advancing opportunity:

new models of schooling

Edited by Martin Yarnit

THE SMITH INSTITUTE

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Preface

Wilf Stevenson, Director, Smith Institute

The Smith Institute is an independent think tank, which has been set up to undertake research and education on issues that flow from the changing relationship between social values and economic imperatives. In recent years the institute has centred its work on the policy implications arising from the interactions of equality, enterprise and equity.

Despite improvements in school results over the last 10 years, much more needs to be done to improve participation, attainment and, importantly, aspiration among the most disadvantaged. Our economic future depends upon ensuring that our whole population have the aptitudes and capabilities to cope in a changing and changeable world of work. But, as these essays highlight, the skills needed are also changing and new forms of learning and schooling need to be considered. As Michael Peters' essay states, by the time children now entering school are ready for employment, they are likely to be engaged in a job that does not yet exist.

The essays set out some of what that new model of schooling might look like. As well as making the case for new systems and new approaches, the contributors outline and showcase some of the very practical steps that have been taken to experiment with and test out these ideas – both internationally and through a range of project-based activities in the UK. Taken together, the essays seek to make a coherent case for the need to develop new approaches to learning and education – to provide children with the skills and capabilities required for a new world of work, and to unlock the talent and realise the aspirations of all our children.

The Smith Institute thanks Martin Yarnit for agreeing to edit this collection of essays, and gratefully acknowledges the support of – in particular – Edge, as well as the Esmée Fairbairn Foundation, the British Council for School Environments and the Innovation Unit, towards this monograph and the associated seminar.

Introduction

Matthew Taylor, Chief Executive of the RSA

Change is in the air. For the best part of 20 years debate about school reform has focused on standards and structures. Now everyone from government ministers to school students seems to be choosing a wider lens. The purpose, the content and the core organisational assumptions of schooling are in the frame.

This is an opportunity not to be missed. A generation ago, progressive education lost the propaganda war partly because the traditionalists had the best tunes and the most powerful allies, but also because of a fatal naivety in the way that exemplary universal values were applied to the difficult and varied realities of schooling. Through the Opening Minds curriculum the RSA has been in the vanguard of new thinking and practice. Through our academy and partnering with innovative organisations and schools we intend to apply the underlying values of that curriculum to schooling as a whole. This can be part of a new progressivism, mobilising a powerful coalition stretching from cutting-edge educationalists to hard-headed employers, founded on strong core values but relishing diversity. But for this project to succeed means recognising and removing the many and difficult barriers to change, not just those we enthusiastically confront but also those we might prefer to ignore.

So why are we asking different and more fundamental questions about the purpose and form of schooling? These might be some of the reasons:

The standards plateau. There has been a steady, and aggregately impressive, increase in the number of pupils reaching national benchmark standards. In recent years this has been accompanied by increasingly effective interventions to tackle failing schools. However, the rate of improvement has now slowed and in some cases stopped, while rising levels of attainment have been accompanied by a widening socioeconomic attainment gap. The sense of a national standards crisis might have passed, but now good schools are asking what comes next, while struggling schools are concluding that a radically different approach is needed to engage the most disaffected and disadvantaged young people.

Preparing for uncertainty. Despite more students achieving more qualifications, employers continue to complain about the work readiness of new recruits. Increasingly the concerns expressed are not just about the three "R"s but about competences such as team working, adaptability, communication and problem solving. The future labour market is

unpredictable, but it is widely assumed not only that these cross-cutting competencies will be as economically important as more traditional subject-based knowledge, but also that young people need them in order to be the successful citizens of tomorrow.

Learning to learn. New insights into the nature of intelligence and the workings of the brain have increasingly led us to question both the narrow academic view of cleverness and traditional teaching methods. Howard Gardner's work on multiple intelligences has been very influential, as has scientific analysis of brain functions showing how learning is most effective when it involves physical as well as mental activity. Creating content with peers and teachers as well as being consumers has been shown to enhance students' learning by connecting it with their existing knowledge and skills.

New childhoods. The world children inhabit has changed dramatically. Technology has transformed their cultural and informational universe, connecting them to a range of sources of knowledge and expertise. This, combined with growing affluence and individualism, has created new opportunities, ambitions and tensions. Changes in the family and the growing diversity of communities mean new complexity and challenges in children's circumstances and identities.

The profound questioning of schooling may then reflect major shifts in context. The new progressivism is neither merely a fashion nor 1970s idealism in new clothes. If nothing else, the centrality of information technology to the emerging debate ensures that it explores possibilities unimagined by previous generations of educationalists.

Not every contributor to this booklet shares the same analysis or prescription, but there are two overarching themes. The first is that we must have a more expansive account of school education. This means schools that educate and nurture the whole child, not just that part of the child that is necessary for passing academic exams. It means schools as institutions that develop children in many ways; not just through the classroom but through the extended school, the relationships within the school community, the bridging of formal and informal learning. And it means that the role of schools and the opportunities for children should be placed in a richer context, extending beyond the school gates to the neighbourhood, the local economy and the shrinking world beyond.

A second, overlapping, theme is the need to transcend long-standing assumptions and divides. In this collection Andy Powell offers educational foundation Edge's compelling critique of the separation of academic and vocational ability, activity and aspiration.

Professor Richard Pring and several others challenge the idea of schools as isolated institutions, highlighting the importance of networks with other schools, as well as with colleges, universities and employers.

This will be essential if the new 14-19 diplomas are to have any chance of success. A number of authors call for assessment systems that fit around the natural development of each child, rather than pupils' development being slowed or accelerated to fit a rigid chronological framework. Most radically, Samia Meah and Huda Al Bander question the divide between teacher and learner in their call for students to be the co-producers of their learning and co-leaders of their school community.

The essence of the new progressivism lies in the call for a qualitative shift in ambition, which can be delivered only by tearing down high organisational, regulatory and cultural barriers. With such a bold vision is it is important to hold up examples of what the future could be. Whether it is Gothenburg's vocational education offer, described by Liz Cousins and Martin Yarnit, Michael Peters' account of Bridgemary's ability-related (rather than age-determined) curriculum, or Valerie Bayliss's account of the onward march of the RSA's Opening Minds, most of the elements of a new model are on show somewhere. We must hope that the Young Foundation's studio schools, described by Kippy Joseph, soon joins the portfolio of successful practice.

But of all the words that follow, perhaps we should pay most attention to those of our most experienced and accomplished contributor, Tim Brighouse:

The ... pitfall for any consideration of what the mature 21st-century school might look like is the danger of engaging in romantic progressivism ... With the honourable exception of Summerhill, efforts to bring about the ideal school... have either ended in tears or been quietly abandoned.

These words should ring in our ears. They point to some of the issues that must be addressed if good intentions are to turn into real and lasting change:

Standards plus. A command of the basics of learning (and evidence in qualifications of that command) should be an entitlement for every child. Our case must be for more effective ways for every child to reach this base camp and to explore well beyond it, not for its attainment to be abandoned as a goal.

Champions of diversity. Fiona Millar makes a passionate and convincing case for the comprehensive principle, but too often the advocates of equity and inclusion have allowed themselves to be portrayed as the enemies of invention and diversity. The commitment to diversity lies in a recognition that the child's entitlement can be delivered in many ways, and that different children in different places will benefit from different approaches. It means a willingness to engage with all effective practice. Some failing schools have turned themselves round using very traditional methods; we can't simply ignore success that doesn't fit. Beyond this, at the level of the system, diversity is vital to generating innovation, enabling learning and empowering parents and pupils (which is not simply an issue of school choice).

The teacher question. Overall, this collection gives surprisingly little attention to the future of teaching itself. Yet there are big implications. The future school workforce should be more diverse, for example including more adults working with children as mentors and coaches, and making it easier for non-teachers to bring important skills and experiences, into the classroom. Pupils will do more learning outside the school. If schools are to be more porous and responsive to their context, how tenable is the model of a lifetime teaching career refreshed only by occasional "inset" training days? But how can we encourage teachers themselves (and their representatives) to see such challenges as opportunities?

A realistic model of change. In its decade in office Labour moved, sometimes painfully, from command-and-control to a "system reform" model of change. It is easy to criticise both, but describing a brave new world is useless if you have no convincing account of how to get there. Bold vision must not be the enemy of careful, incremental progress. Poor performance, producer capture (the takeover of a service by its producers, to serve their own ends rather than those of the consumers) and a loss of focus on outcomes are endemic vulnerabilities for big institutions, however laudable a system's objectives and methods. Our aims may be progressive but our methods must be equally robust, seeking to embed the DNA of continuous improvement in every school and network.

There is much good practice in our schools. Government reform – for example, encouraging school collaboration and freeing up the curriculum – is going in the right direction. But the pace of change in society still outstrips that in our schools. This booklet provides some important clues to the future. It sketches a set of ideas that could mobilise teachers craving greater effectiveness and professional autonomy, parents hoping their children will not just pass exams but enjoy school and grow as young citizens, employers looking for a self-confident, adaptable workforce, and young people wanting school to relate to

their lives while inspiring their ambition.

It has been said that the 1960s didn't really get going in Britain until 1971. It is 2007, but we have yet to see the shape of the 21st-century school system.

Chapter 1

Active learning schools – a new model for the 21st century?

Martin Yarnit, Director of Martin Yarnit Associates

Active learning schools – a new model for the 21st century?

My argument is simple: school as we know it cannot deliver the goods; we need radical reform designed to produce a new model fit for our times. Or to put it more eloquently: "What we need is a metamorphosis in education. From the cocoon a butterfly should emerge. Improvement only gives us a faster caterpillar."[1] My butterfly is called the active learning school.

The purpose of this paper is to:

- outline the main challenges posed by the secondary school system and the government's response;
- explain why piecemeal reform does not work;
- set out the public service values that should underlie such a change;
- propose a model for the active learning school; and
- suggest a strategy for achieving change.

For reasons of time and space, I intend to confine myself to dealing with the English state secondary school system. I recognise that there are pressing issues that have a bearing on all this, such as preschool and primary education, fee-paying schools and further and higher education, but they must wait for another occasion.

Three challenges and the government's response

Progress but not a breakthrough: that sums up what has been happening to school standards in recent years. There's no doubt that we have seen a remarkable improvement in education standards in England since the 1960s, brought about by, above all, the comprehensives, which are attended by more than 90% of young people. Who would have thought 40 years ago that more than 40% of the age group could qualify for higher education?

Improvement rates in some urban areas have been impressive, even if they start from a low base. And there has been a marked reduction in the number of schools in special measures. But it is also clear that the line of improvement has now reached a plateau, even if some individual schools are still demonstrating the capacity for remarkable change.

1 Banathy, BH *Systems Design of Education: A Journey to Create the Future* (Englewood Cliffs, 1991)

For the public and the policy makers, the key challenge is underachievement. Two out of five young people are leaving school without five GCSEs, rising to seven or eight out of 10 in some areas. One in 10 young people are not involved in education, employment or training. Truancy remains a significant problem, and the atmosphere in many classrooms is inimical to learning, with public order a problem in a minority of schools. The national staying-on rate after the age of 17 is one of the lowest in Western Europe.

A second challenge, just as serious in its own way but less commented on, is that school in its current form is failing to discover and develop creativity and talent. Gordon Brown, Chancellor of the Exchequer at the time, fresh from a visit to China, warned that we would fall behind the Asian mammoths unless we could develop the skills of every teenager.[2] This leads us to challenge number three, that school provides inadequate preparation for rapid social and economic change. The 14-19 white paper puts its finger on the problem:

If we are to continue to attract many of the high value-added industries to this country, and to compete effectively on the global stage, then we will need far more of our population to have high levels of education.[3]

It noted that although there are more young people gaining five A to C grades at GCSE level, too many of them leave school with only the faintest idea about how the world works and how to make a living, as employers rightly complain. According to the Public Accounts Committee:

Public money intended for employment-related skills training should not have to be used to equip people with basic literacy and numeracy skills that they should acquire at school.[4]

Policy responses to these fundamental challenges have focused on three kinds of solutions: increasing resources; introducing competition to raise standards; and diversifying the curriculum. In the past year, the government has gone for all of these. The controversial schools white paper proposed the extension of trust schools, to create pressure for improvement, alongside the development of the personalised curriculum. Meanwhile, Brown announced an objective of closing the gap in resources between state

2 At the launch of the skills white paper in March 2005
3 Department for Education & Skills 14-19 Education & Skills (February 2005)
4 Committee of Public Accounts "Conclusions" in *Employers' Perspectives on Improving Skills for Employment*, 45th report of 2005-06 session [HC 862] (May 2006)

schools and the private sector. A key objective of the new 14-19 strategy is to "vocationalise" the curriculum, making it more relevant to employers and to young people:

This means for the first time in this country establishing a strong progression route through employer-designed specialised Diploma qualifications combining skills development and general education.[5]

These kinds of solutions are certainly a step forward: they are necessary but not sufficient. The problem, summed up in a Smith Institute paper on public service reform, is that:

... reform has centred around reshaping the architecture and management of services rather than thinking about their core purpose in a modern economy. Organisational change, new structures and inputs have triumphed over thinking about content and outcomes.[6]

Why piecemeal reform does not work

There are limits to the scope for improvement, and these are rooted in the nature of school as a system and the challenges it faces every day. Precisely because it is a system, any serious attempt at reform that does not take this into account is doomed to fail. Piecemeal change simply will not work. To understand this better, we need first to understand the nature of the current system.

School, in its essence, is a Victorian construct. The handing down of values and information, the organisation of the curriculum into subjects, the emphasis on academic achievement, even the organisation of the timetable and the terms: these are all characteristics of the state school system created by the 1870 Education Act. That school system was set up to shape the citizens and workforce of a different era. It reflected different values and priorities. Above all, it was shaped by the notion, endemic in our education system, that a minority should be prepared for elite positions through an intensive study of bodies of knowledge designed to impart the skills of government.

The problem with the Victorian model is that it impedes learning, engagement with the world outside the school gates and a sense of responsibility. It blocks reform. The reason for this is simple: the model is extremely robust. Organisation, content (what is learned) and activity (how it is learned) are all tightly linked. Piecemeal reform attempts to change one element in isolation, and fails.

5 Department for Education & Skills: 14-19 Gateway, at http://www.dfes.gov.uk/14-19/index.cfm?sid=26
6 *Opportunity, Responsibility & Community: An Agenda For Renewal*, unpublished paper (Smith Institute, 2006)

A question of values

A serious programme of reform must take as its starting point the need for system change. But in what direction?

I would like to argue that a new model for schooling must pass a number of tests:

- it has to produce a step change in the rate at which attainment and participation rise, especially for the underachieving minority;
- it has to discover and develop creativity and talent for all; and
- it has to prepare young people effectively for life and work in a fast-changing world.

We also have to be clear about the values on which reform is to be based, for any discussion about schooling is also a discussion about the sort of society we want, as well as its moral basis. In an increasingly heterogeneous society, school is perhaps unique in providing a meeting point for different cultures and outlooks. If anything, it is even more critical in building common goals and a common culture than it was for previous generations. These social goals cannot be usefully separated from the educational goals of increasing skills and knowledge.

This means addressing the current mismatch between school and society, and bringing the two into line. The mismatch is, critically, about values and purposes. To make sense of the world and to help shape it, citizens and workers need skills in selecting and processing information to generate useful knowledge; they need to be able to solve problems rather than applying cut-and-dried solutions. To engage young people, school must be seen to address their interests and those of their communities. Learning only works by consent. This means that there must be a new settlement between young people, their parents, the community and the school – especially in the most disadvantaged communities, of all colours.

A new model for schooling

From this discussion, we can draw the guidelines for a new model of schooling. School should:

- link the acquisition of knowledge directly to the experience of the world;
- bring together people of different ages to exchange ideas and skills;
- take account of our growing understanding of the way human beings develop understanding and skills;

- promote enterprise for wealth creation and active citizenship;[7]
- give responsibility to young people as citizens for the conduct of their lives, relationships and learning; and
- go beyond the extended school concept and strengthen communities through a two-way bond: the school provides services and employment, the community offers learning experiences and expertise – the Scarman Trust calls this a community service agreement.[8]

Because form follows function, the result is a radically different kind of school, one that is as much a concept as a place. You may feel that Charles Handy is going too far when he sums it up: "schools should be like work and vice versa".[9] Certainly, school should become a centre for the production of ideas, products, services and networks for a whole community. For, as author Charlie Leadbeater has argued,

... education will not be enough on its own. We also need to excel at exploiting and applying our know-how ... A dynamic knowledge society must promote innovation and entrepreneurship alongside education and training.[10]

This is the vision that underpins the CAN Academy at Shotton Hall near Peterlee, and the enterprise initiatives at the City School in Sheffield, or Swanlea ("a hotbed of enterprise") in East London. I call it the active learning school.

If all this sounds too utilitarian and New World-ish, it is important to emphasise that this new synthesis of liberal and vocational education underpinned by strong learning skills and active learning is designed to give all young people the best cultural experiences. We need work skills in the modern world but not narrow vocationalism. Rather, we need the highest order of intellectual and personal skills.

There should be more opportunities to perform Stravinsky's *The Rite of Spring*, as a group of Berlin young people did for a Channel Four film, working alongside professional choreographers and the Berlin Philharmonic under Sir Simon Rattle, or to perform the hip-hop influenced version of *Romeo & Juliet* on a professional stage, like a youth club from Harlesden, North London. The active learning school is designed, too, to give more

7 Matthew Horne offers one model in *Peoplism: Enterprise Learning* (Demos, 2000).
8 See: ODPM/Home Office *Citizen Engagement & Public Services: Why Neighbourhoods Matter* (2005), p22
9 In Alexander, T and Potter, J *Education for a Change: Transforming the Way We Teach Our Children* (Routledge, 2005), p44
10 Leadbeater, C *Living on Thin Air* (Viking, 1999), p108

opportunities to young people to excel in the hard knowledge areas that we need more of, such as maths and chemistry.

The new school

What goes on in the new school, how is it organised and how is it designed?

The old school begins with a curriculum, little changed over decades. The new school begins with a set of activities designed to prepare students for life and work and to strengthen the community. The boundary between the school and the outside world is porous; the school is an integral part of its community. Schools work together in federations, sharing resources, ideas and expertise.[11] Activities involve young people working and learning alongside their peers and adults, acquiring the core skills of critical thinking, managing learning, working in teams, communicating, reading, writing, listening and speaking, playing sport and developing self-expression in a variety of media. They involve, too, the essential skills of self-government, decision making and building sustainable communities. In short, we are talking about building a learning community.

The 11-14 phase of education is a period of exploration, trying out experiences and activities, taking an increasing level of responsibility for organising activities and learning, and acquiring core skills. Already much of the time is spent working with an adult or older student, perhaps making pots or plumbing a house or learning about nanotechnology.

From age 14 onwards, as they move into adulthood, young people spend an increasing amount of time away from school, taking part in projects such as building a nursery, or restoring a disused cinema as a performance centre, or helping to run a hotel or a small engineering business. They might take part in an archaeological dig to give them an insight into the social context of the second expedition to Britain described in Caesar's Gallic Wars. The enthusiasm they experience in doing and making and thinking to a purpose translates into a willingness to manage their own learning and to crack problems with literacy and numeracy.

The school is organised into teams and groups of teams. Groups contain teams of varying ages and are led by older students, teachers and adult specialists. The specialists have several jobs:

11 As David Hargreaves argues in *Learning for Life* (Policy Press, 2004), p62

- to organise and fund the annual work plan of the teams, ensuring a balanced programme of activities and learning;
- to liaise with the teachers in the design and delivery of learning programmes;
- to identify a coach for each student;
- to set up projects inside and outside the schools;
- to use their own expertise in programme delivery, for example as drama coaches or core-skills tutors; and
- to ensure that every student acquires a systematic body of knowledge which might be in a subject area such as applied mathematics, childcare or Russian literature, or in a cross-disciplinary field such as sustainable development.

The annual work plan, which forms part of the local community strategy, is designed to promote local enterprise and development. The school provides a base for a number of student-run companies, some of them spin-offs from the nanotechnology programme.

The school has a governing body, representing students, staff, parents and community interests. It is managed by a small executive group of teachers and specialists plus two students on work-shadowing placements. As in a university, this group elects a dean to provide overall leadership. Whenever feasible, the school encourages students to take responsibility for themselves and others, and to cope with the real-life dilemmas this poses.[12] What's wrong with democracy in schools?

Organisation

The first sight of the school is one of a hive of activity. The ground floor is given over to workshops, performance and exhibition areas and a range of service outlets, including a hotel, restaurant, library, nursery and advice centre, all staffed by students. Nearby there are incubator units, where learners with fledgling enterprises are learning to spread their wings, and live-work units where craftspeople and designers live above their workshops and studios. You can see a band rehearsing a hip-hop set in an audio studio, whilst lunch is being prepared in the training kitchen.

Upstairs there are study rooms, team meeting rooms, offices and lecture rooms. These are the nearest thing to the classroom of the traditional school, but they are designed to hold 100 students and can be configured for learners to work in small groups. A team of

12 See research for the Economic & Social Research Council by Professor William Scott and others, "Listening to Children: Environmental Perspectives and the School Curriculum", at http://www.esrc.ac.uk/ESRCInfoCentre/PO/releases/2006/july/urban.aspx?ComponentId=15723&SourcePageId=5433#0

university lecturers is leading a day seminar in one of them, based on their research work on drug addiction and crime.

There are also virtual operations rooms where computers are used to simulate a variety of real-life experiences, including pilot training, hospital management, courtrooms, warehouse distribution centres, and newsrooms. These are all based on current practice, for example, Staffordshire University's courtroom, and will be familiar to the computer-games generation. Most of the people we see are young people, but a significant minority are adults who come to work on the site or to take part in the learning programmes themselves. Many teams include adult learners.

On the same site, set apart in its own campus, there is also a primary school and a preschool. Younger children are progressively introduced to the resources enjoyed by their older counterparts, gaining the confidence and skills to take part in the doing, making and performing ethos of the new school.

We call it a school, but maybe the American community college is closer to the mark for this new type of institution, which subverts the traditional boundaries between school, further and higher education. Closer to home, it shares the ethos of many further-education colleges that are quietly showing how to provide active learning experiences in a realistic work environment.

Getting there

Looking at the sometimes painful history of recent public service reform, especially in education, we can draw out some golden rules as a firm foundation for a strategy for change:

- build on what works and the best of innovation;
- take students, parents, employers, the community and educationalists with you; and
- don't rush it – test each step.

Some recent government policies and the creativity of schools and other agencies provide a strong foundation for change in the right direction. Building Schools for the Future provides unprecedented investment in the kit, and steady improvements in teachers' pay and training mean that there is now a better-qualified, more motivated workforce than a decade ago.

Although the government could not bring itself to bite the Tomlinson bullet and end the vocational-academic divide, the 14-19 strategy goes a long way in that direction and may achieve by stealth what former Education Secretary Charles Clarke and Ruth Kelly, the incumbent at the time, did not feel able to commit to publicly. The design of the new diplomas – to include learning through a realistic work environment and project work – are certainly a step in the right direction, although it remains to be seen if they will receive the endorsement of the academic gatekeepers.[13]

Outside government, there has been a flowering of new ideas and approaches that demonstrate that improving attainment is a feasible objective of reform. The Campaign for Learning's focus on "Learning to Learn" has been widely adopted in schools, while the ContinYou initiative seems finally to have persuaded the Department for Children, Schools & Families that the community school is the road to improvement. Knowsley has decided that its secondary schools should become centres of enterprise.

The RSA's Opening Minds project audaciously marries the subject specialisms of the national curriculum and its emphasis on knowledge accumulation with a "competence framework" derived from an analysis of the skills and knowledge required by the modern world, such as citizenship skills and values, and interpersonal skills. The project demonstrates the value of the competence framework in engaging students and raising attainment.[14] Opening Minds demonstrates that the subject framework of the national curriculum does not prevent a focus on project work.

Another model is Ruskin Mill, a restored textile mill in the Horsley Valley near Stroud in Gloucestershire, which employs more than 100 people running a residential college for young people with special needs and a host of craft workshops. In return for training apprentices, they enjoy a rent discount. On the same site, there are teaching rooms, an IT centre, a bakery, a teaching kitchen, 15 fish ponds, two acres of market garden, a 45-acre mixed organic farm and 38 acres of managed woodland. The mill works as an educational,

13 See: Department for Education & Skills *14-19 Education & Skills Implementation Plan*, an ambitious medium-term strategy to change the direction of schooling (December 2005)

14 I am grateful to Valerie Bayliss, the project director, for her help in understanding Opening Minds and how it relates to the broader theme of this piece. She points out that "virtually all of the project schools [now over 50] decided from the start to use a set of projects as the context for using the RSA competence framework, precisely because so many of the competences lent themselves to being developed through this vehicle in ways that conventional subjects, conventionally taught, do not. Typically a school uses six projects over a year. They all designed their own. The staff have learned a lot about how to plan the use of curriculum content [which of course they have a statutory duty to cover] across project boundaries. Most of the schools have covered more than the prescribed curriculum within a school year because the students have raced ahead and asked for more." (E-mail to the author, 15 June 2005)

environmental and employment project with mainstream funding from the Learning & Skills Council. Its success has led to new offshoots in Stourbridge and Sheffield.[15]

Further afield, in Gothenburg, Sweden, we can see how the best of liberal and vocational education can be meshed to provide a high-quality educational experience. Typical of Gothenburg's determination to redesign its learning and industrial base in tandem is GTG, the technical high school set up jointly by the city council and Volvo to train the motor engineers of the future. Students, who are taught in a purpose-built learning centre with the latest Volvo models to practice on, have the opportunity to earn a decent income during spells spent gaining experience of production management and engineering. They also know that they can progress to university if they complete the high school course successfully.

What is especially appealing about GTG to British eyes is the way it combines high-level general education with a fixation on the industry's current know-how needs. Some 40% of the credits counting towards the final qualification are for general and social studies, designed to ensure that students are able to make sense of rapid global change and to communicate in two or three languages. GTG is producing engineers who will be global citizens.

These two contrasting models, GTG and Ruskin Mill, demonstrate how it is possible to provide a high-quality vocational experience for young people with special needs as well as potential high flyers. Our new model will work only if it is seen to meet the needs of all young people.

The examples given here meet the third golden rule: they are tried and tested. Political impatience is too often the enemy of effective reform; the lesson here is clear.

Next steps

Surely all this is hopelessly utopian, like global disarmament? It may be desirable, but there's no hope of ever getting there. But as Oscar Wilde said:

A map of the world that does not include Utopia is not worth even glancing at, for it leaves out the one country at which Humanity is always landing ... Progress is the realisation of Utopias.[16]

15 Based on Esther Caplin and Nicholas Falk's evaluation, *Making the Most of the Achievements & Potential of Ruskin Mill*, unpublished manuscript (November 2001). See also the account of Freeman College, Sheffield, in New Start, 1 April, p16, and the proposal for BlakeSpace by Jay Harris in New Start, 29 July 2005, p21.
16 Quoted from *The Soul of Man Under Socialism*

So, how can we go forward? In two ways, I think: through debate and action.

First, we need to promote a national discussion about new models of schooling that meet contemporary needs. Our aim should be to renovate the comprehensive ideal based on a candid acceptance of its limitations. In other words, we recognise the constraints of a system engineered in the 1960s and 1970s and acknowledge the need for change.

Second, we need to develop a new model or models rooted in practical reality. Building Schools for the Future offers an opportunity for trialling the new model but will need long conversations and real engagement with all concerned. It provides an opportunity for:

- a fresh start with parents and students, especially in communities with a distant relationship to their schools;
- engaging the educational professionals in a debate about how best to realise the ideals that attracted them to teaching;
- engaging employers in a discussion about what they can gain from and what they can offer to the new school; and
- discussions with other learning providers, especially further-education colleges, about where they fit in, and with the DCSF about loosening the rules about rebuilding.

Without a radically different approach, Building Schools for the Future runs the risk of becoming a missed opportunity: true, the new buildings are impressive but their design reflects an outmoded approach to learning.

We need to be able to demonstrate that the new model(s) are well grounded in reality, are workable, make a difference and have the support of young people, parents, local authorities, employers and other stakeholders. There is scope for pilot schemes to explore different models. Educationalist Professor Peter Mortimore has called for a pilot or experimental school to be developed in every local authority area.[17]

The Young Foundation plans to pilot what it calls the studio school to "foster the development of enterprise skills and entrepreneurship for the global service economy".[18] We need to be able to identify the implications for schools of the new model(s) in terms of curriculum, organisation, teaching and learning, community links, funding and pay, and so on.

17 National Union of Teachers *Which Way Forward?: An Education System for the 21st Century* (2006)
18 *Studio Schools Prospectus* (June 2006)

Finally

My aim here has been to spell out the notion of the active learning school as an alternative to the traditional model of schooling, one that fits with the comprehensive ethos of forging a communal culture by the pursuit of quality with equality, and which is designed to bring out the best in all abilities and aptitudes.[19] No doubt there are other models: what we need now is a debate about the alternatives, much like the debate that took place in Britain from the 1940s onward that paved the way for the abolition of the 11-plus.

Like then, there is a growing appetite for reform. A glance at the websites of the Qualifications & Curriculum Authority and the Specialist Schools Trust demonstrates that many schools, recognising that the old model is worn out, are indeed eager for change. The problem is that this movement is, at this stage, embryonic and lacking in critical mass. A public debate could help the young shoots to mature into a powerful force that may even sweep along a government understandably nervous of further educational upheaval. In the meantime, ministers and their advisers could usefully follow innovator Hilary Cottam's advice:

Our focus should not be on how we can more efficiently and effectively connect current services to user demand, but rather on the nature of the goal we are pursuing and how we might best get there.[20]

19 Robin Pedley, quoted in: Benn, M and Millar, F *A Comprehensive Future: Quality & Equality for All Our Children* (Compass, 2006), p8

20 "Redesigning Prisons for the Twenty-first Century" in *Soundings*, Autumn 2004, p43

Chapter 2

Practical learning, lifelong learning – why it matters and the role of Edge

Andy Powell, Chief Executive of the Edge Foundation

Practical learning, lifelong learning – why it matters and the role of Edge

It is not how intelligent you are, but how you are intelligent.
Edge Learner Forum

We learn ... 10% of what we read, 20% of what we hear, 30% of what we see, 50% of what we see and hear, 70% of what we discuss, 80% of what we experience, 95% of what we teach others.
William Glasser

We are all experts in education – like football fans, we all have a view on how better results could be achieved. We have all been through formal education as "players" and then, like managers, many of us have felt responsible for our own children's education and development. To different degrees we try to understand the way education works and then are alternately delighted, depressed and exasperated as we encourage, chivvy and coach our children – or just cross our fingers and pray. For parents, education is not an academic subject – it affects their daily lives.

A good starting place, then, is to ask: "What do I want from education for my child?" Personally, I want my son to find out for himself his talents and interests, and to leave formal education with the confidence, know-how and desire to keep learning, to achieve his aims and to be a responsible citizen. Of course, that means I also want him to have a good command of the basics, including numeracy, literacy and, more widely, the ability to communicate effectively with people of all ages and backgrounds.

Is the answer any different when the question is approached from a less personal, national perspective: "What do we want as a nation from our education system?" The world is vastly different for our children than it was for our parents. We all know from watching Alan Sugar's *The Apprentice* on television that it is not necessarily the cleverest person who will succeed in today's world – it is the person who has the initiative, creativity, communication skills, teamwork, leadership, resilience, understanding of their own strengths and those of others, and desire to succeed. The person who is smart, rather than clever.

A system based on IQ and a particular narrow notion of intelligence is no longer appropriate. Neither is a system designed originally to select the top 10% and educate them to become managers and professionals, leaving the rest to gain sufficient skills and

knowledge to get a job. To compete successfully as a nation we now need to enable the large majority of young people to discover and fulfil their potential, not just an elite.

It is well established that IQ and traditional notions of intelligence comprise around 25% of what it takes to be successful;[1] and yet it is this 25% that forms the basis of our education system – what we teach, how it is taught, and how young people perceive themselves and determine their aspirations.

It is hard not to conclude that our education system has to change significantly and rapidly if it is to remain fit for purpose:

We are facing severe competitive threats and our single-minded obsession with the superiority of academic learning is leaving us exposed. It is allowing us to waste talent just as the new power-houses of the global economy are seeing an explosion in the population that is ready for business. It is failing to nurture our entrepreneurial potential at a time when we need it most. And it is encouraging a culture of mediocrity just at the moment when only excellence will do.[2]

More practical, active learning

How does any young person best find out what they are good at and what they want to be in life and work? How can we help all young people to discover and realise their potential? How do we as a nation best ensure our young people have the talent, skills and attitudes necessary to maintain a healthy society and a competitive economy? The answer must include the way in which probably all of us have done much of our best learning: learning by doing things for real, working with experts, combining theory and practice – what has been termed "practical learning" by Edge, the educational foundation that promotes practical and vocational learning.

Current policy and practice

Since September 2004, in addition to core subjects, schools have been required to provide work-related and enterprise learning for all students at key stage 4.

As the number of essential core subjects that schools must offer has been reduced, they have also had more flexibility to offer choices that will suit their students. Collaboration

1 Lucas, B *New Kinds of Smart – Emerging Thinking about What It Is to Be Intelligent Today* (Talent Foundation, 2007)
2 Biriotti, M and Powell, A "Introduction" in Kehoe, D (ed) *Practice Makes Perfect: The Importance of Practical Learning* (Social Market Foundation, 2007)

between schools, colleges and other education providers has been encouraged, to broaden access to suitable vocational courses in the Increased Flexibility Programme. As part of an evaluation of this programme carried out by the National Foundation for Educational Research,[3] the authors interviewed a number of the students taking part:

Many of the students commented that they preferred the more applied approach of their IFP course, as it suited their learning style, and this was not limited to more "practical subjects", like engineering and construction. Interviewees highlighted the difference between their IFP course and their other courses at school, as illustrated by the following comments:

- "I mainly like the active side of it ... actually doing the work, working on the lathes and things like that. I prefer hands-on learning. I don't like to be sat down reading, I prefer actually doing it, and learning from your mistakes." (Engineering student)
- "It's more fun, it's not all about writing ... in school you are just doing things out of a book." (Construction student)
- "It is not like a normal lesson where you are sitting there getting on with work. We get to interact." (Applied business student)

Key success factors included: the commitment and understanding of teaching staff (including heads and their senior managers); a spirit of collaboration across institutions that may previously have seen one another as competitors; and a realisation that vocational options are relevant to young people of all ability levels. Joe Harkin has written a guide to achieving excellence in applied learning.[4] Writing about the Increased Flexibility Programme, he also comments on the selection of students for vocational options:

There is still a tendency for schools to view applied learning as something for weaker students, or even at times as a remedy for students who present behavioural difficulties. It is sometimes, but not always, the case that these students will benefit from more hands-on, vocationally-orientated learning, especially if it is in a more "adult" environment. There are, however, students from across the ability range who would benefit from, and personally prefer, a more applied curriculum if it is of high quality and leads to progression through the levels to employment or university.

3 Golden, S, McCrone, T, O'Donnell, L, Rudd, P and Walker, M *Evaluation of Increased Flexibility for 14-16 Year Olds Programme: Delivery for Cohorts 3 & 4 & the Future* (National Foundation for Educational Research, 2006)
4 Harkin, J *Excellence in Supporting Applied Learning: A Report for LLUK & TDA* (2007)

Later in the guide, Harkin adds:

There is so far a limited evidence base for the experiences of able, gifted and talented students on applied learning programmes.

Sadly, this is true. It reflects the orthodoxy that "clever" young people should study "academic" subjects. This means that in presenting the case for greater access to practical learning for all young people, we are relying on common sense and individual examples.

Writhlington School in Radstock, Somerset, is one such example. It is a specialist business and enterprise college, with a very long-standing commitment to practical learning across the curriculum. Its work on the cultivation of orchids has led to exceptionally interesting projects in science and business alike, and to links with major British institutions (the Royal Horticultural Society and the Eden Project, to name but two). Recently, links have stretched further – as far as Brazil. And these activities are not restricted to one group of students: the philosophy embraces all Writhlington's students.

In 2007, Ofsted (the Office for Standards in Education, Children's Services & Skills) described the school as "outstanding". The report said:

The school's specialism in business and enterprise permeates all its work and makes an outstanding contribution to raising standards, promoting enjoyment and developing personal skills. Through the specialism the school provides an excellent range of courses. The unusually wide range of businesses run successfully by the students provides an excellent context in which students develop an understanding of global issues and the world of work. There are productive links with companies and organisations across the world.

Heath Park Business & Enterprise College in Wolverhampton is another example of good practice. This school has taken a radical approach to the curriculum by shortening key stage 3 to two years instead of three, so that there is an extra year available for key stage 4. Ofsted reported in 2006 that this does have an apparently negative effect on levels of attainment at the end of key stage 3 (because SATs are taken a year early). However, this is balanced by exceptional performance at the end of key stage 4.

Ofsted reported:

In year 9, pupils embark on what is seen as a 13 to 19 progression through education and

training, with a wide variety of different courses and routes available to meet individual needs. Increasingly, pupils take examinations when it is appropriate for them to do so, rather than at the conventional times.

The school's business and enterprise specialism has had a major influence on the curriculum. The school has a deeply held belief in equipping its pupils for life, both in terms of the courses available and through the skills and the positive attitudes required to succeed. This starts now in year 7 with the Building Learning Power course, and older pupils follow at least one vocational course of some description. The range available to them, including many BTEC and NVQ courses, is exceptional. Partnerships with training providers enhance some courses. In addition, the school runs enterprise weeks and young enterprise clubs.

Edge's role

Edge is the leading sponsor of two planned academies, in North Nottingham and Milton Keynes, and a supporter of two others, the new Thomas Telford Academy in Madeley in the West Midlands, and Bristol Academy. It is also funding – with the Esmée Fairbairn Trust – the Active Learning Schools project, which aims to test ways of introducing practical learning across the curriculum and embedding it in schools' relations with the outside world.

Bristol Academy already ensures all pupils are engaged in some vocational and practical learning, and organises the school itself into smaller, curriculum-based areas that relate to their application in the real world. A new site is being developed for Madeley that will have separate buildings for classroom-based academic learning and work-related learning – potentially with different hours of operation, different types of clothing (school uniform or work clothes suitable for the specific work being done) and different types of teacher. The specialism of the two Edge-sponsored academies due to open in September 2009 will be enterprise in the broadest sense: the aim is to give all the students much greater opportunities to learn by doing work placements, real working briefs from local companies and community organisations, and vocational subjects.

Edge is also supporting the Young Foundation with the development of studio schools for 14- to 19-year-olds (see the chapter by Kippy Joseph).

Improved careers advice, employer engagement and teacher training

If more active or practical learning is to be introduced successfully, radical change is also

required in areas such as careers advice, employer engagement and teacher training.

Careers advice

We need to help young people find out for themselves what they are good at, what they are interested in, and what they want to be – in life and in work. The more we establish different paths to success, the more we need to ensure young people receive independent advice on what their options are and what suits them.

Current policy and practice in careers advice

Following the publication by the government of Every Child Matters: Change for Children (2004) and Youth Matters (2005), children's trusts are being established in each local authority area and the funding that now goes directly to each of the 47 Connexions partnerships will go directly to each of the 150 local authority areas by April 2008. In other words, the usual merry-go-round of structures and responsibilities is taking place, no doubt with revised new targets and new standards of quality and impartiality.

In practice, surveys always show that young people tend to go to parents and friends for trusted advice.[5] In Edge's recent survey with Morar, it is interesting to note that 66% of respondents said they were encouraged to go to university, with only 26% being advised to take up practical and vocational courses, despite these being the obvious route to some of the most popular career choices. The most widely criticised advice was: "You have to go to university to get a good job."

Edge's role in careers advice: the horse's mouth

It is only natural that young people tend to consider their options on the basis of their own experiences and the advice of family and friends. Those from families with good networks fare better than others, and this gap in opportunity will never be filled by a careers service. With the advent of the internet and more recently peer-to-peer or social networks, people can not only instantly access prepublished information from content providers (traditional careers-related websites, for example) but also access information from each other. The opportunity thus arises for young people to develop a wide range of "family and friends" online, whatever their social background.

Edge is helping to fund the development of horsesmouth.co.uk, a new online social network, currently in "beta" (public test) phase, which will make it safe, easy, fun and

5 For example: Department for Education & Skills *Youth Matters: Next Steps* (2006); Edge/Morar survey, 2007

rewarding for people to learn from each other and share what they know. Its motto is: "someone knows what you need and someone needs what you know". In this way, any 16- to 24-year-old (and adults too) can gain advice on future work and careers options by e-mail correspondence with people who have already "been there, done that" – they can find out from the horse's mouth.

Employer engagement in education

While very many employers support education and in particular practical or active learning for young people, the vision outlined above requires a step change in quantity and quality. Employers complain when they find themselves providing remedial education for young recruits with respect to literacy and numeracy. Employers also have strong concerns regarding the more general attitudes and attributes of young people, and their preparedness for the world of work.

Improvement in this area, however, will come about only if employers become more actively engaged in education. The expectation should be that all employers support the practical development and active learning of young people; but first it must be made easier for them to do so.

Current policy and practice in employer engagement

Work experience was brought in to tackle the problem of what to do with 15- to 16-year-olds who were obliged to stay on at school for another year the last time the school-leaving age was raised, in 1972. Since then governments of whatever hue have supported a string of initiatives to promote the employability of young people by engaging employers with schools and colleges. Local initiatives and curriculum flexibility have allowed "a thousand flowers to bloom", but there has been limited evaluation of the effects of such moves. As a result there is a limited basis on which to judge which forms of employer engagement or work-related activities are most effective.

Since 1997 employer links have been increasingly focused on the 14-19 agenda and a wider notion of enterprise capability. In 2004 work-related learning became for the first time a statutory part of the curriculum for all students, rather than something for the lowest-achieving 40% of the cohort. Colleges have headline targets to improve employability and engage more employers by providing them with services.

The activity where students have greatest contact with employers and their staff is work experience. Around 95% of students in their last two years of schooling go on work

experience, to around 400,000 employers (about two-thirds go for two weeks and a third for one week).[6] In contrast to work experience, business mentoring of key stage 4 students is small-scale; a recent Department for Education & Skills survey found there were at least 4,500 business mentors in nearly 600 schools, and 777 business online mentors in 125 schools.[7] Another survey showed that 6,000 schools, 360,000 children and 10,200 businesses were involved in education-business partnership brokered links during 2005/06.[8]

Three-quarters of employers in a survey in 2006 felt that they had a responsibility to work with schools and colleges by, for example, offering careers talks and workplace visits. However, only around four in 10 (43%) of the employers actually did work with schools and colleges in this and other ways. Some 23% stated that although not currently working with schools and colleges they would consider doing so in the future.[9] Looking at it from the other side, a 2006 Edge/YouGov provider survey found that nearly nine out of 10 school and further-education teachers felt that employers should do more to inform and advise young people about the world of work.[10]

Edge's role in employer engagement

Edge is funding a project, working with the National Education Business Partnership Network and Business in the Community, to make it easier for employers to be engaged in education. The project is being supported by the British Chambers of Commerce, the Confederation of British Industry, the Federation of Small Businesses and the Institute of Directors, as well as a number of individual business leaders (from both small and large companies). It will draw on:

- a series of succinct think-pieces that have been commissioned from leading commentators;
- the views of local employers, learners, and schools, colleges and work-based learning providers, obtained through a nationwide series of focus groups; and
- ideas drawn from other brokerage systems and from overseas.

The outputs will be specific, practical proposals and mechanisms for schools and employers, as well as recommendations to government about how best to widen and deepen employer engagement. A prototype website is being built to make it easier for employers to find and

6 Hillage, J et al *Pre-16 Work Experience Practice in England: An Evaluation*, research report RR263 (Department for Education & Employment, 2001)
7 Miller, AD *Business Mentoring in Schools*, mimeo (Department for Education & Skills, 2007)
8 National Education Business Partnership Network *NEBPN Primary Activity Survey* (2006)
9 Edge/YouGov survey of employers, 2006
10 Edge/YouGov survey of teachers and lecturers, 2006

develop mutually beneficial links with schools and colleges. While either side may wish to go through a "broker", the web will also enable organisations to work with each other directly and learn from the experience of their peers.

The new site will encourage customer feedback on different schemes as well as on the value of various brokers and intermediary agencies. A more transparent marketplace will provide a far more efficient and effective mechanism to improve the quality of service from intermediaries than the usual government-backed medley of funding streams, quality standards and inspections, and enforced alliances.

Teacher training

Active or practical learning is different from traditional classroom learning and it requires different teaching styles and skills. At present there is no pedagogy or accompanying teaching certificate that is based on practical or vocational learning. As a highly experienced practitioner, whether that is in a craft such as carpentry or hairdressing or as a professional health worker, architect or general manager, for example, it is very difficult to "teach too" – even though small inputs from such people can inspire young people.

Current policy and practice in teacher training

In order to teach, you need a qualification. Although strong moves are being made to integrate learning for 14- to 19-year-olds, and although more young people study for A-levels at a college than at school, at present different qualifications are required for teaching at a college as opposed to a school. This Berlin Wall needs to come down.

A strategy based on qualified teaching status using academic qualifications appears flawed, as many of the skill shortages are in vocational practical subjects that require the transference of knowledge from practitioner to student. Many lecturers in these areas are in fulltime work, and teach on top of that role.

Even more importantly, the pedagogy of practical learning is distinct from that typical of more theoretical or academic subject areas. Once the distinction is made and the possibility of different learning models admitted, it is easy to see how identity, vocation and motivation combine in practical subjects to lend new energy and purpose to learners who are otherwise aware of themselves only as second best. It follows that teachers in this context need a new professional route with as much recognition as any other, but with different content.

A new teacher stepping from a building site to a classroom (and workshop) inevitably wants to discover how their knowledge is transferable and what their learners will expect of them. This is simply not the same as a new graduate stepping from university to the classroom. A properly differentiated approach to teacher training that equally celebrates, supports and professionalises both contributions to learning is essential.

Nearly nine out of 10 teachers and further-education respondents believe learning in the workplace or in the community is under-utilised by the education system for those aged 14 to 16. Eight out of 10 secondary school teachers and two-thirds of further-education lecturers believe that their training does not sufficiently equip them with the skills needed to help pupils or students get the most out of learning in the workplace or the community.[11]

Edge's role in teacher training

Edge has funded Lewisham College to develop a practical further-education teacher training course that is primarily delivered and assessed in the college, by the college. The method of assessment is by portfolio (rather than by essay or exam) and the language used is accessible, to encourage would-be lecturers who are put off by the educational jargon of a more traditional university course. E-learning materials have also been prepared to ensure access and scalability. The course has been accredited by London South Bank University and is due to run for the first time from September 2007.

Central to the approach is the acquisition of teaching skills as practical learning in itself: the new suite of qualifications will be delivered substantially through mentoring and a long-term continuous professional development programme, rather than a burst of pre- (or, at least, early-) service training based on an academic model. Great emphasis has been placed on the characteristic ways in which hands-on skills are learned and the process of establishing a theoretical base for a newly defined pedagogy.

The next stages are: to spread the course and materials widely within the college sector; to develop modules for schoolteachers – as part of initial teacher training as well as continuing professional development – so that they understand the benefits and issues for teaching practical learning; and to develop a campaign to encourage and enable very large numbers of experienced people to "teach too".

11 Edge/YouGov survey of teachers and lecturers, 2006

Removing academic snobbery – the missing ingredient

It does not take long when exploring the educational landscape to find that it is littered with both policy initiatives that support more practical learning and on-the-ground examples that demonstrate its benefits. Indeed, as has been shown, there are many new policies and initiatives being introduced that are moving us in the right direction.

Actually, these changes are taking place all over the world, as Stephen Heppell has pointed out in his Learnometer, a project examining the effectiveness of new directions and investment in education.[12] The point is that for different schools, communities, countries and cultures the movement may be more or less pronounced and the rate of progress different. The key question therefore is about how we manage that change.

Education policies tend to revolve around changes in structure or curriculum, or central regulation and control (for example, targets, funding streams, inspection and qualifications). All of these changes, however, will not enable us to move effectively in the right direction unless we also change the underlying attitude of academic snobbery that is so pronounced in the UK. Differentiation in the curriculum, or different types of school or of qualifications and targets, are immediately placed within a hierarchy according to their perceived academic challenge.

This orthodoxy or paradigm pervades all aspects of our educational system. We see it in the government's rejection of the proposals for an integrated system of diplomas made by Sir Mike Tomlinson's working group on 14-19 education – in favour of the new separate diplomas, originally called "vocational diplomas". This was confirmed by a recent Edge survey of teachers and lecturers:

- 73% did not believe that the new diplomas would succeed in offering students a genuinely high-quality alternative to GCSEs and A-levels;
- 90% agreed that the diplomas would not appeal to students from a middle-class background; and
- 65% agreed that for the 14-19 group the diplomas would "be seen as training programmes leading to low-paid, low-status jobs for non-academic pupils".

The challenge of changing a paradigm comes from the fact that it is not only a way of seeing things; it also affects what we see. It determines not just what kinds of solution we

12 www.learnometer.net

allow, but also what kinds of problem we consider. Thus, much educational policy effort is spent considering the wrong questions: how to gain parity of esteem between academic and vocational education, whether there should be academic selection and grammar schools, and how to force young people to stay in some form of formal learning until 18. They miss the point.

In the early 20th century, scientist Alfred Wegener noticed that identical fossils from various reptiles were found in places that are now separated by oceans. These reptiles could not have swum great distances, and so he inferred that they had once lived on a single landmass that had split apart. His theories were largely ignored until the 1960s, despite increasing evidence from fossils around the globe that supported his case, and despite the growing number of awkward facts such as marine fossils at the top of mountains that could not be explained by existing theories.

There is increasing evidence everywhere now that our current educational approach has reached the point of diminishing returns. We know that the academic and the vocational are not separate landmasses; we know that people need to be "smart", not just "clever". How many awkward facts do we need – all the people we know written off at school who go on to achieve great success in a different environment; the graduates who have no idea about the world of work and little initiative, creativity or drive; the stark reality of the data on the lack of improvement in results of our current system?

In the 1940s in the USA Kenneth and Mamie Clark conducted a simple experiment, presenting children with a pair of dolls – one black, one white – and asked the children: "Which one looks like you?" As many as a third of the African-American children in the Clarks' study responded that the white doll resembled them most closely. The Clarks argued that these children were engaging in a form of wish-fulfilment. It seems absurd now.

Perhaps as many as a third of our young people choose or are forced down an "academic" pathway even though it is not the best match for their particular interests and talents. We all know young people who have gone along with the "safe" academic option rather than follow their passion or instinct – even though they do so as relative "underachievers". Where is the drive for excellence here, and when will this situation also seem absurd?

There is plenty of supporting evidence for a different view of intelligence and how best young people would learn the skills required for success in today's world. History tells us,

however, that isolated examples and intellectual analysis are not sufficient for this type of change to happen in the timescales required. More needs to be done:

- First, we need continuously to reveal the anomalies and issues that arise with the current system, to disrupt conventional patterns of thought. At the same time, we have to build faith that an alternative approach can work, by spotlighting its successes. In particular in our society we need to build faith among the middle classes; otherwise we will continue to have a divided system and introduce new approaches only for those not prospering in the current system. Initiatives "for other people's children" will inevitably fail.[13]
- Second, we need to bring together all those who believe a new approach is the right way forward, in a concerted campaign. We need to support and grow the movement that is already starting to take shape.
- Third, we need to listen to and amplify the views of students and their parents. Major sustainable change of this order will take place only when those most affected by the proposed changes start to demand them. It is for this reason that Edge has established a chain of learner forums for young people to drive change (see the chapter by Samia Meah and Huda Al Bander).
- Finally, we need to encourage politicians to learn from past experience,[14] and persuade them to outline a new vision, with a consistent strategy and targets.

The opportunity is there for the main political parties to paint a very different picture of what education will look like in the future, and to inspire us to bring it about. Government's primary roles are to communicate and gain consensus on a vision, to empower both professionals and users of the system to make it happen, and to help remove any barriers. A consensus is already emerging. The timing is right. And for the underlying theme, how about "many paths to success"?

It is with this shift in approach in mind that Edge was established – an organisation on the outside that understands the inside, an organisation to provoke debate, an organisation to support new ideas and promote the good work already taking place, and an organisation that seeks to put the views of learners at the centre.

13 Alison Wolf
14 Raffe, D and Spours, K (eds) *Policy-making & Policy Learning in 14-19 Education*, Bedford Way paper 26 (Institute of Education, 2007)

Chapter 3

The mature 21st-century school – lessons from the London experience

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The mature 21st-century school – lessons from the London experience

Over the past few years, through a combined and mighty effort involving students, parents, teachers and many others, we have managed to raise attainment levels in the most disadvantaged London boroughs. The lessons I take from this experience could be presented in the idea of the mature 21st-century school: in other words, what a school should look like for the times ahead in terms of the student experience, how it is staffed and organised and how it relates to the surrounding world.

Before I plunge into that, I first need to strike a warning note. Speculative essays about the future of schooling should avoid two pitfalls, if they are to be useful.

Two pitfalls

The first is the need to recognise both the overwhelming influence of the interaction of time and space and the constraints of what has gone before. By this I mean that although there might be ever-changing circumstances brought about by the applications of advances in technology – especially when combined with the explosion in available information – they will mean different things in, for instance, the most challenging areas of Glasgow and the scattered communities in the sparsely populated Highlands.

Even in a place like London where more than 300 languages are spoken and where there are many different faiths, each with a large following, the situation is made more complicated by the well-embedded patterns of schooling that preclude some options for change. For instance, although it might be claimed that London secondary schools are comprehensive in character, there exists a form of selection that, in the main, enables the children of the well-off to be educated separately from those of the poor. Any attempt to disturb that will be fiercely contested.

In a sense London is in a category of its own. What follows is therefore written with London in mind. It draws on my experience as London schools commissioner and what we have discovered about how to raise attainment in the capital. It could also have relevance for a few other large, densely populated metropolitan areas where there is a broadly similar mix of multi-faith, multilingual and multiracial communities living cheek by jowl, where there are great concentrations of wealth and poverty, and where there are large hinterlands of suburban rich and underclass poor.

The second potential pitfall for any consideration of what the mature 21st-century school might look like is the danger of engaging in romantic progressivism: progressive educational thinkers painting pictures of what schooling might be like have often been more romantic than practical. With the honourable exception of Summerhill, efforts to bring the ideal school about, whether in the independent sector (for example, Dartington) or in the public (Sutton Centre), have either ended in tears or been quietly abandoned.

Is radical change possible?

The question therefore is whether there is reason to believe that radical change is possible – and likely – in the majority of our urban secondary schools. Two factors suggest it is.

First, we are the first generation in the Western developed world to realise that our societies need ever higher standards of education and training to match the needs of the age of "information technology and creativity". Most of our unskilled and semi-skilled jobs have emigrated to the developing world while the ambitious in those countries have moved in the other direction. That is why Blair made "education, education, and education" his top three priorities and why John Major disagreed "only with the order".

Gone are the days when we educated with an eye to success for the few – or even the many. Experts say that between 2015 and 2020 the economy will require the filling of 16 million graduate jobs and only 600,000 unskilled ones, compared with 9 million and 3 million respectively today. A schooling system still geared to failing the many is unfit for this purpose.

Second, the advent of information and communication technology changes the scope of what we can achieve in schools and, as we know, the world in which we live. As an extraordinary tool, ICT has helped remove the barriers to learning and fulfilment for people with severe motor, cognitive, sensory and communication difficulties. The internet has made universally available information and knowledge formerly confined to the privileged few. In teaching and learning, it has extended our techniques which, when added to our greater knowledge of how children learn, means we have a better chance of "unlocking the minds and opening the shut chambers of children's hearts", which is how one Victorian described the teacher's task.

In our everyday world it has changed our lives in so many ways that it is pointless to attempt to enumerate them. So far as schools are concerned, however, the most significant of these changes is the shrinking world, which has made us all our much

closer neighbours. Global issues need to be understood by our future citizens and some of them, at least, need to have the skills to solve interdisciplinary problems.

How should schools react to this? Well, there are constraints. Children need care while their parents are working. In addition, schools are expected to enable a child to acquire sufficient competence in a range of skills and to help them become someone who can argue a case, as well as becoming a discerning adult who is personally fulfilled and committed to the fulfilment of others. To do this, children need a basic store of cultural information and knowledge that they can draw on. Schools have been passably good at this last task but poor at the "skills" and "arguing a case" aspects.

What direction for reform?

So, what are the implications for school reform, given the cautions expressed earlier about "context"?

First, the curriculum and timetable. The metronomic timetable – French followed by English followed by science, and so on – needs to have a planned non-metronomic counterpart. Days and weeks should be set aside to provide carefully planned intensive opportunities for explorations or enterprises that involve the group as well as the individual. These will require different forms of assessment and will mean sometimes encountering different teachers from those in the metronomic timetable.

The curriculum itself needs occasionally to escape its suffocating subject boundaries in order to reflect the need for interdisciplinary solutions to the world's problems. So the curriculum needs to be international as well as local. It should contain compulsory "future problem solving" sessions so that our future citizens are better equipped not to be at the mercy of events.

The learner will need a tutor and the comfort of a single home schooling base. Increasingly, however, their time will be taken up beyond this base. Let the learner be assessed in the mastery of their learning not on some pre-determined date in some stipulated year – such as at age 14, 16 and 18 – but when they are ready, as they are in music or in their driving test: "just in time" exams rather than "designed to fail" tests.

Finally, by taking advantage of the communication revolution it should be possible to overcome – at least to some extent – the uncomfortable reality that no school alone can or does meet all the needs of its pupils: indeed, some meet few of the needs of many of

their pupils. So schools need to be organised in collegiates – partnerships of up to six or seven schools – perhaps crossing the state/independent divide, all agreeing to work together to provide "their" pupils with another community to which to belong.

Such collegiates will of course require some agreed ground rules under which to operate and these will vary according to context. But all should be able to co-operate for professional development, for shared e-learning platforms, for "key concept" master lessons outside normal hours and in various disciplines, and for intensive (and therefore well-planned) courses at shared timetable times.

Money will be required for an organiser/administrator to make sure that each constituent school does what is needed in the area for which it leads and for the shared, collegiate-wide activities themselves. Some of this money will be a percentage of each school's budget but some will come from government for the infrastructure of the partnerships. Common values and operational ground rules, including success criteria, would need to be discussed and agreed.

Finally, the accountability framework would need to be of the collegiate through the publication of results and inspections. In this way, at least in urban areas, it would be possible to overcome the increasing segregation of pupils into monocultural ghettos, which seems to be the natural outcome of the "choice and diversity" agenda.

Something like this is beginning to operate in parts of London, Birmingham and elsewhere; what is needed now is an analysis of how such models could be developed so that they could be applied more thoroughly and started elsewhere with appropriate allowance for different contexts.

All this will demand establishing a set of criteria against which we shall be able to recognise the 21st-century school when we see one. The following represents a first stab at what it might be.

What will the mature 21st-century school look like?

Learning and the curriculum

A mature 21st-century school will have:

- a curriculum that is explicitly international, national and local;

- a curriculum that includes a set of young people's experiences, both within and beyond the school, designed to support and stimulate their learning and that provides opportunities for "co-production" and enterprise; and
- pupil access to "coaching" at specified times and bespoke learning reinforcement at any time during the week.

The student experience

There must be:

- pupil access to "best-in-class" explanations of key concepts at any time;
- individual pupil access to taking external exams/curriculum level tests when they are ready to succeed;
- pupils who maintain a planned "out–of-school" portfolio of experiences and learning – replacing homework; and
- planned "chunked" and intensive courses and experiences.

Staff and organisation

Schools will need:

- continuous staff development, including planned and focused visits to other comparable schools and "best-in-class" practice;
- a research programme;
- shared back-office services and a shared programme of professional development and pupil enrichment with other partner schools; and
- formal and active links with other professionals and community groups within the community.

Chapter 4

What we have learned from Opening Minds

Valerie Bayliss CB, Former Project Director of Opening Minds[1]

1 Valerie Bayliss writes here in a personal capacity.

What we have learned from Opening Minds

Opening Minds set out to find an answer to the question: can we educate our children better than we do now? Can we prepare them better for their world, which will not be the same as ours? Eight years on from the development of the OM concept, it is a good time to think about the lessons to be learned from the experience of developing and implementing OM.

First, a brief summary of what Opening Minds is all about. It is a concept and a project. The concept was developed and launched by the Royal Society for the encouragement of Arts, Manufactures & Commerce the (RSA). The RSA co-ordinates the project, which operates in a number of schools. OM sets out to use as the basis for organising a school's curriculum and its delivery, and the prime focus of its outputs, a framework of competences that students should acquire during their schooling: competences for learning, for citizenship, for relating to people, for managing situations and for managing information. In doing so, it rejects the subject structures of the national curriculum as the basis for organising teaching and learning, while retaining all the national curriculum content and sometimes – as it has turned out – adding more.

The fundamental concept was developed and published by the RSA in 1999; by 2000 the project had begun, with a small number of secondary schools, all volunteers, introducing the competence framework as the basis for organising teaching and learning in all or part of key stage 3. By 2006, over 100 schools were making use of it or planning its introduction. They include primary schools. There has been formal and informal evaluation and there is now a significant volume of (uniformly favourable) Ofsted reaction to schools using OM. At the outset the concept was radical and challenging – too radical for some schools to adopt. Now OM and concepts like it are more widely used in the state education sector – a measure of the welcome freeing up of the system in recent years.

What can we learn from the experience of developing and running Opening Minds? Quite a lot, both positive and negative, and not just about the process of making it work. There are wider lessons for those managing schools and for those charged with overall responsibility for education.

OM shows that innovation led by schools can produce (as we shall see later) the most stunning results. OM is teacher and school led in implementation. Deliberately, the RSA did not set out to offer schools a ready-made curriculum package. Rather, it offered the

concept and the competence framework, and some support for practical development – in particular, space for the pilot schools to come together to talk through how they were setting up OM and compare experiences. The detail of how to put OM into practice has been worked out by teachers.

Bottom-up reform works

After years in which central control of the curriculum and even teaching methods dominated the education system, it was refreshing to find that innovative capacity had not been squeezed out of it. The experience showed that we can get a lot more out of schools if teachers are left to get on with it, even within a centrally set framework. Bottom-up reform works.

By contrast, OM showed that fear and over-centralisation are powerful tools against innovation. Fear was a real issue. In 1999-2000 many schools were attracted by the OM concept and keen to use it. This did not surprise the RSA, as it had developed OM and its competence framework in consultation with teachers, among others. But only eight schools made a start in 2000. What happened? Many of the enthusiasts dropped out on discovering that an Ofsted inspection was in prospect around the time when they expected to have OM up and running. They would not risk being "caught out" doing something radical. This was understandable given the rigid orthodoxy then prevailing in the management of inspection, but it was a depressing development.

OM tells us there is more than one way of implementing a national curriculum – less of an issue now, but still important. The OM schools mapped subjects in a variety of combinations on to the RSA competence framework, and all chose to use projects as the vehicle for teaching and learning. When OM began, the statutory requirements for content coverage were more extensive than now. OM classes have from the start not only covered all the national curriculum content that was required, but frequently moved ahead so fast, and so effectively, that students have moved on to material allocated to the next year of their schooling. Some OM schools have been starting key stage 4, and/or putting students in for some GCSEs, a year early. So we have learned that a competence-based curriculum does not involve sacrificing content.

Why has this been possible? Student enthusiasm and the liberation of the curriculum opened up by project working are major factors. And there are some economies in teaching to be found. Why "do" graph techniques in maths, in geography and in physics when the basic learning can be done once and students given practical opportunities to

recognise the transferability of what they have learned and thus reinforce their understanding?

OM demonstrates that there are still teachers and leaders in schools with a serious interest in curriculum planning and development, even after years of the national curriculum, the perceived restrictions on how it could be delivered, and downloadable lesson plans. It has been a common assumption that curriculum development skills in schools have been dying out. There are still not enough teachers and leaders in schools with an interest in this area and the will and skill to engage with it, but there is a core and they can be motivated to use their skills if the right opportunity comes along.

Teacher problems

But OM also tells us there are problems with teacher training. Of the newly qualified teachers involved in OM projects, exactly half were enthusiasts for OM and felt that it was what they had come into teaching to do. The other half reacted very differently: they felt they had not been trained to think about teaching in the way OM demanded and that their training offered them no preparation for working in that way, so it was not, they thought, for them. This is a serious issue, a measure of how far teacher training has been deskilled. The legacy of that still needs attention.

Some teachers found OM a threat. Fear of change was a factor, especially at the start, and was sometimes exacerbated by overt encouragement of risk taking at a time when, in the early 2000s, as we saw earlier, the climate was generally risk-averse. OM did challenge the way teachers saw their jobs, because the conventional curriculum structure, and its management, were so very different from the OM approach. In most OM schools staff are required to engage in team teaching and in some cases to teach "out of subject". This is because the use of a suite of projects as the basis for organising teaching and learning was seen as benefiting from a reduction in the number of individual teachers put in front of an OM class, and because students would benefit from longer class times.

In all the schools, planning of every aspect of OM teaching was done in a new way, with cross-departmental working a central (and often unfamiliar) feature. There were understandable fears that OM would short-change individual subjects. None of these fears were a surprise and only experience of the project – that is, time – has overcome them. For all the teachers involved, OM has been hard work: from the planning stage, where the work of mapping projects, competences and subject content on to a single matrix has been time-consuming, through to teaching in a radically different way. Most have found this

exhausting, but – and the teachers are keen to make this point – motivating, rewarding and energising.

OM challenges conventional assumptions about teacher-student relationships. By encouraging, through the competence framework, the development of individuals with an interest in the way they learn, it has made students more demanding of their teachers. OM students want to engage their teachers in their learning processes, expect to be able to move around and find learning resources for themselves, ask question after question, and treat their teachers as co-learners. This sits ill with traditional hierarchical models of the classroom and conventional ways of thinking about how schools work. Some non-OM teachers have been uneasy with this, and some have complained, when they meet these students as they move on from key stage 3 and away from OM classes, that they are "arrogant". This turns out to be because the students ask questions and treat the teacher as a colleague in learning, rather than the fount of all knowledge.

OM helps students to connect with the world

OM tells us that trusting students and sharing with them a sense of purpose pays dividends. Teachers working with OM classes find it much easier to communicate to students the rationale for their schoolwork, to share a real understanding of its purpose. Students readily understand what the competence framework is about; they can relate the competences to their potential usefulness in their own lives. So OM can help children connect with the world better than can the conventionally subject-based, subject-organised curriculum.

This is reinforced as the competence framework allows learning to become much more applied, helping students discover the connection between schoolwork and the outside world. It also helps learning become more personalised and better adapted to individual learning styles. For example, young people set to work in teams have proved adept at assessing their own and each other's skills and allocating tasks to maximise the individual's contribution to the work. An issue that remains is how better to encourage the habit of reflection; most children are unused to it.

OM encourages teachers to widen the way they think about assessment. Competence development is not very amenable to conventional assessment methods. Teachers have worked out new ways of recording and evaluating student progress. Peer review and the joint development of standards by staff and students have been valuable aspects.

OM shows us – not that we need to be shown – that children have the ability to respond to the new. All OM schools report with striking consistency better attendance, better behaviour and improved motivation in their OM classes. In OM schools the evidence is that students are keen to come to school and to stay on and work after going-home time.

So we learn from OM that the curriculum, even without a change of subject content, can be managed in ways that engage young people and tackle teenage boredom. Most young people, across the ability range and regardless of factors like disadvantage or special educational need, have reacted enthusiastically to the different organisation of the curriculum, of teaching and of the school day (although just a few found the experience a bit destabilising and hard to relate to their previous school experiences). They are emerging from their OM classes as independent learners, which is exactly what was wanted.

OM supports conventional achievement

OM does not get in the way of achievement in conventional tests. Far from it: the students in OM classes have produced better results. Again, there is remarkable consistency across participating schools; both in the initial pilot project and since, schools have demonstrated better SAT results and, now, better GCSE grades. These results come from non-selective OM classes.

School buildings can get in the way of innovation; few are flexible enough to cope. In OM classes, ideally, teaching groups would have more space than is conventionally allowed, arranged more flexibly and with better facilities within easy reach, so that break-out groups and teams doing different work in parallel become feasible. The RSA is presently planning to set up an academy in the West Midlands, using the OM ethos and competence framework throughout the school; it will be organised physically to reflect the lessons learned from OM, for example with a different balance between specialist and general-use space.

Innovation like OM demands high-quality leadership within the school. Leaders in OM schools have faced numerous challenges – which is not an argument against innovation, of course. Curriculum organisation has already been mentioned. So have the disruption caused by organising part of the school's work so differently from the rest, and the staff resentments that can emerge. So a major question is how to dovetail a development like OM into the overall work of a school: how to avoid any sense of a developing elite and how to ensure that the gains of OM are not dissipated when students move on. The solutions rest in effective whole-school communication from the outset and taking a whole-school perspective of what the school wants OM to do. This is unfinished business.

Allied to this is the issue of scaling up from a pilot project within a school to a whole-school approach. This can be problematic. Implementing OM generally began with relatively small groups of staff, working with groups of students in years 7 and/or 8. Spreading the new ways of working to 70 or 80 staff can be hard. But it can be done. Careful planning of resources and of staff training is clearly essential. It can, as OM experience shows, be done.

OM has demonstrated one problem that seems to be endemic in schools, namely the "not invented here" syndrome. When a head teacher or project champion moves on, his or her replacement will almost always scrap a project like OM, regardless of the level of investment (of time and staff commitment) or the quality of the results achieved or indeed the wishes of the students involved. This has happened in schools planning to adopt OM and in schools that have been using it very successfully. The waste has been significant. There is something very damaging in the culture here.

Seven years on, Opening Minds is operating in a very different context to that of 1999-2000. The idea of using education, at whatever stage, explicitly to develop the individual's personal competences is much more widely accepted, and accepted as desirable in the interests of all aspects of life, not just the sphere of work. Even Harvard is revising its curriculum, for the first time in 30 years, to achieve "connections between what [the student] learns in the classroom and their 21st-century lives", on the basis that "we're not trying to say that an educated man or woman needs to know this, that or the other [but] that an educated person should have a certain set of capacities"[2] – the Opening Minds philosophy in a nutshell.

In England the curriculum is being freed up and there is greater official willingness to stand back and encourage innovation from within schools. There has been growing recognition of the benefits OM has brought to the participating schools; Ofsted inspectors now recognise what it has done and have accorded it high praise. Apart from the direct participants, hundreds of schools are monitoring the progress of OM schools and more are expected to join the project.

One more blockage

So where next? OM is now operating in a number of primary schools. More and more local education authorities are taking a serious interest. It is under consideration as a

2 "Harvard to Define Education with Curriculum Update" in *Financial Times*, 13 March 2007

framework for adult and community learning in several areas. At least one of the original pilot schools now treats OM as underpinning the whole of its curriculum.

There is one big blockage in the system: key stage 4. OM has not yet made great headway here. As one OM teacher put it, "the expectations at key stage 4 are so much at odds" with what OM tries to do. The pressures on schools to achieve targets for GCSE success make them, understandably, reluctant to break out of subject silos – the fear factor again, even in the face of proven OM success in covering subject content. The content focus in GCSE assessment also makes schools risk-averse. For students, key stage 4 can be a big let-down though, interestingly, some OM students now in the sixth form are reporting greater opportunity to make use of what they gained through OM in terms of working methods. But they were disappointed with GCSE syllabuses and teaching. Is anyone listening to them?

And as to the question we started with: can we educate our children better? The answer provided by the experience of Opening Minds leads to an unequivocal "yes".

The RSA competence framework

Competences for learning
Students would:

- understand how to learn, taking account of their preferred learning styles;
- understand the need to, and how to, manage their own learning throughout life;
- have learned, systematically, to think;
- have explored and reached an understanding of their own creative talents, and how to make best use of them;
- have learned to enjoy and love learning for its own sake and as part of understanding themselves;
- have achieved high standards in literacy, numeracy, and spatial understanding; and
- have achieved high standards of competence in handling information and communications technology and understanding the underlying processes.

Competences for citizenship
Students would:

- have developed an understanding of ethics and values, how personal behaviour should be informed by these, and how to contribute to society;
- understand how society, government and business work, and the importance of active citizenship;
- understand cultural and community diversity, in both national and global contexts, and why these should be respected and valued;
- understand the social implications of technology; and
- have developed an understanding of how to manage aspects of their own lives, and the techniques they might use to do so – including managing their financial affairs.

Competences for relating to people
Students would:

- understand how to relate to other people in varying contexts in which they might find themselves, including those where they manage, or are managed by others, and how to get things done;
- understand how to operate in teams, and their own capacities for filling different team roles;

- understand how to develop other people, whether as peer or teacher;
- have developed a range of techniques for communicating by different means, and understand when and how to use them;
- have developed competence in managing personal and emotional relationships; and
- understand, and be able to use, varying means of managing stress and conflict.

Competences for managing situations
Students would:

- understand the importance of managing their own time, and have developed preferred techniques for doing so;
- understand what is meant by managing change, and have developed a range of techniques for use in varying situations;
- understand the importance both of celebrating success and of managing disappointment, and ways of handing these;
- understand what is meant by being entrepreneurial and initiative-taking, and how to develop their capacities for these; and
- understand how to manage risk and uncertainty, the wide range of contexts in which these will be encountered, and techniques for managing them.

Competences for managing information
Students would:

- have developed a range of techniques for accessing, evaluating and differentiating information and have learned how to analyse, synthesise and apply it; and
- understand the importance of reflecting and applying critical judgment, and have learned to do so.

Chapter 5

How to do good vocational education – lessons from Scandinavia

Liz Cousins and Martin Yarnit, Directors of Martin Yarnit Associates

How to do good vocational education – lessons from Scandinavia

Scandinavian pragmatism provides fertile ground for a healthy approach to vocational education and practical learning, or learning by doing. We found good examples of this on a recent visit.[1]

Our trip took in Kaospilot, an innovative business education course in Aarhus, Denmark's second city, a range of programmes run by the city council in Gothenburg, Sweden's major industrial centre, and the new high-tech quarter of Tampere, the Finnish city that Nokia helped to transform into a global telecommunications centre.

We begin by outlining what we saw and heard on the visit, before going on to identify the strengths of the Scandinavian approach to linking learning, business and economic development. Finally, we bring out the implications for practical learning in Britain.

Navigating chaos

Now in its 13th year, Kaospilot was set up by Uffe Elbaek to train a new breed of organisational and business leaders, attuned to the times and committed to social responsibility and innovation. This three-year, degree-level programme now has sister programmes in Malmo, Oslo and Rotterdam, and an active plan for international expansion.

Kaospilot grew out of the social and political upheaval in Denmark following the collapse of the Iron Curtain. Alongside recession and a rise in unemployment that hit young people hard, there was a loss of political direction in the centre-left in the face of the pace of change that globalisation forced. Elbaek grasped that a key feature of education for the new times would be a capacity to navigate through uncertainty, to make order out of chaos.

What began as a series of projects involving young people evolved into a degree programme run in collaboration with the business school at Copenhagen University. Its theoretical underpinnings are chaos theory, the theory of self-organising mechanisms and communities of practice. Wenge, Senger and the lesser-known Bee Hock of Visa[2] are the

1 January 2007

2 See: Etienne Wenger's website at http://www.ewenger.com on communities of practice and social learning; *The Fifth Discipline* (1990, Random House) is the locus classicus for Peter Senge's pioneering work on learning organisations; Bee Hock, best known as the founder of Visa International, the credit card organisation, developed the concept of cha-order, a synthesis of chaos and order, as the basis of his theory of business transformation.

programme's gurus. But the Kaospilot slogan – keep your head cool and your heart warm – hints at the programme's pioneering understanding of the importance of emotional intelligence for effective teamwork.

Christer Lidzelius, the manager of the international programme, argues that organisations and businesses need three strengths in their leaders. First, there is what he terms "leadership in 360 degrees": leaders must be able to manage themselves; they must know how to relate to their managers effectively; they have to be able to work with their colleagues and to manage the people they are responsible for. The key notion here is the difficult-to-translate concept of *myndighed*, which is best rendered as "self-reliance and self-respect".

A second strength that businesses require is entrepreneurship, the skills involved in turning creative solutions into sustainable reality. Finally, Lidzelius argues that there is a need for what an American academic terms "learnership", knowing how to learn and how to manage and share knowledge in organisations.

The focus of the programme is on project design and process, and business method. Each of these three basic elements is underpinned by a set of competencies that reflect the requirements of business, government and the social sector. For example, process design rests on learning and creative processes, personal leadership, team building and process consultation. Three key issues – sustainability, cultural diversity and social innovation – run throughout the programme.

The training prepares the kaospilots to grasp problems in the round and to design creative solutions that are capable of practical implementation. A central element is the project placement that provides real-world experience of project design and implementation. Students spend time with businesses, not-for-profit organisations and government agencies learning how to structure and deliver their assignments. In their second year, they spend five months abroad carrying out an extended project.

We observe as a 12th-year team *prejects* – that is to say, prepares – for the trip to Vancouver involving 30-odd students and two team leaders. The discussion is about people's hopes and fears for the trip. This sounds self-indulgent at first but the aim is to instil a strong sense of responsibility for the group and a sensitivity to group dynamics that can make or break any enterprise. That's why the course tutor repeats a mantra about understanding each other's values, about seeing each other "at a deep level". This, he later explains, is vital for any team, especially one functioning in unpredictable circumstances.

This would make sense to any military trainer who would know how quickly things fall apart under stress unless there is a deeply felt common bond.

Their projects typify what is expected of Kaospilot students. Maya's task was to organise a vision-building workshop for key stakeholders in a town of 5,000 inhabitants. Rowan's was ostensibly about process engineering in a bank, but instead he found himself having to mediate in a conflict between the manager and his colleagues. How did they both cope? The project focus provides a fundamental working method that can be applied in any situation. They learn the skills of listening and asking the probing question. They also learn to take responsibility for finding the answers, helped by the self-confidence that Kaospilot instils in its students.

Their expertise is in process design rather than any specific field, but after graduating they may choose to enter a particular field. Maya, who originally intended to train as an architect but was repelled by the profession's obsession with design and structures, is now working with a school of architecture, helping them to think through how to make architecture more people focused and socially aware.

Kaospilot is project-driven learning by doing. The theoretical content of a conventional degree course is integrated into the projects, supplied by academic specialists who work alongside the team leaders who are attached to each year group. Kaospilot staff are specialists in a new hybrid field of project design and management, underpinned by a fast-emerging science of organisational and learning theory.

Gothenburg

Gothenburg is renowned throughout Sweden for the strength of its links between industry and education. Vocational education holds prestige in the city because it leads to good jobs. Courses at KY, the specialist vocational college set up by the city council to meet the demand from local employers for work-ready people familiar with industry standards, are oversubscribed.

Some 80% of the students go into jobs relevant to their course. Most of the courses are full-time, lasting from one to three years, with on average a third of the time spent in the workplace. A growing number of students are going on to take degrees.

To qualify for a place, applicants must have relevant work experience and be able to demonstrate high levels of motivation. There are also courses for the long-term

unemployed, such as construction. Other programmes such as the GTG High School (16-19 years), a collaboration between the city council and Volvo to train motor engineers, demonstrate the emphasis placed on good general education as part of vocational programmes.

"Co-location" helps to make the links. KY's sparkling new premises stand alongside those of companies such as Hasselblad, whose camera took the first photo on the moon, and Ericsson, which is represented on KY's board. Of KY's teachers, 80% have recent industry experience or are taking part in an exchange. We came across an Oxford Brookes University lecturer teaching the hospitality course. As well as teaching in Oxford and Gothenburg – in English, naturally – he runs his own catering business.

The computer graphics course demonstrates the strengths of the KY approach. Computer games and animations are a fast-moving business that places a premium on the preparedness of students. They spend a third of their time on a two-year course on a company placement. They take with them the tools of their trade, gained through working on cutting-edge equipment, and a high level of soft skills that are built into the course: team working, communication and business studies.

It has taken the better part of a decade of working with employers to learn the right approach, including the balance between hard and soft skills, and the right kit and content. But nothing stands still at KY: feedback from students and companies continues to shape the course.

Based in the Brewhouse, a lovingly converted building that provides office, rehearsal and performance space in the heart of the city, the sound-engineering course takes 20 students each year, from more than 140 applicants. They are all accomplished musicians who want to learn the technical aspects of their craft. The course leaders are music-industry veterans who have global connections. Sweden, of course, is famous for bands such as Abba and the Cardigans. In fact, it exports more music than wood, in cash terms. But Gothenburg has its own niche as a centre for hard rock and death metal. It also is home to many songwriters. Britney Spears' hit *Toxic* was written in Gothenburg.

Less glamorous uses of sound technology surround us every day, including mobile-phone games, public announcement systems on trains and in train stations and background music played in cafés and restaurants. Students learn the technology needed for all these as well as for making advertisements for TV, film and radio. But first they learn how to

construct and maintain a sound studio, and that includes cleaning the toilets. They learn to treat the studio as a business and to keep it afloat financially. Equally important is getting students ready for work placements. Eight double sessions are devoted to this. This is practical learning for real.

Motor mechanics

Spread out on a large bench is an apparently random collection of electronic gear, switches, levers and dials. In fact it is the 40-plus computers that control every aspect of the drive on a new Volvo SUV. This is what car mechanics has become, a largely grease-free diagnostic trade that demands high levels of technical know-how. A small group of trainees explained the operation of the diagnostics to us in almost faultless English.

Sixteen- to 19-year-olds, mainly boys, spend two years at MTG, the technical high school set up by the city council and the car manufacturers, with an 85-87% chance of getting a job as a mechanic at the end. (GTG, the model for this initiative, is designed to train the people who produce – as opposed to service – the vehicles.)

Employers, who are represented on the governing body of the school, have heavily influenced the design of the course. Three thousand points are awarded for successful completion of the course, of which 1,750 are for hard and soft job skills and 750 for general education including arts, sport, social science and proficiency in English. They spend 40 weeks on work placements, for which they can gain 500 points.

Tampere

Tampere, Finland's hi-tech capital, is not resting on its laurels. The city council and its education and business partners are engaged in a single-minded drive to use education to transform the city's economic prospects. This is an example of learning by doing writ large: a strategic project to ensure that Tampere is well prepared for whatever is around the corner.

The first phase of the project began back in the 1960s, at a time when Nokia, a lumberjack company by nature, began to move towards telecommunications and the first professor of IT was being appointed in a Finnish university. Tampere has helped to power the country's shift towards a high-skill, high-value-added equilibrium. In a nation of just over 5 million, 33% of the adult working population are graduates and the biggest exports by value are electrical and optical. The next phase for Tampere is about completing the transformation; central to that change is the role of higher education. But first we need

to understand the challenges facing them.

Nothing represents this more dramatically than your first sight of the city. No wonder its nickname in Finland is Mance – Manchester. Two massive Victorian factories are built around a set of rapids from which they once drew their power. A declining proportion of the workforce is still employed in engineering, but they are now outnumbered by the knowledge workers in research and development and almost 50,000 students in two universities and two applied science institutions.

Travel to the outskirts of the city to a fast-emerging township, Hervanta, and you see the shape of the future. About 40,000 people live here, almost a fifth of the total population, working in the universities and the core of advanced R&D companies that Nokia uses to design its new products. A large proportion of this effort is about applied science and preparing students for roles in industry. In other words, it is vocational higher education – or learning by doing.

A good example is the Hypermedialab at the University of Tampere. Founded in 1992 by Jarmo Viteli, it employs 40 researchers and earns 70% of its income outside higher education. Typical of its interests is computer gaming. Much of the activity of the so-called Web 2.0 companies directed at young people involve gaming.

Viteli's team are looking at the social implications of computer games and games on the net, with funding from Nokia – which wants to develop games on its phones – and the Ministry of Health, which is concerned about gaming addiction. In one sense, this is the traditional research activity of the university. But here it is heavily orientated towards the practical and is not too far removed from the KY course in computer animation in Gothenburg. This is an example of the industrial hybrids that are going to demand new skill mixes and new types of know-how.

Tampere markets itself as a learning region, where lifelong learning is encouraged and supported by employers to an extent that is largely unknown in Britain. The four higher-education institutions promote themselves as an entity and the city projects the image of a highly educated population eager for change. Viteli directed the city's e-Tampere programme designed at accelerating the use of broadband in government, business and education. The next big push is Creative Tampere. This is about boosting the size and added-value of cultural industries and improving industry's capacity for innovation.

But it is also about changing the skills set of the workforce. As Lasse Paananen, the city council's programme co-ordinator, points out, Tampere faces a looming skills crisis as many older workers retire and as the demand for traditional skills declines still further. Creative Tampere aims to persuade the population that its future is bound up with music, digital and visual media and games.

This doesn't mean that engineering and the 27,000 people who work in this field are finished, merely that this and other industries are going to have to learn to make and sell things differently, for different audiences and new markets. St Petersburg, for example, a major city in fast-growing Russia, is just a short hop away by air. The writing is on the wall for classic assembly manufacturing: Nokia has announced the closure of its last Finnish production centre. Surveys show that entrepreneurs are held in high esteem in Finland but the reality is that start-up rates are low.

Scandinavia: the strengths

Rubbing shoulders

On Gothenburg's North Bank, derelict shipyards have been converted into a base for a steadily growing mix of large and small companies, like world leader Ericsson, and a range of schools, colleges and universities. "Co-location" enables education to share ideas and experiences with business and to exchange staff and students. In cafés and restaurants they can rub shoulders and swap business cards. In Hervanta, on the edge of Tampere, a township of 40,000 has grown up alongside Nokia's R&D heart and two universities. Also close by are the state agency for R&D and the state agency responsible for funding it.

Engaging employers

The educators we met are entirely at ease with business and employers. Gothenburg's vocational programmes are managed by a board on which employers have the casting vote about which courses serve a purpose and which should run or cease. The attitude of the people who run the motor mechanics course is, "Tell us what you want and we'll give it to you." This approach is typical. Kaospilot sets out to develop the qualities valued by companies, public bodies and non-governmental organisations. It receives more offers of placements than it has students to fill them.

Learning by doing

Kaospilot and Gothenburg's vocational courses exemplify two very different approaches to learning by doing. With Kaospilot, the emphasis is less on conventional disciplines and

more on project and process design. Students learn to ask the right questions and to apply their analytical and creative skills in a variety of settings. In Gothenburg, well-resourced programmes aim to be at the cutting edge of industry developments and to give students rigorous preparation for the conditions they can expect to meet in the real world. Sound-engineering students learn the whole trade of music production, right from building the studio.

Tips from Kaospilot

Kaospilot places a great deal of importance on values. Values drive behaviour and sometimes get in the way of effective team working or collaboration. You don't need to share the same values – though it helps – but too often projects are held back when the participants fail to see that conflicting agendas are rooted in a clash of values. So it is vital from the outset to establish the value base of those taking part and, if necessary, negotiate an understanding. A second tip from Kaospilot is their emphasis on *preject* work – thorough preparation for projects. But maybe the most important tip to take away from Kaospilot is that theirs is an approach from which schools as well as university business studies departments can learn.

Implications for Britain

Chaos theory, self-organising mechanisms, communities of practice, the work of Wenge and Senger – we heard a lot of theory on our trip to Aarhus, Gothenburg and Tampere. But in Scandinavia, this interest in theory is closely allied to an interest in learning by doing and vocational education. It is not as it is here, where "vocational" means skills – and a narrow utilitarian view of skills at that. There, they are thinking hard about how to harness practical learning to bring about social and economic change.

Of course, even the Scandinavians have problems adapting to the pace of change. Finnish schools do well at the PISA tests (Programme for International Student Assessment) but many observers are worried that school-leavers' preparation for the fast-changing world of work is inadequate. Like Britain, Finland will need more practical learning at every level of its education system. Two-thirds of youngsters take the academic route at age 16 and only 30% go on to vocational programmes. This balance will have to shift.

This brief survey shows that the shift needs to take place at several levels. National government and cities alike have to plan for the future. They need to create a new atmosphere in which "vocational" spells prestige. This needs to be reflected in the way that learning and skills programmes are designed and delivered.

The totally focused and professional approach of the KY college in Gothenburg and Kaospilot in Aarhus shows the way for our schools, colleges and universities. These courses show that when students' preparation is closely matched to what industry needs, employers snap them up. They also demonstrate that practical learning can marry conceptual breadth with technical depth. The big question for us is: are we doomed to live with the futile academic/vocational divide or can we learn from the Scandinavian way?

Chapter 6

Promoting innovation – next practice in secondary education

Michael Peters, Associate Director of the Innovation Unit

Promoting innovation – next practice in secondary education

Once upon a time, in the 1990s, introducing the national curriculum, we all argued about what we should teach in schools. Now, in the mid 2000s, we are concerned with the question of what the purpose is of education in this country.

There is a strong link between education, the economy and the well-being of a nation. We should be equipping young people with skills and attitudes for an ever-changing economy. By the time a young person entering the education system now leaves school, they will be using technology that has not yet been invented and will probably be engaged in a job that does not yet exist. We need to have a system that enables every young person to gain skills to survive and thrive in a very different world. These skills include:

- being able to communicate orally at a high level;
- being resilient and reliable;
- being able to work with others in a team, as well as independently;
- being able to evaluate information critically;
- taking responsibility for, and being able to manage, one's own learning, and developing the habits of effective learning;
- being confident and able to investigate problems and find solutions; and
- possibly most importantly, being creative, inventive, enterprising and entrepreneurial.

What does this mean for secondary education? I believe that the system needs to change to realise these aims for learners in 2020. Staff in schools must change what they do and how they do it. Secondary schooling in the future should involve:

- innovation in every school;
- a focus on the learner;
- greater flexibility of time, place and pace to stretch each learner;
- greater use of spaces that inspire;
- a shift of power and responsibility to the learners themselves; and
- recognising the validity of all aspects of learning.

Next practice

The Innovation Unit is supporting field trials in schools developing what we call "next practice". These trials suggest that real change is effected in organisations that take learners seriously as service users. Learners work in places at times that suit themselves,

and, above all, drive their own learning experiences. This has profound consequences for the organisation and delivery of schooling.

Features of this kind of innovation include:

- attention to improving processes using techniques such as business process re-engineering, which take apart the "way things are done around here" and also have a function of enabling higher-level change – the Innovation Unit has developed a tool called "To Be" which helps in this;
- how children, young people, their families and wider communities are engaged and how the issues of relationships are addressed in order to facilitate deep learning; and
- the importance of a systems approach – by which is meant the power of locating one's innovation in the wider, interconnected context of other organisations, activities and concerns.

The idea of next practice is doing things not yet being done to achieve transformational results. Professor CK Prahalad, professor of business administration at the University of Michigan, has said:

There is a lot of research focused on best practice ... Next practice ... has three problems: firstly it is future-oriented; secondly, no single institution or company is an exemplar of everything that you think will happen; and thirdly, next practice is about amplifying weak signals, connecting the dots. Next practice is disciplined imagination.

Next practice in education involves changing the methods and channels of delivery and organisational structure. As ever, the language used is indicative of change. No longer should we speak simply of "delivering education". It is now much more about the learner designing the learning journey that is right for them. The role of the educator changes in some subtle and not so subtle ways.

Much innovation that is supported within the secondary education system comes from schools that are deemed to be good or excellent. It is a further challenge to support innovation coming from "dark places", yet we can easily see that breakthrough thinking and action can happen in a school that has nowhere to go but up. Such schools may have had the benefit of new players who understand the depth of change needed and the bravery to confront and act on it.

Below are two examples of next practice.[1]

Stevenage

All the 11-19 community schools, along with the two special schools, the pupil referral unit and the further-education college, have formed a 14-19 partnership to deliver 14-19 provision to the town. The partnership is led by a 14-19 director (previously a head teacher of one of the schools) and has so far had local authority support and national support, too, through the 14-19 Pathfinder programme. The alliance has a base in a central business park and has developed materials to support the work and an infrastructure of practices that is impressive. They plan to take this work further under the aspirational umbrella of "Stevenage: A Learning Town". Their next practice field trial will create a small governance group designed to bridge the gap between sectors. The group will be directly accountable for the configuration of provision, which will include town-wide curriculum planning and joint blocked timetables.

Bridgemary

Bridgemary College in Hampshire has already developed an ability-related rather than age-determined curriculum for all learners, and students can opt to take SATs and GCSEs early. This extended school employs a police officer permanently as a member of staff, and hosts several "academies" for the students and community – for example, the Engineering Academy is taught by the naval engineers from a local dockyard. The field trial will build on the established ability-driven curriculum to personalise when the learning takes place.

They are focusing on how they might start offering a combination of teaching times and slots for students, who will be able to create a flexible day. This might mean that provision will be made for students who choose to be in or out of school. Perhaps some students might attend a local college or training course, and some might choose to take two hours during the day where they look after siblings before continuing working virtually or back in school outside traditional hours. In order that the offering can be made to all students, the college is committed to a complete reconstruction of the timetable, and redefinition of the professional roles of staff.

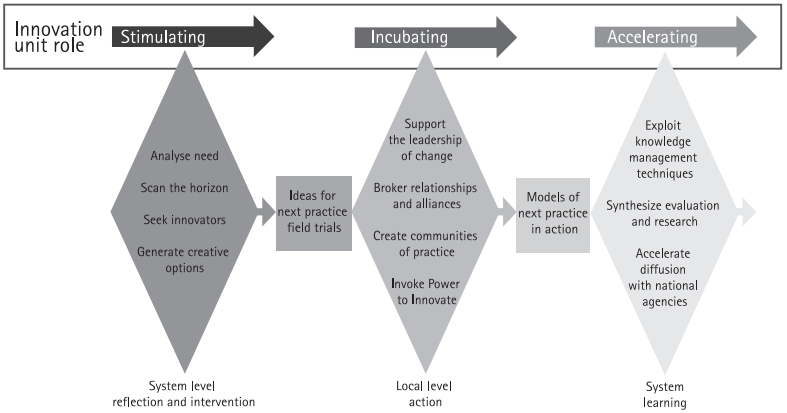
We are concerned with how innovation is fostered and developed in ways that place the impetus with practitioners.

1 From: Hannon, V *Next Practice in Education– A Disciplined Approach to Innovation* (Innovation Unit, 2007)

This entails:

- a disciplined framework that ensures the right questions are always being asked; and
- high levels of challenge and focus being maintained to avoid slipping into complacency.

Figure 1: Next practice innovation model



Source: Innovation Unit 2007

The model is developing in the light of implementation within schools. It is deliberately set out as three diamonds in three phases. Each diamond represents an opening out of creative possibilities. They represent the process of turning the creativity into clearly defined practice.

We believe that the school of the future must be an innovating school, one that is able to learn from the best that is going on, and one that can develop and test new thinking and practice.

A focus on space and time

Schools are pushing at the boundaries of space and time. Next practice schools are looking at the ways in which the organisation of learning can change from a "one size fits all" timetable to a much more flexible approach where learners each design their own learning journey. Here are two examples of schools addressing these issues.

Hollingworth Business & Enterprise College in Rochdale, and Homewood School and Hugh Christie School in Kent

These three learning institutions have a track record of raising achievement through successful change management and innovation. The schools will bring self-directed and virtual learning into the mainstream and for all learners.

Working collaboratively, these schools will transform the current limits of school-based learning. They are developing an approach to personalised learning that breaks through the limitations of traditional buildings and the school day. In short, the field trial will push at the boundaries of place and time and develop a flexitime toolkit to help others in personalising learning anywhere. They are developing a template for a very different design for a school. The aim is to influence the Building Schools for the Future programme.

The schools will ensure:

- more efficient use of school buildings and resources. reflecting best value;
- improved attendance and eradication of unauthorised absence;
- that students study a greater range of courses – including courses that focus on non-cognitive as well as cognitive skills;
- that every student older than 15 has a learning programme appropriate to their needs;
- an increase in the percentage of students who achieve level 2 in English and mathematics;
- an increased percentage of learners continuing in post-16 education, with greater and more diverse uptake of level 3 courses;
- a reduction in the percentage of learners older than 16 who are not engaged in education, employment or training and an increase in engagement among this group;
- the development of more effective work-based learning opportunities;
- improved and more appropriate deployment of staff;
- the establishment of links with local expertise to support the delivery of applied learning at more appropriate times; and
- the creation of a suitable operational day that will allow greater collaboration between centres to support the delivery of the new specialist diploma.

Cramlington High School in Northumberland

This school proposes a fundamental shift towards an enquiry-based approach to learning through the development of learning villages that explicitly develop the attitudes, skills and diversity of knowledge and understanding needed for the changing and challenging times in which we find ourselves. This involves a fundamental change in the way youngsters are prepared for the world in which they will live. When the school reorganises to an 11-19 school in September 2008, the reorganised school will adopt a competency-based curriculum.

The baseline is that year 9 students will be able to apply the competencies they have learned in their Learning to Learn programme to a novel humanities-based Learning to Learn module. Judgments will be made to establish the degree to which each young person knows they have become:

- a responsible learner;
- a resilient learner;
- a resourceful learner;
- a reflective learner; and
- a reasoning learner.

At Cramlington 25% of year 10 students work off campus and there are growing opportunities for learners to individually negotiate working from home on specially designed learning modules. In this scenario the school becomes the hub of learning, the broker of learning opportunities.

The traditional way of doing things is becoming more difficult to sustain in any walk of life. The next practice field trials will give indicators of what might be required in a new system, from the way a school's buildings might look to the way the education process itself might evolve.

Chapter 7

Studio schools – new thinking about practical learning

Kippy Joseph, Studio Schools Programme Manager at the Young Foundation

Studio schools – new thinking about practical learning

Many things are going right with education in Britain today. But few of the people closely involved with education would dispute the clear evidence that two things are not going well. The first is the challenge of youths not engaging with schooling; a significant proportion of teenagers simply do not want to attend school, let alone commit themselves to formal learning. The second is the gap between what employers say they need from teenagers leaving school and what they are finding, and in particular the lack of social or non-cognitive skills.

Having examined these challenges in some depth, the Young Foundation believes the time is ripe to offer an innovation in education that addresses these two challenges: this is the idea of "studio schools", a model for a different kind of learning to capture the hearts and minds of many of the young people disengaged from education, and which will help them thrive in the 21st-century economy.

The studio schools concept

Studio schools aim to discover and then nurture the talent that is often latent in those who may find themselves disengaged from school at age 14. Recent research commissioned for the Learning & Skills Council demonstrated that many young people know how they want to learn – in a practical, hands-on way – though they do not necessarily know where they would like that learning to take them. Though many of these young people may not be succeeding according to the traditional measures that build our league tables, they remain our country's future and its pool of talent.

Studio schools will be small schools for 14- to 19-year-olds that foster enterprise skills and entrepreneurship using a unique methodology that makes learning practical. They will build on, but go beyond, existing models of work experience and apprenticeship. Studio schools will be simultaneously schools – providing qualifications and a full range of skills – and businesses, providing services directly to customers. Each studio school will enable a broad range of students to thrive, because it will spark their imagination and drive, engage their passion and minds, and work with them in a highly personalised way to achieve their own desired outcomes.

Imagine walking through the doors of a studio school: you might think you were in a high-street store, a café or perhaps a garden centre. You might notice that the staff seem a little young but you are impressed with the facility, professional-grade equipment and

the can-do attitude that gets your office party catered at a day's notice or your new garden fence installed at the weekend. What you cannot see is that behind the storefront sits workshop space, classrooms and a technology centre. Both in front and behind the scenes, the environment buzzes, and the students are making things happen – for the business and for themselves.

In the studio school, students will spend a portion of their week working in the business. There is no "pretend" work here, and profit (or loss) is dependent on the student body as a whole. The students, like ordinary employees, will be rewarded for the hours they work; they will also work throughout the year and book holidays when it suits them and the business.

With the help of teachers and coaches, as well as the managers of the business, students map their learning towards qualifications (GCSE in the first instance) that fit the work. They also complete "enterprise projects", which are a means of acquiring skills towards qualifications using business themes such as finance or human resources. This is supplemented by a personalised study plan with time spent in taught classes and individual learning in a technology-rich environment. A studio schools venture fund might provide further motivation; with a minimum of five GCSEs under their belts, students can choose to take on an individual enterprise project to plan and launch a business of their own.

By providing a practical environment in which students can attain recognised and valued qualifications as well as non-cognitive skills, studio schools aim to attract students across the (academic) ability range, each of whom will benefit from the pervasive aspirational ethos. Diversity of the student body is a critical point; studio schools will not be glorified pupil referral units. There is as much a place in a studio school for the 14-year-old who is at risk of dropping out as for the "high flyer" who has entrepreneurial aspirations and is desperate to get on with it. Many head teachers have shared tales of woe about these academically able students: if their interests are not met with appropriate activity (usually outside the school's curriculum) they quickly lose their motivation, withhold their efforts and, at worst, reject school. It will take both extremes – and every type of learner in between – to constitute the most productive and positive peer group in a studio school.

We chose the word "studio" for its traditional meaning – a place that combines learning with a workshop. We hope the name "studio schools" will come to connote aspirational, practicality-based learning. It is squarely aimed at tackling the twin challenges of disengagement and missing skills.

Key elements

There are several key elements of the model for studio schools:

Making learning practical

- Each studio school will have a core business or set of core businesses that it hosts connected to an occupational sector, for example media, hospitality or leisure. Each student will work in the business between four and 12 hours per week and students will make up the majority of its workforce. Businesses will aim to generate a profit; older students will be expected to make a net positive contribution and will be compensated accordingly.
- The taught curriculum will be dominated by enterprise projects, which are consultancy-style projects based on business themes. Working in teams, students will study GCSE, A-level and National Vocational Qualifications subjects through the in-depth exploration of a posed problem (for example, a marketing and sales project has students tackle the topic of "How can the local charity shop boost revenue?"). As part of the enterprise project framework, students will also have the opportunity to develop business plans for their own enterprises. Together these links to the real world can address the disconnection young people find between education and life.

Inculcating enterprising skill and behaviour

- Having an operating business at its core will make a studio school feel quite different from a typical school. A buzzing environment and professional ethos will arise from emphases on serving others and the demands of a service economy, working as part of a team and relying on peers, and self-starting and responsible choices toward future success. Housing the studio school in commercial premises or a location that is fit for both the business and educational purposes reinforces this ethos. Most studio schools will have a storefront or customer-facing location where students work, as well as a separate learning space.
- The explicit focus on developing enterprise skills will pervade the studio school. It will be woven into the taught lessons, frame management's interaction with its (student) employees, and be evaluated through new and existing measures that will form part of the means for measuring the success of the enterprise projects. This ethos will be common across all studio schools and form the basis for employers to know that hiring a studio school graduate means bringing quality to their workforce.

Personalising education in a small school

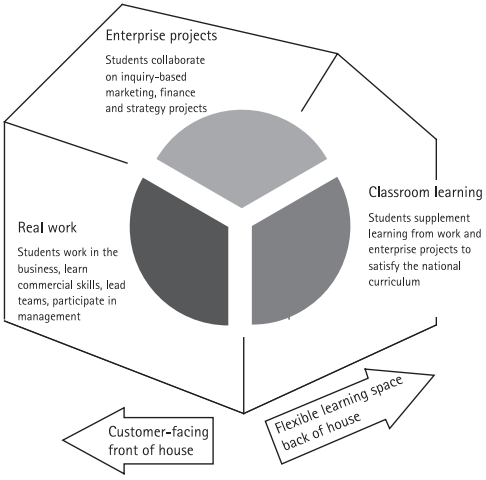
- Each studio school will be a small school (envisaged as having fewer than 300

students), which is essential to engaging with business and truly integrating work into learning. This size is crucial to knowing students well and tailoring each one's path through a studio school to meet individuals' interests and needs. Fostering strong student-staff bonds and a sense of community is as important as integrating learning into work to attract and retain the many students for whom comprehensive secondary education feels unstimulating.

- A personal coach will guide individual students through their learning, goal setting and choices. This is envisaged as a new kind of role within schools; these coaches will be on an equal footing with teachers but will have a different skill set to proactively support students in their holistic development. The coach and student will work together to map the student's learning through the three studio schools modalities: work in the business, enterprise projects, and classroom learning. Students will choose their own end goals, and be supported towards achieving aspirational outcomes. Because studio schools will teach the national curriculum or subjects towards specialised diplomas where possible, all opportunities will be open to students leaving studio schools: they may enter into higher or further education, take up an apprenticeship or be in an advantageous position to enter the job market directly with a rich set of skills and a robust CV.

Figure 1: The elements of a studio school

The combined effect of these elements will be to engage a diverse population of learners, from the "at-risk" individuals to the high flyers, thereby demonstrating that practical learning is suited to all levels of achievement.



Influences

Many relevant, distinct and highly successful models have provided inspiration and instruction on particular elements of the studio school. Across the globe there are wonderful models for integrating work and learning at a young age; examples of fantastically innovative teaching and learning; and strategies for embracing and facilitating the growth of the child as a whole through education. In our inquiry into international education strategies and programmes, our task was to marry proven methods with what we know about what is needed for the education of the future in the UK. From this investigation, several key themes stood out that were then used to inform the development of the studio schools concept:

Real work

Working with adults, contributing to outcomes that have weight in the real world and positioning themselves in a real-world context is remarkably motivating and stimulating for learners in the 14-19 age group. There is no substitute for experience, and this is especially true for the acquisition of non-cognitive skills that will allow young people to thrive in the 21st-century economy. Perhaps more importantly, it makes room for a different notion of accountability, which is ushered in by an ethos born of the responsibility that comes with real work. With a pervading ethos built around professionalism, teamwork and service delivery, young people learn accountability through themselves reporting on their own learning and that of their peers.

Interdisciplinary curriculum

To be competitive in the global economy, one needs to make connections across boundaries, or preferably not to see boundaries at all. This starts in education by combining subjects – say, maths and art, or science and IT. Thomas Friedman, the best-selling US author and columnist, noted that it is this kind of interdisciplinary curriculum that led to the creation of Google and YouTube. Interdisciplinary teaching has the added benefit of role modelling teamwork when team teaching is the means for delivery.

Practical learning

Project-based learning – the rigorous, team-based, integrated kind that starts with a complex entry question and yields on-going assessments for learning – appears to be the most versatile and effective mode of broad practical learning. Regardless of their qualification or ability levels or the content of the project, young people see the point of such projects, can find multiple ways in, and yet still acquire both content and process skills.

Personal development

There is no question that the teenage years are a tumultuous time. Hormones, a leap in cognition, and social and political awakenings coincide with increased external pressure about the future. Why, then, does our education system expect young people to leave all this at the front door and function with single-minded focus on acquiring skills and knowledge? Studio schools will embrace the whole young person, with equal attention to individuals' skills development and personal development - including but not limited to the non-cognitive skills that will render them more employable.

Our scan of the global educational landscape has established that there is no existing model that offers what a studio school will. However, most of its key elements draw on the best practice and "next practice" in education internationally, as outlined above. By combining some elements that have already proven successful, we expect to mitigate the risks associated with implementing a new kind of education.

Progress

Having started in 2006 with nothing more than a concept backed by evidence and research, the studio schools programme has developed rapidly. In January 2007 we formed the Studio Schools Partnership with seven local authorities and embarked on an ambitious programme of work. Each local authority is acting out its commitment to explore the feasibility of a studio school in its area. In addition to working independently, this group of local authorities works collaboratively to develop the model, including the key elements of curriculum, leadership and staffing, and qualifications. We have also won support from the Innovation Unit and Edge, the foundation dedicated to promoting practical learning, and hope to find other key supporters.

Conclusion

Success in our minds is the seeding of a new movement, a different way of thinking about education, championed by a wide spread of local areas, and piloted in one or two towns to offer lessons to us all. Of course we would like to see a network of fully fledged studio schools up and running in the near future. But we are realists and know it is unlikely that all of these areas will be able to set up a studio school in the next several years. We recognise that in order to eventually have studio schools across the UK, most will need a tangible, operational studio school to visit and interrogate before its worth can be championed in each local area, where it would complement existing educational offerings.

To that end, a studio schools foundation will be launched to support the work of these

early adopters and to carry forward the key elements outlined above into British education. There is no reason why these ideas must be implemented within the wrapper of a studio school. We know there are already pockets of exceptional provision that look similar to some of these elements. Let's celebrate and build on that.

The intention behind such a foundation is not to hold conferences and share ideas about best practice – it is about tangible offerings to take these reforms to the next level. Any school with a business focus should be able to access and implement enterprise projects if they choose. Any school that wants to experiment with a new tribe of professionals working alongside teachers should have a place to turn to for recruitment, training and support. The foundation will tackle these and other opportunities that may lead to potential benefit to schools outside the studio school framework, as well as eventually servicing those within it.

Chapter 8

Why we need a non-selective system – and how to get there

Fiona Millar, Journalist

Why we need a non-selective system – and how to get there

After 10 years of new Labour, the complex and controversial question of secondary-school admissions remains unresolved. Remember the raw anger of the aspirant middle-class parents denied their preferred school in the Brighton lottery saga, the fierce resistance of the Catholic Church when Alan Johnson attempted to widen access to their schools, and the loyal adherence of nearly all our right-wing papers to the remaining grammar schools? Maybe the whole issue of how oversubscribed schools admit their pupils should come with a hazard warning light. But without the political will for further reform of school admissions, the aim of reconciling choice, fairness and social cohesion may never be fulfilled.

Almost 20 years after the Thatcher government introduced the idea of "open enrolment", which allowed parents to choose any school they wanted, countless research studies have pointed to a similar conclusion. Choice may help to raise standards, but with our tortuous semi-selective system of school admissions, it can also divide and segregate, rather than unite, children of different races and backgrounds.

Diversity, the constant companion of choice in the rhetoric of consumer-driven public services, has in practice meant new types of school with greater freedom to select the pupils they teach. As chief adjudicator of schools Philip Hunter succinctly put it: "Left to their own devices, schools will drift to the posh".

Superficially seductive excuses like schools needing freedom to develop their "ethos" or "mission" are promoted in defence of the fact that there are more selective school places than there were in 1997. These are spread through what London schools commissioner Tim Brighouse describes as "the dizzyingly steep hierarchy" of grammar schools, city technology colleges, faith schools, academies, specialist schools, foundation schools and the soon–to-be trust schools.

Often the local community school, admitting pupils by distance from the gate, bears the brunt of this as sharp-elbowed middle-class parents are able to exercise their enhanced choice by discovering religion, paying for private tuition, or encouraging their offspring to become proficient in drama, tap dancing or playing the cello as secondary transfer looms. That is if they haven't found it easier to move, rent or simply lie to get their children into and colonise the most popular schools.

The process of "sorting" children from different backgrounds depending on their social and academic advantages has inevitably been exacerbated by the crude nature of league tables, which give schools an incentive to cream off the children most likely to give them a competitive advantage. If anything, the system we have now is less honest and infinitely more devious than the straightforward split of the 11-plus, although that too still exists in almost a quarter of English local education authorities.

For a bigger political vision of education to flourish, one in which schools break down barriers between children of different backgrounds and act as a blueprint for the sort of society we all want to see, the present admissions system cannot be left untouched.

The Education & Inspections Act, the fiercely contested last piece of education reform under Blair, resulted in a tightened national admissions code. But more progressive ideas are needed if parents are to be allowed to exercise choice fairly and schools, particularly in our urban areas, are to enjoy the balanced, all-ability intakes that all international evidence suggests they need to perform well.

The new code forbids any new selection by ability but allows schools that already select by academic ability to continue to do so. It also allows schools to select up to 10% of their intake by aptitude in some subjects, even though the Education and Skills Select Committee found in 2003 that there was no "meaningful distinction between aptitude and ability". A recent schools adjudicator ruling also found that one school which had been using a test for aptitude was in fact testing on achievement.

Adherence to a particular faith group is allowed as an admission criterion, although some of the less acceptable social selection tools such as interviews, primary head reports, supplementary application forms, pricey uniforms and requests for voluntary contributions have been outlawed.

Schools are now required to act in accordance with the code rather than simply being guided by it and local authorities have a duty, though no clear powers, to ensure that the overarching aim of "equity and fair access" is met and to help "all parents feel they have the same opportunities to apply for the school they want".

So far, so good. Ministers who claimed in 2005, when the white paper promoting independent state schools was published, that the code needed no changes are now celebrating its new toughness. Some can even be heard congratulating themselves on

their reforming zeal. That is a positive sign and a good platform from which to push for further change.

The next stage must be to focus on three particular goals: finally eradicating use of the 11-plus; ensuring that the local authorities, admissions forums and schools adjudicators who police the code have the powers they need to stop any school managing its admissions in a way that damages its neighbours; and making certain that autonomous schools outside the maintained sector, such as academies and city technology colleges, comply.

One of the most significant developments during the passage of the bill was the agreement between all the main parties that any further selection by ability should be ruled out.

The fact that even the Conservative front bench signed up for this point means the bigger political argument on academic selection has been won for now, although too little thought has been given to how easily the new wave of "independent" state schools could re-embrace academic selection should a Tory government reverse that decision.

Meanwhile, the promise of no return to the 11-plus system is being met with hollow laughter in the 15 English local authorities that are fully selective and the further 21 authorities that have one or more fully selective schools – not to mention the unquantified number of schools that partially select their pupils. The government appears to collect no data on how many school places are allocated through partial selection or on the basis of aptitude testing, a failure that may mean it breaches its own race-equality legislation.

The line that overtly selective schools have a negligible effect on the rest of the English school system has been the preferred ministerial defence during most of new Labour's 10 years in office. This needs to be challenged. The influence of selection by ability often extends beyond the school's natural catchment area, depleting scores of other schools of their most able pupils.

It is also clear that the 11-plus leads to social segregation – selective schools routinely take far fewer children on free school meals, with special needs and from some minority ethnic groups, compared with others in their surrounding communities.

Entry is often accompanied by a prohibitively expensive private tuition industry. More importantly, it ensures that many children start their secondary schools feeling like failures. In fully selective areas like Kent the vast majority of children are educated in

secondary moderns which, according to recent research by David Jesson at York University, depresses standards overall. The most poorly performing Kent schools are worse than anything to be found in the often demonised London boroughs of Islington and Hackney.

In a recent letter to the Prime Minister, Becky Matthews, a parent campaigner against the 11-plus in Kent, explained:

If you are a child in Kent, you will be labelled by a test at 10 years old, you will be educated in a school exclusively populated by middle-class prosperous children or you will be educated in a school populated by children who have failed, probably with a disproportionate number of SEN [special educational needs] students and children with emotional and behavioural difficulties with little or no sixth form and second-rate facilities. These outcomes are largely determined by social class.

How can segregation and failure for poor children still play a part in an education system that all our political leaders claim should aspire to inclusion and high-quality schools for all? The government is in the process of dismantling the 11-plus in Northern Ireland; it doesn't exist in Wales or Scotland – so why not abolish it in England too? The secondary argument to the claim that "they don't matter much" is that we can't destroy "good schools". This conjures up images of schools being razed to the ground.

But no campaigner for fair admissions is talking about destroying any schools, simply changing the way they admit their pupils. At the moment academic selection can only be ended by a complex system of petitions and ballots or, in the case of partial selection or aptitude testing, by a complaint to the adjudicator.

The flaws in the balloting process have been well documented – in one fully selective area the signatures of more parents than voted in the last European elections would be required to simply trigger a ballot. In some of the balloting arrangements, parents of children at private feeder schools are disproportionately represented while parents in local primary schools are ineligible to vote if their school doesn't get enough pupils through the 11-plus.

These complex arrangements are weighted heavily in favour of the existing grammar schools. The time has come for more robust action to end the use of the 11-plus though possibly still incorporating the spirit of local determination embedded in the current arrangements.

With strong political leadership, selection by ability could be abolished in primary legislation and, alongside selection by aptitude, be removed from the acceptable list of admissions criteria in a future code of practice – it is illegal for entry to primary schools. Clearly, there would be different types of reorganisation depending on the needs and demographics of the local area. For many parents in selective areas fear of the unknown is a powerful emotion. Often they equate comprehensive schools with the secondary moderns they see locally, as described in Becky Matthews' letter to No 10.

Government could give local authorities a fixed period of time to develop detailed proposals of what a fully comprehensive system would look like. Schools would evolve gradually as the first mixed-ability intake would eventually start in year 7, with reassurance that children would not have to move school unless an amalgamation was agreed on after proper consultation. This would allow the existing intake of learners to complete their education. If government wished to allow a means of local parental decision making – although it is interesting that this isn't offered in areas where parents are losing community schools to make way for academies – a more democratic model of petitions and ballots could be offered to all primary and pre-primary school parents. This would allow parents in a given area to vote against the proposed new arrangements.

The future changes to the curriculum and the roll-out of Building Schools for the Future require visions for change and detailed local planning. It is tragic these changes are not linked to ending selective practices, but that could possibly be incorporated in future local authority vision statements with extra government funding to support similar reorganisation of selective areas that are already going through the Building Schools for the Future process.

This would send a clear signal to schools in adjacent areas, which are often forced to follow suit and introduce convoluted systems of covert selection to hold on to their more able pupils. One large South London comprehensive school bordering fully selective Kent and Bexley is splitting into four smaller schools in order to incorporate an "A-stream" school – a mini grammar school – within its existing legal structure. Others admit to using aptitude testing to combat neighbouring selection.

Ending selection by ability would also give a fillip to further tightening up both the code on admissions and the system by which local authorities and the adjudicator are required to police it. The role of the adjudicator could be extended. At the moment the adjudicator can act only if there is a complaint, although it is now possible for individual parents, as well as other admissions authorities, to complain. But unfair practices do not become

fair if no one complains. The adjudicator could have a more proactive role, involving independent monitoring and intervention. This is the logical conclusion of the new role for local authorities as promoters of fairness, choice and social cohesion.

It would also stimulate a further look at how banding, faith schools and the state independent schools, such as academies and city technology colleges, participate in area-wide arrangements.

Banding by ability can result in more balanced intakes. Under the former Inner London Education Authority's banding system nine out of 10 parents got their children into their first choice of school. Today in some parts of the capital – which surely has one of the most complex schools markets in the world, with its high concentration of independent, selective and semi-selective schools – only five children out of 10 get into their first choice of school. For their families the secondary transfer process can be a stressful and demoralising process.

But banding may be impractical in rural areas and could lead to children being bussed long distances from home unless linked to some sort of catchment area. Some existing banding arrangements are complicated and there may be a case for requiring all schools to band across the ability range of a local authority area rather than allowing individual schools to band across the ability range of their applicants, a process that can be subtly influenced by distribution of the school brochure and heavy hints at the open evening for prospective parents.

Faith schools and academies also distort the concept of fair choice. Discrimination on the grounds of faith is in effect outlawed in UK and European human rights law and the new code of practice states that schools must not discriminate against children on the basis of their parents' social or professional backgrounds. Yet schools can routinely refuse entry to children on the grounds of membership of a religious group. Membership of the "right" faith permits entry to hundreds of highly sought-after schools that parents of other faiths or no faith may want to choose.

The European Convention on Human Rights has been interpreted in some contexts to allow discrimination on the grounds of faith if it is "justified" and the effect "proportionate". But what is the public justification for giving schools that are funded by the taxpayer the right to bar children of Muslim, Christian, Jewish or indeed atheist parents? It has never been spelled out explicitly by ministers.

A strong case could surely be made that the effects on parent choice and social cohesion could be disproportionate in an area where the only local school is one with faith-based criteria or where faith schools outnumber non-denominational schools to such an extent that some children are forced to travel miles out of their local neighbourhoods to schools they do not want to attend.

The position of academies and city technology colleges needs similar clarification. The extent to which they are tied into the code in the same way as maintained schools largely depends on their funding agreements, confidential commercial contracts between the "sponsors" and the Department for Children, Schools & Families. The responsibility to ensure they do abide by fair admission rests entirely with the Secretary of State so that they cannot be obliged, for example, to admit children in care unless he or she rules that they should.

Finally, who can forget the furore caused by the decision of Brighton & Hove Council to allocate school places by catchment area and lottery, a process that undoubtedly cuts across all the most cherished (or loathed, depending on which side you are on) aspects of school admissions as it overrides choice and postcode and should be blind to means, needs, ability and social class?

Random allocation of places will not solve the perennial problem of too many parents chasing places at some schools or change the hard fact that most schools do not want to expand exponentially to meet demand at a time when we should be aiming for smaller schools if we want truly personalised learning.

It is, however, undoubtedly more transparent than much of what goes on under the banner of diversity and choice. It is also significant that the new code suggests that if "random allocation" of places is used, it should be supervised by someone "independent of the schools concerned". Why can't all admissions be supervised that way? If the admissions criteria set by a school are objective and fair, why should there be an objection to them being independently managed?

There is no perfect way to match school places with parental preference, but the rhetoric of choice and the noble aims of fairness and equality could be fatally undermined if we lack the political courage to include admissions in any future modernisation and reform of our school system.

Chapter 9

Young learners – speaking up for education change

Samia Meah and Huda Al Bander, Edge Learner Forum

Young learners – speaking up for education change

Politicians and experts have been talking about the year 2020 and the higher level of skills needed for the UK's future success. But how much have they thought about how the UK will reach such levels?

Only young people can make their 2020 goals a reality. Our input should be valued the most, because if we don't get involved the country will not be successful.

The Edge Learner Forum is a group of young people working to change the face of UK education. Its main aim is to help structure education so that it caters for all paths of learning, whether practical or academic.

The forum started in 2004 when a group of youths from different walks of life, with their own experiences and expectations, came together. Over the past three years the forum has developed constructive opinions in order to knock down the barriers that stereotyped young people face.

As a group we have found many ways to influence the future of learning. Our voices have been heard by experts and politicians. We have been teaching the teachers at the Institute of Education how to improve their methods; we are helping to design new courses for the Open University; we have published articles and appeared in media debates for Channel Four and Teachers' TV.

If the UK is to achieve its 2020 goals, there is a lot to be done. We have to modernise educational choices and allow young people to learn in ways that suit them. We have to inspire young people to follow their own dreams. And, more than anything, society should see young people as part of the answer rather than always seeing us as a problem.

Why we learn – motivation and inspiration

Young people like us lose their dreams because they are labeled with low expectations. We are forced to settle for something far from our actual ambitions. The messages surrounding us tell us to expect a below-average future. Let us dream, inspire us to aim high, and encourage us to do what we really want to do. How you put this message across is important. Don't just rely on teachers and careers advisers. Bring in people who can share their life experience and project a vision into our minds.

At the Edge Learner Forum one slogan we believe in is: "It's not how intelligent you are, but *how* you are intelligent". We all need to know we have intelligence and are experts in our own life experiences so we can *believe* in our dreams.

Time to update what we learn

It's the 21st century, so why are we forced to use ancient ways of learning when the world has advanced so much? We have to bring vocational and academic learning together to make a real difference. We have to bring education up to date and bridge the gap between the two approaches. We do not suggest scrapping the academic route altogether; we propose bringing them together to form one integrated educational route. The problem is that vocational learning leads to everyday jobs and has made learners settle for something below their potential.

In every part of the country there should be a wide range of learning options available. Vocational opportunities should be available in every school, not just a few. Subjects such as health and social care are available widely but these topics cater for only a small percentage of students. A variety of subjects should be available instead of the typical choices. To make the vocational route successful it has to provide a wide range of opportunities that opens the door to a life just as exceptional as that offered by academic courses.

In the future, adaptability will be vital. Constant change means that people no longer stay in one job for life. More and more choose to change their occupation to get different experiences. "Learning how to learn" should be taken as seriously as any other skill. Training people with skills to use in the short term limits their ability to be flexible and adapt to new professions.

Different ways to learn, but relationships are always at their heart

Each student has a different way of learning and developing skills, but these days education doesn't provide a curriculum diverse enough for everyone. The curriculum limits the methods that teachers use to teach; therefore students' expectations are rarely met. Inside the school system it feels like there is only one way of learning, and for learners this seems ridiculous.

As technology develops it is vital that education does too. The way teachers educate students should be integrated with new technology. As technology advances, the role of the teacher will change and become less dominant. New gadgets and software should not

be relied upon to teach the students, they should be used as good resources and teaching aids. Communication between the teacher and the student will remain the fundamental asset. Without this there is no hope of effective learning. The role of the teacher is to create an enjoyable environment and a motivating atmosphere for learning. The curriculum does not always allow this, because of its off-putting points such as insufficient practical work.

Stop judging us and let us be judges too

Examinations today are just a test to see whether learners can memorise what has been learned. But learners won't remember beyond the exams, so what is the point of such tests? To prove learners have a good recollection of the past?

More practical assessments of students should be carried out to provide a true indication of students' skills. Especially within vocational subjects there should be practical evaluations, not just tests on theoretical knowledge.

A similar problem that we see in our schools is the inspections by Ofsted (the Office for Standards in Education, Children's Services & Skills). The inspection lacks authenticity because teachers and students know of the visit beforehand so it is not a true review of the school in a real situation. We believe that the answer to this problem is to develop a "Teenage Ofsted", which would allow young people to be involved in judging a school.

This is simple logic. Young people like us can understand and relate to certain school atmospheres, and this would result in a more truthful review. The "Teenage Ofsted" should be a group of young people who accompany Ofsted inspectors when they visit a school. These youth inspectors could interview randomly selected students to get their honest opinions and really find the truth. This method would not only find hidden flaws but also recognise the success of those schools that do not show up on the league tables.

We are the solution, not the problem

To make the national vision for 2020 a success, one thing is certain: we have to work together. Young people lose their dreams too often because we are labelled and under-estimated. This means that the potential of individuals is lost, along with the potential of society as a whole. The work of the Edge Learner Forum proves that young people can help to transform education for the better, if they are given the chance.

So don't just tell young people what you think is right. Give us a way to get stuck into the

real debates about improving the system, the things we learn and the ways in which we learn them. Education is our problem as a society and we can't leave it until tomorrow. We can help you find the answers today. Our generation holds the hope and we are the future – if nothing is done it will be us who experience the failure.

How can teachers work with students to improve things?
Advice from the Edge Learner Forum:

- Break away from the assumptions you have made about your students. Your assumptions, and students' consequent assumptions about you, will get in the way. Try different ways to change the power balance.
- Instead of just consulting young people, work with them as your equal partners. Show them they are equal in the way you treat them.
- Inspire your students to be involved. Show them that you are motivated yourself and that you are human too.
- Bring people together across the usual divides, such as staff versus students or parents. Break people out of their normal cliques. Get everyone to work together to achieve a change they will be able to see.
- Create an atmosphere where people feel free to speak their mind. Have open discussions about how to improve things in your school or college. Ask your students for their ideas about the environment, what they learn and how to improve teaching practices.
- Give students real responsibilities in the school. Let them design new projects and after-school activities.
- Involve your students in staff training and staff meetings. They are the best people to tell you what works.
- Prove that you are listening to your students and taking them seriously. Show them what effect their views have.
- When you've had a go at doing this, ask your students to help you evaluate your actions.

Chapter 10

Strengthening collaboration between schools and other providers – evidence-based lessons

Professor Richard Pring, Lead Director of the Nuffield Review of 14-19 Education & Training

Strengthening collaboration between schools and other providers – evidence-based lessons

The changes taking place in the education of learners aged 14 to 19 are massive and indeed radical. They demand a new approach to this stage of education, including the promotion of collaboration rather than competition, and equitable funding of schools and further education that takes account of the cost of qualification courses. But let me begin by outlining the changes under way.

Officials in the Department for Children, Schools & Families have referred to the new diplomas, five "lines" of which will commence in 2008, as the most significant innovation in education since the 1902 Education Act[1] – though, given the 1944 Education Act and the 1988 Education Reform Act, that might be seen as an exaggeration.

There has been massive investment, through Aim Higher and other initiatives, to encourage more young people to remain in some form of education and training. However, the evidence produced by the Nuffield Review of 14-19 Education & Training shows that, despite this investment, the participation rate of 17-year-olds has remained fairly static for the past 10 years and there remains a relatively stubbornly sized group of individuals not in education, employment and training.[2]

There is further reform under way of the qualifications framework, with its standardisation of levels and equivalences across academic and vocational routes, though it remains to be seen how far the "market" (employers and higher education) will accept the newly emerging tripartite system.

Following the Cassell report in 2000 has been the introduction of "modern apprenticeships", later transposed into apprenticeships at different levels (including "young people's apprenticeships" for 14- to 16-year-olds), with a current total figure of 270,000. However, there are questions as to whether the learning experience and the focus of the final qualification prepares young people in all of the sectors for independent working within their respective areas of employment; indeed, it is extremely difficult to get a relevant breakdown of these figures, sector by sector.

1 Statement by the director of 14-19 strategy at the conference chaired by the author in London on 11 October 2006
2 The Nuffield Review of 14-19 Education & Training was funded in 2003 to provide an independent and evidence-based overview of every aspect of the provision of education for learners aged 14 to 19 in England and Wales. Its analysis of participation and retention, and in particular the nature of the "NEETs" (those not in education, employment or training) is to be found in chapter 3 of the third annual report (Hayward et al, *Nuffield Review Annual Report 2005-06* (2006).

Despite these difficulties and caveats, there has been a massive and praiseworthy shift of views about the aims and the quality of learning to ensure that it be inclusive of all young people.

That was essential, because, following the 1988 Education Act and the introduction of the national curriculum, a tradition of practical learning was destroyed. Woodwork and metalwork departments, backed up by training college departments of practical learning, were closed, or merged into new conglomerates of "design and technology". "Knowing how" – that is, being able to "do" intelligently or being able to use your hands skilfully – was transformed into, and assessed through, "knowing that", even though the one is not logically reducible to the other.

The GNVQs (general national vocational qualifications) were an attempt to reintroduce an alternative to what was referred to as an academic curriculum or qualification, but that, too, in order to be seen as academically respectable and equivalent to GCSE and GCE A-level, became more of a theoretical account of practice than a practice itself.

And the language has not helped. The supposedly self-evident distinction between the academic and the vocational simply reinforces a division between courses and experiences that does not stand up to close scrutiny. One practical effect is the sad demise of the humanities and the arts, which ill fit either the one or the other.

None the less, under the guise of "the vocational", a more practical and future-oriented thinking about the purposes and nature of education has been resurrected. The diplomas are meant to reflect this, hence the formative role of employers through the Sector Skills Councils. Centres of vocational excellence have been established in colleges of further education, often shared with schools, to provide the facilities for well-resourced, employment-related education.

Through the Increased Flexibility Programme, about 150,000 young people aged 14 to 16 are benefiting from the more practical facilities provided by neighbourhood colleges of further education. The benefits, which are well researched, are reflected in better attendance, a greater rate of progression and participation in further learning, and greater self-esteem and self-confidence.[3] The private training providers that survived the rather

3 See: Higham, J and Yeomans, D, *Collaborative Approaches to 14-19 Provision: Report of the Second Year of the 14-19 Pathfinder Initiative* (Department for Education & Skills, 2005)

demanding Adult Learning Inspectorate (now subsumed under Ofsted, the Office for Standards in Education, Children's Services & Skills) provide quality learning opportunities for many young people.

So the atmosphere as well as the provision is changing. It is recognised that, in order to provide quality learning experiences for all young people up to the age of 19, a wide range of learning experiences has to be accessible and a wide range of learning "providers" involved – that is, schools, colleges, private training providers, the youth service, employers and voluntary bodies. Indeed, the expertise required for the further education of many young people is sometimes seen to lie outside the formal system and to reside in such voluntary bodies as Rathbone, a charity that works co-operatively with schools, and the youth service.[4]

It is for this reason that the government has promoted the idea of partnerships between providers. It has said on more than one occasion that no one provider can go it alone[5] – there is a need for providers to collaborate across their institutional boundaries if all young people are to gain access to their "curriculum entitlement". Such an entitlement would be to all 14 "lines" of the new diploma, which will be taught from 2013 onwards, as well as to the full range of GCSEs.

Although there is a danger of yet another strict division between the academic and the vocational, the vision of the Tomlinson report remains to some extent – namely, the flexibility to choose from different subjects and courses. The "principal learning" of the particular diploma (that is, the employment-related content) is to be supplemented by "additional or specialist learning", drawn from a large and approved list of agreed qualifications, including a wide range of GCSEs. This is to be an entitlement, and there are obvious reasons why few, if any, schools can provide the full entitlement. That is why there is a need for partnership. It is why, in looking to schools for the future, it makes little sense to see the school as a fully autonomous and independent organisation.

Recent research from the Local Education Authority Curriculum Advisory Network[6] shows the immense variation not only in the extent to which partnerships have developed but also in the nature of those partnerships. There are some partnerships where, as in

4 See: Davies, B "Youth Work: A Manifesto for Our Times" in *Youth & Policy* no 88, 2005
5 See: Department for Education & Skills *Realising Our Potential*, white paper (2003)
6 Tyrrell, J et al *Challenges Facing Partnerships: Current Developments Towards Implementation of 14-19 in Local Authorities* (Local Education Authority Curriculum Advisory Network 14+, 2006)

Stevenage and Wolverhampton, there is a tight and agreed framework that involves common timetabling, overall co-ordination, funding arrangements between providers, and distribution of specialisations.

The Stevenage partnership

In the Stevenage partnership there is close collaboration with Edge, the charitable body promoting more practical learning in schools, and with the University of Hertford, which is thereby enabled to understand the quality of learning in schools and colleges of the partnership and so to ensure continuity between the teaching at ages 14 to 19, and higher education.

Not all providers can ensure first-class teaching of physics, for example, so there will be co-ordination of timetables so that young people can take that subject at a neighbouring school, as, for example, in the Kingswood partnership, Bristol, where course timetabling across several schools and colleges enables all to benefit from the different specialist strengths of the respective providers.

Schools will not be able to offer the industry-level facilities for more vocationally related learning, and so will use the facilities of the local college. Work-based learning of high quality is difficult for schools to arrange, especially where they are attempting to do so in competition with other schools, and so the services of private training providers are essential.

Elsewhere (for example, in Kent and Bradford) such partnerships are developing into federations, or indeed confederations of schools, with an overall governing body in order to ensure the collaboration and the sharing of facilities and teaching expertise required. Such federations, which entered into the legal framework of provision in 1993, are usually preceded by "clusters" of schools, whereby schools are brought together in relatively weak partnership. Most, if not all, schools in Kent and Essex are part of such geographical clusters. The massive Building Schools for the Future programme, which has invested £2 billion in the first wave of renovating schools, makes it a condition of investment that all the schools have built-in plans for 14-19 co-operation with other providers.

This is clearly admirable, and reflects an approach to educational provision that is a radical break from the past. But there are difficulties to be faced.

Some difficulties

First, as the Nuffield review has noted,[7] there is considerable tension, if not contradiction, between different government policies and initiatives. On the one hand, collaboration and partnership are encouraged, indeed required, and yet schools are forced to work in an essentially competitive market.

Schools that previously worked within a tertiary system are being encouraged to develop their own sixth forms, in competition with established sixth-form colleges and the local college of further education, even though it has been clearly demonstrated that this will lead to lower standards and much more expensive provision. The system of accountability, leading to individual placement in public league tables, encourages independence and selection, irrespective of the effect on the individual learner.

A second difficulty is that, as the recent research report of the Learning & Skills Council has shown,[8] effective vocational programmes cost much more to deliver than school-based GCSEs, and this is not reflected in the financial arrangements. Typical vocational college courses on one day a week for a year cost an estimated £2,300 per pupil. These costs are paid for in the following way: £400-£500 from schools, the same from the European Social Fund, and £1,300-£15,000 from college subsidies.

What has been quite clearly an important and successful shift in the organisation of learning will be endangered unless there are quite radical changes in the funding of education and training. Colleges will be forced to reduce the number of places (as opposed to the massive increase envisaged from the present number of about 150,000 places), and vocational courses would need to be provided in schools without the facilities or expertise for the more practical, employment-related learning.

The Learning & Skills Council argues that, with the new aspirations for ages 14 to 19 across erstwhile boundaries, there is a need for a radical change in the funding arrangements, which is calculated quite differently between key stage 4 and post-16 education and training. Such funding should be based upon the cost of qualifications, not – as at key stage 4 – upon the number of pupils, irrespective of the courses for which they are enrolled. This latter consideration takes no account of the new kind of learning experiences of the young learners, which have proved to be successful but which are

7 Chapter 2 of Hayward et al, *Nuffield Review Annual Report 2005-06* (2006)
8 Styles, B, Fletcher, M and Valentine, R *Implementing 14-19 Provision: A Focus on Schools*, a Learning & Skills Council research report (2007)

heavily subsidised by the colleges and which are too dependent on short-term, unstable funding.

The third issue is that there is a need for a fairly dramatic shift in the thinking about educational aims – about what counts as an educated 19-year-old in this day and age (which question shapes the work of the Nuffield review). In pursuing this question, one comes to realise the poverty of a system that divides the curriculum into the academic and the vocational, and which therefore ignores the richness of practical learning for all young people, integrating the ever-deepening understanding of the physical and social worlds they inhabit with practical engagement in those worlds.

It is as though there has been lost a long and respectable tradition of intelligent practical learning. The Technical and Vocational Education Initiative was an integrated learning programme, funded by the Manpower Services Commission in 1982 and requiring collaboration between schools, colleges of further education and employers, through which the curriculum could be more closely related to technical and vocational interests. Despite its popularity in schools and colleges, it did not survive the introduction of the national curriculum in 1988.[9]

Learning how to manage one's life intelligently is a central educational aim, as John Dewey so forcibly argued. Such practical intelligence relates both to living in a community which shapes our lives and, in turn, so living as to shape that community for better or worse. Education is not a means to some end that is logically discrete from it; rather, it is a form of life that should be embodied in the very life of the school or college community. Dewey puts this most effectively:

I believe that moral education centers upon this conception of the school as a mode of social life, that the best and deepest moral training is precisely that which one gets through having to enter into proper relations with others in a unity of work and thought. The present educational systems, so far as they destroy or neglect this unity, render it difficult or impossible to get any genuine, regular moral training.[10]

Conclusion

The recent development of new qualifications requires a different conception of the

9 See: Dale, R *The TVEI Story* (Open University Press, 1990)
10 Dewey, J "My Pedagogic Creed" in *The School Journal*, LIV (3), 1987 (for which admirable reference I am indebted to Martin Yarnit)

"units" of education and training provision. So many of the government's initiatives recognise and promote this. Indeed, the success of the new diplomas depends on it, recognising the need to draw upon a range of expertise and practical facilities that are not, and cannot be, available in the autonomous school. However, this requires a questioning of other policies and initiatives that militate against such partnership and the reform of the different funding arrangements that foster division rather than continuity between ages 14 and 19. Above all, it requires a constant questioning of the aims and values that should permeate the curriculum and institutional life of the providers.

The Smith Institute

The Smith Institute is an independent think tank that has been set up to look at issues which flow from the changing relationship between social values and economic imperatives.

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