



Secondary school accountability

A SCORE response to the Department for Education consultation

1 May 2013

SCORE draft response to the Department for Education's consultation on secondary school accountability

Introduction

1. SCORE is a partnership of organisations that aims to improve science education in UK schools and colleges by supporting the development and implementation of effective education policy. The partnership is chaired by Professor Julia Buckingham and comprises the Association for Science Education, Institute of Physics, Royal Society, Royal Society of Chemistry and Society of Biology.
2. In summary:
 - a. SCORE is in agreement with the Department for Education that “assessment and accountability systems should be the servant, not the master, of excellent teaching”¹. We would also support measures that “promote pupils’ deep understanding across a broad curriculum and maximise progress and attainment for all pupils”.
 - b. SCORE has serious concerns that the accountability measures outlined in the consultation contain no explicit protection for a balanced science requirement for all students at Key Stage 4. We are concerned that an unintended consequence resulting from the introduction of these measures could be a fall in the numbers of students taking a balanced programme of all three sciences (biology, chemistry and physics) at Key Stage 4. This will be compounded by other measures affecting schools, such as there being no requirement on the growing number of academies and Free Schools to follow the National Curriculum. All of these changes are highly likely to have an impact on the numbers of students progressing to study the sciences at Key Stage 5.
 - c. SCORE is supportive of the proposal to encourage more students to study computing, but not to the detriment of the three core sciences. SCORE would prefer to see computer science considered as a facilitating subject like maths and English, rather than classified as a science for the purposes of the EBacc.
 - d. SCORE proposes the inclusion of a progression measure that would measure numbers of students who progress to particular subjects, including the sciences, beyond 16. We also propose that schools report on uptake of subjects by gender and socioeconomic background, and for schools to report the proportion of specialist teachers they have teaching each subject, at each Key Stage.
 - e. SCORE is very concerned about the introduction of the proposed sample tests at Key Stage 4. They would place an additional burden on students at a time when they are preparing for their examinations, and it is not clear what additional value the tests could bring. In addition, there are particular issues around their introduction in the sciences, given the different pathways available to students at Key Stage 4; not all students will have covered the same curriculum in all three sciences by any particular set date, which is a prerequisite for a national sample test.

¹ Secondary School Accountability Consultation, Department for Education, section 2.2

Accountability measures

3. SCORE is pleased to see that the floor standards will now include a Value Added measure, as this should be a fairer way of assessing schools' contribution to students' achievements. However, it places a considerable emphasis on the results of the Key Stage 2 tests, and we would strongly suggest that the proposals are piloted before being introduced across all schools. This could be carried out retrospectively with existing data.
4. *Effect on the sciences*
 - a. While SCORE supports the notion that schools should have flexibility in what they offer to their students, we are very concerned about the effect of the eight-point measure on the coverage of the three core sciences of biology, chemistry and physics in Key Stage 4.
 - b. Although schools are required to include three EBacc subjects in their students' allocated qualifications, there is no requirement for any of these to be a science. The only safeguard that students will continue to study all three sciences at Key Stage 4 is the National Curriculum, which is no longer a requirement for a growing number of schools; the Ofsted requirement for a 'broad and balanced curriculum' may be some guarantee, but we do not feel it is anywhere near strong enough. The fact that combined science would only count for one slot of the eight (though still counting as two qualifications for the students concerned) is likely to mean that fewer students are offered, or choose, this as an option, and, while we support increased access to triple science GCSEs, these are not the best option for all students.
 - c. We are aware that the EBacc remains as a headline performance measure (though not a floor standard measure like the average point score measure), and that it requires students to have taken three sciences and passed two of them. However, the inclusion of computer science in this measure is likely to have an impact on the uptake of the three core sciences. SCORE welcomes the recognition of the importance of computing, and would like to see it playing a central role in a range of subjects. However, its inclusion in the EBacc alongside the three sciences is likely to have a negative impact on all four subjects, as this will force students to choose between them.
 - d. It is hard to foresee what the impact of the inclusion of computer science in the EBacc will be, since schools are likely to address the teaching and timetabling difficulties that come with the addition of another science subject in different ways, but SCORE urges the Department to monitor the situation carefully, and to be aware that any negative unintended consequences would be difficult to reverse.
 - e. An additional issue is that of curriculum coverage. Although the three core sciences are separate subjects in their own right, they also work as a suite of subjects that address common ideas about the scientific method and other aspects of working scientifically. Any measure which means that students no longer achieve full coverage of this shared curriculum will mean a loss of the deep understanding the reforms are aiming for, and will also have an impact on students' ability to progress to A-level in the sciences.
5. *How the value-added measure will work*
 - a. It is not yet clear how progress will be measured; it would appear to rely on the results from the Key Stage 2 statutory tests, which are only taken in English and

mathematics, and will not necessarily be available for all students (for example, those who move between the independent and state sectors, or students who arrive in the country during their secondary school years).

- b. No decision has yet been taken about how points will be allocated to grades achieved; this could have a significant effect on the impact of the measure, so it is important that further advice and consultation is undertaken to model these possible outcomes.
 - c. Any new measure that is introduced will need to be comprehensible to all users, including parents and students.
 - d. SCORE would prefer to see a separate measure for vocational qualifications used alongside the measures outlined for academic qualifications. This would ensure that schools can be measured on their strengths and not feel they need to select qualifications on the basis of their weight in performance tables. Imposing an equivalence between vocational and academic qualifications risks distorting both.
6. SCORE is also in favour of additional measures for consideration that could go some way to addressing some of the imbalances in take up of particular subjects. We propose the inclusion of a progression measure, looking at numbers of students who progress to particular subjects, including the sciences, beyond 16. We also propose that schools report on uptake of subjects by gender and socioeconomic background, and for schools to report the proportion of specialist teachers they have teaching each subject, at each Key Stage.
7. While SCORE agrees that it is important, when considering schools' and students' accomplishments, to look at achievement beyond formal qualifications, care must be taken to ensure that this does not unfairly benefit schools in areas that might have greater access to a wider range of activities.

Data transparency

8. SCORE supports sound evidence-based policy, and would be in favour of a centralised means of accessing data for research.
9. However, we have serious concerns about the proposal for the inclusion in such a database of non-standardised test data from schools, for a number of reasons:
 - a. With no guarantee of standardisation between schools in the data they were inputting, it would be of little use either to the Department for Education or wider users and could provide a distorted impression of student achievement.
 - b. There could be additional pressure on schools both to over-assess their students and to allocate resources to the inputting of data. This would have a detrimental impact on both students and teachers, adding additional burden to both.
 - c. It could become a means of forcing schools to buy in expensive external tests that are inappropriate for their students.
10. The proposal to include non-standardised test data seems in direct contradiction to the separate proposal that removes the need for schools to send Key Stage 3 results to the Department for Education. SCORE supports the latter proposal, since the Key Stage 3 test data are of most use to students, teachers and parents.

Sample tests

11. SCORE is concerned that the introduction of additional tests at Key Stage 4 will add to the assessment burden for students and teachers, particularly those students selected as part of the sample. It will also be difficult to timetable the tests late enough to ensure reasonable curriculum coverage, but early enough to avoid interfering with preparation for GCSE examinations.
12. There are particular issues for the tests in science, since the tests will need to cover some content from biology, chemistry and physics. However, not all students will necessarily be taking all three sciences - a situation which, as we outline above, could be exacerbated by the introduction of the proposed accountability measures.
13. SCORE shares the concerns of Ofqual and the Department for Education that standards of GCSEs have not been maintained. However, we suggest that the way to remedy this would be to address the issues with those qualifications, rather than introducing a further set of tests. This requires looking closely at the quality of the assessment, and ensuring that it appropriately tests the content of the specifications, including appropriate measures of practical work in the sciences. If GCSEs were reformed in this way, an additional sample test at 16 would be unnecessary.
14. SCORE is also concerned at the effect the development of these tests will have on curriculum development. If it is the intention to identify a common 'core' that can be used for the sample tests, this is likely to have the effect of limiting the scope of future curriculum development.