



**Equality research and
consulting Ltd.**

Annex 2 – GCSE Reform Equality Analysis: Literature Review

Dr Andrew Caplan and June Jackson

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1. INTRODUCTION

The Government has stated it wants a qualifications system to 'set expectations that match and exceed those in the highest-performing jurisdictions' (DfE, 1st March 2013). It is the duty of Ofqual to decide how qualifications are designed to ensure valid assessments; that they are of the right quality; and that standards are set and maintained. The reform of GCSEs is intended to confirm the new qualifications as a highly respected qualification in which pupils, employers and further and higher education institutions can have faith (DfE, 2013b).

Changes in GCSEs affect the 3.6 million secondary school pupils taking, or working towards taking, their exams, usually in Year 11. Exam regulations usually seek to provide equality of treatment for the generality of cases, while the Equality Act 2010 seeks to protect the interests and provide for the particular needs of people because of a protected characteristic. There can be a tension between these imperatives which is sometimes challenging to reconcile in practice.

The protected characteristics under the Equality Act 2010 are intended to address the reality of discrimination generally suffered by some groups, including those of school-age children. They are:

- Age
- Disability
- Gender reassignment
- Marriage and civil partnerships
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation

For many individuals within these groups access to and successful achievement within high-quality education, especially higher education, is vital because it provides them with evidence of achievement that can challenge the institutional or ad hoc barriers erected by prejudice and stereotype.¹ Qualifications are recognised as a critical element in progressing to higher education, gaining employment, and increasing income, particularly in a time of keen competition in the job market. More specifically, routine discrimination directed towards women and girls, disabled people, and the young and old stands in the way of their natural progression towards their goals in education and employment (EHRC, 2010, p. 300). Furthermore, newly arrived immigrants or their children rarely have the infrastructure of contacts, past employment experiences and supportive community networks that can facilitate entry to higher education, training and employment that reflects their skills (CEMS, 2000, p. 10). Although this no longer affects all people of Asian, African-Caribbean and African origins, many of whom have been born in the UK, these groups are known to face discrimination in access to opportunities such as employment (EHRC,

¹ This issue needs to be seen within the context of the continued overall domination of higher education by students of male sex, white ethnicity, professional or managerial family background, and grammar or independent schooling (James et al, 2010).

2010, pp. 617-8). Therefore, their focus on study can provide them with the qualifications that can open up work opportunities without relying on informal contacts. A strong, unambiguous, and objective educational qualification from a UK educational institution is an invaluable, concrete piece of evidence of achievement that anyone who experiences discrimination can use to counteract prejudice in the wider world. Thus, any changes to assessment that are likely to secure standards by improving or increasing equality of access, consistency of quality, transparency of meaning, and universality of exchange are to be welcomed.

2. PURPOSE

The following literature review was commissioned by Ofqual and carried out independently to assist the equality analysis work Ofqual is carrying out in preparation for consultation and to take final decisions on proposals to reform GCSEs in the light of the recent policy steer to it by the Secretary of State on Key Stage 4 qualifications (DfE, 6.03.2013; Ofqual, 6.02.2013). The literature review relates to the possible impact of the implementation of the GCSE reforms on students because of any of the protected characteristics. The innovations that are of particular interest to Ofqual in this context are:

- Controlled assessment
- Tiering
- Linear assessment
- Use of examination aids
- Question type
- Grading
- Spelling, Punctuation, and Grammar [SPaG]

The DfE's 'GCSE Reform Equality Analysis' (2013) identifies the effects that the changes may inadvertently have on some groups, and the following review is intended to identify such additional evidence within the research record. The following review looks at the proposed GCSE reforms and their possible impact on students due to a protected characteristic, as specified in the Equality Act 2010, from the perspective of their representation (or absence) in the research record. These protected characteristics, however, are not cleanly bound entities, but are factors that intersect with each other (ethnicity and gender; disability and ethnicity etc.) and with other factors (e.g. class) that are not specifically protected. However, these connections are only referred to in brief. The review will comment on the possibility or likelihood of impact on the achievement in assessment on students due to a protected characteristic as a result of the proposed changes.

From an equality perspective, the main concern is that there are no unintended negative consequences of the proposed changes – unless the policy objective is such that the impact can be justified – and that the policy is effective. In effect, this means that the proposed options do not promote inequality of opportunity either directly or inadvertently, and moreover that they support good practice and do not exclude or adversely affect individuals or groups. Ofqual is required to act in accordance with the public sector equality duty, as set out in the Equality Act 2010, which requires public bodies to implement three strands:

- a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under this Act;
- b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it; and
- c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. (Equality Act 2010, Part II, Chapter I, paragraph 149 (1)).

To help meet the duty, many public bodies undertake equality impact assessments of their policies and procedures, which aim to identify potential barriers to equality and opportunities to address them.

3. THE REFORMS

Controlled Assessment

It is instructive to remember the argument for internal assessment and modular curricula, as stated by the Professor of Critical Race Studies, David Gillborn (2012):

The introduction of internal assessment and modular curricula were intended to avoid the all-or-nothing terminal exam at the year's end which often tested memory rather than real skills and understanding. Greater diversity of approach has allowed for assessment to become part of the learning process itself, helping to inform pupils (about their progress, strengths and weaknesses) and not merely operating as a badging exercise. The changes proved to be an excellent way of keeping more pupils engaged and raising achievement, especially among groups who were less successful in the more traditional examinations.

This point-of-view, however, has not gone unchallenged and concern has grown that modularisation and controlled assessment has put undue emphasis on teacher data and boundary pushing, and it is now the view of the Department that 'Internal assessment should be kept to a minimum and used only where there is a compelling case to do so.' (DfE, 2013, p. 7). Bew (2011) found that teacher assessment tended to understate the achievement of Key Stage 2 pupils from some groups and this reflects more widespread views that categorisation and stereotyping can explain some of the difference in results seen in teacher assessments of minority ethnic pupils. The DfE suggested that 'The results may have relevance for coursework and ... that external testing might protect pupils from subconscious assumptions which can come in to play in teacher assessment.' (2013, p. 12). With regard to girls, the evidence (Stobart et al, 1992) that coursework was only one factor in raising girls' achievement has since been questioned by Elwood (2005). Martin et al (2000) contend that, in some subjects, low attaining pupils may benefit from coursework assessment.

Tiering

In the words of one 'Discussion Paper' (Oates, 2013, p. 3), tiered exam papers:

... offer exams 'tuned' to the ability of candidates with the apparent advantages that candidates do not sit in front of a paper which includes questions which are far too easy for them, or for other candidates, questions which are well in excess of their ability.

The research on tiering at GCSE indicates that it stretches the most able (Baird et al, 2013, p. 24), but is considered more appropriate in some subjects than others and that entry decisions can be unfair to some students. It is now the view of the Department that the 'current system of tiered papers, whereby pupils are forced to choose between higher and lower tier papers, places a cap on ambition' (DfE, 2013, p. 7), whilst acknowledging that an appropriate approach to assessment will vary between subjects, potentially leading to a range of solutions. For example, although there are concerns that single, longer papers may disproportionately disadvantage pupils who require extra time in examinations, pupils with disabilities that affect memory recall ability can be helped by 'reasonable adjustments (e.g. supervised rest breaks) and that existing requirements on Awarding Organisations will continue to apply (DfE, 2013, p. 14).

Furthermore, it has been argued (following Baird et al, 2001) that the removal of tiered papers can have a positive impact on equality of opportunity by removing the 'cap on ambition' (Baird et al, 2013, p. 24). When taken along with the phenomenon of teacher under-expectation of particular groups of pupils channelled into lower-tier papers (called 'the backwash effect'), consequent under-achievement can result (Wheadon and Beguin, 2010).² This affects girls' entry to higher tier for mathematics and combined science double award (Elwood, 2005; Stobart et al, 1992). Under-estimation of abilities by teachers was also found by Strand (2012) in the case of Black Caribbean students who were systematically under-represented in entry to the higher tiers relative to their White British peers, and Wilkins et al (2010, p. 27) found that almost half of schools they surveyed were in 'need of some development' in terms of the degree to which staff valued and celebrated 'Gypsy, Roma and Traveller culture' which can be argued as a basis for having low expectations.

The inappropriate entering of pupils for a tiered exam can, say Hamer et al (2013):

lead to potentially damaging consequences ... or a result which does not reflect their actual achievement level. Such considerations interact with issues of student self-esteem, teacher judgements and stereotypes, and have been shown in several countries to interact with gender effects with girls and boys being treated unequally (p. 23).

They summarise that decisions to enter pupils for tiered exams are overly influenced by considerations of stretching the most able, can demotivate pupils entered for lower tiers, are influenced by 'factors such as socio-economic status, gender and race', and are motivated by attempts 'to maximise the percentages of students achieving C grades at GCSE, which are critical for league tables'.

² The literature on under-expectation and teacher attitudes with regard to certain groups of pupils and examination-entry tactics is large, e.g. see Ball et al, 2011; Johnson, 2013.

Linear Assessment

Modular systems were initially designed for a variety of reasons. Significant amongst these was that they would be more inclusive of pupils whose achievement did not match the assessment of their capability under linear systems (Rodeiro and Nádas, 2010, p. 3). At the very least, pupils who did not complete the full course of study left with some validation of their learning. Up to 2008, modular GCSE syllabuses were mainly confined to English, mathematics and science subjects, but from 2009 almost all syllabuses were permitted to be modular in structure, meaning that the GCSEs were then more in line with A levels, which had been modular since 2000 (Rodeiro and Nádas, 2010, p. v).

It is proposed that the new qualifications will be linear with exams at the end of the course (Ofqual, 2011b, p.4). Behind this is anxiety that 'GCSEs are becoming less and less demanding, which might lead to a diminution of trust in the qualification as a whole among the general population' (ibid). When modularisation was introduced in 2008, Professor Alan Smithers of Buckingham University was quoted as saying: 'One gets appreciably higher grades for modular courses for the same level of ability' (Mansell, 2008). Baird et al (2013, p.5) disagree and assert that 'Modular assessment has not been found to be consistently easier than end of course examinations', and that, in addition, pupils find assessment feedback useful. However, the main issue for pupils is that final assessment is reduced to one stressful opportunity when the whole of one's knowledge and skills of a course of study is decided.³

Rodeiro and Nádas surveyed the arguments for and against modular assessments stating that, on the one hand, proponents of modular assessment argue that these provide 'curriculum flexibility (number and timing of modular examinations), short-term assessment goals, regular feedback, re-sit opportunities and increasing motivation for students' (2010, p. 3). However, on the other hand, 'Critics of the modular assessment claim that it leads to fragmentation of learning, students entering examinations when not ready, more teaching to the test and over assessment' (p. 4). There has been a suggestion that 'linear exams could have a disproportionate impact on students with Special Educational Needs and/or disabilities, especially pupils with dyslexia', but 'the available research in this area suggests that the picture is not straightforward', and Ofqual's analysis emphasised the form of the assessment rather than its timing (DfE, 2013, p. 12). Furthermore, terminal assessment could be seen as a levelling of the playing field that advanced equality of opportunity by subjecting all pupils to the same assessment exercise.

Outcomes in modular and linear routes appear to vary between subject and ability grouping. Rodeiro and Nádas (2010 and 2011) found that more pupils achieved higher grades in mathematics via a modular route, but in English more achieved higher grades via a linear route and that this was more marked for girls.⁴ Ofqual (2012), however, found higher average grades in mathematics via a linear route but in English via a modular route. Rodeiro and Nádas (2010, p. 143) claimed it was weak students who took re-sits, and therefore they would be the group most heavily

³ See Putwain, 2009 and Baird et al, p. 5, on exam anxiety and its pejorative effects on assessment.

⁴ McClune (2001) suggested that boys were more likely to take advantage of some of the features of modular exams.

affected by the change in examination arrangements. The authors reasoned that by allowing a certain amount of re-sits within the course, candidates could be learning more. It could also be argued that candidates, through their re-sits, are more proficient at the topics covered earlier in the course than they would be had the examination been taken terminally.

Overall, although the literature search brings out the effects of the modular vs. linear debate, particularly in connection with pupils who may have difficulties with examination, and more generally in connection with the experience of girls and boys, it does not centrally address in detail many of the equality issues that concern us with respect to the main statutory characteristics. Although the evidence of examination results is somewhat mixed, it seems that girls do well in both modular and linear examinations and in many cases better than boys in the latter (*ibid*, p. 37), and that some pupils from certain minority ethnic groups (e.g. Indian) do well and in several cases better than White British pupils (Amin et al, 1997, pp. 33–4; Burgess et al, 2009, p. 8).⁵ Baird et al (2013, p. 18) warn that the differences, if any, were small.

Meyer (2011, p. 8), quoting research from Strand, Sammons and Wilson et al, implies that minority ethnic groups would benefit by later assessment: ‘*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’. While not specifically focused on linear assessment, the argument here for allowing the maximum available ‘progression’ and ‘catch-up time’ has ‘the potential, considerably, to affect attainment of pupils from ethnic minority groups in particular’.

Other groups that could be significantly affected are Traveller children and asylum seekers, whose education can be disrupted and could be disadvantaged by the reduction of assessment opportunities and linear assessment in general. The NFER, for example, conducted research in 2004/5 for the DfES ‘to examine barriers to vulnerable children⁶ accessing examinations at the end of Key Stage 4’. It concluded:

the need to develop more flexible approaches to accreditation at the end of Key Stage 4 was highlighted, in particular, greater flexibility in the time taken to complete accreditation. Issues faced by vulnerable children may mean that they are not in a position to complete courses at a given point in time, so opportunities for young people to be able to return to examination work when ready would be helpful.

⁵ This phenomenon intersects with the issue of social class – not a protected characteristic – and could help to explain the high achievement for some minority ethnic groups (Croxford, 2000, pp. 2–3; Cassen and Kingdon, 2007). According to the ONS, 2006, Chinese and Indian groups have a higher proportion (31 per cent and 25 per cent, respectively) of graduates than White British people (17 per cent).

⁶ Who NFER defined as ‘looked-after children, pupils unable to attend school because of their medical needs, Gypsy/Traveller pupils, asylum seekers, young carers, school refusers, teenage parents, young offenders, pupils with special educational needs (SEN), excluded pupils, minority ethnic pupils and children whose parents choose to educate them at home’.

With regard to Traveller children this is in the context of:

the changing role of education within the lives of Gypsy and Traveller parents and children reflecting changing social circumstances, in particular how many parents now feel schooling has a greater place in their children's lives than would have been the case a generation ago (Myers et al, 2010, p. 533).

The researchers called for several changes in curriculum and timetabling as well as for schools 'to rethink how they engage with Gypsy and Traveller culture to create spaces in which Gypsy and Traveller families can feel comfortable' (p. 546). The benefit of such action was reinforced by Wilkins et al (2010, p. 67) who claimed that 'For most of those that do stay in school to take GCSEs, the prospect of continued progression into FE colleges to study for vocational qualifications is attractive'.

Hek found, in her 2005 literature review for the DfES, that 'The focus on exam and achievement-led schooling does not serve refugee children well' (p. 30). Her own research with Sales (2002) emphasised the importance of exam success to refugee children and implied that impediments to this would be detrimental to their social inclusion.

While it is possible to identify specific issues that impact on attainment in general – ethnic identity, sex, economic advantage – it is difficult to assign a weighting to any of these within the interactions of a specific school, and Strand has suggested that schools that were effective for any one of these groups will be effective for all pupils within their population (1999, p. 179). However, one element that cuts across these categories is that of age. According to Sykes (2009, p. 30), 'There is robust evidence that the youngest children in their year group generally perform at a lower level to their relatively older peers at all levels of formal education.' Although this 'summer-born effect' reduces in steps over time, it is still present at older age groups (Bell and Daniels, 1990, p. 72) and, according to Sykes et al (2009 p. 3), to the end of higher education:

The percentage of GCSE students going on to take at least one A level drops from 35% in September-born students to 30% for August-born students. Likewise, September-born students are 20% more likely to go to university than their August-born peers. The Higher Education Funding Council has concluded that '... if all English children had the same chance of going to university as those born in September then there would typically be around 12,000 extra young entrants per cohort, increasing young participation by 2 percentage points'.

Crawford et al (2007, p. 5) further explain:

August-born girls (boys) are, on average ... 5.5 (6.1) percentage points less likely to reach the expected level at Key Stage 4 (as measured at age 16) and 2.0 (1.7) percentage points less likely to reach the expected level at Key Stage 5 (via an academic route). The expected level at Key Stage 4 is equivalent to being awarded five GCSEs at grades A*–C. Given that many further education institutions require students to have achieved at least this standard in order to admit them, this potentially means that August-born girls

(boys) could be, on average, 5.5 (6.1) percentage points less likely (than September-born girls (boys)) to remain in education beyond age 16, simply because of the month in which they were born.

Rodeiro and Nádas (2010, pp. 142–3) confirmed earlier research that ‘candidates cannot be expected to perform as well in early sittings as they would later on in the course’ providing ‘powerful arguments for linear assessments’. Thus, in the context of sitting and re-sitting of examinations this would seem to suggest that a delay in formal assessment until the end of the course of study and the opportunity to re-sit, if deemed appropriate, would disadvantage summer-born students less than early assessment and one-time-only assessment. Their conclusion seems to suggest that a delay in formal assessment until the end of the course of study at Key Stage 4 would disadvantage summer-born pupils less than early assessment (i.e. less than the ‘normal’ disadvantage experienced under an unweighted system), thereby helping in the promotion of equality.⁷

In the more recent research, Crawford et al (2013) state:

We find large differences in educational attainment between children born at the start and end of the academic year in England. These differences are largest soon after children start school and decrease as they get older (as the difference in relative age declines), but the gap remains educationally and statistically significant at the end of compulsory schooling, when young people are starting to make choices about further and higher education. For example, relative to children born in September, children born in August are ... 6.4 percentage points less likely to achieve five GCSEs or equivalents at grades A*–C (p. 21).

The differences increase as the birthdates are distanced from September. Furthermore, the summer-born are likely to experience a range of disadvantages relative to examination success, including labelling as having mild SEN, poorer socio-emotional development, lower confidence in their own ability, and are less likely to believe that their own actions make a difference (IFS, p. 2). Researchers concluded that:

As age at test is the key driver of differences in educational attainment between those born at the start and end of the academic year, age-adjusting national achievement test scores is a simple and straightforward way of ensuring that those born towards the end of the academic year are not disadvantaged by taking the tests younger (p. 4 and see p. 30).

⁷ Rodeiro and Nádas’ conclusions were:

- ‘GCSE English students certificating at the beginning or midway throughout the two-year course were at a disadvantage compared to those who opted for certificating at the end. Girls were at a greater disadvantage than boys. The gender effect was in line with previous research which showed that boys were more likely to take advantage of modular examinations than girls. On the other hand, girls following a linear assessment route and certificating early in the two-year course had a higher probability of achieving a given grade or above than those who certificated late.’
- ‘However, early assessment seemed to be an advantage for both girls and boys in the coursework units in both the linear and the modular routes. Students might have wanted to carry out their coursework assignments early in the course to relieve the workload towards the end of the year and they worked hard to do so (ibid pp. vii-viii).’

There are variations with regard to the subject being assessed and Roberts and Fairclough (2012) have pointed up the problems with Physical Education in this regard.

Another protected group possibly affected by assessment date are young women becoming pregnant whilst studying for GCSEs, either in school or in colleges. The shift to a final examination worth 100% has the potential for a negative impact if the timing coincides with any problems in pregnancy or is near the due date. Pregnant candidates run the risk of missing the opportunity to take examinations and this could be exacerbated by the increased pressure of a single final examination. Evidence shows that, even for those who have displayed a lack of interest in education prior to becoming pregnant, the level of interest in and the importance attached to education increases in pregnant pupils (Hosie, 2007).

The shift from assessment during the GCSE course to final examination has the potential to have a negative impact on some disabled examination entrants. Kevin Woods (2000) has raised concerns regarding 'a range of potential insufficiencies in ordinary examination arrangements', and the 'reliability and consistency between schools in the way eligibility for special arrangements is ascertained' (1998), but there is little research that focuses on the considerations that students with disabilities will require beyond the established criteria. Clearly, pupils with physical disabilities affecting their energy levels or abilities to concentrate for extended periods may have problems demonstrating their complete and true capabilities with an assessment regime confined to one concentrated period of three hours upon which their entire course of study is evaluated. It could be argued that there are benefits to be gained from less disruption to teaching and learning caused by repeated assessment windows, but the research record provides no confirmation of this.

Both pregnant and disabled pupils could be affected by missing the one and only assessment opportunity available in a course of study. A pupil undergoing gender reassignment also has a protected characteristic during the period that he or she is 'proposing to undergo, is undergoing or has undergone a process (or part of a process) for the purpose of reassigning the person's sex by changing physiological or other attributes of sex' (Equality Act 2010, Part 2, Chapter 2, paragraph 7 (1)). This can be a prolonged process, rendering the pupil unavailable at crucial times not only for lessons but for assessment unless alternative arrangements are made. Although the issue of gender reassignment features more regularly in the press and in guidance materials than in the past (see *CAB Advice Guide*, for example), there is no substantial research on its educational implications.

There is potential for negative impact if the examination date coincides with a period of fasting. Notably this could, for example, impact on Muslim candidates. Although young people are not required to fast, particularly if there is a conflict with education commitments, some do in order to join in with the family and wider community. In addition, although it was previously important, it can be argued the shift to an

examination worth 100% reinforces the importance of avoiding clashes with days of great religious significance in major religions.⁸

Use of Examination Aids

A variety of examination aids have been used in specific-subject exams including calculators, the periodic table, source materials, core texts, and dictionaries – reflecting a view that examinations should be more than a memory test. It is the view of the Department that ‘The use of examination aids should be kept to a minimum and used only where there is a compelling case to do so, to provide for effective and deep assessment of the specified curriculum content’ (DfE, 2013, p. 7). However, there is little in the research record to support the contention that examination aids affect results for particular groups of pupils, even for pupils with a SEN.

Question Type

Gender differences in entry patterns and outcomes were highlighted by the changes in curriculum and assessment that were brought in by the major reforms of 1988 (Stobart et al, 1992). Researchers at the time contended that ‘the style of assessment affects the relative performance of males and females’, and that there was a need to ‘determine how much of the problem resides in pupils’ perceptions and outside experiences and how much in the structure and assessment of the subjects’ (ibid, p. 262). Much has been done since in changing the way questions are phrased in examinations (e.g. the balance of gendered language that is used)⁹ and the material content on which they are based.

Girls and boys apparently also respond differently in certain subjects and to types of discourse. Trying to explain girls’ lower attainment in some sciences, Stobart et al (1992, p. 268) drew upon research from the then Assessment of Performance Unit to conclude that:

Girls read a wide range of books including plenty of fiction. Boys’ reading tends to be non-fiction, particularly technical manuals and information books. The style of writing pupils adopt is affected by this: girls choose to use extended reflective composition while boys responding to the same task will provide episodic, factual and commentative detail. Depending on which subject is being assessed and the modes of expression and learning style favoured in the subject girls’ or boys’ performance will either be judged as ‘good’ or ‘bad’.

However, there is little more in the research record that explores the implications of specific types on questions on groups because of a protected characteristic.

Grading

Changes in the grading scale do not appear to have any particular ramifications for individuals due to any protected characteristics. The equality screening with regard

⁸ It is common now for most universities to accede to requests for postponement and re-scheduling of examinations for reasons of religious observance (see Sheffield, for example; or St. George’s policy).

⁹ See, for example, Willbrand, M.L. and Iwata-Reuyl, G. (1994)

to the removal of Speaking and Listening marks (Ofqual, 2013d, pp. 6–7) did not identify a major impact, citing the balanced effect with respect to pupils for whom English is not their first language and some benefits for pupils with dyslexia. The effect on hearing impaired pupils also seems mixed, depending on the degree of hearing loss, amongst other things. According to SCIPS (Strategies for Creating Inclusive Programmes of Study):

Research shows that the reading age of deaf students leaving school is below the national average, [and] ... reading can remain a laborious task for some deaf students, as their vocabulary can be considerably restricted in comparison with their hearing peers.

Spelling, Punctuation, and Grammar

The issue of addressing spelling, punctuation and grammar (SPaG) had been reviewed and researched extensively for some time (QCA, 1999), and successive governments, concerned about the possibility that candidates could achieve high grades in GCSE exams without having to use spelling, punctuation and grammar accurately, have asserted their intention that when 'young people compete for jobs and enter the workplace, they will be expected to communicate precisely and effectively' (DfE, 2010, p. 49). To this end it was decided that 'Marks must be awarded for candidates' ability to spell, punctuate and use grammar accurately' in some subjects.

When these changes were first being considered, concern was raised on their potential for 'grade inflation/deflation' and for possible negative impact on grounds of several of the protected characteristics listed in the Equality Act 2010. Students with SEN, dyslexic students, speakers of English as an Additional Language, and the visually impaired (e.g. pupils requiring writing technology or scribes) might be potentially disadvantaged, or at least particularly affected, by the proposed changes, in particular if grade boundaries were to be altered due to an overall increase in marks (Ofqual, 2011a, pp. 12, 22).

A 2002 study of SPaG assessments in GCSE found that increased strictures with regard to 'spelling' may be 'unfortunate for boys who tend to be weaker at this aspect of writing'. This study makes reference to earlier research where 'limited evidence suggested that females slightly outperformed males of equivalent subject ability on SPaG' (Massey and Dexter, 2002, p.6). Earlier evidence in the same research (pp.3-5) and developing themes from Stobart et al (1992) and Massey and Elliott (1996), found 'girls less likely to make spelling mistakes than boys, but little difference in grammar and most forms of punctuation'. They concluded that this 'would appear to be a contributing factor to the general tendency for boys to obtain lower GCSE grades than girls in recent years, although it is clearly not the only factor involved' (Massey and Dexter, 2002, p.28).

Pupils of some SEN types are unlikely to be entered for GCSE assessment at 16 – e.g. pupils with a Cognition and Learning Need – but pupils with a visual or hearing impairment or a communication and interaction need, for example, may do so though in reduced numbers. For all pupils with an SEN in 2009, 75.2 per cent achieved 5 or more A*–G grade GCSEs including English and mathematics, compared with 97.2

per cent for pupils with no identified SEN, an attainment gap of 22 percentage points.¹⁰ Among these, 32.9 per cent of pupils whose primary need was visual impairment, and 20.2 per cent of pupils whose primary need was autistic spectrum disorder achieved 5 or more A*–C grade GCSEs or equivalent including English and mathematics (DCSF 2010, p. 6).

Dyslexic pupils¹¹ were initially identified by the Ofqual Equality Advisory Group as a SEN group who may well be adversely affected by a more stringent examination regime involving penalties for errors in SPaG. There is a great deal in the research record on dyslexia: however, most of the research and discussion relates to the diagnosis of dyslexia, teaching techniques and support strategies rather than the specific issue of how to evaluate the achievement and attainment in spelling, punctuation and grammar. The research interest in spelling and spelling errors seems to lie in its relationship with cognitive processes and, again, alternative pedagogies – but without a specific focus on evaluation techniques and their likely outcomes (particularly with regard to the protected groups with which this review is concerned). Difficulty with spelling is classified as a Specific Learning Difficulty which results in a lower work rate than is average and a lexicon that is restricted to words that can be spelled correctly. Hedderly (1996, pp. 41–2) summarised a range of other difficulties suffered by pupils with specific learning difficulties (SpLD):

Many dyslexic candidates have related problems of poor concentration and poor attention [and] ...may need a different assessment approach and different special arrangements. Many candidates with SpLD have problems with organisation. They may get confused over the timing of an examination. They also frequently report difficulties appreciating time passing during an examination.

At the time, he recommended rest breaks within a two- or three-hour examination and discussed the merits of allotting up to 25% more time for certain candidates, while stressing the importance of maintaining broad norms as being 'essential to safeguard the important principle that one candidate should not obtain an unfair advantage over others by virtue of the special arrangements' (ibid p. 44).

Whereas there is some research on spelling errors within Standard English, Apel and Masterson (2001, p. 192) bemoaned the lack of data on different spelling patterns in dialects other than Standard English. Such evidence as exists focuses on African-American English (see Kohler et al, 2007) and concentrates on teaching interventions, not assessment as such. Furthermore, concern that young people may have been disadvantaged by prolonged exposure to electronic means of communications, which routinely used degraded forms of Standard English, is not completely borne out in the research record (Wood et al, 2011; see also Kemp and Bushnell, 2011).

With regard to grammar, Nassaji and Fotos (2004, p.126) have addressed the question of 'whether grammar should be a primary focus of language instruction, should be eliminated entirely, or should be subordinated to meaning-focused use of the target language' within the context of second language acquisition (SLA). They

¹⁰ Reduced from a gap of 31.1 percentage points in 2006.

¹¹ According to the Dyslexia Association, dyslexia affects up to a tenth of the population.

have concluded that 'grammar feedback is necessary in order for language learners to attain high levels of proficiency in the target language' (ibid, p. 137). Thus, far from disadvantaging second language learners, the assessment of grammar – but much more importantly, the formal instruction of grammar – will, according to the authors, help SLA learners to attain high levels of accuracy. This conclusion is not borne out quite so categorically by all the research reviewed and, for example, intensive explicit grammar teaching on other language courses might not, as Macaro and Masterman conclude (2006, p.321), 'make all the difference'.

The Equality Act 2010 (Part 2, Chapter 2, paragraph 6 (1)) defines disability as follows: 'A person has a disability if:

- (a) the person has a physical or mental impairment; and
- (b) the impairment has a substantial and long-term adverse effect on their ability to carry out normal day-to-day activities.'

Disability in the sense of an identified Special Educational Need (SEN)¹² is not distributed evenly across ethnic groups (DES 2005, pp. 24–5) and it can be argued that assessment arrangements that do not make adequate allowance for these special needs are likely to indirectly disadvantage certain minority ethnic groups (particularly those with high levels of Children who speak English as an Additional Language (EAL) in which these proportions are high).

Research on subject choices (Sullivan et al, 2010, pp. 6, 9) show some variation between different ethnic groups (and boys and girls) which could indicate a differential impact on certain ethnicities of the changed assessment arrangements for SPaG.¹³

Though it may be clear that early or developing speakers of EAL or variants of English (such as Caribbean or West African variants), may well have problems with English SPaG there is no reason to believe that this is universally the case. EAL speakers who are literate in their mother tongues will have coped with a grammatical and punctuation system, in some cases more complex than that of English, and in many cases will be proficient in several languages. Many EAL speakers in this country will have undergone English language education for many years in their homelands where English teaching can be very rigorous and often traditional (see Dakubu, 1997). Speakers of variants of English may well operate in a variety of dialects, including Standard English, and will have experience of speaking in street, family and classroom registers (Trudgill, 2011).

4. SUMMARY

¹² Defined as: 'A child has special educational needs (SEN) if he or she has learning difficulties or disabilities that make it harder for him or her to learn than most other children of about the same age' (Hantsweb, 2013).

¹³ Religion GCSE, for example, is taken by 55.1 per cent of White pupils, but 59.1 per cent of Indian, 64.9 per cent of Pakistani/Bangladeshi, and 68.1 per cent of Black pupils (and by more girls than boys, 57.6 and 54.1 per cent, respectively). Whereas 62.1 per cent of White pupils choose either history or geography GCSE, only 59.6 per cent of Indian, 56.9 per cent of Pakistani/Bangladeshi, and 51.6 per cent of Black pupils do so. Chinese pupils are more likely to be entered for geography, but not for history; Indian pupils are more likely to be entered for English Literature than White pupils (DES 2005, pp. 16–7).

There is no shortage of views, opinions and assertions from interested groups, lobbies, journalists and academics on the proposed changes to GCSE examination arrangements and assessment; however, there appears to be a gap in specific research particularly on any substantial component relating to equalities implications (at least as defined by the Equality Act 2010).

- The elimination of coursework in favour of controlled assessment on the surface could be said to reduce teacher under-expectation, stereotyping and prejudice in assessment, which was to the detriment of certain of groups in favour of strict equality, but it also eliminates the summative teacher assessment that Bew praised in the context of primary assessment (Bew, p. 10) in favour of an ideal model of objectivity.
- The proposed removal of tiering in some subjects, likewise, would replace a system in which pupils were tasked with an assessment which (it could be argued) reflected their realistic capabilities with one which ostensibly removes the 'cap on ambition'. This could be seen as an advance in equality by removing artificial limits to achievement.
- Linear assessment also seems like a beneficial movement towards a state of equality in assessment, though there is little in the research record to support that there will be substantial changes as a result – with the exception that discouraging inappropriate early assessment is likely to benefit summer-born children who hitherto have been disadvantaged.
- Limitations on the use of examination aids and any changes to question type may change the nature of assessment, and raise the question of what we are trying to assess. These are not in themselves issues which affect individuals due to a protected characteristic any more than the general population.
- Grading is not an issue that is addressed in any detail in research with regard to its equalities implications.
- There are a range of issues regarding SPaG that are relevant to a number of the protected characteristics listed in the Equality Act 2010, including for some pupils with disabilities, specifically SEN and dyslexia, on some ethnic groups, and on boys rather than girls.

Perhaps the last, cautionary, word should go to Tim Oates (p. 3): '... schools' behaviour constantly adapts when qualifications change in structure, and often adapt in unanticipated ways – [this] is important in interpreting the results of research.

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Office of Qualifications and Examinations Regulation	
Spring Place	2nd Floor
Coventry Business Park	Glendinning House
Herald Avenue	6 Murray Street
Coventry CV5 6UB	Belfast BT1 6DN

Telephone 0300 303 3344

Textphone 0300 303 3345

Helpline 0300 303 3346