## **Professor Jim Scott**

# **An Impossible Situation**

The Impact of Governance Challenges and Decisions on Overall and Subject Pass Rates and on the Validity of 2020 SCQF Level 5-7 Qualifications in Scotland.

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# Stand-Alone Executive Summary Overview

As well as offering readers a summary of many of the key findings of the main paper, this Executive Summary provides signposting to the detailed findings of the paper through the eight key governance issues of Part A below, the summary analysis of overall and subject-based attainment in both versions of the 2020 qualifications in Part B and the five questions which follow. All of these link to sections of the main paper, to which readers are referred for detailed data and analysis.

The paper examines governance challenges, constraints, decisions and actions at all levels of Scottish educational governance and the outcomes achieved (in terms of the nature and validity of learner qualifications in 2020 and of societal reaction to governance actions). All stages of both 2020 qualifications models are analysed but, due to their crucial nature, the processes of estimating, moderating and awarding grades are analysed in particular detail.

Part A of the paper parallels the investigations of the recent *Rapid Review* (Priestley et al., 2020), drawing on its sources, plus further evidence, in identifying the successful and unsuccessful aspects of SQA's Alternative Certification Model, as well as the complex interplay of factors which led to the failure of version 1 of the 2020 Qualification process and the consequent less accurate version 2 process. The paper verifies many of the *Rapid Review*'s findings but adds further findings, providing a more complete view of 'what worked" and "what didn't work" within the Scottish educational governance system in 2020.

Part B of the paper carries out the attainment analysis which the *Rapid Review* did not undertake due to its remit from the Scottish Government. In so doing, the paper identifies a range of significant and highly significant issues within both versions of the 2020 qualifications, identifying both overall and specifically subject-related issues. Of particular concern are the extreme variations in pass rate (compared to previous years' pass rate changes) seen in several subject groups, particularly the STEM(Science, Technology and Mathematics) subjects..

Although the main paper is long and complex, it is smaller than the *Rapid Review*, while offering greater breadth of information and, in several areas, greater depth.

#### Context

The last quarter of the Scottish educational cycle of 2019-20 was severely disrupted by the SARS-CoV-2 pandemic. The pandemic presented Scottish schools, local authorities (LAs), the national examination agency, the Scottish Qualifications Authority (SQA) and the Scottish Government with highly significant challenges in completing teaching and learning, but more significantly in completing the annual evidence-based qualifications process. In 2020, an Alternative Certification Model (ACM) was iteratively developed and employed within a limited timescale to generate Scottish National Qualifications results at National 5, Higher and Advanced Higher levels. The publication of those results resulted in a national uproar and significant political and educational debate.

# Summary of Findings

The findings of this paper are in two parts:

- Part A builds on the evidence and findings of the recent Rapid Review of National Qualifications Experience 2020 (Priestley et al., 2020), commissioned by the Scottish Government, as well as documentation from SQA and other relevant sources. This paper agrees with many of Priestley etal.'s findings but reaches different conclusions in certain key areas and also highlights some areas apparently not considered or fully examined by the authors of the Rapid Review.
- Part B continues this process by analysing the overall and subject-based attainment outcomes of the 2019-20 qualifications process. The paper considers individual learners and their qualifications, examining the impact of the Alternative Certification Model (ACM) upon version 1 (August 4, 2020) of the 2020 results and how the Scottish Government's decision of August 11 significantly changed version 2. (August 31, 2020) Overall and subject-based pass rates (for Grades A-C) in National 5, Higher and Advanced Higher qualifications are used in analysing the first and second versions of the 2020 qualifications outcomes.

#### Part A: Governance Successes and Failures

Evidence of some good governance practice and commendable individual/ group effort is evident in the findings of this part of the paper. Equally, there is evidence of rushed, abandoned and inappropriate governance - particularly in the latter stages, as time became crucial. Despite workload issues, teachers were highly engaged, very positive about their pupils' prospects and "followed SQA evidence guidelines assiduously", although with inevitable variability of practice. Governance actors - in schools, LAs, SQA and the Scottish Government itself – made strenuous, if not always well coordinated or executed, efforts to generate "results". Despite all of this well-intended work, its ultimate failure for many (or most) individual learners - in terms of the accuracy of their results – undermined the intent.

Limited time, planning/design iterations (due to increasing external constraints), poor partnership (Headteachers and LAs tried to help remedy several issues but were not used), poor communication between SQA and the Scottish Government, a very limited ACM model which was forced further and further (by external

circumstance) from any ability to accurately grade individuals, teacher over-estimation of learner performance, a labyrinthine national Moderation process which managed to under- grade a minority of learners while facilitating over-estimation of a majority of learners, little or no sense-checking of individual outcomes, an 'information gap' within and between SQA and the ScottishGovernment and a failure to inform and engage key stakeholders (learners, parents, the media) with respect to the radical changes in the initial 2020 'system' contributed greatly to a situation where, ultimately, the Scottish Government was required to make a decision on how to resolve the uproar surrounding the version 1 2020 results. Unfortunately, the decision made was a particularly poor one.

These governance actions and outcomes are set out in Part A of the main paper but key governance issues which impacted upon the system's ability to deliver accurate grades are summarized here. Issues 1 and 3-6 are the most significant causes of the failed version 1 outcomes. Issues 2, 7 and 8 are pertinent to both versions and Issue 9 (with Issues 4,7 and 8) is the direct cause of version 2's major inaccuracies.

# 1. Time pressures on key governance organisations and actors

The intense concentration of time (14-15 weeks) for planning and action in 2020 contrasts with the several years available to SQA for previous major qualifications changes. Given the complexity of 'normal' qualifications processes, plus 2020's rapidly evolving constraints and pressures, it is not surprising that governance bodies and/or actors made mistakes or that sudden changes of direction took place. The predominant issue of time overshadows almost all subsequent issues and is the major cause of several of them. The combination of limited time, developmental repetitions (due to growing external constraints) and untried processes caused several later governance actions such as sense-checking and the post-certification review (PCR) to be rushed or abandoned, with detrimental outcomes.

# 2. Issues of strategic planning and communication

The 5 Planning and Support Tasks of Part A (ii): clarification, cooperation & partnership, strengthening SQA to cope with the task, sense-checking and communication/publicity, were crucial to ensuring that the makeshift ACM started well and proceeded at the best possible speed. Although SQA tried to address most of these issues itself, with very mixed success, the Scottish Government had greater communications capacity to explain major differences in the system to stakeholders and the press and how individual learners would be supported. It is, however, not clear if SQA explained these issues to the government. Equally, it is not clear whether the Scottish Government checked if there were problems or whether SQA needed further assistance. Some *Rapid Review* respondents blamed SQA for several of the resulting issues but neither time pressures, the Scottish Government's underused capacity to pre-emptively handle public communication and press reaction nor the sudden clarity of respondents' hindsight can be ignored here.

# **3.** The increasingly restricted ACM design process

External constraints grew with the successive disappearance of SQA's 'normal' data sources. All 4 stages of the ACM – estimation, moderation, awarding & certification and PCR/appeals – suffered significant difficulties as SQA tried to adapt. Difficulties with the two technical processes, estimation and moderation,

combined to cause severe problems for SQA (and more so for individual learners). Some issues entered the public domain, causing growing concern about the Awarding stage. As uproar intensified, the crucial but unexplained PCR process was abandoned, removing any hope that most individual learners' grades would be (reasonably) accurately identified. This end-phase crisis was compounded by SQA's apparent unwillingness to accept offers of help from school and LA partners.

The version 1 results were the output of the ACM: basically, the original SQA National Moderation Model, but with an attempt to make its overall outcomes conform to 1 or 2 years of prior national data (but with no consideration for individuals). Although a political decision rather than the output of the ACM, the revised version 2 did approximate to SQA's initial Model 1 in that teacher estimates were simply accepted, but with a minority increased. This action further inflated grades already perceived by SQA to be (much) too high due to significant overestimation by some teachers, schools and/or LAs. Both versions 1 nor 2 are unsatisfactory, not least in inaccurately grading individual learners/subjects or in achieving SQA's goal to "maintain standards".

Version 2 is significantly worse than version 1 inboth contexts (although it "solved" a known and much publicised equity-related aspect of the first version - at the expense of most other learners).

# 4. Teacher estimation and SQA's inability to deal with this known issue

SQA knew from wider research and its own long-term analysis that, annually, 40-50% of teacher estimates were inaccurate - in that they did not accurately predict learners' performance in examinations

- and so made little or no use of them in 'normal' years. This does not imply inappropriate practice by teachers; it is a known (by SQA and others) consequence of varying individual experience and individual professional perception of standards. SQA identified that teacher estimates appeared less accurate (i.e. higher-to-much higher) in 2020 than in previous years, leading to the drastic 'sledgehammer' measures of the ACM's moderation stage and to considerable grading inaccuracies (upwards more than downwards, as 74% of estimates were not moderated). Since estimates became the "linchpin" of the assessment system in 2020, their inaccuracy became a highly significant problem

## **5.** issues related to the inputs, conditions and function of the Moderation process

The estimation issues above generated a significant element of error in the main input to the ACM. The narrowly based Starting Point Distributions and rather crude "sledgehammer" algorithms of the ACM were designed to counteract overestimation. However, the significant widening of tolerance ranges by SQA overrode this, leading to acceptance without moderation of 74% of version 1 estimates and leaving many learners with significantly over-graded results. Meanwhile, the ACM's algorithmic "avalanche" (which variably affected the remaining 26% minority of learners) was designed to constrain the overall distribution of grades to something akin to the previous one or two years' patterns. Since 74% of grades were raw estimates, the "avalanche" significantly downgraded some learners in schools where over- estimation was traditionally high. Unfortunately, only the minority problem was publicly identified or addressed.

**6.** issues surrounding checking processes, including Awarding Meetings, failures to work with local authorities to sense-check the output from Moderation and a lack of any significant checks on the attainment of individual learners

Given their centrality to Awarding and their stated (by SQA) freedom of action, the failure of Subject Awarding Committees to identify major inconsistencies in overall, subject or individual attainment is a key factor in why many version 1 grades were inaccurate. From their documentation, it appears that SQA may have more centrally managed this traditionally disaggregated process in 2020; if so, this was not successful (see Part B). Together with an absence of checks on the attainment of individual learners

- as involvement of at least local authorities would have provided these checking failures mean that many learners would not have received accurate version 1 grades at Levels 5-7 in 2020.
- 7. The apparent failure by the Scottish Government (and possibly SQA) to hold and evaluate necessary information at crucial points

The author of this paper does not make Freedom of Information (FoI) requests but, fortunately, the response to FoI 202000070655 by another questioner was published in time to provide evidence that the Scottish Government appeared to be unaware of what information they and/or SQA held about a range of issues crucial to the accurate assessment of learners. This still appeared to be the case some months after initial stakeholder questions about the accuracy of the ACM. If so, it suggests the government was ill-prepared for making the decision considered in Issue 9 below and that they may not have had a satisfactory overview of the developing qualifications process, or issues, at several stages.

**8.** Failures by SQA and the Scottish Government to engage effectively with four months of public concerns or to explain and implement the Post-Certification Review (PCR) process to provide accurate gradings for many Scottish learners

As with Issue 7, it is unclear why SQA and the Scottish Government acted to diffuse months of publicconcerns, only then to trip up on these very issues upon publication of the results. SQA also appears to have turned away those who were in the best positions to actively assist them – LAs and headteachers

– but whether on the basis of time pressure, belief that only they could deal with the problem, mistrustor other reasons is unclear.

The Scottish Government faced many Covid priorities, but the politicians and officers responsible for education should have been aware, if only from their inboxes, of developing qualifications issues and concerns. Even accepting the *Rapid Review's* view that government and agency alike adopted a defensive posture, it appears inexplicable that the PCR process was neither publicly explained before August nor implemented with appropriate support offered to LAs, schools and learners. Had this been done, it would have provided (potentially far) more accurate gradings than v.1 or v.2 and might have avoided public uproar, a Vote of No Confidence or the need for a *Rapid Review*.

#### 9. Political Crisis

The failures of communication and action noted above generated a ninth, solely political governance issue. After August 4, 2020, the Scottish Government was beset by learners, parents, the press and thefor-once-combined Opposition parties,

resulting in a vote of No Confidence in their handling of the matter. It is unclear if the Scottish Government asked for, or was offered, data from SQA on the likely effects of simply awarding teacher estimates, including the likelihood of highly significant inflation of attainment figures and even greater inaccuracy in individual grades, but SQA's documentation suggests that it knew this would be the result. The government instructed SQA to accept teacher estimates but left learners whose v.1 grades had been increased by moderation at the higher level, thus further compounding the already extensive inflation of a majority of learner grades inherent in the 2020 estimates. This issue is the main cause of the highly significant issues of version 2, although issues 1 4, 7 and 8 are also valid here.

It must be acknowledged that the achievement of *any* qualifications process and outcomes within the few weeks available in 2020 was a significant success. Unfortunately, much of this achievement was undermined due to the inaccuracy of individual learners' results (see Part B) and the potential longer- term consequences for those learners.

#### Part B: Attainment Outcomes from 2020 Versions 1 and 2.

The second set of findings relates to the 'core business' of SQA – the grades gained by learners. Most surprisingly, this is not covered by the *Rapid Review*, apparently as a consequence of the remit defined by the Scottish Government (Priestley *et al.*, 2020, p.7), although Priestley *et al.* (*ibid.*, p.48) did stretch this to identify some individual learner issues and recommended "a thorough independent analysis of the application of the ACM". This recommendation was the only *Rapid Review* recommendation declined by the Scottish Government.

The second set of findings demonstrates:

- 1. the impact of the ACM on version 1 outcomes (04/08/20), mainly the attempt made to 'normalise' overall pass rates and the absence of work to provide accurate individual outcomes (except in the non-implemented PCR).
- 2. the impact of the political version 2 (11/08/20) 'solution', conceived in an attempt to resolve a mis- grading problem experienced by a minority of learners, but resulting in highly significant distortion of overall and subject-based pass rates (and thus of grades) for most learners.

#### 1. Overall Attainment in 2020

SQA's documentation suggests its main focus in 2020 lay in overall attainment rates and preserving the validity of Scottish qualifications, rather than the accuracy of individual learners' grades. Much of this stance was due to external factors, particularly the absence of meaningful input data - other than teacher/lecturer estimates, with their known issues.

SQA was clearly aware that the 2019 teacher estimates of A-C grade passes at National 5, Higher and Advanced Higher respectively exceeded the final 2019 results by 0.4%, 2.2% and 5.6% (SQA, 2020c, p.13), whereas the 2020 estimates of A-C grade passes exceeded the 2019 figures by10.4%, 14.0% and 13.4%. Trend analysis at Higher and Advanced Higher (see Part B, section (a)) suggests that the 2020 cohorts would largely have been unlikely to improve on their predecessors, given the 2019 National 5 and Higher results. Thus, the increases embodied in the

2020 teacher estimates threatened SQA with a uniquely large discontinuity in what it tried to maintain as "a relatively stable national system".

Year-on-year changes in percentage pass (A-C) rates at National 5, Higher and Advanced Higher are analysed in the paper to form a baseline for analysis of changes in pass rates from 2019 to 2020. Consideration of the previous 23 annual pass rate changes shows that, at Advanced Higher 15/23 (65%) lay in the range +/-1% from the previous year, 4/23 were +/- 2% and 4/23 were +/-3%. At Higher 18/23 (78%) lay in the range +/- 1%, with 4/23 being +/- 2% and 1/23 being +3%. National 5 follows a similar pattern, except for discontinuity around the introduction of new National Qualifications.

In 2020, overall pass rates increased under both versions of the "results", although the highly significant difference between versions 1 and 2 (see Tables 7, 9 and 11) is summarised here:

- At National 5, a 3% pass rate rise from 2019-2020 (v1) resulted from the ACM process. Although this was the highest increase since 2013, it lay within the outer reaches of normal year-on-year changes. The version 2 increase over 2019, being almost 11% above the 2019 figure, is an unparalleled rise. However, this was exceeded by outcomes at Higher and Advanced Higher.
- At Higher, a 4% rise over 2019 resulted from the version 1 ACM process: this was the highest increase for at least a quarter-century but lay just beyond the outer reaches of normal year-on-year changes. Both this figure and the corresponding National 5 figure would have been seen by SQA as "plausible" and might have been accepted by the public, but for the outcry about certain learners' outcomes. Unfortunately, the version 2 Higher increase over 2019 was almost 15% above the 2019 figure again, an unparalleled rise.
- At Advanced Higher, the 6% rise over 2019 of version 1 was also the highest for at least a quarter-century, lying well beyond the outer reaches of normal yearon-year changes. The version 2 increase over 2019, was almost 14% above the 2019 figure – again, an unparalleled rise.

If issues with individual learners' grades had been addressed through the Post-Certification Review, sense-checking by LAs/HTs and/or improved algorithms and constraints, then the version 1 figures might well have been perceived by learners, parents and the wider community as valid – albeit leaning to some extent towards learners, but not unreasonably so (except at Advanced Higher). However, the version 2 figures, generated by a purely political approach to a complex educational issue, appear to have departed from any semblance of normality.

# 2. Subject-Based Attainment in 2020

The overall statistics and outcomes above are, of themselves, a significant concern. However, subject-based pass rates follow a parallel pattern - but with more extreme outcomes. Different subjects' pass rates normally vary to different extents, with SQA's conventional wisdom being that large-uptake subjects would experience much smaller fluctuations in pass rate than small-uptake subjects (or where new subjects/presenting centres are involved). Unfortunately, this was virtually reversed in 2020, particularly in version 2 where several groups of large subjects displayed significantly greater (or, in some cases, extreme) fluctuations in pass rate, while some smaller groups of subjects (e.g. Arts and Languages) continued near to their

normal patterns.

Version 1 subject outcomes demonstrated a range of problems, some significant. As with the overall figures, this might have been explained to parents (had any governance body tried to do so) as a consequence of the educational system bending positively towards learners in a challenging year in order to ensure that no learner was wrongly graded. Unfortunately, some learners *were* under-graded by v.1, although not nearly as many as were over-graded. The cause of this lies in increased mis- estimation and the range of poor decisions made regarding the inputs, constraints and tolerances built into the Moderation phase of the ACM to combat mis-estimation. Since the attainment of individuals did not feature within the ACM to any extent until the final, unimplemented PCR stage, none of these issues could be corrected. Equally, the scale of over-grading in a range of large, fundamental subjects appears to have simply gone unnoticed or, at least, uncorrected by SQA or the Scottish Government.

The issues of version 1 are, however, insignificant when set against the issues generated by the combination of initial misestimation, failure to analyse outcomes of individual learners and direct political intervention into the awarding process which generated version 2 of the 2020 results. Version2 pass rate inflation in some subject groups, particularly the STEM subjects (Science, Technology and Mathematics) and, to a lesser extent, the Social Subjects is highly significant to extreme, despite the SQA view that these groups would normally be most stable. Of course, version 2 was not the product of SQA's processes.

In several subject areas, the results are sufficiently inflated to be of questionable validity. Tables 7-12 and, particularly, Table 13 of the paper demonstrate the scale of these issues fully, but some summary data is supplied here for versions 1 and 2:

- Of the 48 National 5 subjects, the number with at least double their previous highest change in pass rate rose from 9 in v.1 to 26 in v.2. Of these, only 2 version 1 Nat.5 subjects with pass rate inflation were large-uptake subjects, whereas this grew to 14 subjects in version 2. In total, 86% (229,594 from the total of 267,558) of version 2 National 5 A-C passes occurred in subjects whose pass rate increase was 2 to 16 times greater than the previous (post-2015) highest increase in pass rate.
- Of the 46 Higher subjects, the number with at least double their previous highest change in pass rate rose from 4 to 38. Of these, only 1 version 1 Higher subject with pass rate inflation had been a large-uptake subject, whereas this grew to 13 subjects in version 2. In total, 98% (163,207 of the 166,208) of version 2 Higher passes occurred in subjects whose v.2 pass rate increase was 2 to 13 times greater than the previous highest increase in pass rate.
- Of the 34 Advanced Higher subjects, the number with at least double their previous highest change in pass rate rose from 11 to 23. Of these, 2 version 1 subjects with pass rate inflation had been large-uptake subjects, whereas this grew to 6 subjects in version 2. In total, approximately 89% (19,439 of the 21,935) of version 2 Advanced Higher passes were in subjects whose v.2 pass rate increase was 2 to 29 times greater than the previous highest increase in pass rate.

Table 13 of the paper demonstrates that in version 2 of the National 5, Higher and Advanced Higher 'results', three of the four principal STEM subjects display consistent and highly significant instances of pass rate inflation, as do some of the Social Subjects. In each case the number of times by which the National 5, Higher and Advanced Higher pass rate increases for 2020 version 2 exceed the previous highest pass rate increase since 2015-16 are shown as a multiple (e.g. 15 times = 15x and as a percentage of the previous highest pass rate change = 1500%). The most extreme pass rate changes are in bold type:

	National 5	Higher	Advanced Higher
Mathematic s:	<b>15x</b> (1500%),	5x (500%),	19x (1900%)
Chemistry:	16x	11x (1100%)	7x (700%)
Physics:	(1600%), 6x (600%),	(1100%), 7x (700%),	<b>15</b> x (1500%)

Given the core importance of Mathematics for almost all learners – and Science for many - these extreme increases in pass rate across the full range from National 5 to Advanced Higher will be of major concern, both to learners and to the principal users of qualifications such as colleges, universities and employers. The fourth main STEM subject, Biology (5x, 4x and 2x) is less inflated but has still suffered significant increases. Other Technology subjects, including Administration and IT, Business Management, Computing Science, Graphic Communication and Health & Food Technology all demonstrate significant patterns of pass rate inflation, although not as extreme as those seen in Maths and Science. The Social Subjects - Modern Studies (3x, 13x, 6x), History (7x, 2x, 5x) and Geography (3x, 5x, 3x) - also suffered significant pass rate increases, as did Religious, Moral and Philosophical Studies (14x, 4x, 2x).

Beyond the STEM sand Social subjects, version 2 pass rate inflation is not as pronounced, but the main core Language, English (2x, 5x, 3x), suffered significant pass rate inflation, particularly at Higher, where it equalled Mathematics. The two largest foreign languages, French (3x, 6x, 1.1x) and Spanish (3x, 3x, 4x) have also suffered significant pass rate increases. German (3x, 5x, 0.25x) and Italian (0.67x, 3x, 2x) are smaller subjects (but display less pass rate inflation,) completing a pattern that suggests that Language grades are among the least inflated and that the smaller the Language subject, the less inflated its grades. In general, Languages and the Arts display less pass rate inflation than other subject groups.

Teachers and lecturers in the Arts and Languages aspects of the curriculum produced estimates that, although still prone to some pass rate inflation, were notably more 'plausible' (to quote SQA) than those of their colleagues in the STEM or Social Subjects. Although SQA did not cause the problems of version 2, it would be most helpful to key users of qualifications if SQA can identify whether the extreme grade inflation particularly evident in Mathematics, Chemistry and Physics is uniform across candidates or whether there are significant school, LA or equity-related fluctuations within these extreme figures. Without access to the data, this question is impossible to answer, but many of these learners are, or will soon be, in tertiary education and could be misplaced in their courses. They are deserving of any assistance which can be given.

#### **Further Questions**

Part B identifies 7 Key Questions relevant to outcomes of the governance carried out by members of all governance levels from the Scottish Government to the classroom. Since there are some close similarities, these are condensed here to 5 questions:

- 1. Why has no previous research been carried out by academics, the press or politicians to establish the full extent of mis-grading of individual learners in 2020?
- 2. Why has the much greater scale of over-grading of performance not been publicly noted when under-grading was quickly identified?
- 3. Why did the Scottish Government decline to follow up the flawed 2020 results processes with research and analysis of how grades were derived when it is evident that a highly significant extent of over-grading and a lesser extent of under-grading resulted from errors at all stages of the ACM and version 2 processes?
- 4. Why was very highly significant pass rate inflation of 3 to 29 times the previous highest annual pass rate increases of most major National 5, Higher and Advanced subjects due to the Scottish Government's intervention of August 11 not foreseen? If foreseen, why were these major disruptions to qualifications standards and thus learner progression to work and tertiary education allowed to stand and, again, why were learners, universities and colleges not warned of this?
- 5. Why was no sense-checking of the impact of version 2 (or version 1) carried out within subject areas or specific subjects?

Some, but not all, of the answers to these questions may be found in the paper. The questions relate to two main areas and are therefore addressed in groups (1-3; 4-5).

Questions 1 and 3 seek answers to related questions. It is quite difficult for the press or politicians to fully understand the processes and relationships inherent in examining qualifications data, or to find the time to carry out such processes. They therefore tend to turn to SQA, government statisticians or, occasionally, academics for such analyses. Academics may take time to address areas such as that of this paper, as rapid analysis may miss key aspects of the problem or its solutions. It would, however, have been helpful, not least to the learners concerned, if some national agency had addressed the 2020 results before August 4 and certainly before the decision of August 11. Why the Scottish Government turned down the request of Professor Priestley and his colleagues to carry out post-mortem analysis of the processes and outcomes of 2020 Rapid Review (Recommendation 8) is unclear, given that some aspects of the 2020 process will now be paralleled to some extent in 2021. The answer to Question 2 is a by-product of questions 1 and 3, as it appears that either no group or individual has chosen to do this analysis voluntarily or has been funded externally. It appears unlikely, however, that SQA is unaware of the issues concerned, although they may have chosen not to analyse the version 2 outcomes.

In Question 4, if these highly erroneous sets of results were not foreseen, this could be due to a lack ofinformation and thus to the issues considered in questions 1-3. If this information WAS known and the scale of grade inflation was understood, it seems inconceivable that a governance body – whether SQA or the Scottish Government – would have failed to act. This appears to confirm that SQA and/or the Scottish Government were making decisions in at least a partial information vacuum. This may also partially answer question 5, if neither SQA nor the Scottish Government was aware of the extreme effect of version 2. Without seeing all of the SQA-Government communications, it is impossible to answer these issues, but this matter needs to be resolved before the 2021 scheme is implemented in case some, or many, elements of these problems continue.

#### Conclusion

All governance actors involved in this situation, but not least SQA, faced intolerable time pressure and a unique set of circumstances, often beyond their control. This perilous situation was, however, worsened by variable estimation practice within several subject groups, variable local quality assurance, instances of poor governance at several levels and a few key instances of inappropriate political decision-making. The interplay of these factors generated two sets of qualifications, neither fully 'fit for purpose'. In the long term, the 2020 examination crisis may have negative consequences for the standing of Scottish education but, much more importantly, for many of Scotland's younger citizens.

There have been no winners in this unprecedented situation, but the learners involved in the 2020 (and 2021?) qualifications process are the greatest losers. Before August 11<sup>th</sup>, 2020's unnecessary second crisis, an accurate evaluation of the extent to which *all* learners had been under- or over-valued by the inaccurate estimation and moderation processes was urgently required and a small minority of learners faced an Appeal process to resolve their under-grading. Although challenging, these could have been achieved within a reasonable timescale, assuming adequate support for staff and learners alike. After August 11, learners now face the situation that their qualifications may be inaccurate, perhaps significantly so in some subjects. Of particular concern is that relevant authorities still appear not to have the necessary information to answer any learner's basic question: "how much were my grades affected?"

Fortunately, the majority of those who entered work, FE or HE in 2020 based their applications on Highers and/or other qualifications obtained in 2018 and 2019, before the pandemic. This will not be the situation for 2021 entrants to FE or HE whose 2020 (or 2021?) qualifications cannot be assumed to represent the standard their pre-Covid equivalents provided, particularly in the STEM subject areas. Therefore, the 2020-21 educational governance cycle *must* improve on that of 2019-20, for the sake of each individual learner caught in this "impossible situation".