GCSE Engineering and GCSE, AS and A level Design and Technology consultation on conditions and guidance

How to respond to this consultation

The closing date for responses is **20 January 2016**.

Please respond to this consultation in one of three ways:

- Complete the online response at www.surveygizmo.com/s3/2496122/GCSE-AS-and-A-level-reform-regulations-for-engineering-and-design-and-technology;
- Complete these consultation questions and email your response to consultations@ofqual.gov.uk. Please include the consultation title (Engineering and Design and Technology Consultation 2015) in the subject line of the email and make clear who you are and in what capacity you are responding; or
- Post your response to: Engineering and Design and Technology Consultation 2015, Ofqual, Spring Place, Herald Avenue, Coventry, CV5 6UB, making clear who you are and in what capacity you are responding.

Evaluating the responses

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 information page.

Any personal data (such as your name, address and any other identifying information) will be processed in accordance with the Data Protection Act 1998 and our standard terms and conditions.

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 respond by **20 January 2016**.

Responding to the consultation

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*
Lesley Davies

Position*
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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 (X) 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’…”)
(X) 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*

(X) 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*

(X) 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
(X) Our website
( ) Internet search
( ) Other

May we contact you for further information?

(X) Yes ( ) No

Questions

Question 1: To what extent do you agree or disagree that – for each of GCSE design and technology, GCSE engineering and AS and A level design and technology – we should introduce a Condition which requires exam boards to comply with the relevant subject content and assessment objectives??

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

Question 2: To what extent do you agree or disagree with our proposed approach to interpreting the subject content requirements for equations in GCSE engineering?

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

Pearson does not offer this qualification, therefore we do not feel best placed to offer comment on this question.

Question 3: To what extent do you agree or disagree that – for each of GCSE design and technology, GCSE engineering and AS and A level design and technology – we should introduce guidance which clarifies how exam boards should interpret our assessment objectives?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

We strongly agree that such guidance should be provided by Ofqual especially considering the significant amount of changes that have occurred during the development of the conditions and guidance documents around the nature and wording of the proposed assessment objectives. Thus, due to the complexity of the proposed assessment objectives and extent to which they have been broken down into various elements and strands, we feel it is important that Ofqual provide a clear guidance of their essential meaning, in order to ensure inter-board consistently and comparability.

Question 4: To what extent do you agree or disagree that we should introduce rules for exam assessment to ensure exam boards take a consistent approach to assessing mathematical skills in GCSE engineering?

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

Pearson does not offer this qualification, therefore we do not feel best placed to offer comment on this question.

Question 5: To what extent do you agree or disagree that we should introduce rules for exam assessment to ensure exam boards take a consistent approach to assessing mathematical and scientific skills in GCSE, AS and A level design and technology?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

We strongly agree with the proposed rules relating to mathematical and scientific. Specifically the contextualisation of these skills to design and technology will ensure a common understanding of the range and level of demand these skills require and thus safeguard comparability between the awarding organisations. We further agree that the assessment of mathematical skills can only be reliably assessed through external assessment, in particular given the requirement to ensure that a minimum proportion of the overall assessment assesses these skills.

Question 6: To what extent do you agree or disagree with our proposed approach to assessing mathematical skills (including our approach to the 15 per cent minimum weighting) for GCSE engineering?

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

Pearson does not offer this qualification, therefore we do not feel best placed to offer comment on this question.

Question 7: To what extent do you agree or disagree with our proposed approach to assessing mathematical skills (including the proposed 10 per cent minimum weighting) for GCSE design and technology?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

The proposed weightings relating to mathematical skills is appropriate when considered alongside the aims of the qualification and the breadth of mathematical skills students are required to show. In addition, the establishing of a fixed percentage will help ensure comparability between the awarding organisations.

Question 8: To what extent do you agree or disagree with our proposed approach to assessing mathematical skills (including the proposed minimum weightings) for AS and A level design and technology?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

The proposed weightings relating to mathematical skills is appropriate when considered alongside both the aims of the qualification and the breadth of mathematical skills students are required to show. Additionally, the establishing of a fixed percentage will help ensure comparability between the awarding organisations.

Question 9: To what extent do you agree or disagree with our proposed approach to assessing scientific knowledge, skills and understanding in GCSE, AS and A level design and technology?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

We strongly agree with this approach, particularly given that the scientific skills provided have clear links to the proposed subject content. This provides both greater clarity in relation to the nature of skills required and also a clear path for embedding these within the programme of study.

Question 10: To what extent do you agree or disagree that – for each of GCSE design and technology, GCSE engineering and AS and A level design and technology – we should introduce a Condition which permits non-exam assessment, specifies the proportion of exam- and non-exam assessment, and allows us to set more detailed rules and guidance on non-exam assessment?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

We strongly agree that a Condition which permits non-exam assessment, specifies the proportion of exam- and non-exam assessment, and allows Ofqual to set more detailed rules and guidance on non-exam assessment is necessary. The nature of the subject content in design and technology means that many of the skills, knowledge and understanding gained across the course can only be validly assessed through non-exam assessment. Principally this includes the requirement for students to demonstrate investigative, design and make skills as evidenced through both the assessment objectives and subject content.

Question 11: To what extent do you agree or disagree with our proposed approach to allocating non-exam assessment marks to assessment objectives in GCSE engineering?

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

Pearson does not offer this qualification, therefore we do not feel best placed to offer comment on this question.

Question 12: To what extent do you agree or disagree with our proposed approach to setting the brief(s) for non-exam assessment in GCSE engineering?

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

Pearson does not offer this qualification, therefore we do not feel best placed to offer comment on this question.

Question 13: To what extent do you agree or disagree with our proposal that the briefs for non-exam assessment in GCSE engineering should be released no earlier than 1 June in the year before the qualification is to be awarded?

( ) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

Pearson does not offer this qualification, therefore we do not feel best placed to offer comment on this question.

Question 14: To what extent do you agree or disagree with our proposed approach to allocating non-exam assessment marks to assessment objectives in GCSE design and technology?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

We strongly agree with the introduction of such a condition as we feel it will ensure comparability between the awarding organisations and ensure the validity of the assessment. Specifically, we agree that investigative, design and make skills (AO1 and AO2) as well as the ability to analyse and evaluate design decisions for prototypes made by the students reflect the three broad categories outlined in the subject content. The assessment of AO1 and AO2 is best demonstrated through the completion of a practical task. The assessment of AO3, namely elements relating to the students own work cannot be validly assessed in an external examination where the context of their analysis and evaluation would be unknown.

Question 15: To what extent do you agree or disagree with our proposal that the contextual challenges for non-exam assessment in GCSE design and technology should be released no earlier than 1 June in the year before the qualification is to be awarded?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

We strongly agree with this proposal as we feel it will enable students to balance their time between learning the relevant subject content and then the completion of the non-examined assessment task.

Question 16: To what extent do you agree or disagree with our proposed approach to allocating non-exam assessment marks to assessment objectives in AS and A level design and technology?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

Question 17: To what extent do you agree or disagree with our proposed approach to authenticating non-exam assessment in GCSE engineering and GCSE, AS and A level design and technology?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

We strongly agree with the proposed approach to authenticating non-examined assessment will support the reliability of the non-exam assessment (NEA). We agree with the view that video authentication may not always be suitable for protection purposes, however, in order to reliably assess the quality of students work it is vital that teachers are present (in a suitable format depending on the nature of the task being carried out) at all times. This will ensure the rigour of the assessment and help mitigate against mal-practice.

Question 18: To what extent do you agree or disagree with our proposed approach to marking of non-exam assessment in GCSE engineering, and GCSE, AS and A level design and technology?

(X) Strongly agree
( ) Agree
( ) Neither agree nor disagree
( ) Disagree
( ) Strongly disagree

We strongly agree with the proposed approach to marking non-examined assessment will support the reliability and validity of the non-exam assessment (NEA). Enabling forms of evidence that are appropriate to the outcome produced by students will ensure that their projects are not impeded in their innovation by the limitations of one form of evidence. In addition, the different approaches to marking of such evidence will enable awarding organisations to construct an appropriate marking process that reflects the nature of evidence required in the specific NEA tasks it stipulates.

Question 19: Do you have any comments on our proposed Conditions and requirements for GCSE engineering?

( ) Yes ( ) No

Pearson does not offer this qualification, therefore we do not feel best placed to offer comment on this question.

Question 20: Do you have any comments on our proposed guidance for GCSE engineering?

( ) Yes ( ) No

Pearson does not offer this qualification, therefore we do not feel best placed to offer comment on this question.

Question 21: Do you have any comments on our proposed Conditions and requirements for GCSE design and technology?

( ) Yes (X) No

Question 22: Do you have any comments on our proposed guidance for GCSE design and technology?

(X) Yes ( ) No

We are concerned about the status of the interpretations and definitions provided for AO3. The third sub bullet states that 'analysis and evaluation should draw on underpinning knowledge and understanding'. Knowledge and understanding as skills are represented in AO4 which has not been allocated to the NEA. This means that when assessing AO3 in the NEA students would be required to use their knowledge and understanding but marks could not be discreetly allocated to AO4. We suggest that further wording is added to the statement in AO3 to clarify this statement. For example 'analysis and evaluation should draw on underpinning knowledge and understanding although discrete marks for knowledge and understanding (AO4) should not be awarded'.

Equally, strand 2, the term 'wider issues' needs clarification because there is no common interpretation of this statement.

Question 23: Do you have any comments on our proposed Conditions and requirements for AS and A level design and technology?

(X) Yes ( ) No

We are concerned about the condition for the AS non-examined assessment, on page 55 (a) (i) which states that awarding organisations must provide AS students with a contextual challenge, since this is not as clear as it is for GCSE. For GCSE, on page 42, it clearly states that the contextual challenge cannot be released before June 1st to centres. Thus, we would like to have clarification on whether we can provide a list of contextual challenges in the specification or as a brief released yearly, as we believe this could cause comparability issues between the awarding organisations design and technology qualifications.

Pearson's position is that if there is going to be a contextual challenge set at AS then the challenge should be set through a brief, which could be provided to centres in December/January. The rationale for this position is that by doing so, we provide clear provision to centres and student's that they should not overly focus on the non-examined assessment and approach the specification content in a broad and balanced manner.

Question 24: Do you have any comments on our proposed guidance for AS and A level design and technology?

(X) Yes ( ) No

We are concerned about the status of the interpretations and definitions provided for AO3. The third sub bullet states that 'analysis and evaluation should draw on underpinning knowledge and understanding'. Knowledge and understanding as skills are represented in AO4 which has not been allocated to the NEA. This means that when assessing AO3 in the NEA students would be required to use their knowledge and understanding but marks could not be discreetly allocated to AO4. We suggest that further wording is added to the statement in AO3 to clarify this statement. For example 'analysis and evaluation should draw on underpinning knowledge and understanding although discrete marks for knowledge and understanding should not be awarded'.

Equally, strand 2, the term 'wider issues' needs clarification because there is no common interpretation of this statement.

Question 25: We have not identified any ways in which our proposals for GCSE engineering, and for GCSE, AS and A level design and technology would impact (positively or negatively) on persons who share a protected characteristic.[1] Are there any potential impacts we have not identified?

( ) Yes (X) No

Question 26: Are there any additional steps we could take to mitigate any negative impact resulting from these proposals on persons who share a protected characteristic?

( ) Yes (X) No

Question 27: Do you have any other comments on the impacts of the proposals on students who share a protected characteristic?

( ) Yes (X) No

[1] 'Protected characteristic' is defined in the Equality Act 2010. Here, it means disability, racial group, age, religion or belief, pregnancy or maternity, sex, sexual orientation and gender reassignment.

Accessibility of our consultations

We are looking at how we provide accessible versions of our consultations and would appreciate it if you could spare a few moments to answer the following questions. Your answers to these questions will not be considered as part of the consultation and will not be released to any third parties.

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

(X) Yes ( ) No

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

( ) Yes (X) No

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

( ) Yes (X) 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, and so on)
( ) Other ……..…….....

Which of the following document formats would meet your needs for accessing our consultations? (select all that apply)

(X) 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 ……..…….....

How many of our consultations have you read in the last 12 months?

(X) More than 5