

Royal Society response to Ofqual consultation on assessment arrangements for 2021

1. To what extent do you agree or disagree that the 2021 exams should not include more optional questions than usual?

-- Disagree

2. Do you have any comments on the use of optional exam questions in the 2021 exams?

The Royal Society has identified three broad actions which we believe Ofqual should consider undertaking in response to the Covid-19 crisis:

- Adjusting assessments and examinations to acknowledge that there is a high likelihood of disruption to schooling in 2020-21.
- Considering how to ensure students who have been affected by further loss of schooling in the 2020-2021 academic year are given every opportunity to succeed in their exams.
- Outlining with DfE, a medium-term (3-5 year) systemic strategy to mitigate the likely extended effects on the educational performance of young people due to the COVID-19 related disruptions to education that have already occurred in this past academic year, including compensating for this in their assessments.

The COVID-19 crisis has already significantly disrupted the education of young people, and its effects seem likely to continue to do so in 2020-21. Though Government planning assumes that schools will revert to a level of normality in September, given the risk of a 'second wave' or winter resurgence of the virus, uncertainty persists. Furthermore, the implementation of a policy of localised lockdowns could result in huge geographic variability in the educational experiences of students. Emerging evidence suggests that these local measures will disproportionately affect pupils from disadvantaged and some minority ethnic backgrounds.

In essence, though we are focusing on responding to the consultation questions sought here, the Society believes the situation is of sufficient seriousness to require the implementation of a range of flexible and creative mitigation measures.

The Royal Society supports the principle of optional questions in the 2021 exams on the basis that it would provide some flexibility to address an uncertain academic year ahead and therefore be a useful addition to the set of mitigation measures.

This mitigation should be considered alongside measures such as:

- reducing content;
- adjusting student outcomes using standardisation;
- providing resources in examinations; and
- centre-based assessment and delaying examinations.

If Ofqual decides against optionality, some of these other mitigations will need to be utilised and strengthened in its place.

We are aware that there is some reluctance provide optional exam question choices – Ofqual have stated two reasons:

- Research has shown how students who have completed a full curriculum benefit further from being able to select which questions they wish to answer.

- Ofqual has stated that lower attaining pupils, pupils from disadvantaged backgrounds and pupils with special educational needs experience greater examination anxiety when presented with a choice.

The Royal Society challenges whether the rationale based on evidence gathered and applied under normal circumstances (eg: where there is an expectation that students have completed the full course) is applicable under the current situation. The Society views the distress of facing a full complement of examination questions covering the entire specification for pupils who through no fault of their own or their schools, have simply not had the opportunity to cover the entire content, as a far greater risk to their anxiety levels and consequently the likelihood of success.

In keeping with our stated view on a systems approach informed by evidence and scenario planning, the Society also believes it would be better to make changes to the examinations now, giving teachers, pupils and awarding organisations as much time as possible to adapt. It is preferable to have in place mitigations that ultimately prove to be unnecessary, rather than risking being forced to make these changes at a later point due to changing circumstances with the virus, including the impacts of local lockdowns.

3. To what extent do you agree or disagree that the number of exams taken for each subject in 2021 should be the same as usual?

-- Disagree

4. Do you have any comments on the number of exams taken for each subject in 2021?

As outlined in relation to multiple optional exam questions this is an approach which alongside others, should be given further consideration to mitigate risks arising from potential disruptions in the coming academic year.

The Society believes that on balance, and given the seriousness of the current circumstances, it would be better to reduce the quantity of content schools need to be able to cover in the coming academic year and reduce the amount that will need to be assessed as a result.

Though a reduction in content would not be ideal, it may prove to be a pragmatic and realisable option both for pupils and their teachers in circumstances where they were unable to complete owing to potential disruptions from Covid-19. As before, we wish to emphasise a need to put in place this mitigation as soon as possible.

Any decision to reduce content would need to be clearly communicated as a temporary emergency measure. It will be also be important to stress that grades will denote comparable level of achievement to previous years, and we would expect Ofqual and the awarding organisations to communicate clearly how the examination grades gained under such circumstances will be valid and reliable measures of aptitude and attainment.

Another possibility which may be worth exploring, particularly for GCSE Mathematics, could be a reduction in the number of papers for candidates aiming for a grade 5 and below or foundation.

5. To what extent do you agree or disagree that the exams taken in 2021 should not be longer than usual?

-- Disagree

6. Do you have any comments on the length of exams in 2021?

As outlined in relation to optional exam questions longer exams, or 'open book' exams are approaches which alongside others, that should be given further consideration to mitigate risks arising from potential disruptions in the coming academic year.

However, we understand that longer exams have the risk of increasing the anxiety and stress on students, especially those who are lower attaining and particularly at this different time. Students sitting a number of lengthy exams, one after another, may not perform to their fullest potential. Both arguments should therefore be considered alongside reductions in the total number of exams.

7. To what extent do you agree or disagree that the **GCSE** timetable should start after half term in 2021 if results can still be released on 26 August 2021?

-- Agree

8. To what extent do you agree or disagree that the **GCSE** timetable should start after half term in 2021 even if this necessitates a delay in the release of results?

-- Agree

9. What would be the advantages and disadvantages of delaying the start of **GCSE** exams in 2021?

As outlined in relation to optional exam questions this is an approach which alongside others, should be given further consideration to mitigate risks arising from potential disruptions in the coming academic year.

We understand that delaying the start of exams will cause challenges further downstream for the awarding organisations in marking and potentially for further education and university admissions processes. However, this is a challenge that can be planned for and is unlikely to be unfeasible compared to the drastic measures needed in this academic year. Ofqual and DfE will need to work with other key stakeholders, including in Further and Higher Education, to put in place a strategy that addresses all of these systemic effects, ideally as part of a multi-year strategy of mitigation.

While the additional teaching time gained from delaying exams for a few weeks may be limited, there is a strong likelihood that schools will welcome the comfort provided by its availability, especially where students may have missed a significant amount of class time in the event of an additional lockdown.

Ofqual should advise further education and sixth form providers to be flexible in their entrance requirements for the following academic year; avoiding conditional offers that would not be possible to achieve were there a delay in awarding results.

10. To what extent do you agree or disagree that the **A level and AS** timetable should start after half term in 2021 if results can still be released on 19 August 2021?

-- Agree

11. To what extent do you agree or disagree that the **A level and AS** timetable should start after half term in 2021 even if this necessitates a delay in the release of results?

-- Agree

12. What would be the advantages and disadvantages of delaying the start of A level and AS exams in 2021?

As outlined in relation to optional exam questions this is an approach which alongside others, should be given further consideration to mitigate risks arising from potential disruptions in the coming academic year.

We understand that delaying the start of exams will cause challenges further downstream for the awarding organisations in marking and potentially for further education and university admissions processes. However, this is a challenge that can be planned for and is unlikely to be unfeasible compared to the drastic measures needed in this academic year.

Ofqual and DfE will need to work with other key stakeholders, including in Further and Higher Education, to put in place a strategy that addresses all of these systemic effects, ideally as part of a multi-year strategy of mitigation. Given that delays could impact on students' progression to work or further study, prioritising the timely marking of A Level assessments over GCSE may be prudent.

While the additional teaching time from delaying exams by a couple of weeks seems limited, that time will be all the more precious to schools where students may have missed out on weeks or months of class time in the event of additional lockdowns.

14. Are there other potential equality impacts that we have not explored? What are they?

The mitigation strategies which Ofqual has outlined seem to focus largely on addressing practical challenges presented by specific learning or assessment activities which cannot take place owing to the need to meet specific restrictions related to COVID-19.

While these mitigations are constructive, the Society is concerned they do not address the inequity caused by the highly variable educational experiences students will have received in this academic year, and disruptions they may experience in the coming year.

The Society has convened the multi-disciplinary DELVE (Data Evaluation and Learning for Viral Epidemics) group which will soon be providing further advice to Government on the necessity and impacts of school closure policies in response to COVID-19. This advice will be stressing that significant learning loss has already occurred and that the impacts of this are not uniform, with highly variable educational experiences across the country.

It is already well understood that time away from school risks further widening the attainment gap, with an extensive body of research showing how poorer students fall further behind during breaks from school, such as the summer holidays, and that in general student engagement is lower in schools with highest levels of deprivation.

There is already strong published evidence that the pandemic has exacerbated this pre-existing gulf in between the most and least advantaged young people in our society, including a report published by The Sutton Trust. <https://www.suttontrust.com/our-research/covid-19-and-social-mobility-impact-brief/>

An additional area of concern arises from the fact that some minority ethnic communities are particularly susceptible to COVID-19 infection and are more likely to experience more pronounced effects. There is therefore a risk of greater disruption on the educational experience of students living in minority communities, particularly given the Government's stated preference for a policy of localised lockdowns in communities where there are surges in the infection rate.

15. We would welcome your views on how any potential negative impacts on particular groups of students could be mitigated.

As stated above, Ofqual has already considered a series of proposed mitigations (see Question 1) and at least some of these should be implemented to account for the varied educational experiences. We cannot completely predict which groups of students will be affected in what way, so the more mitigations that can be put in place now, the better prepared the system will be.

Assessments/judgements by teachers, with appropriate external moderation and drawing on the experiences of the 2020 assessments, could be used to compensate for digressions in students' results. Centres who have faced significant additional disruption would be permitted to apply this to individual students' experiences. It would be best to put in place this provision to do this now in case it is needed, rather than be forced into it by events later should there be particularly severe disruption. Putting in place this measure now will ensure the necessary training, advice and support for teachers is in place.

A further alternative could be the use of a new category of special consideration to for particular students or whole centres which have faced additional disruption due to COVID-19 (eg. a local lockdown). Special consideration is designed to cover students whose exam performance is affected by temporary illness, injury or unforeseen incident, and guidance is in place for 1 – 5% tariffs in the JCQ guidelines on special consideration. Given the unprecedented reduction in teaching time, such tariffs may need to be increased. Examinable boards may be able to use statistical modelling to establish an appropriate tariff after exams are complete in 2021.

Another option to consider would be the standardising of grades to take into account students' prior attainment and centre historical data while accommodating for those centres for which there is no historical data available.

More generally we would urge Ofqual and DfE to begin developing a longer-term approach to managing effects of COVID-19 measures which might continue to be noticeable for years to come. Rather than just be looking to address disruptions this academic year, we believe there needs to be a 3-5-year strategy for mitigations which can be phased down or adjusted overtime.

Given that in years to come there is the possibility of further pandemics or other disruptive events, it would be worth beginning work to consider the resilience of the assessment system in general. One element of this is that the move to summative assessment in recent reforms has led to a system which is less resilient compared to modular assessment.

Subject Questions	Answers
Science -- Practical endorsement	<p>We recognise the need for temporary changes to the practical endorsement to comply with potential safety risks in undertaking these activities and complying with social distancing restrictions.</p> <p>However, both DfE and Ofqual should make explicit their continuing commitment to assessed practical science as part of the narrative accompanying these arrangements.</p> <p>It is also important to ensure that those who take combined sciences get the fullest possible experience of this, as there is a risk of schools seeing these students as additionally unprepared for progression to A Level. This risk has equality implications as disadvantaged students are more likely to take combined rather than separate science subjects.</p> <p>Interim findings from the Practical Assessment in School Science (PASS) project - led by the University of York Science Education Group and King's College, London - suggest that for those students not completing a practical for themselves, those watching a teacher demonstration achieved significantly higher scores in GCSE exam questions on average than those watching a video or reading about it. Observation of lessons suggests the quality of purposeful discussion may be part of the reason for these differences; in teacher demonstrations students were given opportunities to test their thinking against the teacher's expert view. This research is being funded by the Wellcome Trust, Gatsby Foundation and Royal Society.</p>
GCSE Mathematics	<p>The Society would like to suggest alternative approaches for GCSE mathematics examinations in Summer 2021 that would involve an element of optionality, such as</p> <ul style="list-style-type: none"> • Reduce number of papers required, e.g. two papers for all students and paper 3 only for candidates aiming at grade 6 and above • Optional content would need to be clearly explained to candidates, especially those with maths/exam anxiety • Reduce content by the equivalent of one term (there is a body of work which is generally taught in year 11 across centres) • Standardise grades using historical data (centre and/or student) • Provide a crib sheet with formulae
A level mathematics	<p>While the Society understands that previous research in mathematics examinations indicates that there may be disparities between the scores of equally able candidates taking optional routes through papers (page 58, Consultation document), given this year's disruptions to student learning, the models presented below suggest a flexible approach which will not unfairly disadvantage or penalise candidates who have had less opportunities to access</p>

the curriculum. The models for A level mathematics could free up teaching time to address lost learning and obstacles that could be created by any public health restrictions.

Model 1. Adapted model without optional components

- Additional time across all papers
- Maintain full content and reduce weighting of A2 content in marking
- Reduce weighting of A2 content in marking

Model 2. Adapted model with compulsory and optional components

- Additional time across all papers and reduce weighting of A2 content in marking
- Compulsory items: AS (Y12) pure, mechanics, statistics and A2 (Y13) pure
- Optional items: A2 (Y13) covering mechanics, statistics and pure in various combinations, e.g. (a) mechanics and statistics, or (2) mechanics, statistics and/or pure.

Model 3

- Reduce content by the equivalent of one term, same number of marks and reduce weighting of A2 content in marking