

Responding to the Developing New GCSEs, AS and A Levels for First Teaching in 2017 – Part 2

Your details

To evaluate responses properly, we need to know who is responding to the consultation and in what capacity. We will therefore only consider your response if you complete the following information section.

We will publish our evaluation of responses. Please note that we may publish all or part of your response unless you tell us (in your answer to the confidentiality question) that you want us to treat your response as confidential. If you tell us you wish your response to be treated as confidential, we will not include your details in any published list of respondents, although we may quote from your response anonymously.

Please answer all questions marked with a star*

Name* Peter Ransom

Position* Chair of Council

Organisation name (if applicable)* The Mathematical Association



Address

259 London Road, Leicester LE2 3BE

Email

senioradministrator@m-a.org.uk

Telephone 0116 221 0013

Would you like us to treat your response as confidential?*

If you answer yes, we will not include your details in any list of people or organisations that responded to the consultation.

() Yes (✓) No

Is this a personal response or an official response on behalf of your organisation?*

Personal response (please answer the question “If you ticked ‘Personal response’...”)

Official response (please answer the question “If you ticked ‘Official response’...”)

***If you ticked “Personal response”, which of the following are you?**

Student

Parent or carer

Teacher (but responding in a personal capacity)

Other, including general public (please state below)

***If you ticked “Official response from an organisation/group”, please respond accordingly:**

Type of responding organisation*

Awarding organisation

Local authority

School or college (please answer the question below)

Academy chain

Private training provider

University or other higher education institution

Employer

Other representative or interest group (please answer the question below)

School or college type

- Comprehensive or non-selective academy
 - State selective or selective academy
 - Independent
 - Special school
 - Further education college
 - Sixth form college
 - Other (please state below)
-

Type of representative group or interest group

- Group of awarding organisations
 - Union
 - Employer or business representative group
 - Subject association or learned society
 - Equality organisation or group
 - School, college or teacher representative group
 - Other (please state below)
-

Nation*

- England
- Wales
- Northern Ireland
- Scotland
- Other EU country: _____
- Non-EU country: _____

How did you find out about this consultation?

Our newsletter or another one of our communications

Our website

Internet search

Other

May we contact you for further information?

Yes No

Consultation questions

GCSE statistics

Question 75: To what extent do you agree or disagree that GCSEs in statistics should be assessed entirely by exams?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please give reasons for your answer:

The Mathematical Association feels that the abandonment of coursework threatens to reduce the contact students have with extended problems. It is felt that teachers do ensure the very best results for their classes and will tend towards meeting the challenges of an exam rather than spend time working through extended problems. It is only through following the whole data handling cycle that students gain a complete appreciation for the need to pilot questionnaires, deal with anomalies, outliers and non-responses and consider how to give relative detailed analysis to another interested party.

Employers consistently complain that students cannot construct mathematical models or deal with large amounts of data in the real world. By removing coursework we compound this even further.

We would suggest that at least 10% of the qualification should be awarded through an extended task. There is no escaping from the extent to which learning statistics, and assessing that learning, demands a strong practical element.

Question 76: To what extent do you agree or disagree that GCSEs in statistics should be tiered?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please give reasons for your answer:

Many MA members teach the current GCSE Statistics course and do not see how tiering could be eliminated. A lot of schools use it as extension material for the higher attainers and making them work through simple questions aimed primarily for lower attainers is pointless. Similarly we feel that questions aimed at the hardest topics would be very off putting to those who had not studied at that level.

Question 77: To what extent do you agree or disagree that we should adopt a similar approach to tiering in GCSE statistics as we have for GCSE mathematics?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please give reasons for your answer:

Parity with the GCSE Mathematics will ensure that teachers, students and parents will understand the tiering structure

Question 78: To what extent do you agree or disagree that the proposed assessment objectives are appropriate for GCSEs in statistics?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please give reasons for your answer:

Members of The Mathematical Association have concerns that further significant changes are to be implemented without trialling and more unfamiliar assessment objectives may deter centres from offering the course.

Question 79: To what extent do you agree or disagree that the proposed weightings of the assessment objectives are appropriate for GCSEs in statistics?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please give reasons for your answer:

It is felt that there should not be absolute weightings. These may lead to exam boards shoehorning questions into assessments to ensure the weightings are met. We would suggest that weighting ranges will help continuity in exams.

Just as there are different weightings for the AOs in the GCSE Mathematics tiers, there should be different weightings in the GCSE Statistics tiers. One size does NOT fit all!

Question 80: Do you have any further comments relating to the assessment of this subject?¹

We have some reservations about the content and are sending comments to the DfE about that.

¹ Please note that any comments relating to the subject content should be directed to the DfE.

Question 81: To what extent do you agree or disagree that AS qualifications in statistics should be assessed entirely by exams?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please give reasons for your answer:

The Mathematical Association feels that the abandonment of coursework threatens to reduce the contact students have with extended problems. It is felt that teachers do ensure the very best results for their classes and will tend towards meeting the challenges of an exam rather than spend time working through extended problems. It is only through following the whole data handling cycle that students gain a complete appreciation for the need to pilot questionnaires, deal with anomalies, outliers and non-responses and consider how to give relative detailed analysis to another interested party.

Employers consistently complain that students cannot construct mathematical models or deal with large amounts of data in the real world. By removing coursework we compound this even further.

We would suggest that 10% of the qualification should be awarded through an extended task.

Question 82: To what extent do you agree or disagree that A levels in statistics should be assessed entirely by exams?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please give reasons for your answer:

The Mathematical Association feels that the abandonment of coursework threatens to reduce the contact students have with extended problems. It is felt that teachers do ensure the very best results for their classes and will tend towards meeting the challenges of an exam rather than spend time working through extended problems. It is only through following the whole data handling cycle that students gain a complete appreciation for the need to pilot questionnaires, deal with anomalies, outliers and non-responses and consider how to give relative detailed analysis to another interested party.

Employers consistently complain that students cannot construct mathematical models or deal with large amounts of data in the real world. By removing coursework we compound this even further.

We would suggest that 10% of the qualification should be awarded through an extended task.

Question 83: To what extent do you agree or disagree that the proposed assessment objectives are appropriate for AS and A levels in statistics?

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please give reasons for your answer:

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Question 84: To what extent do you agree or disagree that the proposed weightings of the assessment objectives are appropriate for AS qualifications in statistics?

- Strongly agree
- Agree
- Neither agree nor disagree

Disagree

Strongly disagree

Please give reasons for your answer:

It is felt that there should not be absolute weightings. These may lead to exam boards shoehorning questions into assessments to ensure the weightings are met. We would suggest that weighting ranges will help continuity in exams.

Furthermore The Mathematical Association strongly believes that they should be different to those of A level Statistics. By this time students' critical and analytical skills should have improved and they should have developed a higher level of interpretation.

We would highly recommend that AO4 should be significantly increased (15%) and other AOs reduced (5%)

Question 85: To what extent do you agree or disagree that the proposed weightings of the assessment objectives are appropriate for A levels in statistics?

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Please give reasons for your answer:

It is felt that there should not be absolute weightings. These may lead to exam boards shoehorning questions into assessments to ensure the weightings are met. We would suggest that weighting ranges will help continuity in exams.

Furthermore the Mathematical Association strongly believes that they should be different to those of A level Statistics. By this time students' critical and analytical skills should have improved and they should have developed a higher level of interpretation.

We would highly recommend that AO4 should be significantly increased (15%) and other AOs reduced (5%)

Question 86: Do you have any further comments relating to the assessment of this subject?²

With statistics being part of AS and A level mathematics and Core Mathematics we question the need for an AS and A level in statistics. The number of students who have taken the subject at these levels in recent years make us feel that it is taken by a very small minority of students who might be better advised to study other qualifications.

² Please note that any comments relating to the subject content should be directed to the DfE.

Equality analysis

Question 87: We have identified a number of ways the proposed requirements for reformed GCSEs, AS and A levels may impact (positively or negatively) on persons who share a protected characteristic. Are there any other potential impacts we have not identified? If so, what are they?

Yes

No

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Question 88: Are there any additional steps we could take to mitigate any negative impact resulting from these proposals on persons who share a protected characteristic? If so, please comment on the additional steps we could take to mitigate negative impacts.

Yes

No

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Question 89: Have you any other comments on the impacts of the proposals on persons who share a protected characteristic?

Yes

No

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Accessibility of our consultations

We want to write clearly, directly and put the reader first. Overall, do you think we have got this right in this consultation?*

Yes

No

Do you have any comments or suggestions about the style of writing?

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Do you have any special requirements to enable you to read our consultations? (For example screen reader, large text, and so on)*

Yes

No

Which of the following do you currently use to access our consultation documents? (Select all that apply)*

Screen reader / text-to-speech software

Braille reader

Screen magnifier

Speech to text software

Motor assistance (blow-suck tube, mouth stick, etc.)

Other: _____

Which of the following document formats would you prefer to use when reading our consultations? (Select all that apply)*

- A standard PDF**
 - Accessible web pages**
 - Large type PDF (16 point text)**
 - Large-type word document (16 point text)**
 - eBook (Kindle, iBooks or similar format)**
 - Braille document**
 - Spoken document**
 - Other:**
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How many of our consultations have you read in the last 12 months?*

- 1**
- 2**
- 3**
- 4**
- 5**
- More than 5**