

A Level Practical Science Consultation 2015
Ofqual
Spring Place
Coventry Business Park
Herald Avenue
Coventry
CV5 6UB

13 July 2015

Dear Sir/Madam,

I am writing on behalf of the Institute of Physics in response to the Ofqual consultation regarding conditions and guidance for new AS and A Levels in the sciences.

The Institute of Physics is a leading scientific society. We are a charitable organisation with a worldwide membership of more than 50,000, working together to advance physics education, research and application. We engage with policymakers and the general public to develop awareness and understanding of the value of physics and, through IOP Publishing, we are world leaders in professional scientific communications.

We appreciate the opportunity to respond to this consultation, and would like to raise the following issues in response to the published guidance document.

Firstly, it is not clear what process is to be followed if a school is found to be deviating from the correct procedures and is subsequently found guilty of malpractice and/or maladministration. What will be the impact on the students? If they are all failed, this would not be a fair assessment of their capability, as they were not given the chance to demonstrate it. Note that this situation is not directly comparable with students being poorly taught, as, in that case, some students would still be able to compensate by working independently. Similarly, if they all received a pass, then this too would not be fair on those students who have actually performed the work required of them and would devalue the exercise.

Secondly, it is not clear how far teachers are able to depart from the standard lists of experiments put out by the awarding organisations (AO) without jeopardising the performance of their students. Specifically, if schools were to depart from the standard lists, what would they have to do to demonstrate that their students are satisfying the skills requirements, and to what extent will the specific experiments

form the basis for the practical-based questions on the exam? We would like teachers to be allowed a degree of flexibility in the experiments so that they may choose how they structure those experiments. As things stand however, the extent to which this flexibility is either allowed or is wise for teachers to exercise is unclear; if the questions rely even partly on knowledge of, or familiarity with, specific experiments, then teachers will be reluctant to depart from the published lists.

Thirdly, there needs to be more clarity as to what constitutes a laboratory session. If there have to be at least 12 sessions, it would be useful to be more explicit as to the criteria by which these sessions will be defined.

Finally if, as the consultation document notes, in some circumstances the AO is to perform the assessment, it is unclear as to how this would work if the assessment is to be carried out across a period of two years, involving direct observation of student activity. Will the AO make periodic visits, or visit towards the end of the period and carry out some sort of examination? It would also be helpful to know the circumstances in which an AO would be required to perform this function. Will it be feasible to recruit and deploy enough experienced inspectors to make the CPAC visits that are being proposed? Our main concern is that we lose classroom teachers (even temporarily) to a workforce of moderators.

Once again, we appreciate the opportunity to respond to this consultation, and we would be happy to discuss further the above concerns.

Yours faithfully,



Philip Britton
Vice President, Education
Institute of Physics