary of 'other' comments is:

Other comments	Frequency
Timetable constraints	2
Too much content to teach in one year	1
Only A2 FM is offered	1
Students are permitted to 'to drop down' to FM AS from FM A2	1
Insufficient number of suitable candidates	1

QD2. How many students do you have studying AS further mathematics?

All centres 2007

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
AS further mathematics	120	0	75	985	8.21	10.51

All centres 2007, excluding those with 0 students

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
AS further mathematics	111	1	75	985	8.91	10.67

All centres 2006

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
AS further mathematics	103	0	60	667	6.47	9.47
AS September	187	0	379	9255	49.49	58.61

In 2007 AS further mathematics cohort = 12.9% of AS cohort –although AS further mathematics students will not always be drawn from the current AS cohort.

In 2006 AS further mathematics cohort = 8% of AS cohort - although AS further mathematics students will not always be drawn from the current AS cohort.

QD3. Are your students taking further mathematics as:

Centre type	All centres	State secondary	Further education	Sixth-form college	Independent
AS only in 1 year	12	7	0	1	3
AS only in 2 years	8	3	1	0	3
A level over 1 year	20	7	2	2	10
A level over 2 years	56	30	2	3	22
Other (please specify)	10	5	0	1	5
AS in one year & A level in 2 years or combination over 2 years	17	8	0	1	12

2006

Centre type	All centres	State secondary	Further education	Sixth-form college	Independent
AS only in 1 year	44	22	7	10	7
AS only in 2 years	16	9	2	0	5
A level over 1 year	11	3	1	2	8
A level over 2 years	51	27	5	7	13
Other (please specify)	13	4	1	1	7

The summary of 'other' comments is:

Other comments	Frequency
Maths in Yr 12, FM in Yr13	8
FM spread over Yr12 and Yr13	2
AS FM ub (?) two terms	1
AS FM in Yr13	1

QD4. What is your GCE AS level further mathematics awarding body? (New question for 2007.)

Response	Frequency	%
AQA	15	11.5
Edexcel	64	49.2
OCR	51	39.2
Total	130	100.0

GCSE AS level FM Awarding body	GCE A level mathematics awarding body				Total
	AQA	Edexcel	OCR (MEI)	OCR (not MEI)	
AQA	14	1	0	0	15
Edexcel	0	64	0	0	64
OCR	1	7	18	25	51
Total	15	72	18	25	130

QD4b. If your AS/A level mathematics and AS further mathematics awarding bodies are different, why is this? (New question for 2007.)

Response	Frequency	%
Stand-alone unit available for further mathematics	5	38.5
Transition arrangement	2	15.4
MEI allows independent/distant study	2	15.4
Prefer other syllabus further mathematics	2	15.4
Other	2	15.4
Total	13	100.0

QD5. How much time (in minutes) is allocated per fortnight to the teaching of AS level further mathematics? (New question for 2007.)

Minutes	Frequency	%
0	4	3.3
5-60	2	1.6
61-100	4	3.3
101-200	12	9.8
201-300	23	18.7
300-400	21	17.1
401-500	17	13.8
501-600	18	14.6
601-700	8	6.5
701-900	8	6.5
901-1800	6	4.9
Total	123	100.0

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
All centres	118	0	1800	50102	425.17	264.02
Further education	5	210	800	2450	490.00	221.59
Independent	51	0	1800	22435	439.90	310.94
Sixth-form college	8	180	1080	4460	557.50	312.12
State secondary	59	5	1120	23498	398.27	245.16

Excluding 0 minutes

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
All centres	116	5	1800	50102	433.13	259.90
Further education	5	210	800	3450	490.00	221.59
Independent	47	70	1800	22435	477.34	294.67
Sixth-form college	8	180	1080	4460	557.5	312.12
State secondary	59	5	1120	23498	398.27	245.16

These figures show a huge spread in teaching time – 64% allow between 201-600 minutes! There is also a wide range within centre type – standard deviation is vast.

QD6. Does your centre have any entry criteria for AS further mathematics? (New question for 2007.)

Response	N	%
No	43	33.1
Yes	87	66.9
Total	130	100.0

Centre type	No	Yes	%Yes
Further education	1	5	83.3
Independent	18	37	67.3
Sixth-form college	2	6	75.0
State secondary	22	39	63.9

QD6a. What criteria do you use? (New question for 2007.)

Response	No.	%
GCSE mathematics grade A* only	19	21.3
GCSE mathematics grade A or above	41	46.1
GCSE mathematics grade B or above (higher tier)	2	2.2
GCSE mathematics grade B or above (any tier)	2	2.2
Other (please specify)	25	28.1
Total	89	100.0

Number of response	Centre type			
	State secondary	Further education	Sixth-form college	Independent
GCSE mathematics grade A* only	6	0	0	13
GCSE mathematics grade A or above	22	2	6	11
GCSE mathematics grade B or above (higher tier)	2	0	0	0
GCSE mathematics grade B or above (any tier)	1	1	0	0
Other (please specify)	8	2	0	15

The summary of 'other' comments is:

Other comments	Frequency
Additional maths GCSE	2
Student commitment	0
Specific GCSE score needed	6
A at additional maths GCSE	1
Sufficient grade on centre-set exam	2
A at GCSE (+other qualifications)	0
A at AS	2
A at A2 mathematics	2
Higher tier candidate	3
Teacher recommendation	4
Criteria listed on questionnaire, but centre willing to take exceptional cases	0
Students merely must show talent	3
Total	25

QD7. Do you offer A2 further mathematics at your school or college?
All centres 2007

Response	No.	%
No	12	9.6
Yes	113	90.4
Total	125	100.0

All centres 2006

Response	No.	%
No	51	29.1
Yes	124	70.9
Total	175	100.0

State secondary 2007

Response	No.	%
No	9	14.8
Yes	52	85.2
Total	61	100.0

State secondary 2006

Response	No.	%
No	37	38.1
Yes	60	61.9
Total	97	100.0

**Further education
2007**

Response	No.	%
No	0	0.0
Yes	6	100.0
Total	6	100.0

**Further education
2006**

Response	No.	%
No	5	29.4
Yes	12	70.6
Total	17	100.0

**Sixth-form
college2007**

Response	No.	%
No	0	0.0
Yes	8	100.0
Total	8	100.0

**Sixth-form college
2006**

Response	No.	%
No	0	0.0
Yes	16	100.0
Total	16	100.0

Independent 2007

Response	No.	%
No	2	3.6
Yes	54	96.4
Total	56	100.0

Independent 2006

Response	No.	%
No	2	3.6
Yes	54	96.4
Total	56	100.0

The reported 90.4% in 2007 is almost 20 percentage points higher than the two previous years in which this question was asked – oddly it is higher than those reportedly offering AS although the AS question had a response rate of 147 compared to 125 for A2, so that it is likely that the respondents to this question were largely a subset of the AS FM centres.

**By awarding body
2007**

	Response	No.	%
AQA	No	1	6.7
	Yes	14	93.3
	Total	15	100.0
Edexcel	No	8	11.0
	Yes	65	89.0
	Total	73	100.0
OCR (MEI)	No	2	11.1
	Yes	16	88.9
	Total	18	100.0
OCR (not MEI)	No	0	0.0
	Yes	25	100.0
	Total	25	100.0

**By awarding body
2006**

	Response	No.	%
AQA	No	4	19.0
	Yes	17	81.0
	Total	21	100.0
Edexcel	No	33	32.0
	Yes	70	68.0
	Total	103	100.0
OCR (MEI)	No	3	12.0
	Yes	22	88.0
	Total	25	100.0
OCR (not MEI)	No	5	20.0
	Yes	20	80.0
	Total	25	100.0

QD7a. Is this because there is a lack of:

Response	Frequency	%
Available staff	4	2.1
Experienced staff	0	0.0
Funding	1	0.5
Student demand	5	2.6
Other (please specify)	4	2.1
Overall Total	191	

NB. As respondents were asked to select all that apply, the percentage of responses was calculated using total number of cases i.e. 191.

The summary of 'other' comments is:

Other comments	Frequency
Timetable constraints	3
Plans to offer A2 further mathematics in future	1

2006

Response	Frequency	%
Available staff	3	1.6
Experienced staff	6	3.2
Funding	9	4.8
Student demand	33	17.6
Other (please specify)	10	5.3
Overall Total	188	

NB. As respondents were asked to select all that apply, the percentage of responses was calculated using total number of cases i.e. 188.

Very few centres have responded saying that they do not offer A2, and thus there is no 'majority' to observe. As in 2006 the largest (by one case) response is 'student demand' but in 2007 the other responses are around availability of staff and timetabling.

The summary of 'other' comments is:

Other comments	Frequency
Insufficient number of suitable candidates	6
Plans to offer A2 further mathematics in future	3
Timetable constraints	2

QD8. What is your GCE A2 level further mathematics awarding body? (New question for 2007)

Response	Frequency	%
AQA	14	11.9
Edexcel	60	50.8
OCR	44	37.3
Total	118	100.0

GCSE AS level FM Awarding body	GCE A level mathematics awarding body				Total
	AQA	Edexcel	OCR (MEI)	OCR (not MEI)	
AQA	13	1	0	0	14
Edexcel	0	59	1	0	60
OCR	1	4	15	24	44
Total	14	64	16	24	118

QD9. How many students do you have studying A2 further mathematics?
All centres 2007

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
Number of A2 further mathematics students	114	0	50	732	6.42	8.39

All centres 2007, excluding those with 0 students

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
Number of A2 further mathematics students	99	1	50	732	7.36	8.59

All centres 2006

	No.	Minimum	Maximum	Sum	Mean	Std. deviation
No. of A2 further mathematics students	136	0	37	791	5.80	7.23
No. A2 September students	186	0	217	4930	26.55	29.18

In 2007 A2 further mathematics cohort = 15.4% of A2 cohort – although A2 further mathematics students will not always be drawn from the current A2 cohort. This figure was 16% in 2006.

By awarding body 2007

Awarding body	No. centres	Minimum	Maximum	Sum	Mean	Std. deviation
AQA	14	0	39	102	7.29	10.10
Edexcel	66	0	50	439	6.65	8.54
OCR (MEI)	16	0	25	143	8.94	8.16
OCR (not MEI)	25	0	41	175	7.00	8.94

By awarding body 2006

Awarding body	No. centres	Minimum	Maximum	Sum	Mean	Std. deviation
AQA	16	1	37	120	7.50	8.82
Edexcel	81	0	32	449	5.54	7.31
OCR (MEI)	20	0	30	140	7.00	7.97
OCR (not MEI)	21	0	21	141	6.71	6.23

QD10. How much time (in minutes) is allocated a fortnight to the teaching of A2 level further mathematics? (New question for 2007.)

Minutes	Frequency	%
0	1	0.9
5-60	2	1.7
61-100	2	1.7
101-200	6	5.2
201-300	19	16.5
300-400	16	13.9
401-500	19	16.5
501-600	19	16.5
601-700	6	5.2
701-900	11	9.6
901-1800	14	12.2
Total	115	100.0

	No.	Minimum	Maximum	Sum	Mean	Std. Deviation
All centres	108	0	1200	54322	503.40	279.58
Further education	5	210	800	2690	538.00	212.18
Independent	51	70	1200	28590	560.59	277.48
Sixth-form college	8	360	1080	4580	572.50	214.86
State secondary	51	0	1120	23738	465.45	295.13

Excluding 0 minutes

	N	Minimum	Maximum	Sum	Mean	Std. Deviation
All centres	107	12	1200	54322	509.26	275.81
Further education	5	210	800	2690	538.00	212.18
Independent	51	70	1200	28590	560.59	277.475
Sixth-form college	8	360	1080	4580	572.5	214.859
State secondary	50	12	1120	23738	474.76	290.46

The teaching time proportions are the same as for AS – very variable and with a key range between 201 and 600 minutes!

Section E: Resits

QE1a. Which assessment opportunities do your criteria use? (New question for 2007.)

Response	Frequency	%
January year 1	97	50.1
June year 1	151	79.1
January year 2 - resits only	31	16.2
January year 2 - all assessment	119	62.3
June year 2	149	78.0
Overall Total	191	

NB. As respondents were asked to select all that apply, the percentage of responses was calculated using total number of cases i.e. 191.

By centres

No. of Responses	By centre type			
	State secondary	Further education	Sixth-form college	Independent
January year 1	58	5	6	28
June year 1	76	6	8	61
January year 2 – resits only	10	2	3	16
January year 2 – all assessment	64	5	6	44
June year 2	74	6	8	61

QE1b. Do you have either a centre-wide policy or subject-specific policy about resitting GCE units? (New question for 2007.)

All centres 2007

Response	No.	%
No	76	51.7
Yes	71	48.3
Total	147	100.0

By centres

	Response	No.	%
State secondary schools	No	40	52.6
	Yes	36	47.4
	Total	76	100.0
Further education colleges	No	3	50.0
	Yes	3	50.0
	Total	6	100.0
Sixth-form colleges	No	5	62.5
	Yes	3	37.5
	Total	8	100.0
Independent schools	No	29	48.3

Yes	31	51.7
Total	60	100.0

Generally even split on whether or not there is a policy relating to resitting.

QE1c. Do you have a subject-specific policy about resitting GCE units? (New question for 2007.)

All centres 2007

Response	No.	%
No	16	22.9
Yes	54	77.1
Total	70	100.0

By centres

	Response	No.	%
State secondary schools	No	8	22.2
	Yes	28	77.8
	Total	36	100.0
Further education colleges	No	1	33.3
	Yes	2	66.7
	Total	3	100.0
Sixth-form colleges	No	0	0.0
	Yes	2	100.0
	Total	2	100.0
Independent schools	No	8	25.0
	Yes	24	75.0
	Total	32	100.0

QE1d. Do you have a subject-specific policy about when students can resit their GCE mathematics units? (New question for 2007.)

Response	Frequency	%
Yes, have a subject specific policy, which is the same as centre policy	40	54.8
Yes, have a subject specific policy, which is different to centre policy	20	27.4
No	13	17.8
Total	73	100.0

By centres

No. of responses	State secondary	Further education	Sixth-form college	Independent	Total
Yes, have a subject-specific policy, which is the same as centre policy	19	1	3	17	40

Yes, have a subject-specific policy, which is different to centre policy	8	2	0	10	20
No	9	0	0	4	13

QE1e.- According to your mathematics policy when can students resit AS and A2 level units? (New question for 2007)

Response	Frequency	%
In Jun of 1st year, AS unit resits	36	18.8
In Jun of 1st year, A2 unit resits	6	3.1
In Jan of 2nd year, AS unit resits	62	32.5
In Jan of 2nd year, A2 unit resits	28	14.7
In Jun of 2nd year, AS unit resits	64	33.5
In Jun of 2nd year, A2 unit resits	64	33.5
Overall Total	191	

NB. As respondents were asked to select all that apply, the percentage of responses was calculated using total number of cases i.e. 191

Predictable pattern where January and June of the second year see the biggest AS resit opportunities and June of second year the largest A2 resitting.

By centres

No. of Responses	State secondary	Further education	Sixth-form college	Independent
In Jun of 1st year, AS unit resits	22	2	2	10
In Jun of 1st year, A2 unit resits	7	1	0	1
In Jan of 2nd year, AS unit resits	32	3	3	24
In Jan of 2nd year, A2 unit resits	12	2	0	14
In Jun of 2nd year, AS unit resits	30	2	3	29
In Jun of 2nd year, A2 unit resits	33	3	2	26

QE1f. If there are any additional points in the year when students can resit AS and A2 level units please specify. (New question for 2007.)

Response	N
Occasional re-sits of AS in June of 1st year	1
We consider what other modules they are taking across college	1

QE2. Please tell us what proportions of the following types of mathematics students take resits. (New question for 2007.)

	% of AS level only students		% of A level students resitting AS units		% of A level students resitting A2 units	
	No.	%	No.	%	No.	%
0	20	15.4	0	0.0	23	16.3
1-10	26	20.0	11	7.6	22	15.6
11-20	15	11.5	20	13.9	28	19.9
21-30	14	10.8	19	13.2	18	12.8
31-40	7	5.4	18	12.5	5	3.5
41-50	13	10.0	22	15.3	19	13.5
51-60	3	2.3	10	6.9	7	5.0
61-70	2	1.5	1	0.7	3	2.1
71-80	14	10.8	23	16.0	6	4.3
81-100	16	12.3	20	13.9	10	7.1
Total	130	100.0	144	100.0	141	100.0

Spread here shows quite a variety of practice – the highest proportion of frequent resitting occurs in the A level students resitting AS units, with around 30% of centres indicating between 71 and 100% resitting. No centres indicate no A level students resitting AS units, but there are 16.3% of centres who indicate that none of their students retake A2 units. Around another 50% indicate that between 1 and 30% of their A level students resit A2 units. In the case of AS units, around half the centres indicate between 11 and 50% of A level students resit. For AS-only students the spread is quite consistent across the range.

	No.	Minimum	Maximum	Mean	Std. deviation
% of AS level only students	130	0	100	36.28	33.29
% of A level students resitting AS units	144	5	100	49.33	27.48
% of A level students resitting A2 units	141	0	100	30.79	28.15

QE3.- Do you place any restrictions on the number of times a student can resit an A level mathematics unit? (New question for 2007.)

Response	No.	%
No	133	90.5
Yes	14	9.5
Total	147	100.0

Overwhelming response is no restriction

By centres

	Response	No.	%
State secondary schools	No	66	89.2
	Yes	8	10.8
	Total	74	100.0
Further education colleges	No	6	100.0
	Yes	0	0.0
	Total	6	100.0
Sixth-form colleges	No	7	87.5
	Yes	1	12.5
	Total	8	100.0
Independent schools	No	54	91.5
	Yes	5	8.5
	Total	59	100.0

QE3a. How many times can a student re-sit a unit? (New question for 2007.)

Response	Frequency	%
Only one re-it per unit	10	62.5
Only two resits per unit	2	12.5
Other number (please specify)	4	25.0
Total	16	100.0

Response comments	No.
1 resit per subject per year	1
3 potentially	1
Cannot resit with school, must pay for the re-sit themselves	1
Depend on the student	1

Where there is a restriction it is generally to one resit per unit.

QE4. How do you prepare your students for their A level mathematics resits? (New question for 2007.)

Response	Frequency	%
No preparation	7	3.7
Candidate given past papers to work through on own	116	60.7
Past papers set and marked in lessons	25	13.1
Past papers set and marked as homework	58	30.4
Time in timetabled lessons	46	24.1
Additional timetabled lessons	20	10.5
Revision lessons outside of timetabled lessons	94	49.2

Ad hoc 1-1 teacher sessions	13	6.8
Revision booklets/websites	3	1.6
Other	1	0.5
Overall Total	191	

NB. As respondents were asked to select all that apply, the percentage of responses was calculated using total number of cases i.e. 191.

By centres

No. of Responses	State secondary	Further education	Sixth-form college	Independent
No preparation	4	0	0	3
Candidate given past papers to work through on own	61	4	8	43
Past papers set and marked in lessons	14	1	1	9
Past papers set and marked as homework	33	2	2	21
Time in timetabled lessons	23	3	1	19
Additional timetabled lessons	9	0	2	9
Revision lessons outside of timetabled lessons	51	5	6	32
Ad hoc 1-1 teacher sessions	4	0	2	7
Revision booklets/websites	2	0	0	1
Other	0	0	0	1

QE5a. How often do AS level only mathematics students re-sit AS units at your centre for the following reasons? (New question for 2007.) Using scale 1= often, 2= sometimes, 3= rarely, 4= never.

Response	No.	%	
Failed unit	Often	33	25.4
	Sometimes	35	26.9
	Rarely	50	38.5
	Never	12	9.2
	Total	130	100.0
Didn't get desired mark/grade on unit	Often	72	53.3
	Sometimes	37	27.4
	Rarely	12	8.9
	Never	14	10.4
	Total	135	100.0
Didn't get desired mark/grade on AS qualification	Often	37	29.1
	Sometimes	44	34.6
	Rarely	33	26.0
	Never	13	10.2

	Total	127	100.0
Other	Often	1	5.0
	Sometimes	3	15.0
	Rarely	6	30.0
	Never	10	50.0
	Total	20	100.0

For AS only 'didn't get desired mark/grade on unit' is most frequent response for 'often' resitting.

QE5b. If you selected 'Other' please specify. (New question for 2007.)

Response comments	No.
Candidate off sick	3
Maximising score of early units	6

QE5c. How often do A level mathematics students resit AS units at your centre for the following reasons? (New question for 2007.) Using 1= often, 2=sometimes, 3= rarely, 4= never.

Response	No.	%	
Failed unit	Often	29	23.6
	Sometimes	28	22.8
	Rarely	49	39.8
	Never	17	13.8
	Total	123	100.0
Didn't get desired mark/grade on unit	Often	83	62.9
	Sometimes	40	30.3
	Rarely	6	4.5
	Never	3	2.3
	Total	132	100.0
Didn't get desired mark/grade on AS qualification	Often	40	34.5
	Sometimes	39	33.6
	Rarely	25	21.6
	Never	12	10.3
	Total	116	100.0
Maximising grade for A level qualification	Often	88	65.7
	Sometimes	33	24.6
	Rarely	10	7.5
	Never	3	2.2
	Total	134	100.0
Maximising UMS for A level qualification	Often	76	59.4
	Sometimes	33	25.8
	Rarely	16	12.5
	Never	3	2.3
	Total	128	100.0
Other	Often	0	0.0
	Sometimes	0	0.0

Rarely	3	33.3
Never	6	66.7
Total	9	100.0

Most frequently cited for 'often' is 'didn't get desired mark/grade on unit' (62.9%) and 'maximising grade for A level qualification' (65.7). Other leading response for 'often' is Maximising UMS for A level (59.4%).

QE5d. If you selected 'other' please specify (New question for 2007.)

Response comments	No.
To ease pressure on their performance in the remaining units	1

QE5e. How often do A level mathematics students resit A2 units at your centre for the following reasons? (New question for 2007.) Using 1=often, 2=sometimes, 3= rarely, 4= never.

Response	N	%
Failed unit	Often	18.0
	Sometimes	20.5
	Rarely	42.6
	Never	18.9
	Total	122
Didn't get desired mark/grade on unit	Often	40.0
	Sometimes	30.4
	Rarely	17.6
	Never	12.0
	Total	125
Maximising grade for A level qualification	Often	42.9
	Sometimes	29.4
	Rarely	16.7
	Never	11.1
	Total	126
Maximising UMS for A level qualification	Often	37.5
	Sometimes	29.2
	Rarely	20.8
	Never	12.5
	Total	120
Maximising score of earlier units	Often	0.0
	Sometimes	50.0
	Rarely	50.0
	Never	0.0
	Total	0

	Total	2	100.0
Rarely resit	Often	1	50.0
	Sometimes	0	0.0
	Rarely	1	50.0
	Never	0	0.0
	Total	2	100.0
Other	Often	0	0.0
	Sometimes	0	0.0
	Rarely	2	20.0
	Never	8	80.0
	Total	10	100.0

No single reason accounts for 'often' in any category – highest 'often' is 42.9% for maximising grade for A level qualification. AS clearly focus of greater activity.

QE6. Who pays for the A level mathematics resits? (New question for 2007.)

Response	Frequency	%
The centre	14	9.7
The student	113	77.9
The centre pays first, student pays subsequent	16	11.0
Other (please specify)	2	1.4
Total	145	100.0

The summary of 'other' comments is:

Summary of comments	N
Centre pays for 2 re-sits out of all the students subjects	1
Not sure	1

QE7a. In terms of ability, which AS only students are resitting AS mathematics units (New question for 2007.)

Response	Frequency	%
All students	37	19.4
Students in the upper quartile	4	2.1
Students in the middle quartiles	41	21.5
Students in the lower quartile	80	41.9
Other (please specify)	2	1.0
Overall Total	191	

NB. As respondents were asked to select all that apply, the percentage of responses was calculated using total number of cases i.e. 191.

In this group most frequent reporting of resitting is by those in the lower quartile.

By centres

No. of responses	State secondary	Further education	Sixth-form college	Independent
All students	22	2	3	10
Students in the upper quartile	1	0	0	3
Students in the middle quartiles	20	2	3	16
Students in the lower quartile	36	3	5	36
Other (please specify)	1	0	0	1

The summary of 'other' comments is:

Summary of comments	No.
Those who achieve an overall mark of between 27 and 39%	1
Variety for a variety of reasons	1

QE7b. In terms of ability, which A level students are resitting AS and A2 mathematics units? (New question for 2007.)

Response	Frequency	%
All students	77	40.3
Students in the upper quartile	16	8.4
Students in the middle quartiles	61	31.9
Students in the lower quartile	51	26.7
Other (please specify)	2	1.0
Overall total	191	

NB. As respondents were asked to select all that apply, the percentage of responses was calculated using total number of cases i.e. 191.

By centres

No. of responses	State secondary	Further education	Sixth-form college	Independent
All students	38	5	4	30
Students in the upper quartile	5	0	1	10
Students in the middle quartiles	31	0	4	26
Students in the lower quartile	26	1	4	20
Other (please specify)	1	0	0	1

For A level students resitting the most popular response is 'all students', followed by 'middle quartiles'. Least frequent is upper quartile.

Section F: Next steps and further comments

Response	No.	%
No	76	55.1
Yes	62	44.9
Total	138	100.0

QF1a. Are you willing to be contacted in 2008?

Response	N	%
No	6	4.2
Yes	137	95.8
Total	143	100.0

QCA evaluation of participation in GCE mathematics questionnaire

Section A

A1. Name of school or college.

A2. National centre number (or exam number, five digits).

A3. DfES Number (mandatory, seven digits)

This is a combination of your three-digit LEA number and the four-digit DfES number. You can find these in the 'Find an establishment section' of [EduBase](#).

A4. Your name.

A5. Your role.

A6. Your GCE A level mathematics awarding body

OCR MEI

OCR not MEI

Edexcel

AQA

Section B: Participation and retention

In this section we want to quantify broadly the changing popularity of A level mathematics in terms of original participation rates and retention from AS to A2.

B1. How many students in your school or college were taking GCE mathematics at the beginning of September 2006?

AS mathematics

A2 mathematics

A level in one year

B2. How many students dropped GCE mathematics between the beginning of September 2006 and the beginning of February 2007?

AS mathematics
A2 mathematics
A level in one year

B3. Was the proportion dropping AS mathematics between September 2006 and the beginning of February 2007 higher, about the same, or lower than the same period in 2005–6?

Higher
Lower
About the same

B3a. What wider issues do you think had an influence on this change in the proportion dropping AS mathematics?

(Please select all that apply)

Difficulty, or perceived difficulty, of course
GCSE is insufficient preparation
Attitude of students insufficiently positive
Student not able to use mathematics at a high enough level
Workload pressure
Likelihood of achieving a good grade
Other (please specify)

B3b. Was the proportion dropping A2 mathematics between September 2006 and the beginning of February 2007 higher, about the same, or lower than the same period in 2005–6?

Higher
Lower
About the same

B3c. What wider issues do you think had an influence on this change in the proportion dropping A2 mathematics?

(Please select all that apply.)

Difficulty, or perceived difficulty, of course
GCSE is insufficient preparation
Attitude of students insufficiently positive
Student not able to use mathematics at a high enough level
Workload pressure
Likelihood of achieving a good grade

Other (please specify)

B4. How many of the students in your school or college completed AS mathematics last year?

B5. How many of the students completing AS mathematics last year did not move on to A2 mathematics this year?

B6. How many of the students completing AS mathematics last year do you think originally intended to complete the full A level?

Section C: Recruiting students

In this section we'd like to understand better how you select students for A level mathematics.

C1. What entry criteria do you use for A level mathematics?

GCSE mathematics grade A* only

GCSE mathematics grade A or above

GCSE mathematics grade B or above (higher tier only)

GCSE mathematics grade B or above (any tier)

No entry criteria

Other (please specify)

C1a. Do you make exceptions to the entry criteria for some students?

Frequently

Occasionally

Never

C1b. Are you making these exceptions more, less or about the same amount as last year?

More

Less

About the same

C2. Which groups of GCSE students do you generally target for recruitment to A level mathematics?

Higher tier only

Higher and intermediate tier
All students
Other (please specify)

Section D: Further mathematics

Now we'd like to know more about the take-up and teaching of further mathematics in your school or college.

D1. Do you offer AS further mathematics at your school or college?

Yes
No

D1a. Is this because there is lack of:

(Please select all the apply)

Available staff?
Experienced staff?
Funding?
Student demand?
Other (please specify)

Section E: Resits

In this section we'd like to find out about your experiences of resits and any resit policies that are in place in your centre.

E1a. Which assessment opportunities does your centre use?

(Please select all that apply)

January year 1
June year 1
January year 2 – resits only
January year 2 – all assessment
June year 2

E1b. Do you have either a centre-wide policy or subject-specific policy about resitting GCE units?

Yes
No

E1c. Do you have a centre-wide policy about resitting GCE units?

Yes

No

E1d. Do you have a subject-specific policy about when students can resit their GCE mathematics units?

Yes, have a subject-specific policy, which is the same as centre policy

Yes, have a subject-specific policy, which is different to centre policy

No

E1e. According to your mathematics policy, when can students resit AS and A2 level units?

AS unit resit

A2 unit resit

In June of first year

In January of second year

In June of second year

E1f. If there are any additional points in the year when students can resit AS and A2 level units please specify below.

E2. Please tell us what proportions of the following types of mathematics students take resits.

% of **AS level** only students

% of **A level** students resitting AS units

% of **A level** students resitting A2 units

E3. Do you place any restrictions on the number of times a student can resit an A level mathematics unit?

Yes

No

E3a. How many times can a student resit a unit?

Only one resit per unit

Only two resits per unit

Other number (please specify)

E4. How do you prepare your students for their A level mathematics resits?

(Please select all that apply)

- No preparation
- Candidate given past papers to work through on own
- Past papers set and marked in lessons
- Past papers set and marked as homework
- Time in timetabled lessons
- Additional timetabled lessons
- Revision lessons outside of timetabled lessons
- Other (please specify)

E5a. How often do AS level only mathematics students resit AS units at your centre for the following reasons?

(Please use the following scale: 1 = Often, 2 = Sometimes, 3 = Rarely, 4 = Never)

- Failed unit
- Didn't get desired mark/grade on unit
- Didn't get desired mark/grade on AS qualification
- Other

E5b. If you selected 'Other' please specify

E5c. How often do A level mathematics students resit AS units at your centre for the following reasons?

(Please use the following scale: 1 = Often, 2 = Sometimes, 3 = Rarely, 4 = Never)

- Failed unit
- Didn't get desired mark/grade on unit
- Didn't get desired mark/grade on AS qualification
- Maximising grade for A level qualification
- Maximising UMS for A level qualification
- Other

E5d. If you selected 'Other' please specify

E5e. How often do A level mathematics students resit A2 units at your centre for the following reasons?

(Please use the following scale: 1 = Often, 2 = Sometimes, 3 = Rarely, 4 = Never)

- Failed unit
- Didn't get desired mark/grade on unit

- Maximising grade for A level qualification
- Maximising UMS for A level qualification
- Other

E5f. If you selected 'Other' please specify

E6. Who pays for the A level mathematics resits?

- The centre
- The student
- The centre pays first, student pays subsequently
- Other (please specify)

**E7a. In terms of ability, which AS only students are resitting AS mathematics units
(Please tick all that apply)**

- All students
- Students in the upper quartile
- Students in the middle quartiles
- Students in the lower quartile
- Other (please specify)

**E7b. In terms of ability, which A level students are resitting AS and A2
mathematics units?
(Please tick all that apply)**

- All students
- Students in the upper quartile
- Students in the middle quartiles
- Students in the lower quartile
- Other (please specify)

Section F: Next steps and further comments

The issue of student participation in GCE mathematics is very serious and the project is running over several years to allow us to map how things change. QCA would value your professional advice again next year.

F1. Please let us know if your school or college took part in the survey last year.

- Yes
- No

F1a. Are you willing to be contacted in 2008?

Yes

No

F1b. Please insert your email address below.

Thank you very much for completing this questionnaire. We really do appreciate it.

The findings from the first year of the QCA evaluation of participation in A level mathematics are published [here](#).

The data you provide in this survey are collected and stored by SurveyMonkey on behalf of QCA. SurveyMonkey is a US entity and its servers are based in the US. All data collected is kept confidential and secure, and is not shared with any third parties. SurveyMonkey is on the Safe Harbor list. You can view SurveyMonkey's Privacy Statement [here](#).