Specialist Schools and Academies Trust
EXCELLENCE AND DIVERSITY

System Redesign – 1

The road to transformation in education

David H Hargreaves

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Author
Professor David H Hargreaves is Associate Director (Development and Research) at the Specialist Schools and Academies Trust and Emeritus Fellow of Wolfson College, Cambridge. He has been Chief Inspector of the Inner London Education Authority, Chief Executive of the Qualifications and Curriculum Authority and Chairman of the British Educational Communications and Technology Agency.

Editor
Peter Chambers

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The Specialist Schools and Academies Trust works to give practical support to the transformation of secondary education in England by building and enabling a world-class network of innovative, high performing secondary schools in partnership with business and the wider community.

THIS PUBLICATION

Audience
Teachers and leaders at all levels in education

Aims
To trace developments in personalising learning and to introduce the emerging concept of system redesign. This ambitious version of system leadership calls for a school-led transformation that changes the relationship between the teaching profession and government. The potential for system redesign in all iNet countries is explored.

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For other copying or general enquiries contact:
Specialist Schools and Academies Trust, 16th Floor,
Millbank Tower, 21-24 Millbank, London SW1P 4QP
Tel: 020 7802 2300 Fax: 020 7802 2345 Email: info@ssatrust.org.uk
Websites: www.ssatrust.org.uk www.schoolsnetwork.org.uk www.sst-inet.net

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Contents

01 Introduction

Education systems change very slowly. It is educational institutions that carry the heavy responsibility for transmitting a society's cultural heritage and valued knowledge to the next generation.

Inserting new knowledge into a crowded curriculum entails taking something out, and teachers, parents and politicians rightly treat these excisions with great caution. Moreover, teachers respect the ways in which their predecessors have conducted the art and science of teaching and naturally tend to stand by what has worked for them hitherto. Changing education is painful, so resistance to it is high, tinged with a justified scepticism of what may turn out to be mere fads and fashions.

This pamphlet is an account of educational change in secondary schools in England. Since the Education Reform Act of 1988, the main pressure for change has come from politicians, of both the left and the right. Schools, the politicians insisted, must do a better job of ensuring that more young people reach a higher level of achievement than was acceptable in the 20th century. But they did not then leave it to the teaching profession to choose the best ways of implementing such improvements. Rather they often specified in detail both what had to be changed and how the changes were to be put into effect. Over the years this produced a culture of compliance in teachers, who were not seen as the legitimate source of educational innovation.

This story began just three years ago. The call for schools to offer a more personalised service in education came from the then prime minister. Many school leaders responded, recognising that the challenge of personalisation would necessarily entail some innovation, just as it had done in the business world. Three years and many incremental innovations later, it has become progressively clear that to achieve the goal of a more personalised education service, one that creates young people who are higher achievers and much better learners, a transformation is indeed required. This is an account of how the education system is being redesigned to achieve that goal. In sharp contrast to the history of education from 1988–2004, the architects of this redesign are not politicians and their agencies and officials, but school leaders. School leaders are collaborating in this venture, for system redesign is far beyond the scope of a single school. Only through networks can the schools innovate and share and so become a powerful and ambitious learning community.

The redesign is far from complete. This is no more than the first chapter of what will be a much longer story. It captures the excitement and energy with which so many headteachers and their colleagues began this journey of re-thinking how schools should operate if they are to be fit for purpose in the 21st century. It records the different, but often complementary, ways in which these schools are responding to the challenges. And it charts what is emerging as the next stage of the journey. Throughout the story runs the theme of a more empowered profession, approaching the challenges with a new confidence and creativity, and re-shaping the relationship between the profession and the government.

02 Beginnings

As the nation entered the new millennium, Prime Minister Tony Blair, noting how the business and private sectors had customised or personalised their services and so increased customer satisfaction, argued that it was time for major public services, especially education and health, to catch up and to reverse the common assumption that 'the task of public service delivery was to fit the user to the service.'

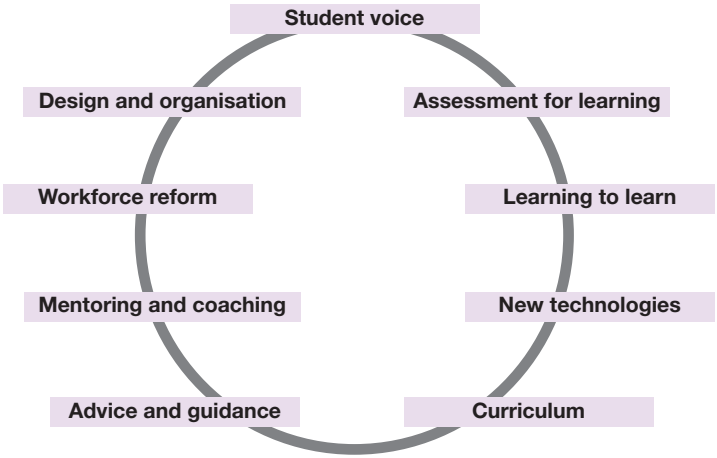
In May 2004 he said to the nation's headteachers:

'I become more not less convinced that we in Britain – teachers, parents and government together – are engaged in a great national mission for our generation. A mission to realise the full potential of each young person through a system of education increasingly personalised around the needs of each child, with a new concept of lifelong learning; raising aspirations in every community in the country; making possible what was previously thought impossible; and putting education at the heart of government, on a par with the management of the economy and foreign affairs, as a permanent not a passing feature of our national life in the 21st century.'

During that summer, SSAT held five seminars with about 50 school leaders on the theme of innovation for personalisation. It became clear that although the education service had become more personalised during the 20th century, there was still much to do. Some existing aspects of schooling are rich in potential for personalisation, and it was decided to focus on nine of them that could serve as gateways to a more personalised education. Some of the gateways, such as *curriculum*, are constantly at the heart of education; others, such as *assessment for learning* or *learning to learn* or *mentoring and coaching*, are recent developments in pedagogy; yet others, such as *new technologies and workforce reform*, provide more recent opportunities for personalising learning.

The nine gateways could not be adequately covered in a single conference, so they were grouped into pairs, starting with student voice and assessment for learning, both of which were suggesting new, active roles for learners to ensure that they take more responsibility for their learning. Beginning in October 2004, a conference was devoted to each pair, except for the last gateway, school design and organisation, the topic for the concluding conference of the series in January 2006.

Figure 1 Sequencing the nine gateways to PL: the conferences



It was assumed from the outset that the nine gateways would interact with one another in complex ways, and the nature of these interactions became apparent as the series of conferences proceeded. For at the heart of each conference were presentations from schools selected on the basis that their practice in the gateway under scrutiny was ahead of practice in most other schools. These presentations revealed how the gateways were actually or potentially linked to one another.

Questions

If your school has been working on the nine gateways:

- To which gateways did you give priority, and why?
- How would you assess your progress in the gateways?
- What has been your experience of the interactions between gateways?

If your school has not been formally pursuing work on the nine gateways as such:

- Which of the gateway topics have you nevertheless been developing?
- To which did you give priority, and why?
- How would you assess your progress in the gateways?

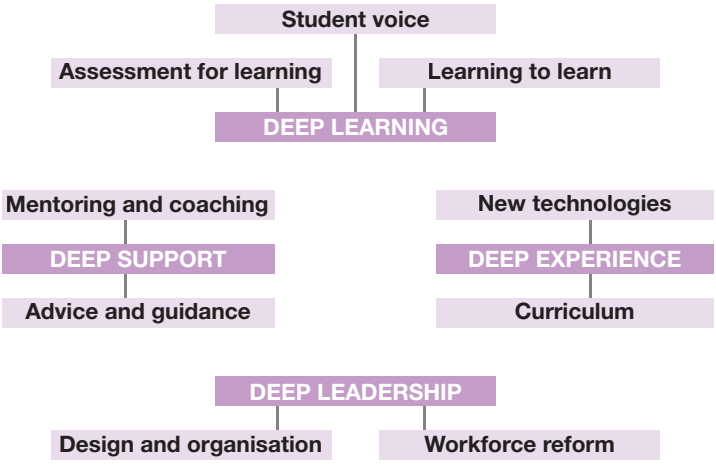
03 Going deeper

By the time of the last conference of the original series in January 2006, it was evident that the nine gateways could be conveniently clustered into four groups:

- Three inter-connecting gateways focused on learning, and how learning could be made deeper
- Two gateways were about how the experience of schooling could be more engaging, and this deep engagement was a necessary precondition of learning
- Two gateways covered the deeper support that students might need if they were to be sufficiently engaged for deep learning
- Two gateways were about the deep leadership that was needed to organise the school and the workforce so that the personalising potential of all the other gateways could be realised.

In short, the ‘nine gateways’ could be clustered in ‘four deeps’.

Figure 2 Clustering the gateways to PL: the 'deeps'



Clustering the gateways into deeps, as devised by SSAT's personalising learning team, was offered back to school leaders as a conceptual advance, a simple and economic way of making sense of what the schools were doing. To the team's surprise, schools began to use the new concepts as an organisational device, putting deputy/assistant headteachers in charge of each of the deeps (See *Deep Leadership – 1*). This phenomenon illustrates an important feature of our work on personalisation. It has not been a matter of the team presenting ideas to practitioners, or of practitioners in schools merely reporting their work. Rather, at the heart of this enterprise is a process of interaction between the two partners, as ideas and practices are in constant iteration and evolution.

Questions

- Do you find the idea of clustering the nine gateways into the four deeps helpful?
- If so, in what ways?
- If not, have you ideas on other ways of clustering the gateways?

04 Structural shifts

When Tony Blair promoted the idea of personalisation in education, he also changed the language from *improvement* to *transformation*. The term 'school improvement' was well established among schools and academic educationists. What was different about the word transformation? What did the change in vocabulary signify?

There has never been a clear answer to these questions. Often it looked to be little more than a rhetorical shift, a more dramatic and perhaps inspiring term than mere *improvement*. Sometimes it seemed to signal urgency, that the improvements the politicians sought were not happening quickly enough to fit the political, rather than the professional, agenda and timetable. Sometimes it seemed to mean a constantly rising graph of test and examination results.

The very rapid progress in personalisation that some innovative schools were making was underpinned by a structural shift, one with the potential to become a seismic shift that could indeed transform schooling. This shift was captured in the concept of *organisational coupling*, as originally developed by James March and Karl Weik (See *Deep Leadership – 1*).

The basic idea is simple. The units of an organisation are, like the carriages on a train, coupled. The coupling varies along a dimension of *tight*, where the units are closely bound together with little individual room to manoeuvre, to *loose*, where the units are relatively independent or autonomous. (Think how precisely the coupling of the carriages on a train has to be determined: both too tight and too loose a coupling and the train would quickly derail on a bend.)

There are three forms of coupling in schools.

- Professional coupling: the degree to which teachers enjoy autonomy over what they do, both in terms of curriculum and assessment, and over pedagogy or how they teach
- Institutional coupling: the ways in which the basic organisational elements are coupled. It includes how students are grouped, such as age cohorts and year groups, and how teaching units are organised, such as timetabled lessons
- Inter-institutional coupling: the extent to which a school enjoys autonomy from other schools and associated organisations.

In the 19th and 20th centuries, these organisational couplings in England have had a particular form.

- Professional coupling has been loose. Until the reforms of the late 1980s, teachers enjoyed a high degree of professional autonomy over curriculum and assessment, and pedagogy was seen as a largely private matter.
- Institutional coupling has been tight. Almost without exception in secondary schools, students were placed in strict year-groups or age-cohorts. And students and teachers undertook their work in lessons based on a fixed timetable, usually of between five and seven lessons a day over three terms.
- Inter-institutional coupling has been loose. Schools were highly autonomous, with their own distinct staff, a headteacher, and a governing body.

By the early 21st century, all three forms of coupling are shifting in direction.

- **Professional coupling is getting tighter.** There is a highly prescriptive national curriculum that teachers in most state schools must follow. Many schools have developed 'whole-school policies' with which teachers must comply. Teachers are expected to work in teams and to collaborate with one another, which greatly reduces their autonomy.
- **Institutional coupling is getting looser.** Many schools are allowing some students to complete the three-year key stage three (for pupils aged 11–14) in two years, freeing up one of the years for other forms of teaching and learning. Some schools go further and are experimenting with looser forms of grouping by which students of different ages but similar levels of achievement can learn and be taught together – the so-called 'stage not age' approach.
- **Inter-institutional coupling is getting tighter.** Many schools are now linked with other schools in a variety of ways, in clusters and collaboratives. Some of these are relatively loose, based on short-term, voluntary links of strictly limited scope. Others are very tight indeed, involving a single governing body for several schools (often called 'a hard federation') with a single headteacher (with a title such as 'chief executive'). And although the powers of the local (educational) authorities over schools have become weaker in recent times, and schools have more control over their own budgets, the power of central government has increased dramatically over the last quarter century.

In none of these three forms of coupling is the change always in one direction, but the overall trend is as described above. It is not clear how much further in these directions the structural shifts will go. Certainly they could go very much further. Whether they should is a matter of debate.

I believe that schools will indeed go further in these directions. My reason for so concluding is very simple: *schools are moving in these directions because they offer greater opportunities for personalisation*. Teachers are returning to more multi-disciplinary and trans-disciplinary projects, not just the national curriculum subjects, and this entails more teamwork. 'Stage not age' is a way of ensuring greater engagement and faster progress in learning. Several schools working closely together can meet the varied needs of students more effectively than can the single school on its own. And schools working with a range of outside agencies is a necessary step to realising the Every Child Matters agenda, which will co-ordinate the work of all children's services.

These structural shifts are in part both a consequence of personalisation and a road to it. This is no longer a matter of mere improvement: it is a transformation, and one that is being driven by schools and their leaders.

Questions

- To what extent can you recognise the changing direction of the three couplings in your own school? What have been the pros and cons of such changes?
- Do you think these structural shifts arise from the drive to personalisation and will facilitate it?
- How much further should and could this go?
- In what ways do you think each of the three forms of coupling might help to advance personalising learning in your school?

05 System leadership: a limited version

In recent years the new term *system leader* has been introduced, and is best known through the writing of Michael Fullan, and applied by David Hopkins in his work for iNet (the international arm of the Specialist Schools and Academies Trust).

In the English context, two related features of system leadership are often emphasised.

- System leadership is about **narrowing the gap**, especially between high-achieving and low-achieving schools, and doing so by bringing the less successful or effective schools up to the quality achieved by the best. To this end, system leadership requires successful schools to work in partnership with the less successful. Much of the burden of this task falls to the headteachers of successful schools who mentor their less effective colleagues. National partnership schemes of this kind include the government's Leading Edge scheme and the Raising Achievement Transforming Learning scheme run by SSAT.
- There is a **headteacher crisis** in English schools, in that headteachers are retiring early and the next generation of teachers are not coming forward to replace them in sufficient numbers or at the required speed. The causes of this crisis are obvious to everyone except the government. However, one short-term solution is for headteachers of successful schools to take over the top job in a weaker school and so become 'executive headteachers' and thus system leaders.

These applications of the term system leader are, of course, laudable and have resulted in practical ways of improving the quality of schooling.

But we can approach the concept in a different way. A common sense definition of the term 'system leader' would refer to the people who lead the system, and 'system leadership' would refer to the activity of those people in shaping the design of the system and managing its operation. When the system under scrutiny is education, one has to ask exactly who are this system's leaders and how they exercise their leadership function.

This is not a simple task. At school level, we use the term 'school leaders' to embrace headteachers and their deputies and assistants. But then governing bodies have considerable power and influence and they have an undoubted stake in system leadership. At local level, there are elected councillors and officers with responsibilities for schools; and at national level there are education ministers and their officials. All of these can claim to be system leaders, not least because their responsibilities go far beyond the individual school to a local or national system of schooling. In short, various people can claim to be system leaders; and system leadership necessarily involves them all.

06 System leadership: a more ambitious version

System leadership in education, then, has to be about how all those with claims to be the system's leaders come to agree about the purposes of the system, how it should be designed and operated, and how the success of the operation of that design can be judged.

System leadership arises when political leaders, their officials and school leaders:

- Debate openly and then agree on the purposes of education
- Work in partnership to design and operate a system by which these purposes can be realised in practice
- Agree on the criteria by which successful operation of the system is to be evaluated as the basis for the system's accountability.

On this definition, we do not have much system leadership in England, because none of these three conditions is being met. There is little open debate or agreement among the system leaders, let alone with the general public, about the purposes of education; in consequence there is no agreement about the design of a system to implement such agreement; and there is profound disagreement about how the operation of the system should be judged and made accountable (See *System Redesign – 2: Assessment redesign*).

At the intermediate level, some local authorities – but by no means all – have sought to reach agreement on these matters with their schools, but central government has constantly confused and changed local responsibilities. On matters of accountability local authorities have little discretion and are required to act as enforcers for central government.

Relations between secondary headteachers and local authorities vary enormously from place to place, a phenomenon that weakens the potential of local authorities to serve as leaders.

Even if there were an open debate, at both national and local levels, about system purposes and system design, there would be no easy means of reaching agreement.

There is, in my view, a higher degree of agreement about purposes than is often assumed and governments can afford more debate than they usually allow. Although there has been confusion about the precise meaning of personalisation in education, most people agree that we should and could do more to meet the needs and aspirations of the students in our schools.

It is at the next stage, system design, where we run into trouble. As there is disagreement between the major political parties on some aspects of this – for example, the degree to which, and the ways in which, an education system should be selective – politicians are reluctant to encourage debate about design or to promote local diversity in design (though this already exists).

The most contentious area is the third, how the operation of the system is to be evaluated and made accountable. Education, like any other system, needs performance indicators that allow the making of a judgment about how and to what extent the system is operating well and its purposes are being realised. But since there is limited agreement on purposes, any measures or indicators imposed by government are likely to be contested by other system leaders. Moreover, education is fraught with internal accountability problems, concerning which system leaders need to be accountable about what matters to which other leaders, as well as external accountability problems, from schools and politicians to the system's consumers and the general public.

Questions

- Do you agree with this more ambitious conception of system leadership?
- If you do, what action needs to be taken – by you, by your school, by your local authority, and by central government – to make it a reality?

07 Students as leaders

Personalisation in action changes some key relationships in the education system and thus arouses new as well as old concerns about performance indicators and accountability. For example, many school leaders see student voice and student leadership as key drivers of personalisation. Over a third of school leaders in surveys rated student voice as the most powerful gateway – twice the percentage that chose any other gateway.

Early versions of student voice entailed inviting students to give their views about school, initially about safe topics (the state of the toilets), but later on much more sensitive areas such as the character and quality of teaching. In advanced versions of student voice the term itself becomes less useful, for at this stage the students are seen as co-constructors with staff of virtually every aspect of their experience in school.

For some observers, these advanced versions of student voice are deeply threatening, precisely because they undermine the rights of the teacher to determine and impose the purposes of schooling, the design of education, and the criteria by which the school's and the teachers' effectiveness are to be judged.

In reality, the reported effect of students as co-constructors is not to undermine the teacher's authority, but to create a partnership in which teachers and students accept a joint responsibility for the character and quality of what happens in school – with a clear recognition that where there is a dispute the teacher has the final say. When students accept more responsibility for what they do in an explicit partnership, their learning improves along with the increased professional satisfaction of the teacher. Success with student voice and co-construction has led many schools to devote more energy to the cultivation of student leadership, as a means of unleashing and channelling student creativity and enterprise on which much school improvement now rests – a direct parallel to the user-driven innovation now acknowledged in the business world.

In short, in the work on student voice and co-construction we find a model of new forms of leadership and partnership that covers the three elements in our definition of system leadership:

- Agreement about the purposes of education
- Partnership in the design and operation of the school
- Agreement on how the quality of teaching and learning is judged.

08 Lessons from student leadership and co-construction

If this can be achieved at school level between teachers and students, can it also be achieved at other levels?

This depends, I believe, on whether national politicians are ready to accept the limitations of what they can achieve, and so embrace the potential for a new kind of partnership with the other leaders in the system. For there are indeed limitations to what national politicians can achieve. In England we have learnt this lesson the hard way. The command-and-control policies by government over many years have achieved some of their goals, but there have been many unintended consequences and negative side effects, leading many to argue that the costs now exceed the benefits.

At the heart of the problem is the failure in England to build on the existing agreement on core purposes by working in partnership to co-construct the design of the system and the criteria by which successful implementation should be judged.

Government insistence on an over-prescriptive national curriculum at the heart of system design, and reliance on the results of untrustworthy tests as the major criterion for system evaluation, have weakened professional morale and commitment and inhibited the front-line innovation on which system improvement depends. Indeed, innovation has too often taken the form of centrally designed programmes that are then imposed. At school level it risks creating a culture of compliance and at national level a culture in which all central initiatives are resolutely defended as successful even when they are patently faulty or seriously flawed.

Questions

- To what degree do you think personalisation necessitates expanding student leadership?
- How can the co-construction of education that is thriving between teachers and students at school level now be extended to, and replicated at, other levels?

09 Lessons from the business world

At the political level, Tony Blair understood that public services, such as health and education, had to emulate the private sector in what was achieved there through customisation and personalisation. But he did not understand that this could never be achieved by command-and-control policies or through inflexible strategies imposed from the centre.

Personalisation in business was achieved not by following a government improvement strategy, but by individual organisations determining customer needs and aspirations and then altering their business practices to meet those needs and aspirations.

At the beginning of the 20th century Henry Ford realised that the average American family would like to own a car but could not afford one. To meet their needs he had to supply cars at a price they could afford, and to do that he had to transform car manufacture by a redesign that became known as mass production – but to keep the costs of the redesign down, all cars had to be black, creating the saying for which Ford is most famous. A hundred years later, in the movement from mass production to mass customisation, Michael Dell understood that many customers did not want one of the limited range of computers on the shelves in shops, but one that met their particular needs much more closely. Dell worked out how he could do this and cut out the middleman, and like Ford he became a millionaire.

Neither Ford nor Dell invented a new technology. Both designed and implemented a new business model, because they were brilliant innovators and entrepreneurs. The question that Tony Blair should have set himself is this: what action can I take that will unleash the same force for change in the field of education and generate the necessary transformative redesign?

In education, as in business and industry, to introduce a new practice you often have to displace or replace an older practice. Many established practices have been around for so long that they are unquestioned and unquestionable. Any attempt to disrupt them will be resisted, sometimes fiercely. Innovation, then, is by no means always a smooth addition to existing practice, but may involve some *creative destruction*, the term coined by the economist Joseph Schumpeter (1883–1950) to describe how innovative products and processes continually displace old ones. First comes the creative act of innovation, then the necessary destruction of any obstacles that lie in its path.

Innovation often springs, not from established firms, but from new firms and start-ups, which then coexist with the old firms they may eventually displace. When their innovations dwindle, established, complacent and risk-averse firms begin to die as their smaller, innovative rivals prosper. Schumpeter's approach is strongly bottom-up, always emphasising the power of self-organisation and self-regulation in business and the need for strong leaders of firms. He believed that government had a role in regulation, but he always pointed out that this needs intelligent civil servants, tuning the engine of capitalism with a careful hand, lest they stifle entrepreneurship.

Schumpeter saw innovation and entrepreneurship – constant technical innovation and organisational remodelling – as the engine of capitalism and its dynamic success through continuous evolution. But it must be remembered he did not live to see either the end-of-century mixed economy that evolved from capitalism or the new forms of socialism that evolved from communism. Schumpeter has lessons to teach to any society that aims to improve its material condition: and, I suggest, to any society that seeks a parallel and complementary educational system too.

Tony Blair should have realised that for personalisation to flourish in education he would need to find ways of applying lessons from the business world – and that this would not be easy, for the structures and conditions of education differ markedly from those in business. But there was understanding at a high level in government: Take this statement.

'Dynamic governments remain porous. Renewal rarely comes from within. One of the optical illusions of government is that those inside of it think of themselves as the drivers of change… Yet most far-reaching ideas and changes come from outside… Governments are more often vehicles than initiators. They play a role in embedding these changes but typically they get involved only at a late stage… The smarter governments around the world realise that they need to build innovation into their everyday working: through experimental zones and pilots, competitive funds and rewards for promising ideas. And new ideas need time to evolve – preferably away from the spotlight… Most radical change has to start outside government, usually from the bottom rather than the top.'

The author is Geoff Mulgan, who was Tony Blair's head of strategy at 10 Downing Street. It is striking precisely because it is not the spirit that drove the policies devised to improve the education system; indeed, it is the obverse of those policies. But had Mulgan been writing about government policy for trade and industry, his view would have been instantly recognised as Schumpeterian. What, then, are the implications of Schumpeter and Mulgan for the education system?

Many of the ingredients of Schumpeter's account of the dynamism of business under capitalism are entirely lacking or have very pale equivalents in the education system. There are established and complacent organisations in both sectors, but there is little in the way of start-ups in education and schools do not go bust. There are some new forms of schooling – a few 4–18 schools, and the academies, but these are fully-fledged schools, not small-scale start-ups. Schools can fail, but they get taken over or relaunched in some way rather than simply dying. There are fewer incentives for anybody to invest in educational innovation; and there are many reasons why school leaders should be risk-averse, which is the greatest disincentive against innovation. Knowledge transfer between schools is less common than between firms, (where keeping an eye on the competition is crucial to survival), so successful educational innovations spread more slowly. And perhaps most important of all, recent governments in England think they should decide which are the important innovations – often under the mask of being 'evidence-based' – that schools are then mandated to implement.

These significant differences between sectors show that in education there has to be a distinctive approach for both government, and its education ministers in particular, and for schools, and their leaders in particular.

Questions

- What in your view are the implications for system redesign in education of the work of (i) Henry Ford and Michael Dell (ii) Joseph Schumpeter and (iii) Geoff Mulgan?
- How can we create more opportunities for schools and businesses to work together and learn from each other?
- Is there a particular role here for schools with a specialism in business and enterprise?

10 System redesign: the role of government

I believe Geoff Mulgan has captured the way forward.

- **The first step is for government to define its role for the education system.** Government should see itself not as controlling, directing and micro-managing the education system, but as deciding on some fundamental design features (financing, private/public provision, starting and ending points for compulsory education, extent and nature of selection, local governance, admissions criteria, framework for curriculum and assessment, accountability, etc) and wherever possible seeking agreement to such decisions by other stakeholders and especially the teaching profession.
- **The second step is to create an innovation system.** Government should encourage innovation with an explicit mission that in the 21st century it is essential for educators to engage constantly in the search for better ways of learning and teaching, to ensure that young people have the knowledge, skills and qualities that will make them happy and productive people in the emerging society and world. This means avoiding a climate in which teachers feel pressured to be risk-averse, and giving them resources and protection in which to create and test new and next practices.

- **The third step is to provide the support needed to embed best practice.** In the education sector, knowledge transfer – usually called the dissemination of good or best practice – is slow and very uneven. This means abandoning the present policy of mandating desirable practice from the centre and then policing its implementation, and instead supporting the networks and partnerships through which such practice will both spread and develop further. Government should create an 'open source' culture between schools and their other partners, and often this means removing barriers to such a culture rather than trying to direct it.

The first step is by far the most difficult, for it means a real change of policy direction. But it could be presented as an evolutionary step rather than a U-turn. Perhaps it will need a new government that feels free to do something new and different. Perhaps it will need a crisis that gives little choice but a fundamental policy change.

The second step is easier. The case for a strategy for systemic innovation was set out in the Gilbert Review (*2020 Vision: report of the teaching and learning in 2020 review group*) with the following priorities:

- Finding better ways of determining priorities for development and research in teaching and learning
- Establishing a better balance between the contributions of professional researchers and practising teachers
- Finding better methods of knowledge capture to enable people to gain access to successful innovation
- Developing a robust means of distinguishing effective innovations from fads and fashions
- Realising the potential of school networks to transfer knowledge.

Sadly the government did not accept this recommendation – perhaps it could not unless it had taken the first step. And in consequence, there is no sign that the third step is even under consideration.

11 System redesign: action in schools

As Geoff Mulgan reminds us, 'To get good government the people themselves have to work hard, scrutinising, complaining, arguing, and engaging. A society of sheep begets a government of wolves.'

With or without government support, innovation at school level in England is alive and well. Teachers everywhere are skilled in improvisation, as teaching is constantly modified to fit the needs and moods of every class and every student. To be a successful teacher, one has to learn to tinker with one's professional practice. Happily in schools that strive for improvement the headteacher turns this routine tinkering into more ambitious and systematic innovation. It goes beyond the work of the individual teacher to become a shared commitment on an agreed agenda within a school culture of innovation (See *Deep Leadership – 2*).

System redesign has to be built on such practice. System redesign is about improving the architecture of schooling. Headteachers and their staffs are the architects, for they stand between the politicians, who set the framework within which the architecture is designed and redesigned, and the students, whose needs must be met through such architectural design and redesign.

The metaphor of architecture is an attractive one, precisely because it has building connotations. At the physical level, schools are built environments that exert a powerful influence on what can and cannot be done in teaching and learning. They constantly shape roles, relationships and activities, creating some opportunities and closing down others. In England over the next decade the government is committed to a massive programme of school building, named Building Schools for the Future (or BSF). There is a real danger of building new old schools, that is, replicating 20th century building rather than creating spaces that fit the changing demands of teaching and learning for the next half century.

Building schools for the future rather than the past also demands that attention be paid to the other architecture: how the education that takes place within such buildings and spaces is being designed, and redesigned.

What are the building blocks of system redesign in education for the 21st century in England? I believe there are 20 basic building blocks that are already embedded in the changing directions of the professional, institutional and inter-institutional couplings described earlier. They are all *reconfigurations*, that is, elements of conventional schooling, or the relations between two or more such elements, that are first questioned and then configured in a new way to meet the challenges of 21st century schooling.

The reconfigurations fall into three groups: those concerned with schools as institutions; those concerned with roles and relationships; and those concerned with leadership. There are linkages between configurations within and between these groups (See *System Redesign – 3* for examples).

Institutional reconfigurations (10)

1. **From single to multiple institutions**
   Over the last 25 years there have been several developments leading secondary schools to build various forms of partnership and collaboration. In recent times this trend has increased markedly: there are more such partnerships and some of them are much tighter and more enduring – for example federations of schools.

2. **Merging of phases – primary/secondary/special/ further/higher**
   The boundaries between the different phases of education are less rigid and more permeable. The transition between primary and secondary school is an area of innovation and experimentation; special schools are more closely allied to mainstream schools, and increasingly will be co-located with them; 3–16 or 3–18 'all-through' schools are emerging; in the interests of vocational education links between schools and further education colleges are growing; and some sixth form students are involved in university study.

3. **Flexible and permeable age cohorts**
   In English secondary schools, the age cohort (year group) has been a universal organising device. Most adults looking back on their schooldays will talk about 'people in my year'. Schools are letting some or all of their students complete the three years of the national curriculum in key stage three (years 7–9 for pupils aged 11–13) in two years, so that increasingly pupils in different years are being taught together. The more radical version of this is a 'stage not age' approach, in which pupils are grouped in different subjects by their level of attainment, not their age. This is a powerful, personalised alternative to both setting and streaming to which politicians are so addicted.

4. **School day, term and year**
   In many schools the day is being extended; or being re-scheduled by starting earlier and finishing earlier; and the traditional three-term (three-semester) year is turned into five or six terms, of very similar length. In the more radical versions, the school is moving towards a 24/7, 364 offer. Students, of course, attend for a standard, overall time, but the points at which they attend can vary, eg a student might attend during afternoons and evenings, but not mornings.

5. **Flexible time schedules**
   Traditionally the secondary school day has been divided into between five and seven lessons of between 40 and 50 minutes, with a 'double period' for some subjects, such as science. Schools are experimenting with variable blocks of time, as time is now seen as a flexible resource that can be packaged in many different ways – which is far more common in primary schools. In the radical versions, the conventional timetable of lessons is abandoned for one or more days (or for the occasional week) and students and teachers spend a whole day (or the week) working together on one subject or topic.

6. **Design of buildings and learning spaces**
   Space is also being treated as a variable resource that may be deployed according to how the design of teaching and learning might gain from a different size and shape of space. This is a particularly important aspect of Building Schools for the Future.

7. **Competence-based, trans-disciplinary curriculum**
   Most students and teachers devote most of their time in school to the study of the single subjects of the curriculum, yet there is growing interest in curricula that are conceptualised in terms of competences rather than knowledge acquisition; in project-based, problem-based learning, and in trans-disciplinary questions that cannot be answered by subject knowledge alone; and in various approaches to a curriculum designed for learning-to-learn and to improve students' learning capacities. Among the more radical versions is the Royal Society of Arts *Opening minds* curriculum.

8. **Academic/pastoral division**
   The design architecture of the comprehensive school in England has traditionally been built around the twin pillars of the academic aspect (the subject departments or faculties) and the pastoral aspect (usually the year group). Because this arrangement tended to cause a split between student learning (the academic side) and their welfare (the pastoral side), many schools are redesigning the pastoral aspect to become an explicit support for learning. Often this involves designing vertical tutoring (See *System Redesign – 4*), which creates a further erosion of a rigid age cohort (Reconfiguration 3).

9. **Smaller units within schools**
   Secondary schools in England vary enormously in size. Even the largest ones, with 2000+ students, are not particularly large by some international comparisons. But there is a growing concern that many students need to belong to a smaller, more intimate unit within the school, where stronger relationships between teachers and students, and among the students, can be forged. There is thus a growth of 'mini-schools' and 'learning villages' as well as vertical tutoring (See *System Redesign – 4*).

10. **School and workplace**
    The boundaries between the school and workplace are becoming more permeable, in the light of major new developments in vocational education. These include work-based learning in key stage 4 and the new specialist diplomas, as well as increased interest in how schools might foster entrepreneurship and enterprise.

Role reconfigurations (5)

11. **Co-construction between stakeholders**
    Co-construction of schooling was a major theme to emerge from the best work on personalising learning, though some schools have found it difficult to go beyond student voice. Co-construction with other stakeholders, especially parents, is more difficult. Co-construction with other agencies is central to the effective implementation of Every Child Matters.

12. Governance

Changes in school governance inevitably arise from reconfigurations 1, 2 and 11.

13. Widespread, school-based innovation

High levels of school-led and school-based innovation are now to be found in the schools that have been more effective in personalising learning. As was the case in the business world, innovation is essential to achieve personalisation and the transformation involved.

14. Initial teacher training and continuing professional development

For some 20 years initial teacher training (ITT) and continuing professional development for serving teachers (CPD) have been enjoying linked experimentation. Various new schemes of ITT are more school-based than are conventional models, and CPD is, in parallel, moving away from a model in which teachers attend occasional courses outside school to advance their knowledge and skill in specialist fields. Now they are more likely to undertake school-based, school-led professional development that focuses more on generic issues about learning and whole-school improvement. Expert-to-novice transmission is being replaced by peer-to-peer mentoring and coaching; and inter-school networks are seen as crucial to such developments.

15. Partners as teachers

Teachers are now being supported internally by a wide range of teaching assistants as well as outside partners as mentors and coaches. Parents are actively recruited as home teachers and students are also assuming teaching roles as mentors and coaches for fellow students.

Leadership reconfigurations (5)

16. Flatter, less hierarchical staff structures

English secondary schools were once notable for extensive hierarchies among the staff. Following business models, staff structures are becoming flatter.

17. Distributed leadership

Leadership is becoming distributed (See Harris, 2005). Note that distributing leadership need not be associated with flattening the hierarchy, just as flattening the hierarchy does not necessarily entail more distributed leadership.

18. Student leadership

A concern to expand and develop student leadership arises out of several of the above reconfigurations, especially numbers 3, 7, 8, 11, 13, 15, 16 and 17.

19. Leadership development and succession

This is in many schools a natural response to reconfigurations 16 and 18, as well as to the leadership crisis discussed earlier.

20. Decision-making methods

Changes in leadership structures and cultures noted in the above reconfigurations have in some schools generated high levels of participation that demand new methods of decision-making.

Many of the above reconfigurations, especially reconfigurations 11, 12, 15 and the above four leadership reconfigurations, have pointed to the need for methods of decision-making that are speedier, more inclusive and more effective than traditional methods.

Questions

- Are any of these reconfigurations wholly inappropriate or irrelevant in your context?
- Which of the 20 reconfigurations have become targets for development and change (i) generally in your country (ii) in your school in particular?
- Which reconfigurations, or combinations of reconfigurations, do you think are most likely to aid personalisation in your school?

12 System redesign: a new role for school leaders

The 20 reconfigurations are, with some exceptions (reconfigurations 1, 6, 10, 12, 19), being driven by schools, rather than central government, as part of their response to changes in general circumstances as well as to the demands of personalisation in particular.

Five key questions are:

- Where is this school-led agenda going?
- Who is going to lead it and how?
- What will be the impact on the rest of the secondary school system?
- What could and should the government do?
- What are the international implications, including those for iNet?

All 20 reconfigurations are under development already within schools, though most schools limit their engagement to a relatively small number of them. In general it is the schools that have taken the initiative, treating the reconfigurations as a part of their own strategy for improving the school and/or personalising learning. There is no formal or official development plan to support, co-ordinate and monitor these developments. As we have seen, the official partnerships are between successful/high achieving schools and less successful/underachieving schools. In these SSAT is already very active. But these partnerships are insufficient to drive the redesign agenda forward.

As the first step in this new phase of work, SSAT has established partnerships in a new innovation network between 10 schools that are all successful/high achieving. It is a partnership that puts strong with strong, rather than strong with weak, with several purposes in mind.

- These strong schools are, as we shall see, developing in different and potentially complementary ways because each is working on a unique sub-set of the 20 reconfigurations. There is potential here for them to learn from one another.
- By working in collaboration, these 10 system redesign schools might drive the agenda forward at a faster rate than would occur if they were working in isolation from one another.
- The whole system can benefit if SSAT provides many opportunities for other schools to follow the trajectories taken by the redesigners and to learn from and with them.
- There is no one model under construction. Each system redesign school is treating a selection of the 20 reconfigurations as the building blocks from which a unique architecture can be designed. Other schools will be offered, not so much a model to imitate or replicate, as a set of experiences and skills from which they too can develop as architects to create their own redesign.

The government currently has no role or stake in this programme of system redesign. It would be hoped that, as Geoff Mulgan has suggested, the government might offer support – without attempts at direction and without strings attached – and especially the extra freedom and protection where these might be needed. The government's role comes at a later stage when what is most successful can be determined and help is needed to disseminate and embed redesign. But this may well need some change in current government policies that are barriers to, or undesirable constraints on, what emerges as best practice in the area that matters most: the character and quality of student learning and achievement.

13 Next steps in system redesign

It is very early days in the work of the 10 System redesign schools. Even the 20 reconfigurations are in a provisional state and may well need to be adjusted in the light of experience. However, it is possible to give some indications both of the current state of play and of possible developments.

What are the characteristics of the 10 redesign schools?

- They reflect a range of circumstances. They come from all parts of England, from the north-east and north-west, to the south-east and south-west. Some are in cities and some in rural locations. Some are in splendid buildings, others are in urgent need of rebuilding. Some serve all-white communities, others have a multi-ethnic and multi-faith student body.
- All the headteachers are outstanding, energetic, imaginative innovators. Some have been at their school for many years and were working on redesign long before the term 'personalising learning' became a government policy. Others have taken up headship more recently and are seeking to move forward at a faster rate. One school is just two years old.
- All have developed strong leadership teams and strong partnerships with their governing bodies.

- Five of the schools are judged to be 'outstanding' by Ofsted. They cannot be accused of indulging in redesign because they currently fail by the government's criteria of success. Indeed, they have shunned the possibility of complacency, believing that further change is essential if their schools are to meet the needs of their students. The other five schools cover the Ofsted range of satisfactory to very good.

What have the redesign schools already achieved in relation to the 20 reconfigurations and what do they intend to do?

The headteachers rated the current achievement of their school as high, medium or low (without guidance on the criteria) on each of the 20 reconfigurations. These self-ratings should be treated as no more than a rough indication. Most schools rate their current achievement as high on some six reconfigurations. (Two schools stand to the extremes of the range, one rating itself high on 14 reconfigurations and the other on none at all. This may reflect leniency and harshness in self-rating.) On average schools rate their achievement as low on four reconfigurations.

Three reconfigurations stand out since six or seven schools judge themselves as having reached a high level of achievement in them:

- Widespread, school-based innovation
- Distributed leadership
- Leadership development and succession

and two of these:

- Widespread, school-based innovation
- Leadership development and succession

are listed by eight of the 10 schools as high in their planning for further work. I read this as suggesting that investment in creating a culture of innovation with leadership development, including distributed leadership, are seen by the schools as preconditions for successful redesign.

Two other reconfigurations are listed by nine of the 10 schools as high on the planned agenda:

- Student leadership
- Co-construction between stakeholders

This suggests a further level of investment, moving from student voice to more sustained work on developing student leadership and co-construction in a wide range of activities. Also, it suggests extending co-construction from students to a wider set of partners and stakeholders.

The schools have a planned agenda. Very few of the reconfigurations get a low rating in planning terms: the schools rate between none and four reconfigurations as low in their planning. And the average number of reconfigurations that are given high ratings on planning is six.

In summary, the redesign schools see most, but not all, reconfigurations as relevant to their situation, thus shaping their intentions for development and change. On average they rate themselves as having a high level of achievement in six of the reconfigurations and have a further six as high priorities in their planning. Their work on personalisation continues.

Some of the reconfigurations emerged out of work on the nine gateways and the four deeps, and we need to see the linkages involved. Figure 3 is a grid that provides some initial suggestions about the strength of the relation between the 20 reconfigurations and the four deeps. However, it is likely that every school would devise its own unique version of the reconfiguration strengths.

Figure 3 Strength of reconfigurations in the four deeps				
Reconfigurations	Deep learning	Deep experience	Deep support	Deep leadership
Multiple institutions	Medium	Medium	Medium	High
Merging phases	Medium	Medium	High	High
Age cohorts	High	Medium	High	High
Day/term/year	High	High	Medium	High
Flexible schedules	High	High	Medium	High
Spaces (BSF)	High	Medium	Medium	Medium
Competences/problem-based learning	High	High	Medium	Medium
Academic/pastoral split	High	Medium	High	High
Smaller units in school	Medium	Medium	High	Medium
Workplace	Medium	High	Medium	Medium
Co-construction	High	High	Medium	High
Governance	Low	Low	Medium	High
Innovation	High	High	High	High
ITT/CPD	Medium	Medium	Medium	High
Partners	High	Medium	High	High
Flatter hierarchies	Medium	Low	Medium	High
Distributed leadership	High	High	High	High
Student leadership	High	High	High	High
Professional development	High	High	High	High
Decision-making methods	Low	Medium	Low	High

Question

- From the perspective of your own school, how would you fill in the grid in figure 3? See Annex A, page 44.

Four important tasks of analysis and investigation lie ahead:

- What led schools to choose some of these reconfigurations for early achievement, and are particular combinations of reconfiguration important
- In what ways the schools tackled the development of these reconfigurations, and what interactions between reconfigurations occurred
- Why the schools chose the next set of reconfigurations and how they built on the earlier reconfigurations

and perhaps most important of all

- How the history of the work on reconfigurations supported and strengthened the goals of personalisation, through the development and embedding of the nine gateways and the four deeps.

How will the redesign network operate?

All 10 members of the redesign network are strongly committed both to working together to drive the redesign agenda forward and to sharing their experience with any other schools that are interested in this work. A start on this will take place on the final day of SSAT's National Conference in England (30 November 2007). The 10 schools will make joint presentations in seminars, focusing on particular themes and combinations of the reconfigurations. Schools working on the same broad agenda and schools in the D&R networks will also be involved. Among possible themes are:

- **Time as a flexible resource:** how personalisation is aided by reconfiguring the school day, term and year and using blocks of time in a variety of ways rather than the standard lesson of around 45 minutes.
- **Personalising relationships:** how reconfigurations can create relationships of mutual respect among students and allow teachers to develop a better knowledge of individual students to support personalisation.
- **Student leadership:** how students are being inducted into new roles and responsibilities, and the implications of this for reconfiguring governance and decision-making procedures.

Depending on the success of this programme, the whole SSAT National Conference in November 2008 may be devoted to system redesign. Between the two National Conferences, there will be a range of events on redesign, as well as the creation of additional networks and online discussion forums, according to demand.

Questions

- What contribution do you think you and your school might make to the network?
- How would you and your school wish to be involved in system redesign?

14 International opportunities and challenges

The last of the five key questions raised above concerns the international implications, including those for iNet.

Many countries are exploring how their school systems, which were designed to fit society in the 19th and 20th centuries, might need to be redesigned in order to meet the changing societal demands of the 21st century. This is not a challenge that England alone faces. In a globalised world some of these demands are almost universal. Other demands, by contrast, are context-specific, reflecting the unique circumstances, history and culture of a particular country. In the same way, preferences for some forms of redesign will be widely shared, whereas others will be unique to a country.

Sharing through iNet the varied ways in which different countries approach the redesign of our education systems provides opportunities for learning from and with one another and for improving our understanding of, and respect for, differences in redesign.

Question

- What are your ideas for how the system redesign networks might operate (i) in your country and (ii) internationally?

Annex A

Strength of reconfigurations in the four deeps, Next steps in system redesign

Figure 3 Strength of reconfigurations in the four deeps				
Reconfigurations	Deep learning	Deep experience	Deep support	Deep leadership
Multiple institutions				
Merging phases				
Age cohorts				
Day/term/year				
Flexible schedules				
Spaces (BSF)				
Competences/problem-based learning				
Academic/pastoral split				
Smaller units in school				
Workplace				
Co-construction				
Governance				
Innovation				
ITT/CPD				
Partners				
Flatter hierarchies				
Distributed leadership				
Student leadership				
Professional development				
Decision-making methods				

Annex B

Members of the system redesign network

Cramlington Community High School, Northumberland

Fallibroome High School, Macclesfield, Cheshire

Gable Hall School, Thurrock, Essex

Homewood School and Sixth Form Centre Arts College, Tenterden, Kent

John Cabot Academy, Bristol

Lipson Community College, Plymouth, Devon

Ninestiles School, Birmingham

Outwood Grange College of Technology, Wakefield, Yorkshire

St Mary's Catholic College, Blackpool, Lancashire

Serlby Park 3–18 Business and Enterprise Learning Community, Nottinghamshire

Annex C

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This pamphlet is the first in the third series of SSAT publications on personalising learning:

System Redesign -1: The road to transformation in education

System Redesign – 2: Assessment redesign

System Redesign – 3: Curriculum redesign

System Redesign – 4: Personalising relationships

This series develops the themes identified in the first and second series of SSAT pamphlets on personalising learning:

First Series	Second Series
Personalising learning – 1	A new shape for schooling?
Personalising learning – 2	Deep learning – 1
Personalising learning – 3	Deep experience – 1
Personalising learning – 4	Deep support – 1
Personalising learning – 5	Deep leadership – 1
Personalising learning – 6	Deep experience – 2
	Deep leadership – 2

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For other copying or general enquiries contact:
Specialist Schools and Academies Trust, 16th Floor,
Millbank Tower, 21-24 Millbank, London SW1P 4QP
Tel: 020 7802 2300 Fax: 020 7802 2345 Email: info@ssatrust.org.uk
Websites: www.ssatrust.org.uk www.schoolsnetwork.org.uk www.sst-inet.net

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