

THE VALUE OF GCSES

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Young people, "are taught to pass tests, rather than encouraged to learn skills and are bored by endless testing...and crucially our exam-obsessed system is not designed to develop the softer skills, such as creativity, initiative, problem-solving, reasoning, and team-working that young people need for higher education, work and their future lives"¹

SUMMARY

Since being introduced for first teaching in 1986, GCSE qualifications have been subject to much criticism and their value is now being questioned. This paper gives a brief overview of the background to the GCSE qualification system, and then considers factors against and in favour of it. Ultimately, suggestions are made as to the way forward for GCSEs, and the implications for AQA policy both internally and when interacting with external policymakers.

BACKGROUND

Currently, General Certificates in Secondary Education (GCSEs) are available in more than fifty academic and applied subjects. GCSE is incorporated within Key Stage 4² and forms one of four pathways through the 14-19 education system, which comprises: GCSE and A-level; Diploma; Apprenticeships; and the Foundation Learning tier. The GCSE qualification was introduced in 1986 to replace the system of GCE O-level and Certificate of Secondary Education (CSE) examinations, which had been criticised for being segregated and two-tiered; the CSE, which often incorporated much teacher assessment, was seen as inferior to O-level, particularly in the eyes of admissions tutors and employers. The main aims of the GCSE were to improve the quality of education and to raise standards of attainment by stretching and stimulating pupils throughout the ability range. It was designed as a school leaving certificate, with the specific objective of bringing the level of attainment of at least 80% of sixteen year olds up to that of a pass (i.e. to at least the level then associated with the average, which was CSE grade 4³). The GCSE grade scale originally spanned seven grades, A to G, and most specifications were assessed linearly⁴. Three key features were incorporated: papers in some subjects were differentiated across tiers⁵, to enable all candidates to demonstrate what they knew, understood and could do; a substantial proportion of teacher judgement was incorporated into GCSE assessment via coursework, to measure and encourage the development of skills not easily

¹ Nancy Ellis, head of education policy at the Association of Teachers and Lecturers, quoted in The Telegraph, 23 Aug 2010.

² The key stage programmes of study were introduced as part of the National Curriculum for ages 5-16 in 1998 under the Education Reform Act. The National Curriculum consists of the following programmes of study: Key stage 1 (5-7 year old children); Key stage 2 (7-11 year old children); Key stage 3 (11-14 year old pupils); Key stage 4 (15-16 year old pupils).

³ The O-level was graded A to E, with candidates who fell below grade E being „unclassified" (U); A to C were pass grades, D was a „near miss" and E was a grade deemed to be equivalent to the old School Certificate pass level. CSE was graded 1 to 5: grade 1 was generally acknowledged to be the equivalent of an O-level grade C pass; grade 4 was equated to the performance expected from an average 16 year old; and candidates failing to achieve grade 5 were unclassified.

⁴ Modular (or unitised) assessment was introduced later and has recently become the norm. However, the current coalition plans to return to traditional style, end of course examinations in GCSE and A-level (White paper, 2010). A policy paper on discussing the advantages and disadvantages of linear and unitised assessment is currently in preparation.

⁵ Initially these were called levels and existed only in maths, but tiering gradually extended to other subjects and peaked in the 1990s.

tested in written examinations; and national grade *criteria* were developed, with the intention that these would give users of the qualifications a strong indication of pupils' knowledge, understanding and ability. The philosophy of the GCSE was, therefore, to provide an enabling structure which motivated all pupils to achieve their best performance.

However, since its inception the academic rigour of the GCSE has been continually criticised. This has led to various revisions, including particularly:

- in 1994, the introduction of the A* grade to distinguish the very top end of achievement;
- in stages during the 1990s, an increase in the amount of external assessment due to the placing of upper limits on the weighting of coursework within GCSE subjects, stemming from concerns relating to the reliability and authenticity of internal assessment, and anxiety that GCSE standards were not sufficiently demanding;
- in the most recent round of GCSE specification development, for which first full course certification is available in June 2011, a move from coursework to controlled assessment - which stipulates various levels of control for task setting, task taking and task marking - again due to concerns surrounding coursework authenticity. (At the same time there was a transfer from mainly linear to mainly unitised assessment and a reduction in the use of tiering.)

Meanwhile, since 1986 the environment within which GCSEs operate has changed substantially. Changing economic and social circumstances have meant that the workforce has become less involved in industrial production and more engaged in knowledge work, services, communication and innovation. In 1982 (pre-GCSE), the proportion of sixteen year olds staying on in full time education was 47% (QCA, 2006); by 2009, this proportion had risen to approximately 88% (ONS, 2010). Therefore, far from being merely a school leaving certificate, the GCSE is now seen as an entry requirement for further study and is, for many, the first step towards further education. Consequently, GCSEs are used and interpreted by many different parties in ways not originally intended⁶. Essentially, the prime functions of GCSEs are now to: demonstrate achievement across a range of subjects; indicate whether the student has sufficient understanding for further study in a subject, particularly at ages sixteen to eighteen; in subjects such as English and mathematics, provide information to employers and others, including further and higher education, about individuals' skills and competence; and indicate the success of schools in teaching essential skills.

Nevertheless, many question whether the taking of national examinations by British sixteen year olds is appropriate, particularly given that, from 2013, young people will have to stay in education or training until they are seventeen⁷. With the exception of GCSEs in English and mathematics, which are of critical importance to the labour market and university entrance, for the large majority of young people it is post-sixteen qualifications which are of most direct relevance to employers and future educational institutions. For these young people, critics argue, GCSEs have limited value. Indeed, in 2004, following a comprehensive review of 14-19 education, a series of radical changes were proposed including replacing GCSEs, A-levels and vocational qualifications with a single diploma available at four levels – entry, foundation, intermediate and advanced (Tomlinson, 2004). This was rejected by the then Labour government, which chose instead to focus on reforms to vocational qualifications and commission a review of the secondary curriculum, and it seems the present coalition government also remains committed to the GCSE examination system, albeit with some changes (Department for Education, White Paper, 2010). Even so, questions surrounding the continued need for GCSE examinations remain.

⁶ Newton (2007) discusses the wide range of uses, eighteen in total, to which assessment results generally (GCSE and GCE included) might be put.

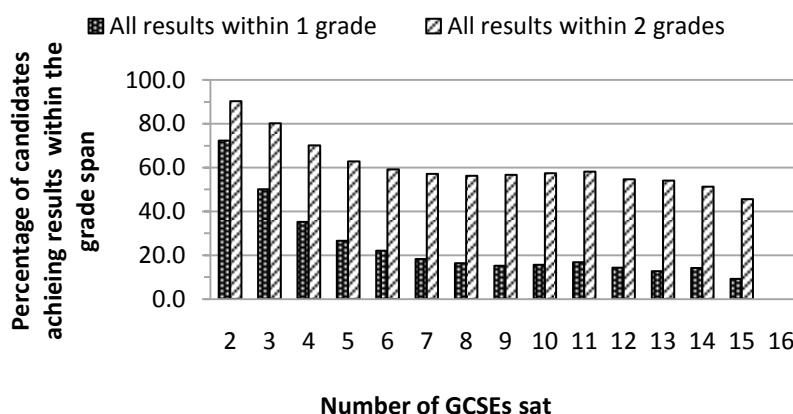
⁷ and, from 2015, the education leaving age will rise to eighteen.

THE CONS

One of the key disadvantages of the GCSE system, particularly in the current economic climate, is the **financial cost**. Secondary school examination fee expenditure has risen steadily from £154 million in 2001-2002 to £281 million in 2008-2009 (Ofqual, 2010a). Ofqual estimated the fees for GCSEs alone in 2008-2009 to have been £150 million, but this is likely to be an underestimate as it does not account for late fees or fees due to re-sits. It is potentially an even greater underestimate of future costs as GCSE fees have increased and, since the new specifications introduced in September 2010 are predominantly unitised, the costs to centres associated with re-sitting are likely to rise⁸.

The high costs are partly due to the **amount of external assessment** which now exists within the GCSE system, following the increase in the late 1990s. If anything, the situation has worsened in the recent transition from linear to unitised assessment, as in some subjects additional external assessment has replaced coursework. Arguably, excessive use of external assessment is educationally undesirable, as the curriculum is narrowed to consist only of what can easily be measured in an examination. Further, the assessments across different subjects can end up measuring similar constructs and consequently, at the extreme, provide little more than a broad measure of the candidate's general ability (although this is not to suggest, necessarily, that the candidates are not gaining subject knowledge at the same time). Some evidence of this can be seen in the narrow spread of the grades achieved by any one candidate: of the sixteen year olds sitting GCSE examinations across all JCQ awarding bodies in June 2009, over 50% of candidates achieved results spanning at most two grades⁹, almost regardless of the number of GCSEs taken (Figure 1)¹⁰.

Figure 1: Candidate achievement by number of GCSEs sat, June 2009



Source: June 2009 inter-awarding body GCSE data, 16 year olds only.

Nevertheless, the amount of external assessment that young people are exposed to is currently less influenced by factors relating to the best interests of young people's education than to the **use of GCSE results in league tables and as other measures of monitoring and accountability**. As part of the current monitoring systems, schools are required to set targets for, and measure them against, national expectations for the proportion of sixteen year olds achieving five A* to C grades at GCSE (or their 'equivalent' vocational alternative qualification in terms of points scores) including English and

⁸ Within AQA, provisional data from Andrea Kerr (Financial Analyst, Finance Division) for 2009-2010 indicate the total direct costs of running GCSEs to be approximately £42.8 million, with an entries income of £82.7 million. These costs include examiner fees, examiner expenses and meeting costs for question paper setting, QPECs, marking, moderating and awarding, but exclude late fees, amendments fees and overheads. Once the exclusions are included in the costings the differential between cost and income evens out.

⁹ for example, for those taking five GCSEs, AABA*B or ABBCA, but not ABCCD.

¹⁰ For interest, twenty-two candidates sat fifteen GCSEs in June 2009, of which ten (45.5%) obtained grades spanning a maximum of two grades; one candidate sat sixteen GCSEs but just missed the two grade span, obtaining two grade A*s, six As, six Bs and two Cs.

mathematics¹¹. However, this is in complete conflict with the curriculum requirements in England. Unlike many other countries in Europe and the rest of the world which expect candidates at age fifteen or sixteen to sit examinations in a group of, normally, four or five specified subjects (Bassett, Haldenby and Tryl, 2009; QCDA, 2010) - albeit not necessarily with the same high status as GCSE – pupils in England, Wales and Northern Ireland are no longer *required* to study any academic subjects apart from English, mathematics and science after the age of fourteen¹², nor are they *required* to take academic qualifications at all. Nevertheless, partly due to the use of GCSE results in league tables, in practice almost all pupils take at least one GCSE in both English and mathematics, and generally they take between seven and eight GCSEs. Many argue that the monitoring systems have had a negative effect on the reputation and perceived value of academic and vocational qualifications because their inherent worth has little importance in relation to that associated with them for league table purposes. Further, critics contend that the league table monitoring approach has created damaging incentives: to enter pupils for as many qualifications as possible; to focus resources at pupils on the C/D borderline to reach the five A* to C target; to enter pupils for overlapping qualifications (for example GCSE science and BTEC science) and to steer pupils towards „overvalued“ qualifications, especially those with multiple GCSE equivalence¹³. The latter motivation particularly has affected the GCSE take-up of subjects such as ICT and compulsory science, in which vocational versions tend to be offered to less academically able pupils. Work related learning may indeed be more appropriate for these non-academic pupils; nevertheless critics contend that gaining basic knowledge through a course with greater challenge would provide them with a more valuable learning experience. An additional concern is that, due to the link between poverty and underachievement, lower-income pupils are more likely to take up vocational courses. Ultimately, the use of GCSE results in the current monitoring systems is in conflict with the original philosophy of the GCSE qualification: the benefit of pupils is not now the key focus and, worse, the message conveyed is that a grade below C at GCSE equates with failure. The latter is perhaps unavoidable – it could be argued that the top grades were always likely to be the centre of attention - nonetheless encouraging that message is regrettable¹⁴.

To add to the damage, the practices and policies pursued by teachers and schools due to league tables have been linked to the **stress felt by candidates** in their GCSEs (Putwain, 2009). While stress is, to some extent, an inevitable, and not altogether negative, effect of examinations, there is no need to worsen the experience unnecessarily, nor to add to other causes of stress which are harder to avoid such as the external pressure exerted by others (parents, for example), the motivation to achieve and the fear of failure. Further, an effect of the external assessment burden more generally is the **amount of time spent on preparing for those assessments**. Inevitably, educational time is lost not only to the tests and exams themselves, but also to preparation classes, study leave, and „dead time“ after the summer examinations. Particularly in the now predominantly unitised system, this accounts for a substantial amount of school time for every pupil. It also encourages **negative backwash** on both teaching and learning: due to the increased pressure of having to fit the necessary teaching into less actual lesson time, teachers tend to teach exam-taking

¹¹ The June 2010 Public Service Agreement target stipulated that, by 2011, in all schools at least 55% of pupils must achieve a minimum five A*-C GCSEs or equivalent including maths and English, and that the overall proportion of pupils achieving 5 A*-C GCSEs or equivalent by the time they leave school must increase to 68%.

¹² The National Curriculum at Key Stage 4 currently requires pupils to study: Citizenship; English; ICT; Mathematics; Physical Education; Science; Personal, Social, Health and Economic Education (PSHE); and Religious Education. Statutory programmes of study exist for the first six; PSHE and Religious Education are statutory subjects with non-statutory programmes of study.

¹³ Data produced by Nigel Smith (Market and Competitor Analyst, AQA) suggest school entries to alternative Level 2 qualifications to GCSE are rising and now make up approximately 15% of the market.

¹⁴ Also lamentable is the fact that the league tables are used ostensibly to inform parental choice of secondary schools, despite the crucial limitation that the most recent information on school performance is based on a cohort of pupils who entered the schools several years earlier, whereas when choosing a school it is the *future* performance of the *current* cohort which is of key interest. It has been shown (Leckie & Goldstein, 2009) that there is substantial uncertainty in predicting school performance, to the point where very few schools can be predicted to be significantly different from each other.

strategies rather than providing valuable education (i.e. „teaching to the test“¹⁵); also pupils commit to memory only what they think will be tested, thus promoting a surface approach to learning¹⁶.

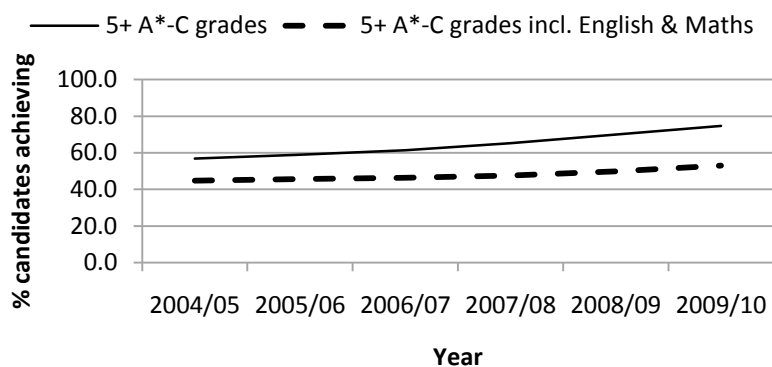
While the focus on A* to C grades in the league tables and the promotion of vocational equivalents devalue the GCSE for pupils at the lower end of the grade scale, at the other extreme there have been criticisms that **GCSE does not stretch the most able pupils**, leading to moves by some independent schools to IGCSEs, which are assessed through traditional style, end of course examinations. Further, earlier this year, under increasing pressure to make IGCSEs more widely available in schools generally, the Education Secretary, Michael Gove, lifted the ban on state schools using IGCSE examinations. Running alongside these issues are criticisms of **grade inflation**, which stem from the fact that overall annual pass rates have persistently increased since GCSEs were introduced and are promoted by findings of studies by the Centre for Curriculum, Evaluation and Management in Durham (Coe, 2007). Defendants argue that rising pass rates are a consequence of improving teaching methods and the increasing investment in education in recent years, and it is also possible that any inflation is partly due to the targeting of schools to borderline grade C/D candidates. However, AQA research corroborates the critics indicating that, over time, the tendency year on year for awarding committees to recommend awarding outcomes slightly higher than the previous year, but still within allowed limits, has indeed led to increases in outcomes, even after accounting for prior achievement (Stringer, 2010). In addition, there are concerns that the **GCSE curriculum and the examinations themselves have become less challenging**. The academic rigour of the current GCSE science specifications particularly has been called into question, with Ofqual admitting in its 2009 standards review that the revisions to the GCSE science criteria for the specifications first examined in 2007/8 led to a fall in the quality of science assessments by introducing more relevant content *at the expense* of rigour, as opposed to *in addition* to it. Also, the (outgoing) GCSE mathematics specifications - that were developed for first teaching in September 2006 - were criticised for not equipping pupils sufficiently well for A-level (MEI, 2009). In the wider perspective, the recent PISA¹⁷ survey of the knowledge and skills of fifteen year olds by the Organisation for Economic Co-operation and Development (OECD) indicated that, while student proficiency in science in the UK was higher than the OECD average, pupil performance in reading and mathematics was (only) on a par with the OECD average (PISA, 2006). There is some reflection of this in the UK Department for Education’s pupil performance statistics incorporating English and mathematics: while the percentage of pupils in England achieving five or more GCSEs at grades A* to C (or equivalent) is steadily increasing, improvement is lower once English and mathematics are included and it is only this autumn that the percentage of candidates achieving five GCSEs at grades A* to C (or equivalent) which include English and mathematics has crept over 50% (Figure 2).

¹⁵ Wiliam (2003) comments that teaching to the test may be somewhat inevitable and that consequently what is required are tests worth teaching to.

¹⁶ A surface approach to learning is not necessarily a bad thing, but in this instance it might simply lead to short term retention.

¹⁷ The Program for International Student Assessment (PISA) comprises a three-year cycle of investigations into fifteen year olds’ ability in literacy (i.e. reading comprehension and writing), and in mathematics and scientific literacy. PISA looks particularly at what young people can do with what they have learnt, rather than what they can recall from what they have been taught. It therefore offers a systematic view of young people’s readiness in terms of knowledge and skills for further learning and the workplace.

Figure 2: Percentage of pupils in England achieving at least 5 A* to C grades in their GCSEs (or equivalent) at the end of KS4



Source: DfE: GCSE and Equivalent Results in England, 2009/10 (Provisional) Statistical First Release, Table 1, available at: <http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000963/index.shtml>.

In conflict with the intention behind the GCSE criteria, employers, as well as further and higher education providers, complain that there is a **lack of clarity regarding what any particular GCSE grade signifies**. The difficulty is confounded by the fact that, although grade descriptors - which give a general indication of the standards of achievement likely to have been shown by candidates awarded grades A, C and F - exist for every subject, because of compensation¹⁸ there is no guarantee that a candidate achieving a particular grade has shown ability to that standard in *all* the knowledge and skills suggested by the grade descriptor. In that sense there is no essential core of knowledge and skills which *must* be mastered by all pupils achieving, say, a GCSE subject grade C. This is a particular drawback in relation to English and mathematics which, fuelled by concerns from employers about literacy and numeracy levels in school leavers and the difficulties in employing young people with the right skills, was the incentive for the development of Functional Skills qualifications.

THE PROS

Despite the many negative aspects of the GCSE system, there are still numerous points in its favour.

As a nationally recognised qualification, the GCSE **certificates achievement** at age sixteen and therefore **ranks individuals**, enabling employers and higher education providers to use GCSE grades as selection criteria. (Although A-level grades are the main tool used by universities to rank students for admission to university degrees, it is widely acknowledged that GCSE results are also used in the filtering process.) For all subjects, despite the problems surrounding the direct interpretation of the grade obtained, the grade descriptors do ensure a **certain level of attainment**, which is essential for future employers and higher/further education institutions. Also, while it can be argued that GCSEs at age sixteen are becoming redundant now that young people must stay on at school until seventeen, the counter-argument is that it is important that pupils have a nationally recognised qualification to show for five years of secondary education, particularly now that Key Stage 3 tests have been abandoned. Although from 2013 all pupils will have to stay in education or training until seventeen, not all of them will be in schools or colleges; some will go into training or apprenticeships and for those young people a school leaving certificate such as GCSE still makes sense as they would **otherwise have nothing to show for their school years**. For many others, their GCSEs act as **preparation for further education**, typically A-levels and degrees. For all,

¹⁸ i.e. candidates performing poorly on one part of the examination can improve their overall mark total by better performance on another part.

GCSEs give an indication of pupils' general ability and can signal subjects in which a pupil shows particular strength or weakness as a marker for the next stage.

While examinations can cause pupils to focus too much on the requirements of the examination and thus discourage broader learning, on the constructive side, assessment has a profound influence on **candidate motivation and sense of achievement**. In addition, although associated with debilitating effects during examinations, **exam anxiety can have facilitating effects prior to examinations** (Putwain, 2009). One of the most fundamental roles of assessment is to encourage and facilitate learning and the **positive backwash of assessment on teaching and learning** should not be overlooked: if a pupil is to be assessed by a public examination, this can be capitalised upon by encouraging appropriate learning. Focusing on the assessment can also improve teaching practice in that it prompts teachers to (re)consider the allocation of lesson time, their emphasis upon different aspects of the subject content and their teaching practices more generally. Further, **social evaluation** can have a constructive influence; while the prospect of comparison with their siblings and fellow pupils can cause stress, GCSE success can be stimulating to young people, as they see it as a marker which sets them up alongside their classmates, provides them with a measure of personal worth and also communicates that worth to their peers.

In austerity Britain, a particularly important aspect of academic qualifications such as GCSE is their **benefit to the workforce generally, employers and employees alike, and average earnings**. There is an ever increasing need for academic ability and, in the modern "skills economy", employers need school leavers to have developed the capacity to think and reason beyond basic literacy and numeracy. Employers value the transferable academic abilities that enable people to learn new skills, over and above specific vocational training; from an employer's perspective vocational skills can be developed on the job, unlike academic grounding which needs to be put in place beforehand. Further, with a view to employees, there is a growing and consistent body of evidence that academic qualifications benefit individuals in having a substantial and demonstrative upward impact on average earnings. In contrast, returns for vocational qualifications are at best poor and, particularly, are not as high as the academic qualifications notionally at the same level (Wolf, 2007; McGuinness and Bennett, 2009). While there is some evidence that the returns for GCSEs are lower for younger cohorts than for older cohorts, these returns still remain higher than those for vocational qualifications¹⁹. Also, successive qualification levels are associated with significantly higher probabilities of being in work. A further benefit of academic qualifications from the economic perspective is that they improve general economic growth by enabling people to move between occupations, whereas vocational qualifications lead to occupational segregation, which introduces rigidities into the labour market, and so lowers its efficiency. Academic qualifications also promote social mobility - very few individuals progress from non-academic routes into higher education (Bassett, Haldenby and Tryl, 2009).

The ultimate commendation of the GCSE system is that, in general, it retains **strong public support**, remaining "a popular and resilient qualification, well understood by employers, teachers and students" (Gove, 2010). Ofqual's 2010 report on perceptions of A-levels and GCSEs testified that, while teachers have concerns about certain aspects of the GCSE examinations system (primarily relating to coursework, the curriculum and the low level of demand), their confidence in the GCSE system overall remains high, with 73% stating that they have confidence in it. Also, although opinion was divided among the general public and parents as to whether they have more confidence in the GCSE system than they did a few years ago, with roughly equal proportions agreeing and disagreeing,

¹⁹ For older cohorts, good O-level performance (as it was then) marked individuals out among the crowd and earned them a return in the labour market. For more recent cohorts, good GCSE performance is increasingly only a necessary first stage rather than a sufficient condition for labour market success.

crucially the vast majority of pupils (89%) continued to believe that the GCSE is an important qualification to obtain.

THE WAY FORWARD FOR GCSES AND AQA POLICY

Due to changing economic and social circumstances, all education systems have to accommodate the shifting needs of pupils (as ultimate members of the workforce) and employers. In this sense, it is not surprising that a qualification set up in the 1980s is facing problems, but the particular issues surrounding GCSE are complex and the way forward is not simple. Nevertheless, if the GCSE system is to continue and to be valued, minor tinkering at this stage is unlikely to be sufficient.

Some would argue that the scrapping of GCSEs would be the most sensible and attractive option. However, with support for an academic qualification at or around sixteen remaining high, abandoning GCSEs would be brave for any government; similarly it would take a courageous awarding body - particularly the one holding the largest market share - to argue that stance. Moreover, it is debatable whether killing off GCSEs would be a sensible strategy. If they were not replaced by an alternative qualification, young people entering training or apprenticeships would have no qualifications to show for their school years. Further, even for those continuing to A-level, in the current system the range of subjects studied is too narrow to become the sole measure of pupils' achievement during school. Therefore a broader spectrum of subjects would have to be assessed - which would be extremely challenging for many, particularly if English and mathematics were compulsory. Indeed, if A-levels were the first public examinations (as opposed to National Curriculum tests) that were taken by young people the pressure on the students (and teachers) would be even higher than it is currently. Scrapping GCSEs would therefore call for a replacement qualification, but there would be no guarantee that such a replacement would avoid the problems already being faced. An alternative approach - moving and adapting GCSEs to be the national examination for fourteen year olds - has been suggested (Smithers and Robinson, 2010)²⁰. However, such a move would, in effect, be a substitute for the Key Stage 3 tests which were severely criticised, particularly for the amount of stress and pressure caused to the young people taking them at such a young age. Furthermore, moving GCSEs to age fourteen may substantially affect the achievement of pupils from ethnic minorities. While the disparities in attainment relating to gender and socio-economic factors on transfer to secondary education persist through to GCSE and, generally, increase²¹ (Sammons, 1995), greater change is found in patterns of ethnic differences. Even after controlling for pupils' individual and neighbourhood characteristics²², *all* minority ethnic groups make better average progress in attainment through secondary school than White students and the gains are particularly marked between the ages of fourteen and sixteen (Wilson, Burgess and Briggs (2011), Strand (2008), Sammons (1995))²³. Moving GCSEs to age fourteen will shorten the available progression time for all pupils and, in limiting the „catch up“ time, has the potential considerably to affect attainment of pupils from ethnic minority groups in particular. Potentially, A-levels would then be taken earlier (presumably at sixteen, as opposed to eighteen); how this change would impinge on students' achievement at, arguably, an even more critical educational stage can only be conjectured.

Indeed, there is perhaps a continuing role for national qualifications at or around the age of sixteen, to serve pupils' needs as a „progress check“ for those who are continuing to A-level and as an „exit point“

²⁰ Smithers and Robinson also propose that the government should give priority to establishing a clear shape for upper secondary education, in particular whether it should begin at age fourteen or sixteen.

²¹ in favour of girls and pupils from higher socio-economic backgrounds.

²² Such as gender, age-within-year, poverty status, location, school attended, etc.

²³ The gains are substantial for pupils of Black African heritage, or with Bangladeshi, Pakistani, Indian or Chinese ethnicity. For pupils with Black Caribbean or „Black Other“ heritage the gains are lower, but are still positive.

for those not intending to progress further in any particular subject at that stage. Further, in the current economic climate, and with the prevailing cuts in most sectors outside education, embarking on a major and potentially expensive upheaval of education for ages fourteen to sixteen could be seen as imprudent. The wiser approach may be to acknowledge the issues surrounding GCSE examinations and to make positive steps towards correcting those that can be addressed. Importantly, a main root of the GCSE's difficulties is that it is now used for a multitude of purposes beyond qualifying pupils and the qualification shouldn't be abandoned merely because certain users' needs are not being met. Some of the multiple uses are unavoidable, for example it is unreasonable to expect a qualification such as GCSE *not* to be used both as a prerequisite for employment and as a gatekeeper for A-levels. However, the main problem for the GCSE is in dual uses which are, arguably, incompatible - in particular, for the purposes of certifying individual achievement and as a monitoring tool for teachers and schools.

As indicated in the White Paper, the coalition government plans to continue with the GCSE system at sixteen, albeit with some reforms (Department for Education, 2010). One of its primary intentions in relation to GCSE education is to establish a core of academic GCSEs in the form of an English Baccalaureate, comprising English, mathematics, a science, a modern or ancient language, and a humanity (such as history or geography). Such a core would align the UK with the approach taken in many other leading OECD²⁴ countries, notably Canada which has one of the highest performing educational systems, as indicated by the PISA analyses²⁵. However, introducing the core is a difficult issue: in the absence of a core it could be argued that certain pupils are disadvantaged because they may not be given the opportunity to learn a particular subject which potentially would have been core; but, if a core is specified, pupils who have no interest or aptitude for a subject will have to study it with no future purpose²⁶. In particular, it must be recognised that there are potential problems with enforcing that pupils study languages, stemming from cultural issues, and a lack of pupil motivation, interest and desire to engage. In contrast to young people in other European countries whose mother-tongue is not universally spoken, many young people in the UK see no reason to study languages and have no incentive to do so. Indeed, following the change to the curriculum in 2004 whereby the compulsory study of design and technology and a modern foreign language was removed, take-up of languages has reduced substantially. Consequently, as Smith and Meadows (2010) point out, if languages are included in the core, attention must be drawn to the fact that the revitalisation of language teaching will not happen overnight and will initially be problematic for centres; many language teachers have left the teaching profession and not enough have been trained to replace them. That is not to say that for pupils in the UK learning another language is a futile exercise – there are various arguments in its favour, not least avoiding the potential for insularity and, as Smith and Meadows mention, to preclude disadvantaging British workers who are unable to move abroad because of poor language skills. Nevertheless, there is scope for a useful debate, which AQA could raise, as to whether the inclusion of languages in the core is sensible. While grounds can be made for including geography and history - the former on the basis of understanding the world around us, and the latter on the basis of promoting an awareness of past cultures and how previous events have shaped the modern world - there are other subjects currently excluded for which a case for inclusion in the core could be argued. In particular, despite Gove's original indications (Gove, 2010), controversially the arts and music are no longer specified within the „humanities“ options. In relation to music, for example, some would argue that it should not be core because universally recognised, graded music examinations in the practical and theoretical aspects of music are already offered by

²⁴ Organisation for Economic Co-operation and Development

²⁵ The Canadian system is also based on examinations at sixteen and eighteen; although the education system varies between the Canadian states there is a common format - pupils study for diploma examinations at age sixteen, which contribute towards an end-of-high-school diploma at eighteen.

²⁶ This is not relevant to English, mathematics and science necessarily, but is potentially an issue in relation to other subjects within the core.

music assessment specialists – particularly the Associated Board for the Royal Schools of Music. However, an alternative argument is that music has a great deal to offer as a core classroom subject, as the study of it spans history, religion, physics (in appreciating how the various instruments work) and mathematics, amongst others. That aside, and apart from the languages issue, there is no reason from the policy perspective why AQA should not give support to the core proposed: all the suggested subjects are commonly considered to be „core“ in terms of subject knowledge; they are widely available and taught in most schools; any of these subjects with a rigorous curriculum and examination should be an appropriate vehicle for teaching key academic skills such as critical thinking and problem-solving; and the proposal aligns Britain with the expectations that other (post) industrial countries have of their young people at the same age. However, if the core of academic GCSE subjects is to be widened, it is possible that debate will be raised as to the necessary skills that should be taught within that core. Some suggest, for example, that wider-reaching workplace skills, such as self-management, team-working and business/customer awareness, should be encompassed within GCSE English, mathematics and science and taught as part of the minimum of academic study, rather than being seen as the preserve of its vocational equivalents. It is arguable whether AQA should advocate this approach; there is a case to be made that such abilities should be taught as part of the school ethos, or at least be encompassed within learning generally, instead of being taught specifically in core subjects.

The government also plans to change the league table system to make it “more effective” (Gove, 2010), implicitly by including a measure of attainment in the core subjects (the English Baccalaureate). Smith and Meadows note that, as an awarding body which, at present, offers few vocational qualifications, it would be in AQA’s interests to advocate such a change, i.e. measuring attainment only in the core, so that the rankings are based on the number of pupils successfully able to complete five core GCSEs. Aside from AQA’s own self-interest, this would have a big impact educationally as it would ensure that, while pupils would retain the opportunity to pursue vocational or practical options alongside, there would no longer be an incentive for schools to encourage them to do so at the expense of academic education. Thus it would attach a high value to the core without precluding additional vocational and/or practical learning and, in ensuring all young people have a nucleus of academic study, ultimately could benefit the modern economy. However, arguably the league table revisions should go much further than this if value is once more to be associated with all GCSE grades and if the intention to promote positive achievement for candidates of all abilities is to be restored: specifically, the focus of league tables on the percentage passes at grades A* to C must be removed. Focusing on the A* to C grades has encouraged teaching to the test which, arguably, has detracted immeasurably from the quality of teaching currently provided. Removing the focus on A* to C therefore has the potential positively to affect the delivery of GCSE qualifications in schools, which supporters of GCSE argue is the key to classroom success. In addition, removing the A* to C measure may reduce the focus on these grades by employers, which has rendered grades D to G almost useless - a major loss to a qualification intended to promote the achievement of candidates of all abilities. For the good of education, AQA should strongly favour the removal of the A* to C measure and should promote the possibility. However, more fundamentally, the government must be encouraged to consider whether GCSE results should be used in league tables at all. The government view, as stated in the White Paper, is that using formal external assessment as the basis of accountability for performance has significant benefits, and it would be prudent for AQA to resurrect the debate as to whether league tables derived from qualification outcomes are suitable for promoting appropriate procedures within schools, or whether alternative, broader measures of performance are required for an effective monitoring system to be achieved. Ideally, a sampling system for measuring school quality is required rather than a measure based on GCSE performance or mass testing of any

individual pupil but fundamentally, to avoid backwash effects, a measure which is not based on the school curriculum should be used²⁷.

There is also room for debate about the necessary amount of external assessment within the GCSE system. Evidence that in the context of external assessment less can mean more is exemplified by the Finnish education system, which persistently holds the highest rank in terms of secondary education performance in the triennial PISA analyses. In Finland, there are no mandatory tests or exams until the National Matriculation Examination at the end of upper-secondary school at age nineteen²⁸, at which point passing the Matriculation Examination entitles the student to continue his/her studies at university²⁹. Rather than implementing high stakes exams, the Finnish system of compulsory education between ages seven to sixteen trusts teachers to create their own assessment tests and give descriptive feedback. Since there is no focus on annual tests, Finnish teachers have the freedom to plan lesson time and focus on learning; indeed, Finnish schools have full autonomy in delivering education and plan their own curriculum³⁰. Although it can be argued that Finland is a special case compared to other OECD countries in that it is relatively small, with a culturally and socially homogeneous population, it serves to show that external assessment is not imperative for an education system to be successful. That is not to suggest that the UK should follow Finland's example in its entirety; the UK's culture of high stakes examinations and external assessment is deeply rooted, and it is probably unrealistic to change the high stakes emphasis and completely draw back from the use of external assessment at this stage. Nevertheless, lessening the emphasis on the use of external assessment could be beneficial in restoring value to the educational experience between fourteen and sixteen. For example, mandatory external certification need not be necessary for all subjects outside the core; from the perspective of children's rights this could be in pupils' best interests (Elwood and Lundy, 2010) and would also be economically attractive to the government in reducing costs. It would require trusting schools to carry out their own assessments and teachers in the UK would need the opportunity to improve their assessment skills with suitable mentoring. A potential concern would be that less emphasis on external assessment may be at the expense of reliability, but this need not be insurmountable as, aside from the Finnish example, there is evidence that teacher assessment can be consistent and reliable (Harlen, 2004). Also, teachers may not welcome the increased burden that wider use of teacher assessment would place on their daily workload. These points notwithstanding, focusing external assessment on the core and allowing the remaining lesson time to centre on learning across the wider curriculum, free from the burden of high stakes exams in every subject, would lessen the pressure on pupils, potentially would encourage innovative teaching, allow time for the teaching of softer skills, and may allow teachers and pupils to have a good deal more fun in the learning process. Financially, a reduction in the use of external assessment would hit AQA hard³¹; nevertheless the debate should be held as it has the potential to substantially improve the fourteen to sixteen system of education generally.

²⁷ For example, although focused on measuring pupils' skills rather than school quality, the Queensland Core Skills (QCS) test (<http://www.qsa.qld.edu.au/2318.html>), is used to test a set of generic skills within the senior curriculum in Queensland, Australia. While this is compulsory for eighteen year old students in Queensland, there is potential for a similar test to be developed around the generic skills within the fourteen to sixteen curriculum in the UK and administered via a sampling system.

²⁸ Young people in Finland attend compulsory school from age seven to age sixteen; the first six years in primary school and the final three in lower secondary. After completing compulsory basic school at age sixteen a young person has five options: general upper-secondary school; vocational upper-secondary school; other post-compulsory education or training (such as an apprenticeship); staying on for a voluntary additional tenth year of basic school; or employment. The vast majority of young people in Finland continue with their education after compulsory school, for example, in 2006, 95% of young people continued their education after compulsory basic school and of those 97% went into general or vocational upper-secondary education (Sahlberg, 2007).

²⁹ The National Matriculation Examination comprises a compulsory test in the candidate's mother-tongue (Finnish, Swedish or Saami), plus tests in three out of four from the following: a second national language, a foreign language, mathematics and a test in another subject (the choice spanning religion, science and humanities).

³⁰ Also the teaching profession enjoys great public respect and has high prestige; Finnish teachers are highly qualified - the basic requirement to be permanently employed as a teacher in a Finnish school is a Masters degree.

³¹ Even though potentially the losses incurred to AQA through offering minority GCSE specifications would reduce.

The government does not appear to be intending to preclude the study of subjects outside the core, nor the study of vocational qualifications that would be of genuine benefit to students' post-sixteen progression and employment. Retaining the flexibility for individual pupils to take vocational qualifications, alongside academic qualifications, as part of an overall programme is sound from the education perspective, as it ensures a wide range of assessment types is available to suit the needs of different pupils and allows some "give" in the system to permit schools to determine what is taught. There is no corporate reason why AQA should object to this, particularly as it is currently working towards developing vocational alternatives to GCSE, as well as IGCSEs, as part of its portfolio. Nevertheless, the system will still comprise GCSEs, IGCSEs, Diplomas and vocational qualifications, amongst others. While the choice and pluralism this represents may be seen as positive educationally, it also allows significant scope for confusion as to the features of the different qualification types and how they contrast; indeed Smithers and Robinson (2010) highlighted the need for clearer educational options from age fourteen onwards. The government's commissioning of Professor Alison Wolf to review vocational qualifications is very sensible; vitally the commission will consider the robustness and quality of the vocational alternatives in relation to GCSE (and A-level), as previously suggested by Smith and Meadows (2010). This is opportune as, even if the prime focus of league tables is changed to the core subjects only, point score equivalences may still be applied across the qualification types and for these to have any meaning it is essential that parallel qualifications are confirmed as being similarly challenging. That said, it is highly debatable whether it makes sense directly to compare academic and vocational qualifications and there is a case to be made for the consideration of separate points systems in the academic and vocational routes, which AQA should raise, particularly given that Alison Wolf has been asked to consider how best to recognise vocational qualifications in the performance tables as part of her review. Regardless, if the education system is to be coherent across the academic and vocational programme, it must be agreed what vocational skills are desirable for pupils at ages fourteen to sixteen, over and above those incorporated within the academic core, and thus, what vocational courses should comprise. Further, all involved must fully understand what the different options represent so that pupils, in consultation with their teachers, can make informed choices about their future study and employers can make sensible recruitment decisions.

The maintenance of standards year on year is imperative if the (GCSE) education system is to be fair and respected, and the JCQ awarding bodies are debating ways in which unjustified increases in outcomes can be prevented. The government's intention, as laid out in the White Paper, to strengthen Ofqual by giving it the powers to enforce rigorous standards should be welcomed by AQA, which considers that its own procedures are already rigorous. In particular, there is a need to avoid a repetition of the 2008 GCSE science debacle when AQA was forced to lower its grade C standards to come into line with other awarding bodies. However, aside from the government rhetoric, it is not yet clear as to how these powers will be enforced and whether anything will change as a result of them. The intention to widen Ofqual's view to reflect the importance of keeping pace with the rest of the world in terms of examination standards will also be supported strongly by AQA; Andrew Hall, AQA's Chief Executive, has already pointed out that it is arguable whether there is any gain to be had from comparing historic standards over the longer term and that in the global perspective it is far more important to consider the standards of the UK education system currently in relation to those of other countries and, over time, monitor its progress on that basis (Leadership, innovation, collaboration; Andrew Hall within Award Magazine, 2010). Moreover, it is important for the economy that qualifications in the UK compare favourably with their international counterparts, not only in terms of the curriculum, and the difficulty and rigour of the assessment procedures, but also in how the 14-19 education system fits together progressively as a structural whole. Indeed, AQA may be able to capitalise on the move towards focusing on international standards by working in conjunction with the regulator on the methodology followed for such a comparison.

If the GCSE assessment system is to continue to fulfil a worthwhile function, it must be technically robust and the qualifications obtained must be a secure stepping stone for pupils' onward progression and careers. A balance needs to be reinstated between, on the one hand, ensuring that GCSEs provide a useful indication of pupils' progress and, on the other hand, making education about learning rather than just examinations. The vanguard position must be that examinations do not define what being educated means; teachers and pupils should be able to spend classroom time on aspects of learning other than examination preparation without feelings of guilt. Whether the government's plans in the White Paper are a step in the right direction remains to be seen but, in summary, the key implications of these plans in relation to AQA policy are:

- to support the government in its intention to continue with GCSEs;
- to support the introduction of a core GCSE subject group;
- to encourage debate as to whether the inclusion of languages in the core is educationally sound and to ensure the problems associated with the potential reintroduction of languages are realised;
- in relation to league tables, to welcome consideration of a measure which focuses on attainment only in the core GCSEs, while strongly promoting the removal of the focus on A* to C grades and discussion of a measure based on broader school performance rather than qualification outcomes;
- to support the national review of vocational alternatives to GCSE and to argue for the consideration of separate points systems in the academic and vocational routes;
- to encourage lessening the focus on historic standards and increasing that on the international comparison.

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