Whatever happened to school-based assessment in England’s GCSEs and A levels?

Abstract
For the past 30 years, school-based assessment (SBA) has been a major feature of GCSEs and A levels, the main school examinations in England. SBA has allowed teachers to allocate marks to their students for the level of skills that they show in their work. Such skills include for example, experimental techniques in science, performance in drama and enquiry skills in history. These skills can be difficult to assess validly in written examinations. Of course, SBA can also provide an alternative form of assessment for the same knowledge and skills from timed, written examinations taken at the end of the course of study. At the start of the millennium, concerns grew that plagiarism, excessive input from teachers and parental support were distorting SBA marks and adversely affecting learning. Attempts were made to tighten the arrangements around SBA but in the context of England’s school accountability arrangements; these did not prove wholly successful. The current, substantial reforms have considerably reduced the use of SBA, entirely removing it in some subjects, relying much more on exams. This paper describes the influence of school accountability arrangements on the design of new GCSEs and A levels and includes evidence from a teacher survey of assessment practices in schools. It explores the principles by which decisions have been made regarding the assessment arrangements determined for different subjects. It considers how the reduction in SBA might have a positive influence on the taught curriculum.

Keywords: school based assessment, reliability, controlled assessment, accountability

1. Background
The origins of England’s General Certificate of Education (GCE) A level exams can be traced back to 1838 when the University of London set a matriculation exam to use as an objective selection method for entry to university. During the nineteenth century, other universities responded to the demands of schools by providing syllabi and exams for students to take locally. The Higher School Certificate overtook these exams in 1917 and that led to A levels, which were first examined in 1951.

Since its introduction in 1951, the A level system has always served two main functions: assessing and certificating
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achievement against a curriculum defined in a published syllabus and permitting universities to identify students for their courses.

Upon its introduction, the A level was targeted only at the highest achievers. However, it has been studied by an increasing number of students and is now taken by over a third of the national cohort. Whilst there are other pre-university exams available such as the International Baccalaureate, A levels remain the principal tool of university selection for students from England.

A levels are usually taken by 16 to 18-year-olds in schools and colleges across the country but they are available to anyone who wishes to gain a qualification in a subject in which they are interested. A levels are intended to be studied over a two-year period. In the summer of 2016, there were 770,000 subject entries taken by approximately 250,000 students in England.

A levels are provided by four independent exam boards which compete with each other for entries from schools and colleges. They are available in over 45 subjects. There are no compulsory subjects. A levels can be taken in any combination desired to reflect the interests (or intended progression) of the student. It is accepted that a typical A level student will take three or four A levels at the upper secondary phase. That makes each student’s curriculum much narrower than in many countries. On the other hand, the lack of a compulsory element or any rules concerning the combination gives the student the freedom to choose a programme suited to themselves and their planned progression route.

In addition, England has had some form of national exam for 16 year olds for almost 100 years. In 1918, there were the first awards of the School Certificate. You needed to pass in mathematics, English and three other subjects to gain the certificate.

In 1951, at the same time as the GCE, A level was introduced and the School Certificate was replaced by the GCE O Level examination. This was a subject-based certificate – one certificate per subject.

The Certificate of Secondary Education (CSE) was a school-leaving exam awarded from 1965 alongside O levels. O levels were aimed at the highest achievers, mostly those who would progress at age 18 to university. CSE was aimed at those more in the middle of the attainment range. Before the introduction of the CSE, the majority of schoolchildren left school without any qualifications at all.

In 1988, the General Certificate of Secondary Education (GCSE) replaced O levels and CSEs in England as the principal school-leaving qualification. GCSEs were designed to cater for the same group of schoolchildren who had previously taken O levels and CSEs. Examinations became much more inclusive and many more young people were urged to study and enter qualifications at the age of 16.

GCSEs are provided by the same four exam boards that provide A levels and are available in more than 70 subjects. Each year approximately five million GCSEs are awarded.

2. Coursework

CSEs mostly used school-based assessments (SBA) of various sorts. Prior to the introduction of CSE in the 1960s, teachers played little part in the assessment of A and O levels. By the 1970s, typical A and O level courses were still assessed through written exams at the end of
the course but SBA had begun to appear in certain aspects of particular syllabi. The launch of GCSEs in the 1980s changed the position markedly.

The assessment in most GCSEs comprised a combination of exams taken at the end of the course and some SBA called “coursework”. Coursework was introduced mainly as a means of assessing elements that are difficult to evaluate accurately through written exam papers, for example, practical skills in subjects such as design and technology, drama and art, extended writing in English, experiments in science and research skills in history, geography and psychology. The inclusion of such aspects of the curriculum sometimes influenced the way that subjects were taught and learned, for example, encouraging the teaching of science through practical work.

Coursework aimed to give students the capacity to demonstrate their ability to work at their own pace and to take responsibility for their own learning. It also gave them an opportunity to study a topic in-depth, often transferring skills from one subject to another. Teachers were able to set tasks to suit the level and interest of individual students.

Coursework was defined as any type of assessment of student performance made by the school, in accordance with the syllabus of the course of study and that contributes to the final grade awarded for a GCSE (SEC, 1986). Some coursework was done out of school hours while some was done under supervision in school. The exam boards introduced moderation processes to check that teachers in different schools were applying the mark scheme for each coursework task appropriately and consistently. Almost all GCSEs included an element of coursework.

Following the introduction of GCSEs, A level assessment schemes began to change, with around two-thirds also including coursework. As with some GCSEs, this often involved assessing elements that are difficult to assess validly through written exam papers. It also opened opportunities for different approaches to structuring A level subjects. For example, the Cambridge History Project A level, introduced in 1995, was arranged around the themes ‘People, Power & Politics’ and had a significant SBA component; the Wessex Project comprised modular A levels with students able to take some assessments during the course.

In some A level subjects, coursework was common but a written or practical examined option could often be taken as an alternative to coursework.

The use of coursework was not supported in all quarters. Early concerns focused on manageability. There was wariness about its use, particularly when one English GCSE that used 100% coursework and no exams became so popular that the great majority of 16 year olds were taking it.

Just three years after the first GCSE certificates were awarded, John Major, the then Prime Minister, said in a wide-ranging speech on education on 3 July 1991 (http://www.johnmajor.co.uk/page867.html):

> This means addressing those criticisms of GCSE that give rise to a suspicion that standards are at risk. It is clear that there is now far too much coursework, project work and teacher assessment in GCSE. The remedy surely lies in getting GCSE back to being an externally assessed exam, which is predominantly written. I am attracted to the idea that for most subjects a maximum of 20 per cent of the marks should be obtainable from coursework. This, of course, is the sound principle we have recently proposed for A-levels.
Although following the speech lower limits were placed on GCSE coursework weightings, they were mostly not as low as 20%. For example, the limits were 20% in mathematics and religious studies, 25% in French and geography, 40% in English and 60% in design and technology and art and design.

By the early 2000s, coursework had often become less “the work of the course” and more set piece assessments. Increasing concerns surfaced about marking reliability, the authenticity of the work, teaching practices, the impact of coursework on available teaching time and learning, and if coursework was contributing to grade inflation. In 2005, the Qualifications and Curriculum Authority (QCA) carried out a review of GCSE coursework to determine whether coursework was operating effectively as an assessment instrument, to identify any changes that might need to be made and to put those changes into effect (QCA, 2005).

QCA concluded that the benefits of coursework (such as the motivational aspects) outweighed the drawbacks but, nonetheless, it identified ways in which coursework could be improved, including:

• improved guidance for teachers on setting coursework tasks;
• clearer guidelines explaining the limits of permitted help and advice from teachers and parents;
• more checks by exam boards on schools’ internal standardisation of marks and better guidance on standardisation;
• a subject-by-subject evaluation of the weighting and value of coursework assessment to inform better-designed coursework in future syllabi.

3. Controlled assessment

An independent report in 2007 investigated the findings of this review further and made a number of recommendations related to how “the current controls relating to internal assessment in GCSE… should be developed and supplemented to promote greater public confidence across all subjects that internal controlled assessment is valid, reliable and manageable” (Colwill, 2007: 35). There were fewer concerns at this time regarding coursework in A levels.

QCA used the report’s recommendations to develop new GCSEs for first time teaching in 2009, including the replacement of coursework by “controlled assessment”.

Controlled assessment is a form of SBA that aims to encourage a more integrated approach to teaching, learning and assessment as well as to enable teachers to confirm that students have carried out the work themselves.

The rules for controlled assessment (QCA, 2008) required each GCSE subject to have:

• one of the three specified weightings for controlled assessment: 0 per cent, 25 per cent or 60 per cent; and
• predetermined levels of control or supervision in controlled assessment (limited, medium and high) applied at three stages in the assessment: task setting, task taking and task marking.

For example, a high level of control in task setting could in some subjects, mean that teachers must select controlled assessment tasks from several comparable tasks provided by the exam board. Alternatively, in a subject with limited control in task taking, the work of individual
students might be informed by working with other students but for assessment purposes, each student would provide their own response to the task.

At each stage of the assessment, QCA aimed to set the level of control as high as possible to ensure the authenticity of students' work, while also attempting to make the assessments manageable in practical terms for students, teachers and exam boards.

In 2010, QCA's regulatory functions were transferred to the newly established Ofqual. At that same time, controlled assessments were being introduced and concerns surfaced from schools, particularly about their manageability. Ofqual's research gathered evidence on the nature and scale of the problems (Ipsos MORI, 2011). There was a mixed picture, controlled assessment being seen as more of a problem in some subjects than in others. There were also manageability issues but while some schools reported struggling with the practical issues of operating controlled assessment, others reported that they had put in place systems to manage it.

Although some suggested replacing controlled assessment by written exams, others did not see that as a viable option as many GCSEs included practical elements that really could not be assessed in a written exam. Ofqual decided to investigate more thoroughly, in each subject, whether the controlled assessments being used really provided valid assessment of elements that could not be assessed in a written exam and whether they did discriminate between students.

Ofqual found that many GCSEs included content that could not be assessed in a written exam (Ofqual, 2013). However, in some cases, what was assessed by controlled assessment was not what was intended. For example, students taking GCSEs in foreign languages are supposed to be tested on their writing in those foreign languages. However, the way in which the writing controlled assessment in foreign languages operates encourages students to prepare a piece of writing, memorise it and then to repeat it under controlled conditions. The writing task then becomes predominantly a test of memory skills rather than an assessment of genuine communication skills through writing.

The review also found that the more specific controls that were intended to provide greater consistency for students and teachers had not always been effective. Guidance from an exam board can never be so precise that it deals with every eventuality so it is always open to interpretation. For example, where students under controlled conditions are allowed to use their notes but not an essay plan to produce the final piece of work, it is difficult in practice to agree on the difference between notes and an essay plan. This places a considerable responsibility on teachers to interpret the guidance. That led to concerns that one teacher may be interpreting guidance more severely or more leniently than those in other schools. Additionally, there were concerns about the way that the assessments functioned. Often the marks were compressed near the top of the range.

Thus, controlled assessment proved to be problematic. Some of those problems may be intractable: it does not always assess those aspects of a subject it was designed to assess, it can divert time from teaching and learning and be arduous to organise and deliver and too often, it is delivered inconsistently. Nevertheless, there is, of course, a critical place for SBA as there are important aspects of many subjects that written exams really cannot assess.

The design of the next generation of GCSEs and A levels was influenced by the review of controlled assessment described above and particularly by troubles with GCSE English results.
in the summer of 2012. New modular English syllabi included a higher weighting for controlled assessments – 60 per cent – and allowed schools to adopt different entry strategies. Some schools entered their students for exams early so they could re-sit; others left all the entries until the end of the course.

Over one third of the schools decided to enter students for the written exam early, mainly in January 2012. When the schools received the exam results, they calculated how many more marks each student would need to achieve their overall target grade in summer 2012. These marks were to come from the controlled assessments and schools had greater control over the administration and marking of those. Their calculations, though, assumed that the grade boundaries (cut scores) for the controlled assessments would remain unchanged from previous exam series.

It is likely that schools’ calculations influenced their marking of the controlled assessments and the examination boards subsequently found evidence of over-marking in them. It also became clear that boards could not achieve appropriate overall results for GCSE English without setting controlled assessment grade boundaries at marks that were much higher than in earlier series.

GCSE English results issued in August 2012 were comparable with previous years but there were widespread complaints from schools that their students had been disadvantaged and there was considerable media attention. Ofqual considered and rejected the suggestion that exam boards should change their grade boundaries. A consortium of schools and local authorities pursued a claim for judicial review. There was a High Court hearing in London in December 2012 and the application was subsequently rejected (Royal Courts of Justice, 2013).

By this time, Ofqual had developed considerable concerns about SBA. At the core of this was evidence, mainly but not wholly anecdotal, that practices in schools aimed at improving exam results, particularly in GCSE subjects most crucial to school accountability measures, were threats to the validity of SBA and undermined exam standards. In 2014, Ofqual commissioned research to gain a better understanding of school practices in this area. The evidence from the research formed part of a symposium on teacher ethics in assessment in Oxford in March 2015. ¹

Evidence was gathered from an anonymous online survey that was open to all who wished to comment. There was no framework for sampling respondents and all teachers with an interest in the work were able to respond so respondents were not necessarily representative of the wider teaching population. Because of these limitations, the findings have been treated with caution.

In total, 40% of the respondents to the survey (220 of 548) described at least one example of activities they had experienced relating to GCSE controlled assessment. The most commonly mentioned activities were that teachers provided marks, corrections, feedback and guidance to students to enable them to draft and re-draft their controlled assessment work. In these cases, students were reportedly given several attempts to make changes and improvements. As teachers are required to document feedback provided to students, some teachers mentioned that they only gave feedback that cannot be traced, such as verbal feedback or through the use of post-it notes that can then be removed from the file.

¹ See http://oucea.education.ox.ac.uk/wordpress/wp-content/uploads/2015/03/Meadows-teacher-ethics-mar15.pdf
Comments provided in the survey included:

*I can get a very weak student an A grade by breaking the rules, as I do, yet the poor Head of Department down the road doing controlled assessments in near exam conditions is lucky to get any work out of the student for an E grade.*

*The current system works very well for us as long as we ignore any rules for limited, medium and high control in controlled assessments. We ensure that every student always meets their target grade, whatever it takes.*

### 4. Non-exam assessment

Ofqual is now engaged in a major reform of all GCSEs and A levels. It took full account of the findings from the controlled assessment review and the other evidence described above. It made clear that the assessments in the new GCSEs and A levels must be able to withstand the range of pressures to which they are subject. Ofqual decided that assessment should mainly use exams, with other types of assessment used only where they are really needed. The successor to coursework and controlled assessment is called “non-exam assessment” (NEA).

Exams are defined as assessments set by the exam board, designed to be taken simultaneously by all relevant students at a specified time and taken under specified conditions (including conditions relating to supervision during the assessment and the duration of the assessment). NEA is therefore a form of assessment that does not match that definition (Ofqual, 2016). As described below, though, that does not mean that any design will be acceptable.

Using its experience from the first two phases of the development programme, Ofqual has developed a set of requirements it has applied, or could have applied, in different aspects of GCSE and A level assessment.

In terms of the balance between exams and SBA, the main principle used has been to select the mode of assessment required in each aspect of a subject that optimises validity and thus, is the most defensible one. In making that selection, a balance is determined that provides the most valid assessment against threats to that validity and wider concerns. Threats to the validity of NEA may come from external pressures such as the use of the exam results in accountability or selection systems. This may make it harder for teachers to mark accurately. Threats may also come from challenges with authenticity depending on the nature of the non-exam assessment and how it is carried out, from the manageability of the assessment and the amount of course time it requires or from other sources.

In practice, these principles have led to a reduction in the use of SBA: it is present in fewer subjects and where it is used, the weighting is usually less than it was. The following table shows some examples in GCSE subjects.

<table>
<thead>
<tr>
<th>Subject</th>
<th>SBA current weighting</th>
<th>SBA new weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>English literature</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>Physics</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>Geography</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>History</td>
<td>25%</td>
<td>0%</td>
</tr>
<tr>
<td>Business</td>
<td>25%</td>
<td>0%</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th></th>
<th>SBA current weighting</th>
<th>SBA new weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>French</td>
<td>60%</td>
<td>25%</td>
</tr>
<tr>
<td>Design &amp; technology</td>
<td>60%</td>
<td>50%</td>
</tr>
<tr>
<td>Drama</td>
<td>60%</td>
<td>60%</td>
</tr>
</tbody>
</table>

The effects have been most significant in GCSE subjects that form part of the English Baccalaureate, one of the accountability measures by which schools are judged. It is made up of English, mathematics, history or geography, the sciences and a language.

Some of the “current” figures in the table above have been largely unchanged for many years. Therefore, in some subjects, these decisions do represent a significant transition in the assessment arrangements. For example, in GCSE science subjects, the threats to validity shown by some current practices in controlled assessment have led to assessment in reformed courses being wholly through written examinations. However, there are requirements for a minimum percentage of exam marks to be assigned to questions that draw on prescribed practical skills.

In cases where the nature of the subject may present challenges to the validity of external marking, such as art and design, assessment can be by the school, by the exam board or a combination of those. Where valid marking can be achieved through assessment by the exam board, such as the speaking test in GCSE French, assessment by the exam board is required. In some cases, with certain pressures and a fine balance exists between the pros and cons, such as in computer science, exam boards can select their approach. However, they are required to show that they have taken all reasonable steps to address the potential adverse effects of this chosen approach.

Ofqual also has two supplementary “rules” to the overall principle regarding NEA.

First, where Ofqual determines that NEA should be used in a subject, it specifies the weighting, the assessment objectives to be included and focus of that assessment, consistent with the specified content for that subject. Not to do so would permit a variety in approaches that could threaten inter-syllabus comparability of standards. Therefore, for example, in GCSE music there is a 60% weighting for NEA that must be equally split between composition and performance.

Second, where the most valid and sufficiently defensible way to assess a discrete part of a subject is through NEA but the accuracy of that assessment would be a major threat to the exam result, the outcome of that assessment may be separated from the exam.

One of the most contentious decisions taken was in the assessment of practical work in A level biology, chemistry and physics. Ofqual carefully looked at the current arrangements for SBA of practical skills and found that highly predictable assessments were leading to narrow teaching of these skills. Most students were getting similar results bunched around the top of the mark scale and the assessments were open to malpractice.

In response to this situation, Ofqual decided that in the new science A levels, students will carry out practical work and they will get a ‘pass’ or ‘fail’ grade for this practical work but it will be separate from their grade for the written exam. Exam boards will set out the requirements
for practical skills with each student carrying out at least 12 practical activities. The written exams will include questions in the context of these and other practical activities.

Similarly, in GCSE English language, it was decided that marks from the spoken language aspect of the subject would not contribute towards the subject grade but be reported separately from the written exam on a three-point scale.

In both of these examples, most particularly in the sciences, there were serious concerns raised that removing these aspects of the assessment from the main exam grade would lead schools to de-emphasise this aspect of the subject in their teaching. Early indications in the sciences are encouraging. In most schools, being freed from the need to carry out set piece practicals with the aim of maximising marks has allowed teachers to provide students with much better opportunities to develop their skills and for the exercise and development of these skills to be better integrated into teaching and learning over the full course of study.

5. Conclusions

England is, of course, not alone in using SBA. For example, it has been adopted in Australian states such as New South Wales, Victoria and Queensland, in some parts of the United States, including Nebraska, New York and Vermont and in Hong Kong (Qian, 2014). In each jurisdiction, the success of SBA depends on the context within which it operates.

In the last 30 years, the context within which schools in England operate has changed considerably. Secondary school leaders are now acutely aware of the serious consequences for them if accountability measures based on exam results are interpreted to mean that their performance is not acceptable.

Teachers are put in a difficult position when their assessments are used to judge their performance and that of their school and students. It can also create unfairness between schools because of different interpretations of the amount of assistance teachers can provide to students, different degrees to which teaching focuses on specific assessments and different marking expectations being applied to students’ work.

SBA practices in schools that 30 years ago may not have been considered at all may now be common. Consequently, many forms of SBA, particularly when used in the highest profile GCSE subjects, can no longer be relied upon to produce valid and reliable outcomes. So despite the benefits that SBA can bring to learning and motivation, its use in England’s GCSEs and A levels is now being restricted considerably to ensure that there is suitable confidence that students are being awarded appropriate grades in their exams.

References


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