1. Scottish Qualifications Authority

The main challenge facing the SQA in recent years has been implementing the new qualifications that are associated with Curriculum for Excellence. The specific task has related to the new National courses and examinations, replacing the former Standard Grade, Intermediate, and Access levels. This submission therefore considers some problems that have arisen in connection with the new Nationals. There have been four areas of concern, each of which is the direct responsibility of the SQA:

- Potential narrowing of the curriculum in S4.
- Restricted options for progression beyond S4.
- Excessive amount of assessment in the new courses.

1.1 Potential narrowing of the curriculum in S4

Because the National courses start in S4, whereas Standard Grade courses started in S3, there is less time to reach the same level of attainment\(^2\). A narrowing of the curriculum in S4 for all but the most able of students was inevitable, despite official advice\(^3\).

Unfortunately, data on attainment at each school stage is no longer published by the Scottish Government or by the SQA (in contrast to previously\(^4\)), and so it is impossible to measure the extent of any narrowing. However, evidence gathered from individual schools by Reform Scotland suggests that there are severe restrictions, and that there is much variation in this respect among local authorities and even among schools in the same authority. For example, in a few schools there is a ceiling of 5 subjects at National 4 or 5 level in S4, and in many schools there is a ceiling of 6.

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\(^2\) National 5 has been specified by the SQA to be at the same level as Standard Grade Credit awards, and National 4 to be at the same level as Standard Grade General awards: see 2012-13 entry in [http://www.sqa.org.uk/sqa/files_ccc/readyreckoner.html](http://www.sqa.org.uk/sqa/files_ccc/readyreckoner.html) [accessed 7 October 2016].

\(^3\) Frequently Asked Question 'Will learners who take 5, 6 or 7 subjects in S4 be disadvantaged compared to those in other schools who take 8?' at [http://www.sqa.org.uk/sqa/58998.html](http://www.sqa.org.uk/sqa/58998.html) [accessed 7 October 2016].

Any restriction matters for two main reasons. One is that it denies a breadth of education to pupils while they are in S4. The postponing of the National courses to S4 has been done in order to allow a broad, general curriculum to be maintained into S3. It is ironic that a consequence of this is that the curriculum may be narrowing in the year following that.

The second reason relates to progression beyond S4. The fewer subjects that are taken in S4, the less choice pupils have in S5 or S6. The SQA might reply that there is no evidence of any restriction of breadth among school leavers, and that is true, but if leavers are having to take two or three years to achieve a breadth that was previously available in S4, then their opportunity for maintaining and deepening some breadth of learning beyond S4 is limited.

1.2 Progression beyond S4

The new arrangements offer fewer opportunities for structured progression than did the combination of Standard Grades, Intermediates and Highers.

Very able pupils are perhaps not too badly affected, since they achieve National 5s in S4 (as they would Standard Grade Credit levels previously), and then proceed to Highers in S5. Nevertheless, even they would have limited choice if they have to select 5 Highers from as few as 5 or 6 National 5s in S4. Sitting 5 Highers in one year is an important criterion used by Universities to select students for undergraduate programmes that are in heavy demand.

For pupils of middling ability, the opportunities that were found under the old system have been restricted. For example:

- A pupil who achieved at the lower end of Standard Grade Credit in S4 might have taken Intermediate 2 in S5 and Higher in S6. Now, such a pupil who achieved a National 5 in S4 would have no intermediate step to structure their S5 work.

- A pupil who achieved Standard Grade General in S4 could have taken Intermediate 2 in S5, or Intermediate 1 in S5 as a step towards Intermediate 2 in S6. Now, such a pupil who achieved a National 4 in S4 would only have National 5 to which to progress, with no flexibility. There is already quite extensive taking of National 5 in S5 – 30% of National 5 candidates in 2016. That suggests that National 5s are playing some of the role of Intermediate 2 in S5, but they cannot also play the role of Intermediate 1 in S5 as a step towards Intermediate 2 in S6.

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7 The only evidence we have on the extent of this comes from the early years of the operation of Higher Still. Among students in local authority schools with average Credit attainment at Standard Grade, 11% of the courses they took in S5 were not further up the ladder in the sense that they were at Intermediate 2 or lower rather than Higher: see Table 5(a) in Tinklin, T., Raffe, D. and Howieson, C. (2005), Analyses of SQA Data on Higher Still for 1999-2002, CES, Edinburgh University: Working Paper 13, The Introduction of a Unified System.

8 From Tables 5(a and c) in Tinklin et al. (2005): among students in local authority schools with average General attainment at Standard Grade, 50% took Intermediate 2 courses in S5, and 23% in S6.

9 p. 9 in SQA (2016), Attainment Statistics (August).
These comments can be no more than speculative since the SQA has not published any evaluation of the breadth of curriculum in S4 nor of the pathways which pupils take beyond S4. Notably, the OECD in its 2015 report was not able to make any comment in this connection because of a lack of data.\textsuperscript{10}

The SQA and Education Scotland contradict each other on breadth and progression:

- In its submission to the present inquiry by the Education and Skills Committee, the SQA reported that it works with the ‘Curriculum for Excellence philosophy’ of a ‘reduction in [the] average number of subjects taken’ by candidates.\textsuperscript{11} Thus the SQA accepts that there ought to be a narrowing of the curriculum.

- When the Reform Scotland report mentioned above was published, the chief executive of Education Scotland was quoted by the \textit{Herald}'s education correspondent as saying that ‘the report was based on a narrow interpretation of the curriculum because it only focused on fourth year and failed to take into account the key objective of Curriculum for Excellence which is to maximise attainment by the time pupils leave school rather than seeing any one year in isolation.’\textsuperscript{12} Thus Education Scotland does not accept that there should be any ultimate narrowing, though it does accept that there might be narrowing in S4.

What these contradictory aims of SQA and Education Scotland do have in common is that they gloss over the possible loss of opportunity which the new system has caused.

\subsection*{1.3 Low status of National 4}

The National 4 courses are less popular than the combined total of Standard Grade General and Intermediate 1, which covered the same level of attainment as National 4. In 2016, there were around 115k awards in National 4.\textsuperscript{13} In 2012, by contrast, the total number of awards at Standard Grade General was 126k, and at Intermediate 1 was 53k, a total of 179k.\textsuperscript{14} For each age group, there will be a lot of overlap between these two (pupils who achieved a Standard Grade General in S4 and an Intermediate 1 in S5 or later), but National 4, too, is available in all the years S4-S6. Moreover, whereas National 4 is available in colleges as well as in schools, Standard Grade was exclusive to schools.

Even if we set aside the 2016 number for National 4 as provisional, and refer to the number for 2015, which was 122k, there still appears to be much less passing of courses at this level than in the old system. This fall from 179k to 122k (a fall of 32\%) cannot be accounted for by a fall in the size of the relevant pupil groups: between 2012 and 2015, the total S4-S6 roll fell by 3.5\% (within which the S4 roll fell by 6.8\%).\textsuperscript{15}

\begin{thebibliography}{9}
\bibitem{OECD2015} p. 71 in OECD (2015), \textit{Improving Schools in Scotland: An OECD Perspective}.
\bibitem{SQA2016} p. 6 in SQA (2016), \textit{Briefing}, Scottish Parliament Education and Skills Committee.
\bibitem{Herald2016} \textit{Herald}, 31 May 2016 [accessed online on 7 October 2016].
\bibitem{SQA2016A} Table 9 in SQA (2016), \textit{Attainment Statistics (August)}.
\bibitem{SQA2012} Tables on Standard Grades (SG3) and on Intermediate 1 (IA4a) in SQA, \textit{Annual Statistical Report 2012}. \url{http://www.sqa.org.uk/sqa/66899.html} [accessed 10 October 2016]. For direct comparison with the pre-appeals data for 2016, the figures are 128k at Standard Grade General, and 52k for Intermediate 1. So the total in 2012 of 180k would be almost the same pre-appeal as post-appeal.
\bibitem{PupilCensus2015} Table 3.3 in \textit{Pupil Census 2015 Supplementary Data}.\url{http://www.gov.scot/topics/Statistics/Browse/School-Education/dspupcensus/dspupcensus15}
\end{thebibliography}
These calculations are merely suggestive, since data are not published for each school stage. Once again, data according to stage are essential in order to understand what is happening.

There has not been so large a fall at National 5. There were around 234k National 5 passes in 2016. In 2012, there were 157k Standard Grade Credit awards, and 112k awards at Intermediate 2, a total of 269k. So the fall at that level has been 13%, less than half that at National 4. There might still be a concern that any fall of this kind represents a reduction of opportunity or flexibility, but it is clear that the reduction is greater at National 4 than at National 5.

The contrast between these two levels is likely to be because National 4 has no external assessment, in contrast to National 5, causing National 4 to have lower status in the eyes of pupils, parents and teachers than National 5. This lower status might be regretted, but for many decades it has been part of the social context of assessment in Scotland. For example, it was one reason why there had to be reform to the examination system in the 1990s (the reform which led to ‘Higher Still’), because the mainly vocational National Certificate modules that had been developed in the 1980s, being internally assessed, lacked the status of the Highers. This problem with the low status of internal assessment was predicted to the SQA and in public in 2009-10, but seems to have been ignored.

1.4 Unit assessments

The Scottish Government has decided to reform the unit assessments of the new system in order to reduce the excessive pressure on pupils and teachers. This reduction of unnecessary assessment came about only after much public pressure. But the unmanageable burden of intrusive assessment could have been forecast from previous Scottish experience, most notably from the Scottish Parliament’s report on the experience of Higher Still. Here is what the Education, Culture and Sport Committee said in its report in 2000:

‘One of the principal sources of difficulties this year was associated with the requirements for unit entry in Higher Still courses. It is considered that these were over-complex and badly formulated.’

It might reasonably be asked why the SQA has not learnt the lesson which the Scottish Parliament tried to teach them 16 years ago.

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2. Education Scotland

This submission comments on two aspects of the work of Education Scotland in recent years:

- Implementing and evaluating Curriculum for Excellence.
- Reconciling the development and evaluation of policy.

2.1 Implementing and evaluating Curriculum for Excellence

Curriculum for Excellence (CfE) is the most important reform to Scottish school education since the development of the 5-14 programme in the 1980s. Education Scotland has the lead responsibility for implementing it. Education Scotland also, through its inspectorate arm, has the lead responsibility for evaluating how the reform is working. Yet the OECD could make these comments in December 2015, in a report commissioned by the Scottish Government:

‘the evidence is not available for … an evaluation’ of CfE;
‘a premature evaluation of CfE when it was only in its early stages of implementation may well have done more harm than good. However, the evaluative evidence did need to be gathered that would serve to inform future direction and in any case it is not possible to argue convincingly five years after CfE implementation in schools began that evaluation would be premature’;
‘one of [the] main recommendations below … is the need to evaluate how CfE is actually being implemented in schools and communities’. 20

The OECD was thus saying that evaluation is necessary, is not being done, and now cannot validly be done because baseline data were not collected at the point when the reform started.

It is now too late to evaluate how CfE is working in detail, school by school, because the moment at which the comparative data could have been collected has passed. Missing that moment might be described as a dereliction of duty by Education Scotland.

Two other mechanisms, sponsored by the Scottish Government rather than Education Scotland, can be used to give approximate evidence on the performance of CfE, and thus on the performance of Education Scotland. These are the Scottish Survey of Literacy and Numeracy (SSLN) and the Programme for International Student Assessment (PISA). Neither is ideal for evaluation, but they give enough information to suggest that Education Scotland has not ensured that CfE is performing well.

2.1.1 Scottish Survey of Literacy and Numeracy

This survey was developed with the express intention of tracking the progress of CfE. As a nationally representative survey, it is of high quality. The SSLN assesses, in alternate years, literacy and numeracy, at each of three school stages, Primary 4, Primary 7 and Secondary 2. Three years are available for numeracy (2011, 2013 and 2015) and two for literacy (2012, 2014). Its conclusions about CfE are not encouraging:

In numeracy, the proportion of pupils performing well or very well has declined for each of the primary-school stages. In S2, performance has been stable at a low level.\textsuperscript{21}

In reading, the proportion of pupils performing well or very well has declined over time for each of the school stages.\textsuperscript{22}

In writing, the proportion of pupils performing well or very well has also declined or stayed the same over time for each of the school stages.\textsuperscript{23}

Moreover, in that period, inequality has not improved. For example, in numeracy at P4, the gap in these same percentages between the most and the least deprived pupils has grown from 12 percentage points in 2011 to 21 in 2015. In numeracy at P7, the gap has grown from 16 points to 23. In numeracy at S2, the gap has stayed the same, at 28 points.\textsuperscript{24}

For the system overall, therefore, there are no grounds for claiming that Education Scotland, through CfE, has succeeded in improving attainment or closing the social gap in attainment.

It would in principle be interesting to be able to measure progress in individual schools, since school-level analysis might give some insight into what is working well with CfE and what is not. But the design of the SSLN, with only a very small sample of pupils in each school, makes such school-by-school comparison wholly unreliable.

\textit{2.1.2 Programme for International Student Achievement}

The PISA study measures the attainment of pupils at age 15 in many developed countries. It is intended to assess pupils’ ability to apply their knowledge to real-world problems, a core purpose of CfE. It takes place every three years, measuring mathematics, science and reading, with in-depth reports on each of these every nine years. In neither mathematics nor science did average attainment improve in Scotland following the advent of CfE (that is, between 2009 and 2012). In reading, average attainment did increase slightly, but the increase was similar to that for the OECD as a whole.\textsuperscript{25} In all three subject areas, Scotland was slightly above-average for OECD countries, but by not nearly so much as it had been in 2000. For all three subject areas, although there was a rise in the average attainment of low-ability pupils, there was a fall in the average attainment of the highest-ability pupils.

The only domain for which social inequality has been analysed following the introduction of CfE has been mathematics, in 2012, which may be compared to the previous in-depth report on mathematics (2003).\textsuperscript{26} Attainment fell in all social groups,

\begin{itemize}
\item For 2012 and 2014 respectively: in P4, 83%, 78%; in P7, 90%, 88% in S2, 84%, 80%: p. 2 in Scottish Government (2015). \textit{Scottish Survey of Literacy and Numeracy (SSLN) 2014 (Literacy)}.
\item For 2012 and 2014 respectively: in P4, 64%, 64%; in P7, 72%, 68% in S2, 64%, 55%: p. 2 in Scottish Government (2015). \textit{Scottish Survey of Literacy and Numeracy (SSLN) 2014 (Literacy)}.
\item Table B2.II.2 in OECD (2013). \textit{PISA 2012 Results, Vol. II.} Table B2.9 in OECD (2004). \textit{Learning for Tomorrow’s World}.
\end{itemize}
but most for the most advantaged pupils. So inequality fell because the best-
attaining social groups were declining most rapidly.

None of these results is consistent with the aim of Education Scotland to ‘build a
world-class curriculum for all learners in Scotland’.\(^{27}\) On the contrary, we might
reasonably conclude from this international evidence that Scotland’s performance,
based on Curriculum for Excellence, is mediocre.

2.2 Reconciling the development and evaluation of policy

Education Scotland is responsible for developing CfE and, through the inspectorate,
for evaluating it. This risks a conflict of interest. Since, as the OECD noted in the
report cited in Section 2.1, Education Scotland does not provide valid, independent
data by which we might evaluate CfE, we cannot assess whether the potential
conflict of interest might actually be leading to complacency.

Separating responsibility for development and for evaluation was a principle asserted
by the Scottish Parliament in its discussion of the exams crisis in 2000, after
concerns had been raised about a similar conflict in relation to the Higher Still
programme. The Education, Culture and Sport Committee reported evidence from
the Convention of Scottish Local Authorities, for example, that the ‘the roles and
responsibilities of the … HMI and SQA … have become hopelessly confused,
enmeshed and entangled in a way that people cannot understand.’ Likewise, the
Association of Directors of Education in Scotland had commented that

‘the function of HMI is, at least at national level, to be the main quality assurance
mechanism in Scottish education. That function is compromised seriously by
involvement in policy formulation’.\(^{28}\)

The Education, Culture and Sport Committee warned of ‘conflict between the duties
… of acting as assessors for and advisers to’ government, and concluded that the
‘role [of the inspectors] should be more transparent’.\(^{29}\)

As with the SQA, we are then led to ask why Education Scotland has not learnt the
lesson which the Scottish Parliament tried to teach the policy process 16 years ago.

\(^{27}\) p. 3 in submission by Education Scotland to the present inquiry by the Education and Skills
Committee.

\(^{28}\) Paragraphs 259 and 260 of Education Culture and Sport Committee, *Exams Results Inquiry. 11th*

\(^{29}\) Recommendation 27 in Education Culture and Sport Committee, *Exams Results Inquiry. 11th*
Report 2000 (SP Paper 234)