

Reforming Scotland: What Future for Scottish Education?



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Reforming Scotland

This is the second in a series of individual contributions to the publication, 'Reforming Scotland', which aims to set out a possible vision for Scotland's future which can inform and influence the policy debate in the coming years. The contributions are by people from a range of different backgrounds and political perspectives who have looked at how policy could be reformed across a range of different areas and they represent the views of the authors and not those of Reform Scotland. They are published under the banner of our blog, the Melting Pot, since they are in keeping with the shorter pieces done by various people for this which can be found on our website reformscotland.com

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What future for Scottish education?

Introduction

Making educational policy is always a gamble. The effects only become clear after many years. By then it is too late to take corrective action.

Of course, some outcomes will become apparent more quickly. Have the policies been understood? Are they being implemented as intended? Is any change in classroom practice apparent? All this, however, is to judge policy in mechanistic terms. The emphasis is on whether policy is ‘working’, not on whether it is bringing long-term benefit.

Young people entering school this year will start work only in the second quarter of the century. Current trends suggest that many will still be working in the final quarter. Around the middle of the century some of them will be the leaders of their time. Many of the children they bring up and influence with their ideas and beliefs will still be alive a hundred years from now.

As this long timescale unfolds, it will become clear whether the education that today’s young people receive over the next twenty years or so meets the needs of the world as they will actually experience it from, say, 2035 to 2100. In other words, the success of educational policy-making lies not in whether it works as intended, but in how well it anticipates the future: to an extent, indeed, in how it shapes the future.

Thus, all significant education policy makes a statement about the world of tomorrow. The objectives that are set out explicitly, and the unstated assumptions that underpin them, reflect a present day view of what the future will be like. Only time will tell if these assumptions and objectives have been well-judged.

What does current policy say about the future?

Over recent years, every sector of Scottish education has undergone far-reaching change. In less than twenty years, pre-school education has grown from a minority sector to a near-universal service for three to five year olds with an increasing number of even younger children involved. Schools are undergoing a very complex process of change under the banner of *Curriculum for Excellence*. Despite the name, this programme is not mainly about curricular change but is concerned with pedagogy, assessment, the promotion of skills, a greater focus

on interdisciplinary learning, increased learner engagement and much else besides.

There is an increasing emphasis on raising standards and on reducing the gap in attainment between disadvantaged and more affluent learners. Scotland's colleges have just gone through a period of rapid structural change, reducing their number and creating strong monopoly providers in most parts of the country. Higher education has continued to expand at the same time as universities have become much more entrepreneurial players in an increasingly global market. They too are being expected to play a role in promoting greater equity by admitting more students from disadvantaged areas.

What do the policies that are bringing about these changes say about contemporary views of the future?

Firstly – and very obviously – there is a strong belief in the importance of education. More people are being educated for longer. Even in times of acute financial restraint, resources for education have been protected to a greater extent than for any other area except health. However, there is a continuing assumption that almost all of the available resources are most productively used in the education of children and adolescents rather than later in life.

Secondly, in all sectors, there is a continuing focus both on raising standards and on promoting greater equity, which is frequently described as 'closing the gap'. Indeed, public policy in relation to education can largely be defined in terms of these two aims. Few people would deny that these are worthy objectives. However, the relationship between them has received little attention. Are they readily compatible or is there tension between them? If choices have to be made, where do the priorities lie? What are the implications of pursuing the two simultaneously?

There is, in fact, little clarity in public policy about these matters. Presumably it is not the intention that the gap should be closed by depressing standards at the top (although there is some evidence of this happening in the last set of PISA results). In an ideal world, standards in Scottish education would be rising across the board faster than in competitor countries. Closing the gap would, therefore, require improvement at an even more rapid rate among the educationally disadvantaged. This is the logic of seeking both greater equity and greater competitiveness. It involves formidable challenges.

The programmes being pursued in the various sectors of the education service also indicate something about contemporary attitudes to the future. *Curriculum for Excellence* aspires to enable all young people to become *successful learners*,

confident individuals, effective contributors and responsible citizens. Are we correct in believing that these are the qualities likely to be of greatest value as these young people progress through life? The agenda set by the Commission for Developing Scotland's Young Workforce (the Wood Commission) for both the school and college sectors suggests the need for greater emphasis on vocational education and employability skills. In both further and higher education sectors, government has recently sought to exert greater control over institutional policies and priorities. The unproven assumption is that government will better anticipate the needs of the future than the universities and colleges themselves.

Finally, underpinning policy in all sectors is a belief that the educational needs of the future will differ from those of the present because the world is changing in ways that make this inevitable. At the same time there is an assumption that teaching and learning will take place in ways that may be more effective than at present but will not be fundamentally different. Furthermore, educational institutions – whether schools, colleges or universities – will continue to operate in similar ways to the present. Thus, there is an assumption that improved but fundamentally unchanged educational institutions will be able to meet the very different needs of a future that cannot be foreseen. This is very doubtful.

A changing world

How far can we anticipate how the economy, society and people's beliefs and aspirations will change and how well placed are the various parts of our education system to meet the challenges they will bring?

Chinese lessons

There are anxious faces in the streets of Zhuji. The sock capital of the world may still produce eight billion pairs per year in its three thousand or so small factories but there is a sense that times are changing. Rising living standards in booming eastern China have brought higher wages. It is now cheaper to make socks in poorer areas of western China or in countries such as Vietnam or Burma. No doubt, twenty years from now there will be fears for the future in some currently unfamiliar town in Vietnam as it becomes clear that cheaper socks are coming out of Angola or Somalia.

Further south in China, workers in Shenzhen assemble Apple iPhones. The more expensive of these retail for \$560 of which \$14 comes to China. \$180 finds its way to a wide range of countries where components are made while \$366

remains in the USA, the cost of intellectual property and the earnings of those that produced it.

What do these examples say about the modern world? Business is mobile. Low skill activities are vulnerable and bring only modest rewards. A high wage economy can continue to prosper only when a large – and steadily growing – proportion of its workforce is engaged in high added-value activity resulting from being able to function somewhere near the cutting edge of knowledge. Is education in Scotland helping to create the economic circumstances to which we aspire?

Education and the economy

Studies in many countries with developed economies show a strong correlation between educational standards and later earnings. People with university degrees and higher qualifications earn significantly above the average: those with poor qualifications, much less. Furthermore, the gap seems to have widened over the past twenty-five years or so. The Rowntree Trust believes that the relative earning capacity of the low skilled in the UK will continue to decline until 2020 and probably for longer.

However, the picture is more complicated than it may first appear. Routine white-collar occupations, for example, have fared badly in recent years. Much of the work of generating insurance quotes, for example, is now done by computer rather than by people with intermediate levels of educational qualification. This kind of job is both more mobile and more easily replaced by machine than many low-skilled service occupations such as stacking shelves in the local supermarket. It seems as if the labour market is becoming polarised. Highly-qualified people have huge opportunities and their earnings are likely to be high. At the same time, there is work in low-paid service industries where the possibility of moving the work elsewhere is negligible. In the middle the picture is mixed. Technician skills are in demand; low level white-collar skills, much less so.

Supply and demand is intensifying inequality. The market for highly skilled workers is growing fast and the supply of suitably qualified people more slowly. At the other end of the scale, the number of people with relatively poor qualifications exceeds the amount of unskilled and low-skilled work available.

In other words, a large part of the problem of growing inequality can be attributed to the failure of education systems to keep pace with changes in the labour market. This is not a specifically Scottish or UK problem but one that affects many countries; all countries, indeed, where economic progress cannot

be made on the basis of cheap labour undertaking unsophisticated manufacturing jobs.

The key to creating both a more prosperous and a more just world lies in increasing educational standards. There are many other economic and political factors involved but significant progress cannot be made unless education systems become very much more effective than they currently are.

A crucial question is whether the level of improvement that is needed can be achieved by doing better roughly what we do now or whether it calls for approaches that are radically different? That is a question that is currently unanswerable but it would seem prudent to pursue both approaches. The immediately practical way forward is through *improvement* but there is a great need, at the same time, to explore and invest in ideas that may eventually lead to *transformational change*. At present there is little evidence of governments in Scotland or elsewhere looking seriously at radical long-term options.

Education and society

Change in the modern world is not all about the economy. The link between economic progress and social stability is strong. The history of the past century suggests that any country experiencing serious economic decline can expect social division and political upheaval to follow. Furthermore, this link between social stability and growth poses difficult issues in a period when achieving long-term sustainability has to be an overarching goal. The next generation will have to reconcile this tension if human society is to have a viable future.

Furthermore, it has to be recognised that the most significant of the ways in which the world is changing are not simply matters of technology or the economy. People's life experience is not transformed – at any rate, not directly - by greater processing power or by new forms of social networking. The really profound changes are changes in matters of custom, attitude and belief.

In a generation Scotland has seen society become hugely more diverse; family structures have become more varied and often more fragile; traditional organised religion (although not more fundamentalist forms) has declined; hostility to same-sex unions has ceased to be respectable; public policy has focused increasingly on personal behavior; incomes have increased massively but so has debt; inequality is greater; fewer people are disadvantaged but their exclusion is more extreme. The list could be extended almost infinitely. Some of these changes are undoubtedly positive, some negative, while others are open to debate. All, however, are certainly profound.

The implications of these global changes for education are far-reaching. More young people have to emerge into adult life able and qualified to work at a very high level of skill. Nobody should leave the education system condemned to a lifetime of unemployment (or, at best, working poverty) with exclusion from the opportunities of modern life. In other words, educational standards have to rise across the board and continue to rise into the foreseeable future.

The world needs thoughtful, well-informed and engaged citizens. This is not so much because individual citizens directly affect key events as because - at least in democracies - political decisions are made with a view to securing public approval and re-election. An ill-informed and under-educated public offers an incentive to bad decision-making. If politicians are to be encouraged to look to the long-term and act wisely, they need to believe that this is the kind of behaviour the public will reward. As online pressure groups and petitioners grow in influence, this is becoming ever more important.

A common feature of both skilled work and responsible citizenship is the ability to deal with complexity. The vital issues to today are typically multi-faceted, incapable of resolution by looking only at a single, or small number of, relevant factors. People need to understand how different strands of a complex issue relate to each other and must be able to appreciate the necessity of coping with unintended consequence. In other words, systems thinking has become an essential skill that education must successfully develop. As yet, there is little sign that it is being deliberately promoted in schools.

If they are to be at ease in a world where customs and beliefs change in a way that has never previously occurred, people growing up today will need to be adaptable. However, if this is not to produce chaos and disorientation, they must also be self-confident and be secure in their values.

This represents a formidable agenda for education at all stages. It is an agenda that sits well with the assumptions that have underpinned recent policy-making. That, however, does not mean that it will inevitably be successfully tackled. The next section considers how well placed Scotland's education system is to address it.

Well placed to succeed?

How well placed is Scotland to meet the educational demands of this new world? There is much that can be said that is positive but there are also important reasons for concern.

Higher education

The part of the Scottish education system that seems more favourably placed is the higher education sector. It is the one part of the system that still possesses something of the lustre that used to attach to Scottish education generally. In the various league tables, three Scottish universities usually feature in the top hundred; a disproportionately high number when compared even with the world's two leading university systems, those of the USA and of the UK as a whole. Scottish research enjoys a global reputation in many important areas. Scottish universities win more than their proportionate share of UK research funding. Higher education makes a very large direct contribution to Scotland's economy in several ways; through research and knowledge exchange, as an employer, by bringing in overseas students and earnings and through a network of collaborations with business, communities and others. Scotland is fortunate in having a very diverse sector, able to cater for a wide range of needs.

However, competition in higher education is becoming ever more intense. Countries such as China and India have made huge investments in building new universities and developing existing ones. It is almost inevitable that the results that are being achieved at school level in the Far East (as evidenced by the PISA tests) will feed through to university level. Indeed, there are already several examples of universities in China, Korea, Hong Kong and other countries moving up league tables. Less dramatic but significant progress is being made in universities across the globe.

The advance of higher education in developing countries has another consequence for universities in Scotland. Like most universities in Europe and North America, Scottish universities have earned substantial sums through partnerships in other continents. Large numbers of students pay high fees in order to come to Scotland for at least part of their undergraduate or postgraduate courses. Others attend campuses in their own countries that are operated by Scottish universities. In other cases courses at overseas universities are quality assured by Scottish partners. As the effectiveness and prestige of higher education improves in developing countries, these partnerships are bound to change in character, becoming more equal and potentially less lucrative for Scotland.

There are, of course, many other challenges that will have to be faced. It is likely that the appeal of campus universities and face-to-face support will remain strong. However, the role of online courses and support will almost certainly increase. There are signs too of some of the world's most prestigious universities establishing themselves as global brands. The Massachusetts Institute of Technology (MIT), for example, has made huge amounts of its

courseware available free of charge online, not in a spirit of extreme altruism but to project its claim to be the world's leading technological university and to develop a steadily-expanding market for its qualifications. Others are attempting to do much the same by offering MOOCs (massive online open courses) to anyone who is interested, without payment. So large is the uptake of some of these short free courses that if even 1% of those who enroll were subsequently to take up a paid-for course, the financial return to the university would be enormous. The implications of these developments are not yet clear but are unlikely to be helpful to less well-known institutions.

A more local issue concerns institutional autonomy. OECD and others have conducted extensive research that demonstrates a clear link between autonomy and success. The US and UK systems are the current world leaders and both enjoy high levels of autonomy. Others in Europe have been subject to greater government control and have suffered as a result. In countries such as Germany, efforts are now being made to increase the freedom of universities. In Scotland, however, travel has been in the opposite direction. The 2016 Higher Education Governance Act is a seriously retrograde piece of legislation, increasing government influence over universities and entrenching a long-outdated view that their only important stakeholders are students and staff. The Act undermines the autonomy of universities and fails to take account of the vital role they play in communities and in the economy, seeing them instead as being providers of undergraduate courses and little more. There is now a clear risk that tighter government control will inflict damage on Scotland's universities in the future.

Little of the public debate about higher education in Scotland has been concerned with these long-term and strategic issues. Instead it has centred on the question of student fees and higher education funding more generally. These issues are important, but not genuinely strategic in any long-term sense. They will not determine whether its higher education sector will continue to serve Scotland as well in the future as it does at present.

Free university tuition is a flagship policy of the Scottish Government. However, free *tuition* is not the same as free university education. Students require to maintain themselves and often have to pay for accommodation. To do this, most take out loans. However, Scottish (and EU) students do not pay fees at Scottish universities. As a result, Scottish students do not leave university carrying the resulting debt, although they may well have debts arising from maintenance and accommodation. Perhaps surprisingly, however, there is no evidence that this policy encourages wider access. Indeed, the recently-published and thoroughly-researched report by the Sutton Trust, *Access in Scotland*, suggests quite the contrary. The proportion of students from the most

deprived areas in Scotland is lower than in England, where fees are high, and is increasing more slowly. The policy south of the Border of requiring universities to draw up access strategies and devote a proportion of their resources to providing targeted support in the form of bursaries, free accommodation and other benefits appears to be working better.

The debate over fees and loans is essentially political rather than educational. It is, in principle, perfectly possible to maintain a higher education system of the highest quality without resort to fees. All that is required is that a sufficiently high priority is given to meeting the costs through taxation. From an educational perspective, it is more important that universities should be resourced at a sufficient level than that the money should come from a particular source. It is, therefore, concerning that both the Scottish policy of free tuition and the English policy of relatively high (but capped) fees are open to political intervention in ways that may be injurious to the interests of higher education.

Colleges

The college sector is a vital but uncelebrated part of Scotland's education system. It plays a key role in the development of Scotland's workforce and, therefore, in the country's economic success. An independent economic assessment carried out for Colleges Scotland recently suggested that colleges add almost £15b to the economy each year, thus helping to generate around 8.8% of GDP. The same study indicated that each £ spent in the college sector reaped £6.30 in the form of higher wages (with a consequent return to the public in tax). Furthermore, it is important to remember that some 20% of higher education is carried out in colleges rather than universities. Perhaps most important of all, the college sector has always been – and continues to be – a vehicle for social mobility. It turns poorly qualified school leavers into skilled and useful employees. It provides second chances and offers opportunities throughout life.

Nevertheless, the position of the college sector looks altogether less secure than that of the universities. On the face of it, the recent programme of college mergers and the creation of a much reduced number of larger units should have saved money and created greater financial stability. A worrying consequence, however, has been the creation of large colleges that will in most cases enjoy virtual monopoly status over quite wide areas. Edinburgh, for example, now has a single college for the whole city and surrounding area. Whether these large colleges will be as responsive to the needs of local business and communities remains to be seen.

There is as yet no evidence about savings being achieved and the precedent of successive reorganisations of local government and the more recent example of Police Scotland do not bode well. Furthermore, the new structure has not fully bedded in. Recent problems in Glasgow suggest that the tier of regional governance may prove both unnecessary and unsatisfactory.

However great the savings (if any) resulting from the reorganisations, they are certain to be dwarfed by the extent of the reductions in government financial support to the sector. College income fell by 9% between 2010/11 and 2011/12. A reduction of 11% in real terms in government grant occurred between 2011/12 and 2014/15. The number of teaching staff fell by 22% over the period from 2008/09 to 2012/13. Unsurprisingly, there has also been a substantial reduction in student numbers, particularly among adults and part-timers. Further education provision is now more focused on young people and full-time courses than at any time in the past. This may be thought justified at a time of high youth unemployment but does not represent an enlightened strategy for the future. The place of the sector as a provider of second chances and lifelong learning has been weakened. Indeed, given the Scottish Government's commitment to improving educational outcomes for disadvantaged people and closing the attainment gap, it seems strange that much greater priority has been given to spending on higher rather than further education.

One clear result of the legislation that accompanied the programme of reorganisation has been much greater government influence on college governance. That in turn has led to the colleges being classified by the Office of National Statistics as part of the state with the consequence that they are unable to raise money by borrowing, or to hold reserves. The operation of the sector has potentially been seriously hampered although government appears sympathetic to the need to sanction 'work-arounds' such as the creation of arms-length foundations.

Audit Scotland has recently reported on the college sector. It suggests that the introduction of outcome agreements, the new governance arrangements and the reclassification of colleges as public bodies have increased accountability and reduced autonomy. This raises the same issue as in the case of universities. If institutional autonomy is an important contributor to success, why is Scotland moving in the direction of greater government control of its colleges?

Publication of the final report of the Commission for Developing Scotland's Young Workforce has placed the college sector at the centre of a vital national policy initiative that also affects the school and higher education sectors. At the same time it presents colleges with significant challenges. The Commission hopes to give vocational education parity of esteem with academic education

and to persuade young people that vocational courses are not a second-best option.

Partnerships with schools have been developing in new and more creative ways. The notion that a young person may receive significant elements of his/her education from two or more institutions acting in partnership seems to have taken root. Schools are attaching a higher value to vocational qualifications. New courses such as Foundation Apprenticeships are being developed. The *learner journey* – the young person's pathway from school into further and higher education and employment is being viewed in more flexible and sophisticated ways.

The report's recommendations put a high value on collaboration with business and industry. The college sector is undoubtedly best placed to deliver this although the recent reorganisations may not prove helpful if concerns about the responsiveness of large 'monopoly' colleges prove justified. Furthermore, if a worthwhile system of lifelong learning opportunities is to emerge, the relationship between college provision and employer-provided learning requires deeper consideration.

In the past colleges have demonstrated great flexibility in taking on new agendas. They are used to working in partnerships. All this suggests that they may well succeed in playing the leading role in developing new pathways from school into further education and the world of work. If this could be accompanied by a strengthening of provision for learning throughout life, the sector would be well-placed to make a vitally important contribution to Scottish society and its economy over the coming years.

The school system

School (and pre-school) education is the foundation on which other sectors rest. Ultimately the success of universities and colleges is closely bound up with the success of schools. Their contribution to widening access is limited by what schools achieve.

So far as the school sector is concerned, any evaluation of its preparedness for the world of tomorrow depends on a judgment of the success of *Curriculum for Excellence*. The original strategy paper was published almost twelve years ago, in November 2004. It was a slim document, scarcely a dozen pages in length, containing only broad principles without practical advice as to how they might be carried into effect. In essence it was a mission statement, setting out four purposes (that young people should be *successful learners, confident individuals, effective contributors and responsible citizens*), seven curriculum

principles and some unexceptionable values. It was almost universally welcomed. Very few have argued that Scottish schools should not pursue these aims. In other words, *Curriculum for Excellence* has given Scotland a generally agreed and long-term strategic vision, albeit at a very high level of generality.

There are, however, three important broad reservations that have to be made at the outset. Firstly, too little effort was made at the beginning to ‘sell’ the big messages of *Curriculum for Excellence* or to convey clear ideas of why it was needed and how it would make matters different and better. As a result, it has always been vulnerable to the charge of vagueness. Secondly, although the new curriculum has been recognised as giving Scottish education a long-term sense of direction, the logical consequence - that it has to be a programme of iterative change with no intended completion date - has given way to the more familiar notion of a one-off programme that ‘implements’ specific changes and, at any rate in secondary schools, will finish once new examinations have been fully introduced. Thirdly, there has been no large-scale independent evaluation of the new curriculum. Successes have been proclaimed, especially by government and its agencies, but there is a serious lack of significant substantiating evidence.

The study by the OECD that was commissioned by the Scottish Government and reported in December 2015 does, however, provide some very important insights. It was expected to look only at the impact of *Curriculum for Excellence* during the phase of broad general education (BGE) that extends until the end of third year in secondary. However, the report makes a number of observations that relate to all stages of the school system. Its recommendations are significant and far-reaching.

The OECD views *Curriculum for Excellence* as forward-looking and consistent with progressive curricular thinking globally. “*Curriculum for Excellence* is an important reform putting in place a coherent 3-18 curriculum around capacities and learning.” The report comments on the widespread engagement with the developments and the acceptance of its principles by teachers. There are positive comments also on the investment in related professional development for teachers. However, the OECD sees *Curriculum for Excellence* as being at a watershed with important and radical decisions having to be made if the programme is to move forward successfully.

The report calls for a relaunch based on the original principles but allowing for changes in emphasis in the light of experience. In particular the OECD sees it as necessary to slim down the vast amount of official guidance that has accumulated. It perceives a need for “strengthening core concepts, clarifying and simplifying system requirements and making information more readily available”. There is a strong implication that the management of the

development programme has demonstrated major shortcomings. Without reform, there is a clear risk that the programme will fail to deliver its potential.

In the absence of good research evidence, it is difficult to say with certainty whether these criticisms are justified or, more generally, where the successes and failures of the implementation programme may lie. Nevertheless, some tentative conclusions can be offered.

It is part of the ambition of *Curriculum for Excellence* that it involves changes in many aspects of the school (and pre-school) experience. Although not primarily about curriculum content, changes in what is taught are certainly involved. One of the original objectives was that the curriculum should be ‘decluttered’, giving more space and time to teach in depth. There is little evidence of this in practice.

Perhaps the most important single aim of *Curriculum for Excellence* is that learning should be more ‘active’. What this means is that the learner should be more actively involved in making sense of what is taught, rather than merely committing it to memory. Several critical aspects of *Curriculum for Excellence* are linked to this key idea.

The ‘Experiences and Outcomes’ are intended to define the curriculum, not in terms of content, but by reference to what learners are able to do after a series of lessons that they were not able to do before. This is a worthwhile and ambitious objective.

However, teachers do not find the Experiences and Outcomes easy to use. In practice, they vary greatly in quality. Some curriculum areas such as mathematics fit the framework better than others. In the case of the set of Health and Wellbeing outcomes (that are the responsibility of all teachers), there is a complete lack of progression with a collection of vague aspirational statements being applied to the full 3-18 age range. This is utterly without practical value. Even where progression is apparently built in, it can be illusory.

Thus, using basic arithmetical techniques to solve problems is seen as a skill appropriate to the first level but, at higher degrees of complexity, is it not equally applicable to any of the more advanced levels? The paper accompanying the literacy outcomes seeks to define a ‘text’ as including maps, graphs, timetables and much else besides. At this point the advice becomes pure gibberish. It is not an isolated example.

Many Experiences and Outcomes are cumbersome and awkwardly worded. The practical effect on teachers has too often been that they undertake an elaborate

exercise to deconstruct the Experiences and Outcomes so as to audit existing practice in a way that allows schools to remain close to the status quo. The bureaucratic effort involved in this process has often been huge and wholly disproportionate to its usefulness. The intention of defining the curriculum by reference to its impact on learning remains admirable, but it is far from certain that it has been achieved.

What all this illustrates is that most of the important failures in the implementation of *Curriculum for Excellence* are not political failures. It is unreasonable to expect ministers to intervene at this level of detail. Most of the problems have arisen as a result of the dismal quality of advice that government has received from its agencies and the other elites who make up the official consensus that decides the detail of educational policy in Scotland. This has not been the professional leadership's finest hour.

Curriculum for Excellence is supposed also to be characterised by a greater emphasis both on the development of skills and the use of interdisciplinary learning. Again, the intention is good but the impact is uncertain. The strategic guidance on skills is contained in *Building the Curriculum 4*, which seems to have been little read. It is, in any event, of poor quality. The later Excellence Group report on higher order skills has also had little impact. In common with other Excellence Group papers, little seems to have been done to implement its findings and all the reports have now been withdrawn from the Education Scotland website.

Nevertheless, schools are undoubtedly much more aware of the importance of skills and many teachers are making consistent efforts to make skills development part of their planning and to ensure that young people are made aware of the skills they are acquiring. There is unquestionably good practice taking place, but by no means in every classroom.

It is surprising that the *Building the Curriculum* series contains a paper on subject-based teaching, with which every teacher has always been familiar, but nothing on interdisciplinary learning. There is thus no top-level guidance on what is an important new aspect of the curriculum; one that is very difficult to realise in practice, particularly in secondary schools. Furthermore, the examination reforms have paid negligible attention to interdisciplinary learning, remaining firmly subject-based. The outcome, as might be expected is that primary schools, with their greater flexibility, have often made progress while successful examples are much harder to find in the secondary sector.

So far as secondary schools are concerned, *Curriculum for Excellence* has come to be identified, almost to the exclusion of all other consideration, with

examination changes. The decision to replace Standard Grade by new 'National' qualifications at a relatively early stage in the implementation process is almost certainly the most important error made so far.

The stage of secondary schooling most in need of reform was not the upper stages but the first and second years where pupils have for decades been put through an excessively fragmented curriculum from which some begin to seriously disengage. Virtually every survey of attainment in Scottish schools show that progress stalls at this stage. Indeed, there is considerable evidence that, for a significant number of young people, standards may be lower in S2 than in P6 or P7. Yet this stage has never been the focus of attention. Instead, secondary schools have been obliged to concentrate on S4 and above where, no doubt, improvements can be made but the urgency of taking action is much less.

Throughout the entire lengthy process of introducing the new examinations, there have been constant criticisms. Advice has been received too late or has been changed. Assessment procedures have been made excessively complex and time-consuming. Teacher workload has been allowed to get out of control. And at the end of the process, what has been achieved? The system is functioning with customary efficiency. Awards retain their customary currency (except, perhaps at National 4 level where external validation is missing). However, it is unclear whether any new ground has been broken. Important new elements of *Curriculum for Excellence* such as interdisciplinary learning or the promotion of teamwork scarcely figure in the new arrangements. The overwhelming impression is of prodigious effort expended for minor gain.

In short, any objective review of *Curriculum for Excellence* in its current stage of development is bound to produce an ambivalent outcome. Much that is worthwhile has been achieved but, overall, outcomes have fallen short of the original aspirations.

Developments in recent months may indicate that *Curriculum for Excellence*, although remaining the flagship policy of the school sector, no longer occupies as high a position as formerly in government thinking about schools.

Firstly, government statements and actions have focussed more on matters to do with attainment and, in particular, on 'closing the gap' between the levels of attainment of children from disadvantaged homes and those who are better off. The Scottish Attainment Challenge was launched in February 2015 with this as its explicit aim. Its focus is currently on primary education with additional support being offered to all primary schools in the seven council areas judged to be the most disadvantaged and to 57 other primaries serving deprived neighbourhoods in fourteen less disadvantaged councils. The value of the

Challenge will be £750m over the period of the current Scottish Parliament. By any standards this is a major initiative. Furthermore, the First Minister has repeatedly indicated a willingness to be judged by its success and emphasised that education is her government's first priority. This level of political commitment has to be welcomed.

Early in 2016 the government followed up the launch of the Challenge by publishing a National Improvement Framework (NIF). The NIF does more than indicate how the schools in the Challenge should take forward its objectives. It sets out four priorities that apply to the system as a whole:

- Improvement in attainment, particularly in literacy and numeracy;
- Closing the attainment gap between the most and least disadvantaged children;
- Improvement in children and young people's health and wellbeing; and
- Improvement in employability skills and sustained, positive school leaver destinations for all young people.

It is perhaps significant that *Curriculum for Excellence* is not mentioned, although it could be seen as the means by which the other priorities will be delivered. What is striking about the NIF priorities is their pragmatism. There are no indications of what schools (or the government, come to that) should do to deliver them. The clear implication is that it is *ends* not *means* that matter. If this means that Scottish schools will become more innovative and enterprising – and less inhibited by ideology - it is to be welcomed. The risks are of seeing attainment in excessive narrow terms, and of a certain utilitarianism infecting the curriculum.

Secondly, the final report of the Commission for Developing Scotland's Young Workforce, which was published in 2014, has made vocational education a high priority. Attempts have been made before to create parity of esteem between vocational and academic education in Scotland but without success. This time, as indicated above in relation to the college sector, the omens are perhaps more promising.

The principle of 'personalisation' built into *Curriculum for Excellence* has persuaded an increasing number of secondary schools to embrace the notion that success can come in many forms. There are certainly signs of different kinds of qualifications being seen as worthwhile and of schools seeking to reorganise their senior phase so that a range of pathways is available. Exit routes into vocational college courses and apprenticeships are being viewed in increasingly positive ways.

Scottish schools have in place many of the essential ingredients for success. *Curriculum for Excellence* offers the prospect of a twenty-first century version of a broad liberal education, even if its implementation programme has on occasion been lamentably managed. The teaching profession is well qualified and has access to good opportunities for professional development. These – and many more – strengths are there to be built upon. The challenge is to find effective ways of doing so.

Much the same can be said of the system as a whole. Many of its policies are well oriented to the needs of the future. Its reach is steadily extending with more very young children becoming involved earlier and more young people staying longer at school and entering further and higher education. At the same time important weaknesses are evident. What now needs to be done?

What needs to be done?

From any perspective – social or economic – it is vital that Scottish education is among the best in the world. At present, only the university sector can credibly make such a claim. Other sectors have considerable strengths but they are not world leading.

The challenges facing each part of the system differ and the possible remedies differ accordingly. There are, however, five observations that are relevant across the board.

Autonomy

First among these is institutional autonomy. The evidence is clear, particularly at more advanced levels of education. Autonomy works; systems where individual institutions have more independence enjoy greater success than systems where this is not the case. Yet, the independence of the colleges has been severely curtailed and that of the universities has been diminished. So far as these sectors are concerned, the remedy is obvious. Government must abandon the instinct to centralise and control, recognising that it is counter-productive.

The position of schools is more complicated. There has been a very gradual increase in the powers devolved to schools. Their autonomy is greater than those in many countries, but much more requires to be done. Real progress cannot be made, however, without looking more widely at the governance arrangements for Scottish schooling.

The traditional balance between national oversight of the system and local authority management is disintegrating. Over many years, there has been a strong centralist trend in central government thinking. At the same time, the 1996 reorganisation of local government created a single tier of 32 councils with an average size of around 160,000 people. The capacity of these councils to develop strategy and support schools effectively was quickly perceived as insufficient. Severe cuts in local authority resources over the last few years have now reduced this capacity further; indeed, to the point in many council areas where it is very questionable whether schools receive much worthwhile benefit from the connection.

However, the theoretical position of local authorities as the direct managers of the school system has not altered. Practically every section of the 1980 Education Act which after nearly forty years remains the fundamental legislation governing schooling in Scotland, is concerned with the powers and responsibilities of local authorities. The recent report by OECD remarked on the disparity between the legal framework and the everyday reality.

It seems likely that the recently elected Scottish Parliament will at some stage tackle the issue of local government reform. CoSLA, the councils' umbrella body, clearly anticipated this by setting up its own commission to look at the future of local government. The commission's report, issued in late 2014, is an interesting document that takes as its starting point the importance of local government in supporting democracy, especially at grassroots level. It argues that, from 1974 onward, councils have steadily been reduced in number with the result that Scotland now has the least 'local' system of local government in Europe.

This argument has great merit. However, it leads logically to the conclusion that there should be a larger number of more local bodies than at present. Such local authorities would be unable to provide an intermediate tier of educational management of the traditional kind. They might well be able to support interschool collaboration, networking, co-operation with other services and connections to the community; and it could be argued that these could form the basis of a much more modern model of local governance. It is also perfectly possible that schools could remain democratically accountable through local authorities, or trusts involving local government alongside others, while receiving support and services elsewhere.

The OECD report recommends that there should be a strengthening of what it describes as the 'middle'. By this it means the tier of organisation and support that lies between the Scottish Government and the schools. This, of course,

includes local government, but the notion is far more complex and ambitious. It is not only about governance and management but includes all the mechanisms of support that are available. Increasingly, it is appreciated that much of the expertise needed to improve the system lies in schools, not in Education Scotland, quality improvement teams or university education departments. Professional discourse, teacher learning communities and inter-school collaboration are increasingly valued as powerful tools for bringing about improvement.

The ‘middle’ therefore must be seen as involving networks, partnerships and other less formal structures. Some organisations have a place but they are not the obvious ones. Education Scotland – or whatever arms-length agency of government may have in place from time to time to advance governmental curricular strategies – is not part of the middle but of the centre. On the other hand, many arts and sports organisations that provide assistance to schools are part of this vital but somewhat nebulous intermediate tier. So too are organisations like the Scottish Book Trust that delivers a number of programmes designed to support learning and narrow the gap, not least the First Minister’s Reading Challenge. It is the business of government to support and encourage these but not to seek to direct or control them. Indeed, a strong ‘middle’ implies restraint by government. School autonomy not only means freedom from undue local authority interference but freedom from undue interference from anywhere. At present, the threat from government is greater than the threat from councils. It is hard for governments to resist the temptation to micromanage, but they should, because it just doesn’t work.

Government also needs to recognise that developing an effective ‘middle’ is very different from the current pursuit of government by consensus. There are few initiatives that are not accompanied by a management group composed of government, national agencies, unions, ADES and other ubiquitous partners. Over recent years, this kind of consensus has meant little more than dominance by elites serving a variety of vested interests and collectively able to squeeze out all other voices.

Regardless of the future of the intermediate tier, it seems likely that the autonomy of schools will increase. It will not be easy to bring this about in a way that is workable in the primary and pre-school sectors with their many individual units and that does not create a monopoly of significant decision-making at national level. The best hope would seem to lie in bringing schools together into ‘clusters’ consisting of a secondary school, associated primaries and any additional support needs (ASN) schools and public pre-five centres in the area. Run as a unit, these clusters would have significant management capacity and, perhaps most importantly, would have a remit for education from

early years into the start of adult life, thus emphasising the importance of continuity and progression.

Scotland has not been successful in creating governance models for schools that give appropriate influence to parents, business and the local community. Successive mechanisms such as school boards and parent councils have operated better in more affluent areas, and there has been little sign that enough people wish to be involved to allow for the creation of credible groups in some 2500 units. These problems would be much reduced in a system managed through less than 400 clusters. The opportunity exists to combine the introduction of community-based 'cluster boards' with a more modern and enabling form of governance at council level.

Learning from experience

The second point relates to public – and, more especially, governmental – attitude. Scottish education has a problem of complacency. There was undoubtedly a time when Scotland was a world leader. The contribution that Scotland made to the development of the modern world at the time of the Enlightenment and the Industrial Revolution was out of all proportion to its size, and derived very largely from the quality of its education. There is every reason to be proud of this historic achievement, but it should not preclude taking a constructively critical view of the system as it currently exists.

The tendency to fend off criticism is at its most noticeable in relation to schools. Scotland's schools remain good. This was what the great majority of those who participated in the 2002 National Debate on Education believed and it has been borne out in numerous international surveys. But they are not world leading. International surveys show a pattern of decline relative to many other countries, with Scotland performing above average but not among the best. Yet Scotland's government hailed the frankly disappointing 2012 PISA results as yet another triumph. This culture is not one in which the system is encouraged to learn but one of uncritical self-congratulation.

To be fair, there are some signs of a more self-critical stance emerging. The Scottish Attainment Challenge has been developed by looking outward and seeking to learn from what has been successful elsewhere. The government's reaction to the disappointing results in the most recent Scottish Survey of Literacy and Numeracy demonstrated a less defensive and more self-critical position than on occasion in the past. It is to be hoped that these examples signify a commitment from government to create a system that learns from its experiences rather than resisting any suggestion of a need to improve.

The university sector benefits from the strength of its connections beyond the confines of Scotland. Higher education is by far the most widely networked part of Scottish education. Every university has strong connections to other universities elsewhere in the UK and globally. There are good opportunities to benefit from wider experience in a way that other sectors can only envy.

Schools and colleges need to build up these sorts of connections. Organisations like the OECD are helpful but more is required, particularly at a level that is not as dependent on government action and finance.

Equity

Thirdly there is the issue of promoting greater equality or ‘closing the gap’ as it is frequently called. At the outset, it is important to recognise that, in the school sector at least, this has been at the heart of policy making for half a century. From the introduction of comprehensive secondary education to the Scottish Attainment Challenge by way of mixed ability teaching, raising the school leaving age, Munn and Dunning, Five to Fourteen and innumerable other initiatives, politicians, officials and teachers have joined forces to raise levels of achievement among the disadvantaged. Sincere and sustained efforts have been made – but with little evidence of success.

That such sustained effort has been made over such a long period without yielding significant success merely underlines the intractable nature of the problem. Strangely, little research has been conducted into the link between disadvantage and educational failure. There are, of course, some obvious points such as overcrowding in the home making it difficult to do homework or lack of money precluding participation in school trips. However, more fundamental factors are involved. From an early age, many young people growing up in poverty begin to experience a form of ‘cultural deprivation’ that makes it difficult for them to engage in formal learning as successfully as others. There is a need for increased research on issues of this kind.

The emergence of educational disadvantage at a very early age emphasises the importance of a sector that has so far been mentioned only very briefly in this paper. Research evidence, mainly from the USA but also from the UK, indicates that high quality early education can have positive effects on levels of achievement among disadvantaged children. For this reason, the Scottish Government has been extending educational opportunities for two year olds from disadvantaged households. It is now time to go much further and create a service extending from before birth and bringing together several services, particularly health and education. This would not be a matter of extending downwards the age at which nursery education might begin but of looking at the

developmental needs of the child (and the broader needs of the family) in order to determine what kinds of intervention might be most successful at each stage.

The government's new Attainment Challenge is a promising initiative. However, it will not be as successful as it might unless participating schools enjoy the increased autonomy advocated above. It will also be important to ensure that it is well-adapted to the circumstances of deprived communities in Scotland. Learning from the London Challenge is entirely legitimate, but simple imitation will not suffice.

Mention has already been made of the vital role of the college sector in providing pathways suited to the less academic, second chances and opportunities throughout life. The loss of resources and capacity in this sector represents a significant move away from any commitment to greater educational equity. Undoing the damage that has been done must be seen as a high priority, higher for example than funding wider access into higher education, however desirable an objective that may be.

Comment has also already been made of the failure of Scotland's free tuition policy to encourage more young people from poorer backgrounds into higher education. It is clear that much more needs to be done to widen access to universities. This does not necessarily imply the abandonment of the current policy – indeed, if combined with other measures, it could have very positive effects. Clearly, free tuition is not a panacea but it does seem likely that it reduces disincentives that poorer potential students might otherwise experience. The recommendations of the Commission on Wider Access may also offer a way forward. It is difficult to avoid the conclusion, however, that the most important step forward would be improving the performance of disadvantaged pupils at school level.

Effective mechanisms for change

Scotland has not been short of good ideas but it has lacked skill in putting them into effect. The major educational reform programmes of the last fifty years have achieved much less than they might because of failures of implementation. At the heart of this problem is a lack of understanding about how to bring about change in complex systems.

By Diverse Means, the 2013 report of the Commission on School Reform looked at this issue in some depth. The Commission considered that change processes in Scottish education had been unsatisfactory for a wide range of reasons of which the following were the most important:

- excessive reliance on central direction

- a consequent tendency towards conformity and uniformity
- lack of a strong evidence base
- willingness to compromise objectives to conciliate vested interests
- failure to win public support

The Commission also referred to the slow pace of change. Between 2003 and 2011 Scotland had moved from the setting up of a curriculum review group to the start of introducing new examinations. During the same years, London moved from having amongst the poorest to the best schools in England. By any standards this is a stark contrast. There are many explanations, but the fact that the London Challenge directly addressed the concerns of schools and actively engaged them in the reform process is probably the most important.

Successful change depends on involving those most affected. Unless teachers are committed to the objectives of any change programme, it will fail. However, merely securing approval is not enough. Successful change needs strategic leadership from the centre combined with the kind of empowerment of schools that releases the creative energies of the profession. In the modern world, and especially in complex organisations like an education system, command and control simply does not work.

The Commission suggested that ten preconditions need to be put in place if a major programme of change is to be undertaken effectively:

- There needs to be clarity of purpose and everyone involved needs to understand their role. Thus high-level strategic direction is the role of government but micromanagement is not. Imaginative change in practice, including the taking of well-assessed risks, is the function of practitioners.
- Commitment needs to be secured in advance. This is about ensuring that the big ideas of any programme are widely distributed and effectively 'sold'.
- The incentives to change have to be greater than the incentives to adhere to the status quo. In this connection, the role of inspection and other quality assurances mechanisms needs to be examined critically.
- Diversity has to be welcomed. A highly uniform system cannot learn from its own experience. This, of course, is not to say that every kind of ill-considered experiment is to be sanctioned.
- Schools need to have greatly increased autonomy and individual staff need to feel empowered.
- Appropriate governance arrangements need to be in place. Those in Scottish school education have been largely unaltered in more than eighty years. It seems unlikely that needs of 2016 are best met by the institutional arrangements of the late nineteen-twenties. This is not a

debate about the place of local authorities so much as quest for the kind of sophisticated ‘middle’ that the OECD has recommended.

- Schools and individual teachers need to be effectively supported. This requires arrangements that are responsive to need rather than seeking to impose predetermined ‘solutions’. Support has to demand- rather than supply-led.
- There needs to be sufficient leadership capacity at school level. The setting up of a Scottish College for Educational Leadership and the development of new courses for aspiring heads indicate that this matter is receiving attention. Whether it is realistic to hope for high quality leadership in more than two thousand separate institutions, some of them very small, is an issue that will need to be seriously addressed.
- Policy and action need to be based on strong evidence and sound management information. Wishful thinking and political whim simply will not suffice. Again, there are welcome signs that this is beginning to be recognised.
- The system needs to invest heavily in its people. Considerable progress has been made in this area as demonstrated by the adoption of *Teaching Scotland’s Future* and the attempt to protect resources for professional development in very adverse financial circumstances.

It is vitally important that governments, councils, headteachers and all those involved in planning change focus not only on setting proper objectives, but also on deeply considering how they are to be achieved. Without effective change processes, the best ideas will not take us further forward.

Looking to the long term

Finally, there is a need to look to the longer term. New technology has transformed many areas of human activity. Yet it has had only a marginal impact on the educational process. Knowledge of how the brain works and how people learn is constantly expanding. As yet, this new knowledge is some distance removed from having a practical impact in the classroom. However, it cannot be long before educational approaches are radically altered by these two forces for change. Governments across the world have, however, shown very limited interest in this kind of transformational change.

In the university sector new technology and globalisation are bringing new opportunities and new threats. These have been discussed earlier. Increasingly, the same is also true of colleges. The capacity of these sectors to respond appropriately depends on both adequate resources and freedom of action at institutional level.

In the school sector, it is important to recognise that *Curriculum for Excellence* is an *improvement* programme, albeit one with *transformational* potential. It has little to say about the potential of new technology to create different educational models and does not question the traditional structure of schooling. Some aspects of the programme, such as the principle of personalisation, if boldly applied, will make the traditional school day or the use of the class as the unit of organisation difficult to sustain. On the other hand, the current interpretation of the phase of broad general education as a firmly fixed period of time seems to face in the opposite direction, recalling the notion of lockstep progression by ‘age and stage’.

In its failure to break free of a nineteenth century organisational model, Scotland is far from unique. No country is seriously exploring other models. As a result, education, which is surely the knowledge industry par excellence, has been extraordinarily laggard in exploring new possibilities. Here government has important new responsibilities. Only it has the resources to commission the research and the innovation that will be needed if progress is to be made.

At the beginning of this paper, it was noted that both in Scotland and throughout the world, the education system is failing to keep up with the demand for highly skilled and qualified workers, and that this failure is a major cause of growing inequality. A similar point could be made in relation to developing active, well-informed and thoughtful citizens. The complex and, in many respects deeply threatening, issues facing humanity desperately require a state of public opinion that will encourage and reward the highest quality of governmental decision-making. However, there is little evidence of that condition being met. In other words, education globally is falling far short of what is urgently required.

In this context, improvement will not be enough. Doing what is already being done a little better, falls far short of what will be needed. The needs of the world urgently require that some country should take a lead in starting the process of *transformational* change. Why should Scotland not be first?

