

Analysis of Responses to our Consultation on Conditions and Guidance for GCSE Computer Science



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Executive summary

Our consultation about the Conditions and guidance for GCSE computer science took place between 17th February 2015 and 16th March 2015.

The consultation questions were available either to complete online or to download. A copy of the consultation is available at www.gov.uk/government/consultations/gcse-reform-regulations-for-computer-science.

There were 41 responses to the consultation – 24 from individuals and 17 from organisations. All responses were in a form that matched or broadly followed the layout of the online consultation.

Respondents welcomed some aspects of our proposals, but raised a number of concerns about our proposed approach to non-exam assessment. Respondents were particularly concerned by our proposals that:

- schools should set non-exam assessment tasks;
- non-exam assessments should be marked by schools and moderated by exam boards; and
- exam boards should use statistical moderation to ensure that marks for non-exam assessment were consistent with exam marks.

Respondents also commented on a number of issues that were outside the scope of the consultation – in particular, the subject content, the weighting of non-exam assessment, the assessment objectives and the use of untiered assessments.

1. Introduction

This report is a summary of the views expressed by those who responded to our consultation on the Conditions and guidance for GCSE computer science which took place between 17th February 2015 and 16th March 2015.

Background

Reformed GCSEs are being introduced in England. The primary purpose of the new qualifications will be to provide evidence of students' achievements against demanding and fulfilling content and a strong foundation for further academic and vocational study and employment. If required, the qualifications should be able to provide a basis for schools and colleges to be held accountable for the performance of all of their students.

Following earlier consultations, we have already taken decisions on:

- the general design of reformed GCSEs;
- our policy and technical arrangements relating to those subjects that will be taught from September 2015;¹ and
- the design of the reformed GCSEs in computer science that are to be introduced for first teaching in 2016.²

This consultation focused on more technical matters – that is, on the regulatory arrangements that we must put in place to make sure that exam boards design, deliver and award the new GCSEs in computer science in line with our policy decisions.

¹ Reformed GCSEs in English language, English literature and mathematics will be taught from September 2015.

² www.gov.uk/government/consultations/gcses-as-and-a-levels-reform-of-subjects-for-september-2016

2. Who responded?

We received a total of 41 responses to our consultation.³ Twenty-four responses were from individuals and 17 were from organisations. All of the responses were from individuals or organisations based in England or Wales.

Table 1: Breakdown of consultation responses

Personal / Organisation response	Respondent type	Number
Personal	Teacher	20
Personal	Educational specialist	4
Organisation	School / College	5
Organisation	Exam board	4
Organisation	Other representative or interest group	3
Organisation	Union	3
Organisation	Local authority	1
Organisation	Subject association / Learned society	1

³ Where responses were received in hard copy we entered them into the online platform.

3. Approach to analysis

We published the consultation on our website. Respondents could choose to respond using an online form, by email or by posting their answers to the consultation questions to us. The consultation included eight questions.

This was a consultation on the views of those who wished to participate and while we tried to ensure that as many respondents as possible had the opportunity to reply, it cannot be considered as a representative sample of the general public or of any specific group.

Data presentation

We present the responses to the consultation questions in the order in which they were asked.

The consultation asked eight questions and each had a different focus. Respondents could choose to answer all or just some of the questions.

During the analysis phase we reviewed every response to each question.

4. Views expressed – consultation response outcomes

In this section we report the views, in broad terms, of those who responded to the consultation document. We have structured this around the questions covered in the consultation document.

A consultation is not the same as a survey and the responses only reflect the views of those who chose to respond. Typically these will be those with strong views and/or particular experience or interest in a topic. What follows is a fair reflection of the views expressed by respondents to the consultation.

A list of the organisations that responded to the consultation is included in Appendix A.

Question 1 – Do you have any comments on the draft Conditions for new GCSEs in computer science?

Our draft Conditions stated that exam boards must:

- comply with the Department for Education’s subject content requirements for new GCSEs in computer science,⁴ and with our published assessment objectives;
- in line with our previous decisions, allocate 20 per cent of marks to non-exam assessment, with the remaining 80 per cent allocated to exams; and
- comply with any rules and guidance we put in place around assessments (we asked a separate question about our proposed assessment rules).

Seventeen respondents (12 individuals, five organisations) did not comment on this question.

Eleven (eight individuals, three organisations) commented on our proposed assessment rules. We have analysed these comments under question 2 below.

Nine (four individuals, five organisations) commented on issues that were outside the scope of the consultation. We have analysed these comments under ‘Other issues’ below.

⁴ www.gov.uk/government/publications/gcse-computer-science

Four (all organisations) expressed support for the Conditions as worded, commenting that they were consistent with other reformed GCSE subjects, and welcoming the scope for non-exam assessment.

Question 2 – Do you have any comments on the draft requirements in relation to assessments which are not Assessments by Examination for new GCSEs in computer science?

This question referred to our draft assessment rules that specified the nature, structure and conduct of non-exam assessments for reformed GCSEs in computer science.

Nine respondents (seven individuals, two organisations) did not comment on this question.

Thirteen (eight individuals, five organisations) commented on our proposal that schools should set non-exam assessment tasks. The majority of those respondents (eight individuals, one organisation) were opposed to this approach – citing concerns around the consistency of task setting and the ability of teachers to carry out this work. The respondents who supported this proposal suggested that it would allow flexibility to design tasks that are relevant to students.

Three (two individuals, one organisation) expressed concerns that a 20-hour project would not allow sufficient time for students to demonstrate higher-level skills.

Three (all individuals) commented that it was unclear why assessment should focus on the end product and not on the approach that students took to producing it.

Two (both organisations) commented that it was important to ensure that a range of programming languages are taught.

Two (both individuals) commented that non-exam assessment should be marked by exam boards, rather than by teachers within schools.

Six respondents also commented on issues that were outside the scope of our consultation. We have analysed these comments under 'Other issues' below.

Question 3 – Do you have any comments on our proposal to require awarding organisations to use statistical moderation to validate marks for the non-exam assessment?

Fourteen respondents (12 individuals, two organisations) did not comment on this question.

Twenty-four (11 individuals, 13 organisations) expressed concerns about using exam marks to adjust marks for non-exam assessment. Respondents were concerned that there would not be a strong enough relationship between the skills tested in exams and non-exam assessment to support such adjustments. Respondents also felt that this approach could unfairly penalise students with stronger programming skills, and would devalue the non-exam assessment.

Four (two individuals, two organisations) supported our proposed approach, commenting that tough measures were needed to ensure that non-exam assessment marks were reliable.

Question 4 – Do you have any views on which of the possible approaches to statistical moderation would be most appropriate for GCSEs in computer science?

Twenty-two respondents (16 individuals, six organisations) did not comment on this question.

Of the respondents who did comment, most (eight individuals, nine organisations) did not express a preference, with many noting that they did not think statistical moderation should be used at all.

The three respondents (one individual, two organisations) who expressed a preference all suggested using statistical moderation to inform monitoring, rather than making adjustments to individual students' marks.

Question 5 – Do you have any comments on the draft guidance on assessment objectives for new GCSEs in computer science?

This question referred to the draft guidance on assessment objectives which outlines how we expect exam boards to interpret the assessment objectives in terms of discrete 'elements' within each assessment objective, coverage expectations and key areas of emphasis in each assessment objective.

Twenty-six respondents (18 individuals, 8 organisations) did not comment on this question.

Four (one individual, three organisations) commented directly on our proposed guidance, and suggested minor changes to the drafting.

Three (two individuals, one organisation) commented on our proposed assessment requirements. We have analysed these comments under question 2 above.

Eight (three individuals, five organisations) commented on issues that were outside the scope of this consultation. We have analysed these comments under 'Other issues' below.

Question 6 – We have not identified any ways in which the proposed requirements for new GCSEs in computer science would impact (positively or negatively) on persons who share a protected characteristic. Are there any potential impacts we have not identified?

Thirty-one respondents (18 individuals, 13 organisations) did not comment on this question.

Five (four individuals, one organisation) commented that they did not understand the question.

Two (both organisations) commented that, historically, girls do better in controlled assessments and boys do better in linear exams. One respondent quoted a study that supports this view. For clarity, we have already considered this issue (and the specific study referenced) when taking decisions on the overall design of reformed GCSEs. While some studies have suggested such a link, the overall body of research does not support the assertion that girls perform better at controlled assessment and boys perform better in exams.

One (an individual) commented that students with special educational needs would struggle to achieve in an exam, and should be given a wider range of opportunities to express their understanding.

One (an individual) commented that we seemed to have ignored the impacts that we had identified.

One (an organisation) suggested that we should consider wider impacts in our analysis such as widening participation.

Question 7 – 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.

Thirty-four respondents (20 individuals, 14 organisations) did not comment on this question.

Three (all individuals) commented that they did not understand the question.

One (an individual) suggested that non-exam assessment tasks should be changed every year.

One (an organisation) suggested that the qualification should place greater emphasis on application and analysis, rather than on recall of facts.

One (an organisation) suggested that we should increase the role of controlled assessment in the qualification.

One (an organisation) suggested that we should consider wider impacts in our analysis such as widening participation.

Question 8 – Have you any other comments on the impacts of the proposals on persons who share a protected characteristic?

Thirty-six respondents (20 individuals, 16 organisations) did not comment on this question.

Three (all individuals) commented that they did not understand the question.

One (an individual) suggested that we look again at the weighting of non-exam assessment.

One (an organisation) commented that we may need to consider whether the design of computing GCSEs has contributed to the fall in female computer science graduates.

Other issues

Respondents also commented on a number of issues that were outside the scope of the consultation, including:

- the subject content;
- the weighting of non-exam assessment;
- the wording and weighting of the assessment objectives; and
- the need for tiered assessments.

Issues relating to the subject content are a matter for the Department for Education, which carried out its own consultation on the proposed subject content.⁵

⁵ www.gov.uk/government/consultations/gcse-and-a-level-reform

We have already taken decisions on the weighting of non-exam assessment, the assessment objectives and tiering, following our earlier consultation on the policy and approach to GCSE computer science.⁶ None of the responses to this consultation raised new issues that we have not already considered and they therefore do not cause us to revisit those earlier decisions.

⁶ www.gov.uk/government/consultations/gcses-as-and-a-levels-reform-of-subjects-for-september-2016

Appendix A: List of organisational consultation respondents

When completing the questionnaire, respondents were asked to indicate whether they were responding as an individual or on behalf of an organisation.

Below we list those organisations that submitted a response to the consultation. We have not included a list of those responding as an individual. However, all responses were given equal status in the analysis.

Altain Education

AQA

ASCL

BCS and ACS

Bradley Stoke Community School

East Riding of Yorkshire Local Authority

Horbury Academy, Wakefield

John Taylor High School, Staffordshire

NASUWT

OCR

paullong.net

Pearson

St Joan of Arc Catholic School, Hertfordshire

The Education Fellowship, Northamptonshire

UKForCE

Voice

WJEC-CBAC

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