



**COMMISSION
ON SCHOOL
REFORM**

Challenge Paper

Reliable education data

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Membership of the re-convened Commission on School Reform is as follows:

- **Keir Bloomer (Chair):** Education Consultant and former Director of Education
- **Sarah Atkin:** Currently works in a secondary school, formerly a Parent Council Chair and researcher for education conferences.
- **John Barnett:** Business consultant and former Parent Council Chairman
- **Helen Chambers:** Deputy Chief Executive of Inspiring Scotland
- **Jamie Cooke:** Head of RSA Scotland
- **Carole Ford:** Former Head teacher
- **Jim Goodall:** Former Head of Education and Community Services at Clackmannanshire Council and current Lib Dem councillor at East Dunbartonshire Council
- **Frank Lennon:** Former Head of Dunblane High School
- **Dorothee Leslie:** Vice Principal Curriculum and Academic Planning, Fife College
- **Cllr Paul McLennan:** SNP Councillor in East Lothian
- **Ross Martin:** Economic Agitator with experience in a variety of roles in education-including school teacher, voluntary tutor, chair of local education authority, member of college board & university court, Chair of a charity, and, most importantly, a parent and former student.
- **Lindsay Paterson:** Professor of education policy in the School of Social and Political Science at Edinburgh University
- **Lesley Sutherland:** Board member, the Centre for Scottish Public Policy

Please note that all members of the commission participate in an individual capacity and that the views of the commission do not represent the views of any other organisation to which the individual members belong.

Constructive debate depends on reliable information

Much attention has been devoted recently in the Education Committee of the Scottish Parliament and in the media to the question of whether standards in Scottish school education are rising or falling. The question of standards is one in which the Commission on School reform is keenly interested and on which it has published its views in the past. However, this short paper is not concerned with that substantive question but with the fact that it is possible for such a debate to rage over many months with many statistics being exchanged but few incontrovertible conclusions being reached. The continuing disagreements say something important and profoundly unsatisfactory about the information that is available.

There will, of course, always be disagreements about which educational outcomes are the most important or whether particular assessments accurately reflect what they purport to measure. However, there ought to be a solid foundation of factual information that will allow constructive discussion to take place. Unfortunately, no such foundation exists.

Performance in the senior phase

Much of the recent discussion has related to measures conducted near the end of the schooling process. Has there been a narrowing of subject choice in S4? Has it been accompanied by a fall in standards? Is performance in Higher rising or falling? Is the proportion of young people leaving school without any qualifications reaching an alarming level?

It is, of course, perfectly reasonable that there should be a focus on attainment at this stage. Young people have a single opportunity to prosper at school. Whether they emerge into the adult world able to cope with further or higher education or equipped for the labour market are legitimate and important questions.

Unfortunately, there seems to be little thought given to which measures are best able to provide valid and relevant answers. Furthermore, it is not clear that the data exists to yield the required information. It is worth exploring these points in more detail.

In recent years the Scottish Government has appeared to place considerable reliance on statistics showing the percentage of pupils gaining at least one pass at Higher. No explanation for the choice of this measure has ever been offered. Opposition parties, however, have been quick to suggest that the reason is that this is one of relatively few showing a positive trend. The Commission, however, is chiefly concerned to establish whether it is a measure that corresponds to any important outcome of the educational process. It certainly does indicate the proportion of pupils who have gone on beyond study at levels traditionally associated with S4 and achieved some measure of success at the next highest level. Beyond this, however, it is difficult to see any clear rationale.

One Higher pass does not seem to give access to opportunities in further or higher education that are not open to people without such a pass. There is no evidence that a single pass is highly regarded by employers as an entry qualification for employment or training. In short it does not seem that gaining one pass at Higher serves to 'open doors'. The Commission sees this as an important criterion for considering measures for inclusion in any framework for measuring success.

Thus, five passes at National 5, three passes at Higher, five passes at Higher and five 'A' passes at Higher seem to have the capacity to improve life chances by extending opportunities in a way that a single pass does not. It is, therefore, reasonable to expect that, when politicians are seeking to comment on the effectiveness of the system at the point when young people leave (or are about to leave) school, they should do so in terms of measures that relate to how schools have equipped them for making their way in later life.

At present it is possible to do this only in relation to part of the school cohort. There is very little information about, say, the market value of passes at National 4. There has been plenty of discussion, certainly, about such awards having reduced credibility because of the lack of any external assessment. That, however, is a different issue. Who uses National 4 and for what purposes? Are there employers who set a value on job applicants possessing a number of N4 awards? If so, what

number? Is there any pattern across the labour market? In the absence of such information, it is impossible to say what level of National Qualifications below SCQF level 5 might 'open doors'.

It is, of course, possible that employers recruiting among school leavers are looking for something quite different. Some certainly seek to use in-house tests of various kinds to aid recruitment. It may also be the case that success in vocational courses or personal development awards will carry more weight than qualifications at N3 or N4. We simply do not know. Such labour market information may exist but it has never been brought together with information about school performance at this level in ways that would make it possible to measure the effectiveness of the system in serving the interests of an important part of the school population. As yet the government's strategy for educational research has not resulted in any studies being undertaken to answer these questions.

Nevertheless, any attempt to assess the success of the system must, of course, consider the needs of young people more interested in or suited to vocational rather than academic qualifications. In many such cases success in, for example, a Foundation Apprenticeship, is likely to be of much greater value – at any rate in terms of securing employment – than a group of low-level National Qualifications. In the same way, employers may well be interested in courses that demonstrate the acquisition of skills suited to the workplace. Some, indeed, seek to use in-house tests of various kinds to aid recruitment.

It is important to recognise that while success in vocational courses is likely to improve employability and life chances in economic terms, it does little to measure achievement in relation to other important educational objectives, such as an understanding of society and the place of the individual within it. In this respect, qualifications aimed at a limited range of vocational possibilities do not give as broad a measure of the impact of the educational process as a whole as National Qualifications in academic subjects.

The inclusion of such qualifications in a basket of measures designed to evaluate the success of the system in the round thus provides some useful

information but has limitations that must be recognised.

A digression on subject choice

This has an important bearing on an argument frequently advanced by the Scottish Government to defend itself against allegations of declining subject choice. In response it is claimed that choice has never been greater. The range of options available in the senior phase has undoubtedly increased greatly and continues to increase (the relationship between these two sets of claims is examined later). The choices offered by schools, more to those in S5 and S6 than those in S4, both in-house and through collaborations with colleges, employers and others, has never been greater. This raises a number of issues that have been little explored. How well are young people guided through a potentially confusing set of choices? Are we confident that they are making the choices that make fullest use of their talents and optimise their opportunities? Do schools possess the information to enable them to advise on whether a focused vocational course does or does not represent a choice more likely to secure job offers than a group of subject passes at N4? Again, the opportunities for useful research are numerous but there is little sign of government interest in sponsoring it.

The argument about whether choice is widening or narrowing is an interesting one. Critics of Curriculum for Excellence implementation argue that the extension of the phase of broad, general education up to the end of S3 has unintentionally reduced the time available for the study of N4/N5 courses and thus made inevitable a reduction in the number of subjects taken by the individual pupil in S4, typically from eight to six. In reply, defenders of the government's approach claim that the range of choice available has widened. The reality, of course, is that both sides are correct. The range of possibilities on offer has widened but the number of choices available to the individual has reduced in most schools.

There is obviously scope for debate about whether the reduction in the number of choices that the individual can exercise is a step backwards. Until recently, the norm in the great majority of schools was that most pupils could take eight examination subjects (although usually two of these – English and

mathematics - were mandatory). The origin of this figure of eight is lost in the past. It could be described as arbitrary. Yet there is a certain logic to it. Curriculum for Excellence has eight curriculum areas which owe their origin to the eight 'modes' set out in the Munn Report and built into the structure of the Standard Grade programme. These in turn can be traced back to the philosophical work of Paul Hirst and the idea that there is a limited number of genuinely distinct ways of knowing about the world.

For a time pupils' choice of subjects was tightly constrained. A science and a modern language were, to an extent, mandated by national policy. The way in which schools tended to organise their options often meant that pupils would be obliged to choose one subject from among history, geography and modern studies and another from a group of subjects that might, rather loosely, be described as technological. Although schools had significant discretion, *Curriculum Design for the Secondary Stages*, (Scottish Consultative Committee on the Curriculum, 1989), a policy document usually referred to as the Yellow Book, prescribed a strong curriculum framework. The government circular which gave force to this framework was withdrawn as part of the process of introducing Curriculum for Excellence, ushering in a period in which school control of curriculum structure significantly increased.

However, even when the Yellow Book exerted considerable control, pupils were not obliged to select one subject from each mode. Nevertheless, the eight subject structure did allow them to continue to study a subject in the majority of modes until the end of S4, thus giving the curriculum significant breadth and avoiding premature specialisation. In practice, most pupils would continue with English, maths, and one or more sciences, languages, social subjects or expressive arts. This largely remained true until the extension of the period of broad general education up to the end of S3 required a significant change in senior phase structures.

By contrast, the now common six-subject structure usually involves English and maths and a significantly more restricted group of other subjects. It also allows little scope for error in subject choice if the pupil is to maintain the possibility of studying five Highers in S5.

Much of the recent debate has been about establishing what has taken place. A more important question is whether the changes that have occurred are beneficial to the individual pupil or to society. This is essentially a question of curriculum philosophy to which little attention has been paid.

Performance at earlier stages

So far this paper has been concerned with evidence about the performance of the system at or near the point where young people leave school. In terms of the future prospects of the individual, it can easily be argued that that is the most important stage at which to assess the extent of the benefit of education. However, it is also clearly vital to know something about performance at all earlier stages.

This is not to argue for the establishment of an extensive regime of universal testing throughout schooling. The Commission is opposed to approaches that carry a high risk of setting up perverse incentives. In any event much good evidence has been produced in the past through the use of sample surveys which do not run this danger.

What is essential, however, is that there should be good quality objective evidence of the standards being achieved and the difference that occurs when changes are made as, for example, through the introduction of Curriculum for Excellence.

Unfortunately, the amount of such evidence currently available is negligible. Professor Lindsay Paterson of Edinburgh University has argued that we know less now about the performance of Scotland's schools than at any time since the 1950s.

A very important backward step was taken with the decision to abandon the Scottish Survey of Literacy and Numeracy (SSLN) after the 2016 survey. This sample survey assessed performance in these two vital curricular areas (with literacy being further divided into reading and writing) at three points in the school process (P4, P7 and S2). It thus offered a view of how standards developed from mid-primary through to a point not long before the stage at which it becomes possible to measure outcomes through performance in senior phase examinations.

SSLN was preceded by the Scottish Survey of Achievement (SSA) that looked at similar curricular areas. Both SSA and SSLN evaluated the performance of 5,000 learners at each relevant stage. In the case of SSA, the sample was drawn from a small number of schools while SSLN tested pupils from every school. The school groups in SSA were thus generally of sufficient size to allow some conclusions to be drawn on school performance. With very few pupils from each of a very large number of schools, this was not possible with SSLN. Some researchers thus considered SSA to be technically superior. It would also be possible to criticise both surveys on the basis that they assessed performance on a relatively narrow sample of the curriculum (although arguments can also be made for focusing on basic skills, certainly in the earlier stages).

However, were the Scottish Government to be persuaded to improve the quality and quantity of data available about school education by reintroducing a survey of attainment, it would be quite possible for the new survey to be designed in a way that took account of previous experience.

The introduction of Scottish National Standardised Assessments (SNSAs) has of course done nothing to improve the quality of information available for evaluating the performance of the system (although its diagnostic features may well be of value to teachers). The findings of the assessments are not published or made available to researchers in the way that, for example, SQA examination performance is made public, although they are made known to teachers. The data that is made publicly available by government consists of the judgments made by individual teachers having taken into account the outcomes of the assessments among other factors.

Much research has demonstrated the unreliable optimism of teachers' judgments of their own pupils' performance. This is not a bad thing. Teachers' sympathetic understanding of the learning of their pupils and commitment to their success are essential to their ability to relate to and enthuse young people. They do not, however, assist in the production of reliable data. As a means of evaluating the success of the system, the teacher judgments to which the SNSAs contribute are valueless. This is not to argue for their abolition. Research might establish whether the diagnostic information provided by the tests is

helping teachers to help individual children. However, no such research is being undertaken. Instead, a politicised dispute rages over the appropriateness or otherwise of testing. Again, the need of the system for reliable information is judged less important than arguments uninformed by appropriate data.

International comparisons

Scotland was closely involved in the early development of international surveys of educational standards. It undertook pioneering work more than eighty years ago and could claim to have been in the vanguard of attempts to measure educational performance on an international basis.

In the interim such comparisons have become more common, more sophisticated and, most importantly, more influential. Indeed, it is now no exaggeration to say that many governments await the publication of new data from the major surveys with a considerable degree of trepidation. In some places, the nature of these assessments has influenced curriculum development and pedagogy. Even in Scotland the content of the Experiences and Outcomes for Curriculum for Excellence was influenced by the approaches taken by the Programme for International Student Assessment (PISA).

In recent years Scotland participated in three major international surveys; as well as PISA, it took part in the Third International Mathematics and Science Survey (TIMSS) and the Progress in International Reading Literacy Study (PIRLS). However, it did not participate further in either of these studies after the TIMSS survey of 2007 and is now involved only in PISA. It is clearly unsatisfactory that the only high quality information available about how standards in Scottish education compare with those elsewhere comes from a single survey that considers performance only at age 15. This is not to criticise the quality of PISA, an excellent survey which *inter alia* assesses students' capacity to apply ideas to real-world situations, but rather to comment unfavourably on decisions of the Scottish Government that have deprived Scottish teachers, researchers, policy makers and the general public of valuable information that could easily be provided.

Conclusion

There is much that is positive about the current debate on schooling in Scotland. The Scottish Government has proclaimed education its highest priority. Other political parties share the view that it is vital to the future of the individual and also to that of society and the economy. Yet there is much legitimate concern about whether the system's performance is satisfactory.

There will always, of course, be room for differences of view about where priorities lie and what success would look like. For example, all parties share the view that both excellence and equity matter, but where should the emphasis be placed between the two?

What is unsatisfactory about the current state of debate is that it is not based on any agreed firm basis of evidence. Much of the discussion consists of assertion and counter-assertion about how the system is performing.

The data for an intelligent and constructive discussion simply does not exist. It is essential that government should bend its efforts to remedying this situation. The Commission would recommend that it should take the following steps:

1. Make a commitment to maximise the amount of objective data that is available in relation to the performance of Scotland's school education system
2. Introduce a new sample survey of performance in key curricular areas during the phase of broad general education
3. Re-join TIMSS and PIRLS and consider whether there are other international evaluations of performance such as the International Assessment of Adult Competences that Scotland could usefully join
4. Develop in consultation a set of measures of performance in the senior phase and at the point of leaving school that will properly reflect the success or otherwise of the system in improving the life chances of all young people.