Skills policy has grown up.

Today, the skills debate is no longer simply about more, it's about new, different and better. Pulling a skills lever to drive up standards is last season, replaced by fashionable skills ecosytems, permissive frameworks and devolved funding. Skills policy has also risen from its former B-list status to capture the headlines – apprenticeships, vocational qualifications and colleges are all in the news. Parliament has been gripped by the Skills Factor.

We believe that we are at a point of inflection.

What is the future of vocational education? School-based, college-based, part of a cohesive curriculum offer? What should the character and personality of our college system be – Fordist factories producing job-ready workers or "Big Society" hubs acting as the foundations of vibrant communities? What will tomorrow's universities look like? Will the system be driven by students, or will the system drive them out? With a high tide of youth unemployment washing over us, can skills policy provide any answers?

This collection brings together people who have something to say about these issues. They question common assumptions, identify lessons learned from recent policy experiments and innovations, and suggest new approaches to policy and practice.

For further information, please contact
Christopher Hall, Head of Education & Skills
Joel Mullan, Senior Researcher

Policy Connect
CAN Mezzanine
32-36 Loman Street
London SE1 0EH

020 7202 8577
christopher.hall@policyconnect.org.uk

www.policyconnect.org.uk

Printed on recycled paper

Supported by

City & Guilds

TTF supporting competitive skills

a policy connect activity

OPEN TO IDEAS

‘A good essay must have this permanent quality about it; it must draw its curtain round us, but it must be a curtain that shuts us in not out.’

Virginia Woolf

National skills Forum

Associate Parliamentary skills Group

Open to Ideas
Essays on education and skills

Supported by

City & Guilds

TTF supporting competitive skills

CONTENTS

Foreword
Nic Dakin MP 6

Introduction
Joel Mullan and Christopher Hall 7

1. Debate

Watch your language: was Orwell right after all?
Richard Pring 11

Anti-manualism
Guy Claxton and Bill Lucas 15

What's the story? Further education in the media
Ian Nash 20

2. Economy

The knowledge economy and the global auction for brainpower
Phillip Brown, Hugh Lauder and David Ashton 25

Education, employment and the economy: Time to bid the past goodbye?
Ewart Keep 31

Skills and industrial policy
Tess Lanning 34

3. Learning

A more expansive approach to work and learning
Lorna Unwin and Alison Fuller 38

Vocational pedagogy: bringing it all together?
Prue Huddlestone 42

Digital learning in further education
John Yates 49

4. Systems

More than just knowledge – a Whole Education
John Dunford 52

What about the majority? Rethinking post-16 opportunities
Alison Fuller 56

Supply and demand for further education: a Principal's view
Dave Linnell 59

The accidental loss of vocational higher education
John Randall 62

When will we ever learn?
Alan Tuckett 69

5. International

Vocational education and skills policy in Australia
Tom Karmel 73

Acknowledgements 77

Contribute to the *Open to Ideas* series 77

ARE YOU OPEN TO IDEAS?

18 months since the last general election, Parliament has never been busier. Both Houses are stuffed full with new people to meet, new policies to debate, and new issues to tackle. There are over 350 new MPs, more than 150 new Bills, and discussion of issues ranging from debt to dairy farming, pensions to the protection of bowling greens. Importantly, education and skills policy has taken centre stage. Students, apprentices, schools, colleges and universities are leading protagonists in today's legislative story.

I believe that the Associate Parliamentary Skills Group has never been more important or relevant. Building on our previous research and campaigns, the Group is now firmly focused on tomorrow's challenges, helping to develop policy fit for a twenty-first century purpose. Over the next 12 months we will be examining some of the most pressing public policy issues we face today – training for SMEs, welfare and jobs, youth unemployment, and technical education.

We hope that this collection – and the ongoing online essay series – will help stimulate new thinking and practice for these new challenges.

Smart policy-making is inclusive policy-making, open to everyone that has a stake in it – big firms, smalls firms, charities, academics, practitioners, the tax payer. The Parliamentary Group works hard to achieve this, driving engagement with the private, public and voluntary sectors, as well as with front line practitioners. Throughout the rest of this Parliament we will continue to listen and collaborate with all of these groups and ensure innovative and creative thinking is at the heart of the policy-making process – a Parliament of ideas.

So, are you open to ideas?

Nic Dakin MP
Co-Chair, Associate Parliamentary Skills Group

INTRODUCTION

Skills policy has grown up. Today, the skills debate is no longer simply about more, it's about new, different and better. Pulling a skills lever to drive up standards is last season, replaced by fashionable skills ecosytems, permissive frameworks and devolved funding. Skills policy has also risen from its former B-list status to capture the headlines – apprenticeships, vocational qualifications and colleges are all in the news. Parliament has been gripped by the Skills Factor.

We believe that we are at a point of inflection.

What is the future of vocational education? School-based, college-based, part of a cohesive curriculum offer? What should the character and personality of our college system be – Fordist factories producing job-ready workers or "Big Society" hubs acting as the foundations of vibrant communities? What will tomorrow's universities look like? Will the system be driven by students, or will the system drive them out? With a high tide of youth unemployment washing over us, can skills policy provide any answers?

This collection brings together people who have something to say about these issues. They question common assumptions, identify lessons learned from recent policy experiments and innovations, and suggest new approaches to policy and practice. We hope that the collection can make a positive contribution to today's debate.

Debate

Dinner-table debate and public attitudes play an important role in shaping policy outcomes. The first section of our collection takes an in-depth look at three features of the current debate.

Richard Pring explores what impact language and metaphors have on education policy, and challenges the terminology which has come to dominate discourse in recent years. He argues that language has repercussions on the ground – in our classrooms and workshops, beyond the corridors of Whitehall and the committee rooms of Westminster. In a system where education is "delivered" he wonders whether a broader, richer vision of education might fail to tally with the precise targets set by 'the system.'

Guy Claxton and *Bill Lucas* argue that there is still an institutional prejudice against vocational and practical learning. They challenge a perceived focus on abstract reasoning and academic pursuits – and what they see as 'anti-manualism' – by arguing that the whole human body is the true 'organ of intelligence' rather than just the conscious mind. They lament that whole swathes

of the population are 'quite unjustly being made to feel second-rate because they are better with their hands than they are with their pens'.

In today's society, where the media so often dictates the terms of debate, Ian Nash explores the phenomena of under-reporting and 'bad reporting' of FE. He concludes that a lack of reporting leads to "a lack of information to drive policy forward… which in turn leads to poor performance, unsatisfactory outcomes and constant reinvention of wheels." Exploring the reasons for poor coverage, he argues that few journalists have a coherent picture of what is happening in FE or any clear narrative around which to build stories. The relative complexity of the sector is also something that journalists do not find endearing. He concludes that politicians shoulder some of the blame – for as long as they make cheap comments about the sector and "underwater basket weaving", journalists will continue to think that FE is not something to take seriously.

Economy

With youth unemployment at its highest level for twenty years and parts of the European economy teetering on the brink of collapse as the collection went to press, it would have been remiss not to consider the economic dimensions of education and skills policy.

Phillip Brown, *Hugh Lauder* and *David Ashton* do not pull any punches in their assessment of the future prospects of British workers. They conclude that policy-makers need to re-evaluate virtually all their policy assumptions concerning the role of education and skills, arguing that trends in global product and labour markets mean that there are real questions as to whether investment in education and skills will continue to provide increasing returns in the labour market, and a viable strategy for economic growth. A better Government understanding of the trends driving changes in world labour markets is their prescription, alongside an agency within government which can identify and secure the delivery of the requisite skills needed for competitive advantage.

Ewart Keep calls for a widening of the skills agenda, placing greater focus on policies that aim to boost the underlying levels of demand for skills and in so doing improve productivity and competitiveness. He concludes that we must forge 'the economic conditions and incentives that will help businesses to create more and better jobs, otherwise the mismatch between skills supply and demand is liable to worsen.'

IPPR's *Tess Lanning* comes to similar conclusions in her examination of the links between skills and industrial policy. Her vision of industrial policy is one which supports innovation and demand for skilled labour across all occupations, sectors and regions. She calls for a new sectoral framework to help emerging sectors to grow and existing sectors to innovate, alongside local collaboration between employers, researchers and FE colleges to ensure that newly generated skills needs can be met.

Learning

The third section of the collection focuses on how and where people learn.

Lorna Unwin and *Alison Fuller* look first to informal workplace learning. They argue that whilst most employers energetically state that their employees are the 'most important part of the business,' too often many of them fail to create the conditions in which both the existing and potential expertise of the workforce can be fully unleashed. Their essay identifies some of the practical ways in which employers can construct working conditions that foster learning.

Prue Huddleston argues that while vocational education and training has now caught the long overdue attention of policy-makers, vocational pedagogy and assessment are still being left on the educational sidelines. Discussing the need for a better understanding of new forms of pedagogy and assessment, she argues for 'more learner-focused approaches which facilitate the development of a broader set of vocational outcomes that move beyond the acquisition of technical skills'.

The role of technology in education is a theme that runs through a number of contributions. Technology in learning is becoming a more important and visible issue as the rate of IT innovation continues to accelerate and a new generation, who have only ever known the Internet age, enter FE and HE. *John Yates* explores this topic in more detail in his essay, which considers the merits of introducing FE e-Learning Credits to encourage colleges to invest in digital content. He examines the obsession with paper and pen examinations – highlighting the idiosyncrasy of assessing Functional Skills ICT using non-technological methods – and also argues that, in these austere times, deployment of technology could deliver savings of up to £890 million per year.

Systems

In the penultimate section of the collection we examine some of the issues facing each stage of the education system.

Starting with schools, *John Dunford* turns our attention to the content of what is taught to young people. He welcomes changes to the National Curriculum which allow teachers to become curriculum planners once again, but warns that policy-makers must recognise that children acquire knowledge and skills together not separately: one should not be separated from the other. He calls for a broad and balanced education, combining theoretical and practical learning, and looks beyond our shores for examples of where this has been successfully achieved.

Alison Fuller considers the vitally important 16-19 stage, highlighting the fact that only a third of 16 and 17 year olds are pursuing the 'clear academic route' of A Levels. Those pursuing other routes, apprenticeships or vocational courses often find themselves stratified into a vocational stream with little permeability to a route that will lead them to higher education. She concludes that the post-16 phase should be conceptualised as a 'transition system' in which policy-makers create transparent, high value pathways to further or higher education, or the labour market for all young people, not just those taking A-Levels.

Dave Linnell, Principal of Cornwall College, offers a view from the front line of FE – and considers how a more demand-led system can be created. He calls for individuals and businesses to be given more freedom in their choice of qualification and the method of delivery, rather than provision being driven by 'funding priorities'. He champions the benefits of partnerships between FE and other educational organisations but laments the existence of institutional barriers discouraging such working methods.

Moving to HE, *John Randall* considers the relative demise of the HND, and argues that there has been mission-drift among some of the post-92 universities. Drawing on international models and making parallels with clinical education and HE provision for offenders, he argues that there is a case for the reintroduction of government direction and conditionality on some HE funds for employment related programmes.

Finally *Alan Tuckett* considers adult and lifelong learning. He asks whether we need new ideas after all. Recalling a constant churn of ministers and initiatives, he calls for a move beyond the repetitive cycle of recent policy failures. Arguing that we need nothing new, he weaves recent policy thinking together into a vision for lifelong learning.

International

Our final essay looks to Australia, which undertook major reforms in the 1990s and perhaps offers a glimpse of where our skills system may be heading. *Tom Karvel*, Director of Australia's Vocational Education Research Institute, explores the lessons that Britain might draw from Australia's experiences and policies. Karvel's observations place the reforms being undertaken in our own skills system in context. A number of trends Karvel identifies from the Australian system will be familiar to any follower of recent UK policy developments – greater transparency, greater contestability of funding, and a desire to deliver more high-level qualifications.

Joel Mullan is Senior Researcher at Policy Connect.

Christopher Hall is Head of Education and Skills at Policy Connect.

1. DEBATE

Watch your language: Was Orwell right after all?

Richard Pring

Language matters. The words we use and the metaphors we employ shape our thinking. If one changes the language and the metaphors through which we talk about education, then changed too are the ways in which we think about aims, content, learning, teaching and standards. There has been a dramatic shift over the last few decades in the language of education through which policy is formed and schools, colleges and universities see their task. That needs to be looked at critically. Let us examine four examples.

Delivering

Sir Michael Barber (founder of the US Education Delivery Institute, head of 'global education practice' for the world-renowned management consultancy McKinsey & Company, and former chief education adviser to British Prime Minister Tony Blair) met with Kentucky Department of Education staff to share insights on deliverology. 'Deliverology' is the systematic process for 'driving progress' and 'delivering results' in education. It has the 'tools' with which teachers might deliver more effectively at the student level what is intended at the system level. These 'tools' enable the school reformers to set precise and measurable targets, plan strategies for attaining those targets, gather the data on learner-by-learner performance, monitor that data and then, in the light of the monitoring, solve any problems which are related to the implementation of the reforms as these are reflected in the targets.

In what George Orwell would have described as the 'newspeak' of education, a new 'deliverology language' has developed in Britain and the USA, borrowed from the business world where outputs are related to inputs and where effectiveness in meeting the performance indicators is the key criterion of success. Schools are now subject to audits of their performance in relation to the targets, set 'at the system level'. Teachers are seen as the deliverers of what, at a system level, has been prescribed. And they have to comply because, otherwise, the customers might take their custom elsewhere. This language of 'deliverology' profoundly affects what we mean by 'standards', the perceived rise and fall of which (together with comparisons between different systems) has dominated political discourse for 30 years.

Academic versus vocational

In no area is the bewitchment by the use of language more persistent or destructive than in the dualism between the academic and the vocational. Yet in such a dualism important voices are deadened and key areas of human development omitted. Is doing art or music (painting, sculpting, playing the piano), as opposed to theorising about the arts, academic or vocational?

Not falling into either side of this dualism, the arts suffer from the inevitable curriculum interventions of successive governments – whether that be the 'disapplication' of the arts from required learning for 14-16 year-olds under Labour or the omission of creative arts from the proposed English Baccalaureate under the present Government.

'Vocational' is confused with practical engagement – the 'knowing how' rather than the 'knowing that' – and therefore the rigorous and intellectually demanding practical understanding is seen as being only for the 'non-academics'. Consequently, 'design and technology', a highly popular subject at GCSE, is not included in the Ebacc, and schools even remove it from the pre-14 curriculum as they concentrate on those subjects which will elevate them in the league tables. There is little room for the future Lord Nuffields, Isambard Brunels, Emersons or Brunelleschis in Mr Gove's curriculum.

Skills

Crucial to the mission of 'effective delivery' is the statement of precise and measurable targets, and skills seem to offer the generic term for these. School-leavers lack basic skills. The economy needs a more skilled workforce. The pursuit of happiness requires personal, social and emotional skills.

But generic terms not only fail to make important distinctions, they often trade upon the meaning of one specific usage. Manual skills are very different from so called cognitive skills, and these in turn from personal and social skills. More importantly, knowledge and understanding cannot be reduced to skills in any meaningful sense. In not recognising that, teaching is likened to training in the skills of learning how to pass examinations, or of repeating the formulae at the appropriate stimulus. A regular criticism of the 'product' of the educational system is that young learners have been well trained in performing correctly but without the necessary understanding. They have the skills of behaving correctly, but they have not entered into that conversation between the generations of which Oakeshott spoke.

Performance standards

The language of education, therefore, is increasingly that of performance management. This requires, first, precise definition of performance standards in terms of targets, and second, establishment of the conditions which would spur on teachers and their schools to reach those targets or performance standards, namely: greater accountability with lots of high-stakes testing, deregulation of schools so that they might pursue those targets in a competitive market, merit pay for the successful teachers, and parental choice. As in business, schools would improve performance against explicit standards through 'the invisible hand of the market', in which failing schools would disappear, unable to attract customers.

The consequence is that standards are identified with targets, which are increasingly narrowed so that they can be more easily measured. To improve standards, one needs to spell these out in detailed specifications of 'can do's', teach more effectively to these targets, measure the outcomes, evaluate the programme in the light of the results, and possibly change the targets or means in the light of the evaluation.

Standards are said to be 'driven up' by such measures – and data is produced to show it. But such 'dramatic progress' often reflected politically astute substitutions by head teachers of so-called 'vocational qualifications' for the GCSEs, which were officially deemed 'equivalent' to GCSEs, albeit of a very different kind – and regarded as 'easier' by the Wolf Report on vocational qualifications[1].

There is overwhelming anecdotal evidence from teachers on the frustration of having to teach to targets which define standards with precision, militate against a deeper sense of understanding, leave no room for the struggle to understand, focus on inappropriate content for the learners, and gives undue attention to specific groups of learners. The evidence, however, is by no means just anecdotal. See, for example, the Smith Report, 2004, Making Mathematics Count (p.93), the Chief Inspector's evidence to the Government's Select Committee on Testing and Assessment in 2008, Wilde and Wright's research for the Nuffield Review with some 250 admissions tutors in 21 higher education institutions. Learning experience is narrowed.

To deal with these dilemmas, therefore, it is necessary to think critically about what we mean by standards, their assumed identification with performance indicators, and their absorption into the language of performance management.

Standards are benchmarks against which we judge what is good or bad, true or false, correct or incorrect, elegant or inelegant, aesthetically pleasing or not pleasing. They are implicit within any activity, and they relate logically to the purpose of the activity. Educational standards, therefore, a fortiori, relate logically to the aims of education. Different activities have different purposes and therefore refer to different standards as to what counts as performing that activity well. Such an understanding of standards makes nonsense of the vast qualification structure which is supposed to show equivalence in standards between very different activities and disciplines. Standards relate to the nature and purpose of the activity. In what sense can Level 3 in hairdressing be seen as equivalent to Level 3 in engineering? Educational standards depend on what we believe education to be about – what counts as an educated person. Possibly those who focus almost completely on academic achievements have failed to ask that question, and have too narrow a view of the standards of educational success.

On the other hand, we have seen, in the failure to ask this question, both in Britain and the USA, the adoption of a seductive but superficial model for 'improving standards' – one which confuses standards with performance indicators. The so-called 'school reforms' have transformed the language of education into one of effective management of performance, whereby standards are identified with measurable outcomes.

Conclusion

Beware of the bewitchment of intelligence by the misuse of language. Beware the 'newspeak' which has challenged what we mean by education, teaching, learning and standards.

Choose different metaphors and the discourse on education, teaching and standards changes. The philosopher Michael Oakeshott referred to education as an initiation into 'the conversation between the generations of mankind' in which the neophytes come to appreciate

1 A Wolf, Review of Vocational Education, Department for Education (2011)

the voices of poetry, of history, of science, of philosophy. Such an initiation will involve partial understandings, the struggle to learn, the growing capacity to be critical and the tentative attainment of conclusions that may well not tally with the precise targets set by 'the system'. Teaching therefore is not the 'delivery' of those targets but the 'engagement' between teachers, with their appreciation of those voices, and those who seek to take part in the conversation.

What we need is an updated edition of 1984.

Richard Pring is former Director of the Department of Education at Oxford University. From 2003 to 2009 he was Director of the Nuffield Review of 14-19 Education and Training. His research interests include the philosophy of education, 14-19 education and training and faith-based schools.

Anti-manualism

Guy Claxton and Bill Lucas

> *"Given the intrinsic richness of manual work – cognitively, socially, and in its broader psychic appeal – the question becomes why it has suffered such a devaluation as a component of education…Paradoxically, educators who would steer students toward cognitively rich work might do this best by rehabilitating the manual trades, based on a firmer grasp of what such work is really like"*
> Matthew Crawford, The Case for Working with Your Hands (2010) p27, 32

After a hundred years of fretting and tinkering, it seems clear that anti-manualism – institutional prejudice against vocational and practical learning – and in favour of abstract reasoning – is still rife in both educational practice and policy. Assumptions persist that argumentation requires more 'intelligence' than activity, and that learning to be abstractly argumentative is a better all-round preparation for life than learning to solve practical problems in immediate, concrete situations. Young people's school experience remains saturated with these two fallacious and pernicious assumptions, and while they remain uncontested, we shall argue, no amount of rhetorical hand-wringing about 'parity of esteem', or re-jigging of vocational qualifications and curriculum frameworks, will have more than the most marginal benefit[1].

The deep entrenchment of these evil-twin beliefs in current practice has its roots in history. In a Western intellectual lineage that runs from Plato through St Paul to Descartes and on to the present day, abstract, dispassionate reasoning – both verbal and mathematical – has been held to be the epitome of intelligence, while the activities of the corruptible and unreliable body have been seen as mundane and menial by comparison. God gave us reason so that we might overcome the waywardness of the flesh. Feelings, promptings and intuitions are fallible and inferior 'ways of knowing', against which we must continually be on our guard[2].

Today, these values are enshrined in both the practices and the personalities of power, as practised in, for example, the law and education. Justice is determined by articulacy and the winning of argument. Any rhetorical stratagem is legitimate if it gets you the verdict you were paid to want. Though jurors' impressions and intuitions play a large role in their decision-making, they are not 'supposed' to, and are not acknowledged as valid.

Education is geared from the word go towards the replacement of hands-on experimentation by oral and written reasoning. Just compare the amount of time and attention devoted in school to English and Maths on the one hand, and Design Technology and PE on the other, as pupils

1 B Lucas, G Claxton & R Webster Mind the Gap: Research and Reality in Practical and Vocational Education, Edge (2010)
2 A Damasio, Descartes' Error (1994)

get older. Just compare, in high-stakes examinations, the preponderance of written explanation and analysis over actual displays of practical, physical competence. We are currently seeing a reiteration of the idea that the success of schools is to be judged by the numbers of scientists, judges, members of the cabinet and academics they produce – with A-levels in 'hard subjects' and admissions to old universities serving as proxy measures of that success. And those who wield power are overwhelmingly, of course, those who are themselves especially accomplished in the arts of articulation and persuasion: good with words, equations, statistics and rhetoric. Those who control education policy are precisely those who came to the top of the traditional educational pile, and can see no reason why the specialised kinds of intelligence in which they excel should not form the criteria by which all others are to be judged[3].

This one-sided valuing of intellect over physical and practical competence is mitigated only marginally by another value: that of success (or 'excellence' as it is commonly called). Thus physical prowess can be congratulated and admired if it results in the winning of cups and competitions. The performances of the first XI, the school orchestra or the drama society are much trumpeted if they are outstanding, and damned with faint praise if they are not. There was even a Skills Olympics that took place in London in October 2011, where UK youth took on the world at autobody repair, floristry, plumbing and hairdressing – but you will not have heard much about it. Lauding a few exceptional footballers, chefs, singers and designers does nothing to boost the self-worth of the thousands of non-scholarly apprentices with a poor clutch of GCSEs, learning their trade at their local college. Oxford and Cherwell Valley (FE) College cannot hope to compete for kudos or cash with the dreaming spires of Balliol College, half a mile away.

A deeper view of intelligence

Current research is shooting holes in these dysfunctional assumptions. Cleverness – a mixture of abstract rationality, verbal dexterity, general knowledge and 'interesting opinions' – is not the be-all and end-all of intelligence. It is one specialised kind of intelligence that – like all the other kinds – has its uses and its limitations. The accusation that someone may be 'too clever by half' can now be scientifically underpinned.

Researchers are returning to a deeper view of intelligence – one that is more like the old Scottish idea of 'gumption.' The Cambridge Advanced Learner's Dictionary defines 'gumption' as 'the ability to decide what is the best thing to do in a situation, and to do it with energy and determination'. Intelligence isn't, at root, for reasoning and arguing; it is for getting things done that matter, in specific situations. Intelligence is the process that enables us, in the heat of the moment, to reconcile what we would like or need to do with what we can do, especially when normal routines and habits don't apply. Intelligence is what integrates our concerns, our capabilities and the opportunities that are open to us.

In the jargon of the cognitive sciences, real-world intelligence is embodied and embedded. It is about reading situations and bringing to bear our skills and experience in a way that enables us to pursue our goals and interests with clarity and vigour. We think as we go along, and our thinking is intimately bound up with what we are seeing, feeling and doing, a process that some scientists have dubbed 'thinkering'[4]. Thinking is part and parcel of shaping a head of hair or

3 For a version of this argument applied to the over-rational assumptions of classical economics see D Brooks The Social Animal (2011)
4 The Urban Dictionary (http://www.urbandictionary.com/define.php?term=Thinkering) defines thinkering as "to think about something by tinkering with objects related to the problem under consideration…often a very good way to explore aspects of difficult problems or to find solutions where none are obvious." The word was coined by Michael Ondaatje in The English Patient.

tracing a blockage in a fuel line or a waste pipe. Chefs and carers need to think all the time, and the thinking they do is intricate, subtle and appropriate. Matthew Crawford, author of The Case for Working with Your Hands, has been both a policy wonk and a motorcycle repairman, and his book is a meditation on the intelligence of manual work. He says: 'There was more thinking going on in the bike shop than in my previous job at the think tank' – and he means more good, intelligent, sophisticated thinking[5]. Much of what passes for brain work, in writing position papers, contributing to meetings or giving lectures, for example, is merely describing and defending received opinions. A living made by talking and writing does not necessarily demand much intelligence – though those who suffer from anti-manualism, of course, will find Crawford's claim absurd.

Only rarely, in the real world, do we need to stop and reason in the way that IQ tests demand, yet educators usually fail to tell their students when they will need to think like this, and when not. It has been shown, for example, that rational thinking only works well when there are a small number of clearly defined factors to be considered[6]. When we are doing something real and messy, like designing a garden or deciding which flat to make an offer on, it is more intelligent to heed our intuition than to rely solely on logical analysis – because, for logic to work, it has first to cut the problem down to a size which it can manage, and in doing so, it runs the serious risk of distorting and over-simplifying the predicament. It is also intelligent to take our time, to allow our brains to weave all the factors together in a way that does justice to the situation – yet IQ tests and final examinations only measure how well you can think under pressure, which is quite a different kind of skill[7]. The word 'gumption', incidentally, comes from the Middle English gome, which meant 'to pay attention, to heed, to have presence of mind' (and which also leads to the antithesis of 'gumptious' which is 'gormless').

This brings us to the inconvenient truth that academic education is not a good preparation for acting intelligently when faced with tricky situations for which you have not been specifically prepared. The thinking skills that you develop through doing Latin translations or solving differential equations make you better at Latin and Maths, but they do not improve the kinds of thinking that you deploy over the dinner table or in a meeting, where the mood and the topics are very different[8]. Becoming good at certain specialised kinds of thinking does not automatically translate into a general disposition to think carefully whenever we might need to. That is why someone's IQ is no indication of how intelligently they will behave in practical situations[9]. We all know very clever people who are conspicuously lacking in horse sense. And unfortunately there is no test of horse sense in the civil service exams.

Embodied cognition

Researchers who have really looked carefully at the mental demands of the trades and crafts have concluded that the kinds of practical problem-solving they demand are actually a better breeding-ground of transferable 'life skills' than the traditional academic subjects. Richard Sennett, in his book The Craftsman, for example, reports that 'it has proven easier to train a plumber to become a computer programmer than to train a salesperson; the plumber has craft habit and material focus which serve retraining.'[10] In other words, the daily business of

5 M Crawford, The Case for Working with Your Hands (2010) p27
6 A Dijksterhuis & L Nordgren, A Theory of Unconscious Thought, Perspectives on Psychological Science 1(2) (2006) pp95-109
7 K Stanovich, What Intelligence Tests Miss (2006)
8 D Perkins, Post-primary Education Has Little Impact on Informal Reasoning, Journal of Educational Psychology 77(5) (1985) pp562-571
9 S Scribner, Studying Working Intelligence, in B Rogoff and J Lave (eds) Everyday Cognition (1984)
10 R Sennett, The Craftsman (2008) p266

solving concrete problems has built up in the plumber habits of thinking, experimenting, and paying patient, heedful attention to situations, that serve her well when and if she needs to 'learn the ropes' in a different domain. (It may be for this reason that sportsmen and women tend to do well in 'retraining' TV shows such as *Strictly Come Dancing*.) Matthew Crawford, in the epigraph to this chapter, goes so far as to suggest that 'educators who would steer students toward cognitively rich work might do this best by rehabilitating the manual trades, based on a firmer grasp of what such work is really like'.

This last phrase is important, for the assumption that 'manual work is stupid work' (compared to 'mind work') has generally served to stop people looking for the intelligence involved in caring, cleaning or cooking – and so they have not noticed it. Of course people can be dull electricians, just as they can be dull lecturers, writers and solicitors. But, just as we have all met clever people who lack gumption, so, we suspect, do we all know of hairdressers and gardeners who are thoughtful, subtle and creative in the extreme. The point is: *whether the job involved using your hands and getting dirty is not the limiting factor on how intelligently you can do it*. A good apprenticeship should equip young people with patience, perspicacity and a lifelong love of learning, as well as the skill to build a straight wall or administer a bedbath.

Close observation of the way skilled practical workers use their minds reveals the potential for subtle thinking, noticing and decision-making, and there are many accounts by craftsmen and women, as well as athletes and musicians, that are fascinating in the intricate intelligence which they reveal. Carpenters and bakers have to learn to work with the grain of their material; golfers, plumbers and surgeons all learn how to make intelligent use of visualisation and mental rehearsal. It is only when viewed through the distorting lens of anti-manualism that such forms of intelligence become invisible[11].

The deep point here – clearly demonstrated by much recent scientific work in the field of 'embodied cognition' – is that *the whole human body is the true 'organ of intelligence'; not just the conscious mind*. Here are a few recent findings:

- Our visceral feelings provide us with useful information, just as much as our well-formed thoughts. Hunches and inklings are often more valid than we thought[12].
- People with damaged frontal lobes may retain their intellectual intelligence, but lose the ability to harness that intelligence to real, meaningful situations and decisions – Damasio and colleagues have shown that bodily feelings and intuitions, far from being primitive and unreliable, actually form the vital glue that binds comprehension and competence together[13].
- There are no separate intellectual bits of the brain. As you read the sentence "John eventually grasped the argument", the bit of your motor cortex that is to do with manual grip fires up. If it didn't, you would have difficulty understanding what was being meant. All our abstract concepts rely on metaphorical underpinnings that continually tie them back to concrete reality[14].

11 M Rose, The Mind at Work (2005)
12 G Gigerenzer, Gut Feelings (2007)
13 A Damasio, The Feeling of What Happens, (1999)
14 See G Lakoff &M Johnson, Philosophy in the Flesh (1999)

- Children's hand gestures often reveal a higher level of understanding, of mathematical concepts for instance, than does their speech; so a teacher who is not sensitive to the information carried by these gestures will systematically underestimate the intelligence of her pupils.[15]
- Children who cannot explain the principles involved in balancing a beam are often better at actually doing it than those who can[16].

Conclusions

If we didn't have hands to think with and viscera to help us decide, we would be less intelligent than we are. It is time the educational world caught up with the scientific one, and realised that the attempt to prise doing and thinking apart, and treat one as somehow indelibly smarter than the other, is itself a rather unintelligent and outdated point of view. To focus educational achievement more tightly on traditional academic subjects, as the EBacc will do, is a mark not of a ruthless commitment to 'driving up standards', but of wilful scientific ignorance. Anti-manualism perversely values the written examination answer over the embodied competence. And while those in power continue to wear such distorting goggles, tens of thousands of intelligent young people will, every year, be quite unjustly made to feel second-rate because they are better with their hands than they are with their pens.

Guy Claxton is Professor of the Learning Sciences and Co-Director of the Centre for Real-World Learning at the University of Winchester. He is a Fellow of the British Psychological Society and an Academician of the Academy of the Social Sciences. He is the creator of the Building Learning Power programme and the author of many widely respected books on creativity, the mind and learning.

Bill Lucas is Professor of Learning and Co-Director of the Centre for Real-World Learning at the University of Winchester. He is Chairman of the UK's Talent Foundation and a Patron of the Campaign for Learning (where, as Chief Executive, he led the first systematic research into learning to learn in English schools). He is the author of many books on learning, the mind and change.

15 S Goldin-Meadow & S Wagner, How Our Hands Help Us Learn Trends in Cognitive Science 9(5) (2005) pp234-241
16 J Bamberger, The Laboratory for Making Things, in D Schon (ed) The Reflective Turn: Studies in and on Educational Practice (1991)

What's the story? Further education in the media

Ian Nash

With the exception of the *Guardian*, *Times Educational Supplement* and, to a lesser extent, the *Independent*, the main national news media show little interest in further education and skills stories. A great report will occasionally hit bull's eye, but unfortunately, the following ill-informed piece by Camilla Tominey, Royal Editor of the Sunday Express is more typical of the mainstream popular press: *"As Britain's teenagers either celebrate or commiserate over their A-level results this weekend, a stark warning from the British Chamber of Commerce: do not go to university unless you plan to study something useful. Policy director Dr Adam Marshall said: 'There may be a course in underwater basket weaving but that does not mean anybody will actually want to employ you at the end of it.' Universities should be banned from running Mickey Mouse courses that are best left to further education colleges. Not only are they a waste of time but they are the very reason students facing a shortage of places are now having to pay exorbitant tuition fees."*

It is a cheap, shoddy and poorly-researched paragraph which in 111 words puts the whole FE and skills sector firmly and unfairly in its place. Marshall disowned the piece after publication, saying "The quote attributed to me is correct. The context is not, however." Indeed, a close read shows that everything beyond his quote is Tominey's thoughts, though the reader might miss such nuance.

Nick Warren, a marketing consultant who closely monitors the media, says: "Most of the skills-related stories I see seem to focus on criticism of successive governments and then providers, before dragging in some reference or invidious comparison with the German education system or some such. The *Daily Mail* will drag up some Polish migrants and the mix is complete. More coverage does not mean better coverage."

Few journalists have a coherent picture of what is happening in further education and skills or any clear narrative around which to build stories. Asking them to write a story on FE is like having someone who knows nothing about animals visiting the Amazon rainforest and spotting a Bengal tiger. How would they know that was a big story?

Does it matter?

Why does it matter if FE and skills policy and development are under-reported or misreported? Schools and universities are much better reported but it's hard to argue that policy in those areas is better formed. Prisons are well understood but penal policy, in the view of many, is awful. Does it matter? Isn't under-reporting better than bad reporting?

It matters because, in this media-driven world, it leads to impaired performance. Mick Fletcher and Adrian Perry, authors of the CfBT report, *Instinct or Reason*[1], suggested that "asymmetry" in reporting might be the issue. Problems (apparent or real) get reported very quickly and frequently; analysis of effective solutions does not make the headlines. Politicians thus faced with constant pressure to "do something" lack good evidence on what is the right thing to do. This underlies the constant stream of initiatives and promises to "transform" the sector. Lack of reporting leads to a lack of information to drive policy forward and impairs the functioning of markets, which in turn leads to poor performance, unsatisfactory outcomes and constant reinvention of wheels.

This is not unique to FE and skills, says Fletcher; under-reporting in other policy areas, for example, in relation to bus services in public transport compared with trains and cars, arguably leads to overinvestment in roads and rail compared with services that ordinary people use – local buses and coaches. But this is surely no argument for doing nothing with regard to FE and skills.

What little media coverage there has been on FE recently has been overwhelmingly bad news, although in some instances it has helped bring about policy reversals. Whether the problems perceived by the journalists are apparent or real is irrelevant – it is what many think and act upon. Worse, the chance of getting any reporting, let alone balanced reporting, remains slim. Two common reasons given for the lack of coverage are, first, that journalists went to school and university but not college, in which they have no interest and second, that the children of readers, viewers and listeners don't go there either. Liz Lightfoot, former Daily Telegraph Education Correspondent, goes a step further and says the block is not the reporters but the gate-keepers. "One comment from a news editor was that everyone has been to school and knows about university but not everyone knows about further education. When I said most of the population have not been to university, he said that parents were 'aspirational' for their children to go there." This is deeply ironic, given that most colleges see themselves as second chance and a route to social mobility.

Susan Young, former TES News Editor and Express feature writer said: "One strong influence is that the way education is reported is heavily prescribed (again the gate-keeper influence). There are good schools and bad schools, traditional vs trendy, old discipline vs no discipline, and the constant deference to going private. FE is simply outside all of that and therefore not a story, as seen by news editors. And it's not aspirational. Aspiration underpins most education stories and, basically, college doesn't fit the narrative."

While cheap comments about "pilates" and "underwater basket weaving" trip easily from the tongues of politicians, journalists will continue to think FE and skills is not a sector to take seriously. This is ironic given the extent to which politicians have tried to influence debate and reshape the sector. According to author and journalist Philip Whiteley this is, however, a big part of the problem. Successive governments pledge to free-up colleges and independent training providers, allowing them to define their own terms and respond freely to market needs. But all too soon, the same politicians demand national inquiries – led by the great and the good such as Lord Leitch and Sir Andrew Foster – which lead inexorably to new regulation, direction

1 A Perry, C Amadeo, M Fletcher & E Walker, Instinct or Reason: How education policy is made and how we might make it better, CfBT (2010)

and the targeting of resources at initiatives such as the New Deal with often very unclear outcomes. "My personal experience of reporting on Labour's New Deal shows that they treated it more as a PR exercise than a skills exercise," says Whiteley.

The status of FE

Then there is the issue of the changing status of FE and skills as reforms kick in. Journalist and author Francis Beckett asks: "Are FE colleges now the new secondary moderns?" Reforms in 2009 gave separate legal status to sixth-form colleges for the first time; but what does this mean for the rest? "The growing divide between FE proper and sixth-form colleges doesn't help either side. Sixth-form colleges become more insular, shoved back into the pigeonhole marked "schools" when they want to be seen as something different and more attractive. FE loses the middle class respectability of sixth-form colleges."

The net result of so much chopping and changing, official inquiries and policy reforms is a media turn-off, says Beckett. "Colleges are forced to market themselves on 'we teach skills companies need' rather than 'we are socially desirable, we are second chance education'. The growing utilitarianism of their offer, which is forced on them, renders them less attractive and interesting to report on." Because there is no central focus in the Government's departmental structure for FE and skills, the whole area is seen by journalists as over-complex, confusing, ill-defined, of uncertain status and almost an after-thought compared with other departmental duties. Thus DfE is schools and BIS is universities. Several BBC journalists spoke of a story "pecking order. As one said: "There was a hierarchy of education stories as far as the BBC newsdesk was concerned: at the top were schools, next HE/posh universities, then other universities, then FE/adult learning."

The view of policy-watchers

The views of Whitehall policy-watchers interviewed for this essay chime closely with those of journalists. Andrew Morris, a researcher at Policy Consortium, said: "FE is just not a concept that works for people – it's a muddle, an administrative category resulting from the peculiarly British way of handling public administration. Whenever I have to deal with another country I find there are more universally agreed concepts – like vocational training or adult learning or language skills for immigrants."

"But FE is not like this. It is a bunch of things left over when you have a governing elite and a bureaucracy that need a 'miscellaneous' category for everything that doesn't fit an excluding vision of school-university. So it must take in things to do with 'trade', failure, second chance, immigration, short term policy changes and the rest." On the other hand the word college has resonance; the public has a very high degree of trust in colleges about which people are happy to see good stories in their local press. Perhaps one cause of our problems is the replacement of the word 'college' by the ghastly newspeak of 'learning provider' – done of course to promote competition in a market model.

Mick Fletcher sympathises with the journalists when it comes to complexity. "Government officials look at FE 'in the round'. They see Basic Skills, apprenticeships and the safeguarded adult learning bit and then a lot of messy programmes they don't understand but would like to tidy up. They are working hard to package up the sector in this way which will make it relatively simple to report though probably at the expense of its real nature. They seem to have got across the messages that our skills supply is dreadful and that we need more to compete with the Chinese for example, but not the variety and responsiveness of individual colleges." Whether it succeeds is a moot point. New Labour tried and failed to simplify the sector and remove the FE label altogether from the post-16 lexicon by harmonising provision under the "learning and skills" banner and council of that name. Quangos proliferated, partly as the glue binding together disparate government department duties to FE and skills, and everything proved even more impossibly complex to report on, say the journalists.

Human interest

It is around human interest that the few examples of good national newspaper and media coverage are most prominent. The annual Adult Learners' Week celebrations of achievement are a superb example, where almost every publication finds something to say. Here there is no distinction between "skills", "learning for leisure", "informal" or "community" learning. From the 90 year-old liberated from isolation by a college computer course to park attendants returning to learn who succeed later in life through TUC unionlearn programmes at work – all have great stories to tell. Then there's the "Skillionaires' Club" that lists 100 people who have made fortunes without ever receiving an academic qualification but having done a skills apprenticeship through college and work. Richard Garner, Education Editor for the Independent, commented: "That really is a skills story no journalist could ignore." Created by City and Guilds to promote Team UK for the World Skills 2011 finals in London, it proved a major boost for the image and reputation of apprenticeships. Such stories succeed because they are jargon-free, unconfused, not buried under layers of bureaucracy and easy to access. They are Homeric struggles against the odds. Unfortunately, they are rare. Too often apprenticeships and other skills options are written about as consolation prizes, as with the extensively reported comments of UCAS chief executive Mary Curnock Cook who advised thousands of school-leavers, forced to abandon thoughts of a university place this year, to switch instead to taking an apprenticeship.

Peter Davies, independent researcher and widely published educational marketing expert, says politicians, policy-makers and heads of national FE organisations are all culpable and cannot simply blame feckless or indolent journalists for under-reporting skills and FE. "Two areas which are potentially good news stories for FE – Local Enterprise Partnerships and HE in FE – are not in practice developing that way. The government seems more concerned about emphasising the contribution to them of the private sector and universities, despite the greater relative importance of FE to the skills agenda."

Journalists and policy watchers agreed pretty well unanimously that if the government was to set colleges free, it had to radically simplify the FE and skills sector's structure, bureaucracy and "language" – and, as far as possible, stop subjecting it to so many reforms. As Stephen Hoare, freelance and regular writer for the Times says: "FE is confusing. There have been so many reforms and reports that keeping up to speed with them all is beyond a normal education hack's remit or patience."

Jeremy Sutcliffe, freelance writer and former Assistant Editor on the TES, said: "Chris Woodhead [former head of Ofsted] once advised Sunday Times readers never to let their children study anything that ended in "studies", even though skills-based degrees like media studies actually have great success in getting people into highly skilled jobs. MPs and policy-makers could do a great service by leading a public campaign to highlight the successes of skills-based learning at all levels in preparing people for 21st century jobs in a 21st century economy."

Numerous other ideas were suggested by journalists including showcasing the best and exposing the worst skills-based learning and publishing destination figures comparing success rates of skills courses – getting people into quality jobs – with more traditional academic courses. Sutcliffe concluded: "That would be a good story and, in the end, that's what journalists want."

Ian Nash is a freelance journalist and media advisor who writes extensively on further education and training. He created the FE Focus section of the Times Educational Supplement and edited it for 12 years before stepping down in 2007. He is current FE Editor of Education Journal.

2. ECONOMY

The knowledge economy and the global auction for brainpower

Phillip Brown, Hugh Lauder and David Ashton

In common with other developed economies, politicians and policy-makers in Westminster have advocated the creation of a knowledge-driven economy through upgrading the education and skills of its workforce[1]. Today, the creation of world-class skills has assumed even greater importance as Britain seeks to recover from the 2008 financial crisis. However, Britain now confronts a global auction for cut-price brainpower and skills and there are no easy remedies.

Underlying the banking crisis is a global transformation in the nature of economic competition that not only challenges Britain's growth strategy based on further investments in human capital, but also rules out any prospect of a return to 'business as usual'. There is therefore an urgent need to re-evaluate virtually all our policy assumptions concerning the role of education and skills along with its relationship to employment, income, prosperity, productivity and social mobility.

This conclusion is developed in our book The Global Auction (2011) which draws on over a decade of comparative research funded by the Economic and Social Research Council (ESRC)[2]. Since 2004 we've conducted 250 face-to-face interviews with corporate executives and managers in Britain, China, Germany, India, Korea, Singapore and the United States. We also conducted interviews with senior policy-makers in each country and have recently finished a further round of interviews with policy-makers to examine their skill-formation and competition strategies in response to the global financial crisis.

We have identified four related trends that have contributed to the global auction for cut-price brainpower.

The globalisation of high skills

Within a decade there has been a 'great doubling' of university enrolments around the world, reaching close to 140 million by 2007. This has led to a massive increase in the global supply of highly qualified workers able to compete on price as well as knowledge. China now has many more students in higher education than the United States and is currently pursuing a 'talent strategy' with a target of increasing the numbers of graduates entering the labour market by an additional 10 million per annum between 2010-2020. Further expansion of higher education in India was also described by a senior policy-maker in New Delhi as 'a gift to the world'.

Although the quality of education will vary in countries experiencing rapid expansion of educational provision, it is nevertheless the case that Asia is also producing more engineers

1 See: European Commission, New Skills for New Jobs: Action Now (2010); S Leitch, Prosperity for all in the Global Economy – World Class Skills (Final Report) (2006); UKCES, Ambition 2020: World Class Skills and Jobs for the UK (2009)
2 P Brown, H Lauder & D Ashton, The Global Auction: The Broken Promises of Education, Jobs and Incomes (2011)

and physical scientists than Europe and North America combined. In the UK, home students make up less than half of those undertaking postgraduate degrees in science subjects. Even in computing, a discipline that stands at the heart of high-tech industry, numbers have fallen.

The quality–cost revolution

This decline in the 'skills gap' that protected Britain's middle classes from price competition from emerging economies does not pose a serious challenge so long as less developed economies are unable to achieve the same quality standards required to deliver high quality goods and services, including R&D. However, companies reported a rapid narrowing of the 'quality gap', which is transforming the way they think about the global sourcing of high skilled work. The new competition is based on quality and cost, as business organisation is being turned 'inside out'. It is now possible to set up 'oasis operations' – high-tech factories, offices and research facilities – in low-spec locations.

As differences in productivity narrow between operations in different parts of the world, the wages and working conditions of Western employees are no longer the global benchmark. This benchmark has gravitated towards high-skilled but lower-waged economies rather than those in Western Europe and North America. These cost pressures are not only being driven by Western companies but by companies from emerging economies with global ambitions. Our research shows that Chinese and Indian companies are constructing a high-value, low-cost model in their attempt to compete for global market share.

The rise of Digital Taylorism

While the policy spotlight has focused on the creation of new ideas, products and services, the ability of companies to leverage new technologies to globally align and coordinate business activities has also brought to the fore a different agenda involving the standardisation of functions and jobs within the service sector, including an increasing proportion of technical, managerial and professional roles. Most significantly this re-organisation has enabled the translation of knowledge work into working knowledge through the extraction, codification and digitalisation of knowledge into software prescripts that can be transmitted and manipulated by others regardless of location. In turn this has meant that many high skilled knowledge jobs can be done by computer routines, reducing the demand for high skilled employees and their cost. This suggests that if the twentieth century brought what can be described as mechanical Taylorism characterised by the Fordist production line, where the knowledge of craft workers was captured by management, codified and re-engineered in the shape of the moving assembly line, the twenty-first century is the age of Digital Taylorism. Terms such as 'financial services factory' and 'industrialisation' are being applied by leading consultancy companies to describe the transformation of the service sector. Accenture Consulting is a proponent of "the concept of industrialisation – breaking down processes and products into constituent components that can be recombined in a tailored, automated fashion – to non-manufacturing settings."[3]

Digital Taylorism, therefore, takes the form of a power struggle within the middle classes, as future productivity gains will depend on reducing the autonomy and discretion of the majority of managers and professionals. This encourages the segmentation of talent in ways that reserve 'permission to think' to a small proportion of employees responsible for driving the business

3 Accenture, The Point: Automation for the People (2007) http://www.accenture.com/us-en/Pages/insight-the-point-industrialize-insurance-europe.aspx

forward. But the loss of autonomy for managers and professionals remains significantly different from the era of mechanical Taylorism, because its digital variety eliminates the need for close, over-the-shoulder, supervision. Control is remote because it is built into the software, so that the monitoring of activities is from a distance. Equally, it does not eliminate the importance of employee motivation or the need for good customer-facing skills, as the standardisation required to achieve mass customisation still needs customers to feel that they are receiving a personalised service. This may contribute to a continuing demand for university graduates but their occupational roles will be far removed from the archetypal college graduate jobs of the past.

The globalisation of talent management

In America and Britain the expansion of higher education has been associated with an increase in wage differentials[4]. This is not only between university graduates and non-graduates but within the graduate workforce itself. Frank and Cook argue that income inequalities are not the result of changes in the distribution of human capital – that some have invested more in their education and training that others – but due to the changing structure of the job market. Even within occupations requiring a college education, those at the top of the occupational pyramid receive a disproportionate share of rewards, in what Frank and Cook call "winner-takes-all markets." They argue that changes in domestic and global competition make "the most productive individuals more valuable."[5]

This argument is consistent with that of consultants from McKinsey who popularized the idea of a "war for talent,"[6] but whatever the merits of this argument, virtually all those we spoke to in China, Korea, India and Singapore, as well as the United States, Germany and Britain believed that they were in a war for talent, which was increasingly global.

It is assumed that the best people gravitate towards elite universities. This view is actively promoted by top-rated universities because higher education is now a global business. The branding of universities and faculty members is integral to the organisation of academic enquiry. Claims to world-class standards depend on attracting 'the best' academics and forming alliances with elite universities elsewhere in the world, while recruiting the 'right' kinds of students. Universities play the same reputational games as companies, because it is a logical consequence of market competition.

In short, almost without exception, companies were not only 'segmenting' their educated workforce based on skills, credentials or expertise but also on 'performance' driven by an attempt to reduce the cost of knowledge work, while retaining and rewarding what they perceived as top talent.

Policy implications: the death of human capital?

There is a danger that the current policy agenda is seeking answers to some of the wrong questions. In part, this is due to a failure to grasp the magnitude of changes in the global division of labour and what it takes to succeed in the new global competition. Our research found little evidence that China or India were content with doing the 'body' work within the

4 L Mishel, J Bernstein & H Shierholz, The State of Working America 2008/09, Economic Policy Institute & Cornell University Press (2009)
5 R Frank & P Cook, The Winner-Takes-All-Society (1995) p6. See also P Brown, The Opportunity Trap, in H Lauder et al (eds) Education, Globalization and Social Change (2006)
6 E Michaels, H Handfield-Jones & B Axelrod, The War for Talent (2001)

global economy while the 'brain' work is left to the developed economies such as Britain. Equally, the rapid expansion of higher education in emerging economies is more than a beauty contest aimed at attracting investment from Western transnational companies (TNCs). A number of emerging economies are using their skill-formation strategies, in albeit different ways, to build high-tech research infrastructures that can serve as a springboard for the creation of their own national champions and to compete for 'platform' technologies.

We must therefore abandon the evolutionary model of industrial and post-industrial development that assumes investments in education and skills will continue to provide increasing returns in the labour market. The global expansion of higher education has outstripped the demand for high-skilled workers, creating downward pressure on the incomes of skilled workers in the developed economies along with some upward pressure on those in emerging economies.

There is little evidence to support the claim that the value of human capital will continue to rise as leading companies restructure their global operations to deliver innovative ideas at the lowest cost. As described, it fails to understand how emerging economies including China and India are succeeding in 'leap-frogging' decades of technological development in the West to compete for high-skilled, high-value work, including research and development. As the global supply of highly-skilled labor increases, many in the West will find that their credentials are subject to the laws of diminishing returns, not because they are being out-smarted by college graduates in China and India, but because companies (and governments) around the world are discovering new ways of doing the same things in more cost-effective ways. This is not to suggest that the knowledge, skills and capabilities of the workforce are unimportant, but fresh policy thinking is vital.

Indeed, the financial crisis makes this more urgent because as a HSBC report on the challenges confronting the business world recently observed, 'the global financial crisis is not really global at all. Increasingly "de-coupled" from the US, China and India have continued to expand while Japan and several European economies have slipped into near-depression…What was unimaginable just 15 or so years ago is now happening: the developed nations are looking to countries such as India and China to pull them out of recession.'[7]

Policy implications: beyond the 'Trained Incapacity' for government action

The UK now looks out of step with many nations and multilateral organisations, including the International Labour Organisation and World Bank, who are grappling with a more active role for the state in industrial policy. This is in recognition of the fact that in today's global economy a 'supply side' model based on human capital development is of limited value without considering wider issues of labour demand, skill utilisation, and, we would add, income inequalities and social justice[8]. In the current debate over the importance of growth to the economy, what this means is that growth needs to be targeted, where possible, to industries and jobs where high skilled jobs are needed. This presents us with a number of challenges that urgently require action.

First the problem of 'trained incapacity.' After three decades of faith in the action of market forces to deliver policy solutions, there is a 'trained incapacity' at the heart of government

7 HSBC, Looking East: The Changing Face of World Business (2010) p5
8 UKCES, Ambition 2020: World Class Skills and Jobs for the UK (2009)

departments that will make it difficult for the present or any future Westminster government to make a positive contribution to Britain's economic recovery. Capacity building for 'active' government is vital because over the past decade a significant proportion of high-skilled jobs have been created by the state sector in education and health. Now those routes to high-skilled work are being closed off.

Second, our studies suggest that skills are only a source of competitive advantage when they are part of an integrated strategy of national economic development. Building smart governance requires better international expertise. This needs specified parts of the Whitehall machine dedicated to monitoring global markets, identifying areas where the UK has or could rapidly acquire a competitive advantage, and with the authority to explore how existing resources at the government's disposal can be used to nurture such areas. This is not to deny the existence of markets, only to emphasise what we already know, namely that markets can be organised in different ways and with different consequences for the supply of, and demand for, skills. Even within the constraints of the WTO regulations there are numerous ways in which countries, including China and India, have been able to encourage the development of innovation-led industries and technologies that have delivered a competitive advantage in world markets, either through nurturing national champions, establishing industrial clusters or through attracting TNCs.

Third, having developed the mechanisms and capability to identify sources of competitive advantage, we also need to develop the capabilities to identify and secure the delivery of the requisite skills through which that competitive advantage can be delivered in global markets. This requires an agency within government that can identify the skills that are required, identify the capacity of the existing system to deliver them and, if necessary, determine how any shortfalls can be met. This ensure that supply matches demand in the areas of competitive advantage. It also requires policy-makers to be more active or proactive in engaging TNCs and indigenous companies in these leading edge areas in identifying their needs and requirements.

The globalisation of markets and advances in information technologies has exponentially increased the amount of market knowledge that governments would need in order to 'govern'. But it is precisely because of this growing complexity that coordination needs to become more systematic. In short, governments need to get smarter rather than abandon industrial policy. Across government, overcoming trained incapacity means developing a cadre of senior staff who have a deep understanding of these complex, inter-related policy issues.

Conclusion

What some are now calling the 'Great Recession' makes the implications of The Global Auction more rather than less important. It is imperative that we get a better understanding of the education, skills, social, technological and corporate trends, outlined here. We must avoid the trap of viewing our economic and employment problems simply as a result of the current economic recession. While the immediate issue of unemployment must be tackled, we need nothing short of comprehensive re-evaluation of UK skill formation and the policy assumptions on which it was built.

Phillip Brown is a Professor at Cardiff School of Social Sciences, Cardiff University.

Hugh Lauder is Professor of Education and Political Economy at the University of Bath.

David Ashton is an Honorary Professor at the Cardiff School of Social Sciences, Cardiff University.

Education, employment and the economy: Time to bid the past goodbye?

Ewart Keep

The best way of summing up the current state of skills policy in England, and of explaining why it has delivered only partial success over the last thirty years, comes in two observations by Albert Einstein. The first is his definition of madness as being the ceaseless repetition of the same action with the expectation that this time it will produce a different outcome from that achieved before. For the last three decades, policy has revolved around a very limited repertoire of policy moves, primarily based on exhortation, and upon increasing the supply of publicly-funded skills – through improved schooling, through expansion of further and higher education, and through increasing levels of subsidy and support to employers. Ceaseless rounds of changes to institutions, programmes, funding and governance systems, and assessment regimes helped disguise the essential continuity of policy over this long period.

Unfortunately, most if not all of the problems that could be addressed by adjustments to skills supply have now been solved. In some cases new problems have thereby been created – not least potential over-qualification (see below). What has not occurred has been the long-hoped for and oft-heralded 'skills revolution', whereby an increasing supply of skills would transform the product market strategies of the bulk of organisations, catapulting us to a step change in employer investment in skills and to higher productivity and wages and more and better jobs. Perhaps the most striking fact to emerge from recent research is that, despite decades of cajoling, pleading and increased subsidy and other public support to firms, the incidence of employer-provided training across the workforce (aged 16-64) actually peaked in the year 2000 and since then has been in slow but steady decline, taking us back down to the level of activity that existed in 1993. Moreover, the levels of public money needed to provide traditional, government-led skills supply policies with a sense of momentum are now gone, and unlikely to return for the foreseeable future. Less of the same is not a particularly appealing strategy.

This brings us to Einstein's second point – that problems cannot be solved at the same level of thought as created them. Traditional framings of our 'skills problem' have tended to focus on supply alone, leaving policy fixated on how public policy can further the creation of skills, with little attention being paid to evidence that we have weak underlying levels of demand for skills within the economy, or to the fact that the existing skills of the workforce are often being poorly utilised within the productive process. In other words, a more helpful and effective framing for skills policy would be that we have problems with the supply of, demand for and usage of skills, and that all three issues need to be tackled to deliver real and lasting progress. This realisation has already dawned in Scotland and has also been embraced by the UK Commission for Employment and Skills (UKCES).

Demand for skills

On demand for skill, the figures are quite bleak. Data for the UK from the Skills Survey indicates that whereas in 1986, 29.3% of respondents thought that they held qualifications at a higher level than those needed to obtain and undertake their current job, by 2006 this figure had risen to 39.6%, with the sharpest rise in qualification/job mismatch being recorded by those with degrees. Moreover, OECD statistics suggest that demand for higher level skills is growing much more slowly in our economy than in many others, and that our supply of higher level skills is, at aggregate levels, outstripping the supply of new jobs that need them. Relatively high levels of unemployment, particularly youth unemployment, are liable to add to this problem as people 'trade down' in order to find work.

Moreover, the incidence of low-paid employment in the UK (22% of jobs here are low-paid by EU definition – earning less than two thirds the median wage) adds to these woes. Many low-paid jobs require relatively low levels of certified skill, are often dull, repetitive, insecure, stressful and offer weak opportunities for training and for progression to better paid work. These 'bad jobs' help create weak incentives to learn, and the prevalence of low-paid, dead-end employment is a massive barrier to attempts to improving social mobility or to making work 'pay'.

We also know that in many instances the skills that workers already possess are not always being utilised to the full within many workplaces. This reflects impoverished models of work organisation and job design that have reduced the opportunities for variety, discretion, and innovation and creativity.

Plainly these are all problems that cannot simply be 'trained away'. Unless and until we can fashion the economic conditions and incentives that help businesses to create more and better jobs, and to pursue product market and competitive strategies that demand higher levels of skills from across the workforce, the mismatch between skills supply and demand is liable to worsen. What this means is that skills policies need to be more closely tied to innovation, economic development and business improvement strategies if it is to have a strong chance of delivering long-term success.

How do we boost demand?

There is a growing body of international research that offers some pointers as to have this can be achieved. To begin with, we know that productivity, innovation (in its broadest sense), work organisation, job design, systems of employee relations, and the demand for and utilisation of skills within organisations are all inter-linked and that it is possible to design interventions that boost levels of workplace learning and innovation while also enhancing job quality, skills use, productivity and competitiveness. Research from the UK, Australia, New Zealand and within the EU all tells us that how work is organised, how jobs are designed, how work processes are structured and how workers are managed has a huge impact on the volume, depth, breadth and quality of learning that takes place within work.

At the same time, particular forms of work organisation can support greater bottom-up innovation (in products, services and processes). Moreover, those forms of work design and management most amenable to innovation and learning are also more supportive of better

levels of skills utilisation. To put it another way, what happens inside the 'black box' of the firm, the workplace, the employment relationship and the productive process are critically important to determining a range of outcomes – productivity, competitiveness, innovation, job quality, and the need for and deployment of skills. Rather than simply inject more publicly-funded skills into the organisation, policy now needs to address what happens therein and thereafter.

In terms of specific attempts to address skills utilisation, the Scottish Government has taken the policy lead on this within the UK, and is evolving a range of responses and pilot schemes. One that is of particular relevance to the education system is the Scottish Funding Council's suite of 12 skill utilisation projects. The SFC funds further and higher education institutions, and its skills utilisation pilot projects have demonstrated that public policy can intervene in this area, and that colleges and universities have a significant role to play. For example, the Glasgow School of Art (GSA), working in collaboration with the Institute of Directors, has been taking the concept of broader creativity out to firms. Their project deploys the principle of co-design, whereby the creativity of everyone in an organisation is tapped into in order to rethink both products and processes, and spot new market opportunities. The GSA act as facilitators to free up this creativity, and have been working with two textiles companies, a retailer and a ski resort. In another project, the Open University in Scotland has been helping to ensure that supervisory staff in the care sector are able to use the skills they acquire through part-time degrees. This has meant helping their employers to re-think the roles and responsibilities embedded in the design of supervisory posts.

The SFC projects have shown that courses can be more closely aligned to business need, but more importantly, that employers can be supported to re-design jobs and workplaces operate in ways that can deliver more effective use of their employees' skills. This kind of publicly-supported intervention is quite common in Scandinavia – often branded as part of wider innovation policies, but has hitherto been very rare anywhere in the UK.

Conclusions

What all this suggests is that, although skills supply will continue to form an important element in skills policies, the time has come to widen our focus and to place much greater stress on policies that aim to boost the underlying levels of demand for skill and to help ensure existing skills are used more productively. The days when skills policy simply meant working out which types of publicly-funded provision should be expanded, important though that sometimes may be, ought to be put behind us. The urgent need to stimulate growth and create more (and better) jobs demands a fresh and broader approach.

Ewart Keep is Deputy Director of the ESRC's Research Centre on Skills, Knowledge & Organisational Performance (SKOPE), based at the School of Social Sciences, Cardiff University.

Skills and industrial policy

Tess Lanning

Skills policy is one of the few areas where UK governments have come close to having an active industrial policy in the last three decades. Under both Labour and Conservative administrations, supported initially by international institutions such as the OECD, deregulation, labour market flexibility and competition have been promoted as the best route to growth. Discredited as 'picking winners' (or losers), the traditional tools of industrial policy – economic planning, regulation and subsidies – have been firmly off the menu.

In this context, skills policy became the principal form of intervention in the economy. Creating a more qualified workforce has been the lynchpin of efforts to increase Britain's competitiveness. Skills, it was hoped, would transform the UK's economy by supporting businesses to adopt more productive and competitive strategies by providing an educated workforce that could innovate and cope with new technology.

Under Labour, targets were introduced in England[1] to improve the qualification rates of the workforce in relation to other advanced economies. Unprecedented public investment in education and adult skills provision ensued. In a continuation of trends under the previous Conservative administration, the number of people with no qualifications declined and there was a large increase in university graduates. Tony Blair best articulated this approach when he argued that:

> 'On top [of a foundation of macroeconomic stability] has to be built a modern economy whose raw material is knowledge, skills, the aptitude and intelligence of people … When the Berlin Wall stood, the arms race occupied the leading nations of the world. Today, it is the knowledge race.'[2]

However the results of this approach were disappointing given the scale of investment. The global financial crisis exposed the extent to which the economy was reliant on finance and underpinned by rising house prices. Behind headline growth figures, many sectors grew little or declined. UK businesses have a weak presence in export markets[3] and for all the expansion in high skill 'knowledge' jobs, a very large proportion of the UK economy is still based on low wage, low skilled sectors – a condition underpinned by persistent problems of poor management skills and unambitious firms operating low-value, low-productivity business strategies.[4]

The lesson from the Labour years is that simply investing in education and hoping for the best is not enough. And yet the Coalition has changed little in this approach, except a reduction

1 Skills policy is devolved and the Welsh, Scottish and Northern Irish policy contexts differ from England
2 T Blair, Values and the Power of Community, Speech to the Global Ethics Foundation (2000)
3 A Lent and M Lockwood, Creative Destruction? Placing innovation at the heart of progressive economics, IPPR (2010)
4 E Keep and S James, What Incentives to Learn at the Bottom End of the Labour Market, SKOPE (2010)

in public funding and (somewhat hopefully) seeking greater commitment from employers and individuals in meeting their own training requirements. In the strategy paper, Skills for Sustainable Growth (2011), the Department for Business, Innovation and Skills states that 'this Government's purpose is to return the economy to sustainable growth, extend social inclusion and social mobility and build the Big Society. Underpinning every aspect of this purpose is the improvement of skills.'

Transforming the British economy: lessons from Europe

Currently politicians of all parties stress the need to rebalance the economy in favour of export-led growth and high value-added 'knowledge' industries. This is important. But even if the UK does manage a manufacturing renaissance, the majority of jobs will still be located in the domestic service economy. To ensure everybody participates in and benefits from growth, we need a vision of industrial policy which supports innovation across all occupations, sectors and regions, rather than focusing on a scientific or technological elite or a few choice locations.

The UK has traditionally looked to the USA for inspiration. Yet it was northern Europe which emerged strongest after the financial crisis, and where the high-skill, high-quality road to growth is a much greater feature of the economy. Levels of innovation in both processes and in product market strategies are persistently higher in firms in France, the German-speaking and Scandinavian countries than in the UK, and employers in these countries are more likely to invest in the skills of their workforce[5].

What we see in Europe, and what we should be trying to emulate, is a higher standard of goods and services. This enables countries like Germany to better compete internationally. Moreover, many jobs that we dismiss as low-skilled or 'bad' require a much deeper level of skill in these countries[6]. As a result citizens in these countries receive a better service in domestic or 'non-tradeable' markets, such as social care and retail, while workers in those sectors also have more opportunities to develop their skills and progress.

More active state intervention raises the demand for skills by supporting skill-intensive industries, innovation and the introduction of new technologies. The UK has a long history of non-interventionism relative to many northern European countries, including lower levels of investment in R&D and capital infrastructure – a fact reflected in the UK's relative tardiness in taking advantage of new technologies and an environment which does not support the expansion of small businesses.

State investment banks in Germany and the Scandinavian countries provide long-term finance which enables firms to innovate and partly explains why Germany has managed to retain a strong manufacturing base. Where private banks are the main form of finance, as in the UK, there can be constraints to sectors even where they have potential for growth – such as high technology companies whose primary assets might be the skills of the workforce rather than tangible assets on which to borrow[7].

The institutional and regulatory environments in other northern European countries support

5 A Lent & D Nash, Surviving the Asian Century: Four steps to securing sustainable long term economic growth in the UK, IPPR (2011)
6 M Brockmann, L Clarke and C Winch (eds), Knowledge, Skills and Competence in the European Labour Market: What's in a vocational qualification? (2011)
7 P Aghion, J Boulanger and E Cohen, 'Rethinking Industrial Policy', Bruegel Policy Brief Issue 2011(4) (2011)

and encourage business competition based on 'diversified quality products.'[8] In recent years, new analysis by the OECD has shown that it is not the amount but the type of regulation which matters for jobs and growth[9]. Regulation is not seen as the enemy of enterprise in continental Europe, where minimum product standards and licences to practise are used to regulate a wide range of occupations and sectors. Such measures are designed to improve the quality of products and services, and in doing so help drive employer demand for skills. A recent American study also found that licencing can be an effective tool to raise wages in the absence of unions[10]. Where unions and other democratic workplace structures are in place, these can engender better employment relations, which can encourage employers to invest more in the skills of their workers, and employees to better apply and develop their work-related skills.

The key is not to be 'led' by employers' immediate needs, but instead to generate employer demand for skills, and at the same time to provide the coordination and support required to meet this demand. The German and Scandinavian countries developed strong vocational education and training (VET) systems to meet the rising demand for skills during the industrial revolution, which to this day help to meet changing demands for skilled labour through close collaboration with unions and employers. In contrast the UK's state-led model of VET has consistently failed to involve employers or learners and is widely criticised for its inflexibility and failure to respond to changing skills requirements in the economy[11].

Lessons for UK skills policy

While the UK cannot import wholesale the continental models, our search for a better form of capitalism should certainly take inspiration from them. In northern European countries, skills policy is just one element of a successful industrial strategy. Vital to strong economic growth – and most importantly the nature of that growth – is providing the coordination and supportive institutions to encourage innovation and higher demand for skilled labour.

A new sectoral policy framework to help emerging sectors to grow and existing sectors to innovate is needed, recognising that the needs and market structures of sectors differ. Aghion, Boulanger and Cohen argue that offering access to state-led long-term finance on a sectoral basis also avoids propping up poorly performing firms by encouraging competition and innovation between different firms[12]. A sectoral policy framework that encourages higher demand for skills needs to be complemented by a local institutional environment which provides business support and meets new skills requirements. Housmann's research shows that clusters of capabilities in particularly areas can be key to upgrading product market strategies and diversifying into new markets, with government and the private sector working together to identify diversification strategies[13].

The emerging 'green' sector is an example of how this approach could work, particularly in the light of the potential for stable finance through the new Green Investment Bank. Without a coherent policy framework, the transition to a low carbon economy is unlikely to emerge. Bird

8 D Gallie, 'Production Regimes, Employment Regimes, and the Quality of Work' in Gallie D (ed), Employment Regimes and the Quality of Work (2007)
9 OECD, Employment Outlook: Boosting jobs and incomes (2006)
10 M Kleiner and A Krueger, Analysing the Extent and Influence of Occupational Licensing on the Labour Market (2009)
11 A Wolf, Review of Vocational Education (2011)
12 Aghion, Boulanger and Cohen op. cit.
13 R Housmann, The Development of India and its Manufacturers (2011) http://blogs.worldbank.org/psd/the-india-paradox-promoting-competitive-industries-in-a-high-growth-country

and Lawton identified 'push' and 'pull' measures which could stimulate demand for low-carbon skills, such as targeted subsidies to encourage innovation among SMEs, public procurement of low-carbon products and services, and regulation which promotes minimum product standards. Their research showed that these measures could stimulate green jobs and growth in various sectors, from energy efficiency and building technology companies to offshore wind.

The new skills needs relating to a low-carbon economy would have to be met. Bird and Lawton identified specific skills shortages requiring substantial investment in training and development (such as civil engineers); skills gaps that could be addressed by 'topping up' existing workforce skills (training electricians to install solar panels, for example); generic skills gaps that apply across the UK economy (such as management skills); and generic 'green' skills, including a broad understanding across all employees of the changes needed for businesses to reduce emissions.

Australia's 'skill ecosystem' pilots offer a lesson of how the UK could meet these needs in a context where labour market institutions are relatively weak. The pilots redefined the focus of VET to include helping firms to rethink business strategies in ways that supported skills development and utilisation. They brought together academic research institutions, firms, unions and vocational colleges to raise the quality of goods and services in targeted sectors[14]. This not only provided the appropriate level and type of skill formation for new and existing employees, but also included efforts to improve the nature of work and reshape labour market structures to create career paths for employees.

Conclusion

If policy is going to transform the economy, policymakers must put the ghost of British Leyland to rest and acknowledge that there is a strategic role for the state in supporting growth and innovation. Key to this is understanding that UK businesses' decisions about whether to innovate and grow depends on far more than the skills of the available workforce. It depends on the practices pursued by managers, particularly whether business strategies require investment in, demand for and utilisation of skills. Efforts to raise the demand for skills through active sectoral investment and support for new business competition strategies must be complemented by strategies to ensure those skills needs can be met through close local collaboration between employers, researchers and local FE colleges.

Tess Lanning is a Research Fellow at the Institute for Public Policy Research.

14 J Payne, Skills in Context: What can the UK learn from Australia's skills? SKOPE (2007)

3. LEARNING

A more expansive approach to work and learning

Lorna Unwin and Alison Fuller

Introduction

As work plays a central role in our lives, it necessarily provides a major site in which we learn and develop. This is true for all types of work, paid and unpaid, regardless of the type and level of occupation and the nature of the 'workplace'. Yet the potential of the workplace as a site for learning is still under-valued. In some academic, policy and media circles, the very suggestion that all forms of work demand a certain level of knowledge and skill will be treated with disdain. Sadly, as the American sociologist, Mike Rose, reminds us, by privileging some forms of work over others, we divide people into 'who's smart and who isn't'[1].

Organisations in both the public and private sector wax lyrical about how their employees are 'the most important part of the business', but far too often they fail to create the conditions in which the expertise of the workforce can be fully utilised. This is damaging both economically (under-performing workforces undermine productivity) and socially (employee dissatisfaction, illness and stress spill over into domestic life). There is a growing consensus that the characteristics of 'good jobs' include: the opportunity to engage in varied tasks; trusting employees to make judgements and giving them discretion over how they manage their work; and ensuring employees are involved in decision making and the development of new ways of working[2].

In this essay, we present an analytical framework which all organisations can use to assess the steps they need to take to turn their workplaces into expansive learning environments. The Expansive-Restrictive Framework can also be used for improving the quality of apprenticeships, graduate training schemes, and other forms of work-based and workforce development. We began developing the framework whilst doing research in the British steel industry and have continued to refine it through research in a range of sectors. With colleagues, Alan Felstead and Nick Jewson, we incorporated the framework into a broader study of the way workplace learning is often conditioned by the productive system within which organisations sit. For example, some organisations have less freedom than others to organise work and involve employees in the way they might wish due to the constraints of distant owners or highly centralised procedures[3]. However, our research also found that these constraints could be overcome if organisations were prepared to adopt an expansive approach.

Learning at and through work

Learning at and through work takes many forms, including 'off-the-job' structured training away from the workplace, supervised training in the workplace itself, and the sharing of

1 M Rose, The Mind at Work: Valuing the Intelligence of the American Worker, (2005)
2 S Constable, D Coats, S Devon & M Mahdon, Good Jobs, The Work Foundation (2009)
3 A Felstead, A Fuller, N Jewson & L Unwin, Improving Working as Learning (2009)

knowledge and skills as tasks are performed and problems solved[4]. It is through the social interaction between colleagues in the workplace and, in some sectors with clients and customers, that innovations are made and expertise is further developed. From a pedagogical perspective, this requires us to think much more broadly about who is involved in 'teaching' or 'instructing' than would be the case in educational settings. In our research with apprentices, for example, we found evidence of how they were able to 'instruct' and assist older colleagues to solve problems using information technology and, hence, challenged the traditional concept of the apprentice as a 'novice'[5].

This need for a broader vision of the concepts of teaching and learning also pose challenges for teachers in schools, colleges and universities responsible for work-based programmes. We would go further and argue that educational institutions need to pay far more attention to their own internal learning environments – not in terms of their students, but in terms of their employees. For example, the way work space is designed has been shown to have a considerable impact on the quality of learning environments, yet in many educational institutions, dedicated spaces for staff to meet and relax are being removed and teachers required to use 'hot desks' and to regard classrooms and workshops as their sole work space[6].

We captured the importance of the social interaction in the workplace in a survey of employees, across all grades and types of job[7]. Employees reported that they regarded learning through 'everyday' productive activity at work as the most helpful for doing the job. They were not saying they didn't value having the opportunity to attend training courses away from the workplace or other forms of personal development, but were highlighting the importance of the symbiotic relationship between work itself and learning. We know that access to 'off-the-job' opportunities has been declining in Britain since the early 1990s as employers cut costs, and that the lower your status and level of educational attainment, the less likely you are to gain access to time off for study[8]. This is a matter of concern as access to accredited forms of education and training enable people to expand their job prospects as well as bringing new ideas back into their places of work. The army of Union Learning Representatives (ULRs), who have been active since 1998, continue to play a vital role acting as brokers to encourage employees to take up learning opportunities outside the workplace and persuading employers to provide those opportunities. We argue that ULRs could play as big a role inside the workplace itself by contributing to the improvement of the learning environment

The Expansive-Restrictive Framework

The idea of expansive learning has been developed by the Finnish academic, Yrjo Engeström in helping organisations to substantially transform their ways of working[9]. Our emphasis differs somewhat from his, and focuses on people and learning; in other words on workforce development. We aim to identify those features of the environment or work situation which

4 A Fuller & L Unwin, Workplace Learning and the Organisation, in M Malloch, L Cairns, K Evans & B O'Connor (eds), The SAGE Handbook of Workplace Learning (2011)
5 A Fuller & L Unwin, Young people as teachers and learners in the workplace: challenging the novice-expert dichotomy, International Journal of Training and Development, 8(1) (2004) pp32-42
6 N Lucas & L Unwin, Developing teacher expertise at work: in-service trainee teachers in colleges of further education in England, Journal of Further and Higher Education, 33(4) (2009) pp423-433.
7 A Felstead, A Fuller, L Unwin, D Ashton, P Butler & T Lee, Better Learning, Better Performance: Evidence from the 2004 Learning at Work Survey, NIACE (2005)
8 G Mason & K Bishop, Adult Training, Skills Updating and Recession in the UK: The Implications for Competitiveness and Social Inclusion, LLAKES (2010).
9 Y Engeström, Expansive learning at work: toward an activity theoretical reconceptualization, Journal of Education and Work, 14(1) (2001) pp133-56

either make the workplace a whole offer, or deny opportunities for learning. This allows us to provide a conceptual and analytical tool for evaluating the quality of learning environments and for analysing an organisation's approach to workforce development.

As Figure 1 below shows, there are two broad categories of expansive and restrictive features: those related to the organisational context and culture (e.g. work organisation, job design, control and distribution of knowledge and skills); and those relating to how employees learn (through engaging in different forms of participation).More expansive learning environments treat learning as part of work, supported by supervisory and managerial processes such as mentoring and coaching, constructive and regular feedback, and the valuing of employee opinion and expertise. These environments do not separate personal and organisational goals, but try to integrate them for mutual benefit.

Conclusion

Workplaces exist primarily, of course, to produce goods and services and, given the increasingly difficult economic climate, many organisations spend much of their time firefighting in order to survive. However, too many organisations in Britain survive and some even prosper through a 'restrictive' approach to workforce involvement and development. We need employers in both the public and private sector to raise their game and work together to create more expansive workplaces for the benefit of society as a whole.

For this happen, we need to find ways to support those employers who struggle to make the most of their employees' talents and potential. We need to accept that some employers suffer from the effects of poor schooling and/or disadvantaged backgrounds and have low levels of basic skills. But most employers need support to construct and sustain the conditions that foster learning. They might get this from their professional and sectoral networks, but more needs to be done. We hope that the Expansive-Restrictive Framework can make a contribution.

Lorna Unwin is Professor of Vocational Education at the Institute of Education.

Alison Fuller is Professor of Education and Work, and Head of the Lifelong and Work-related Learning Research Centre at the University of Southampton.

Figure 1: Expansive Restrictive Framework

Participation in different communities of practice encouraged – job/team boundaries can be crossed	Participation restricted to immediate work team/area of workplace – boundary crossing discouraged
Teams have shared memory of how and why practices have developed and build on collective expertise	Memory not valued or protected – no reference to cumulative expertise so wheels reinvented and past mistakes repeated
Vision of workplace learning – organisational and career progression – embedded part of work process	Short-termism – get the job done – learning seen as ad hoc reaction to events or as one-off reward or punishment
Recognition of support for workers as learners (newcomers, including apprentices and trainees, given time to mature and become full members of the community)	Workers seen as productive units – fast transition from newcomer/trainee to fully productive worker
Workforce development used as vehicle for aligning goals of the organisation and of the individual	Workforce development used only to tailor individual capability to organisational goals
Skills widely distributed though workplace – multi-dimensional concept of expertise	Polarised distribution of skills – knowledge/ expertise regarded as being confined to key workers
Planned time off-the-job for reflection and deeper learning beyond immediate job requirements	All training on-the-job and limited to immediate job requirements
Managers given time to support workforce development and facilitate workplace learning	Managers restricted to controlling workforce and meeting targets
Workers given discretion to make judgements and contribute to decision-making	Discretion limited to key workers – no employee involvement in workplace decisions

Vocational pedagogy: bringing it all together?

Prue Huddlestone

> *'The teacher is engaged, not simply in the training of individuals, but in the formation of the proper social life'*
> John Dewey, 1897

Introduction

The current revived policy interest in vocational education and training (VET) is a matter of celebration for those who are engaged in the field as practitioners, policy-makers and researchers, but most of all it should be a celebration for those learners who are engaged, or are likely to be engaged in VET, either as initial education and training or as part of ongoing professional and personal development. Some questions arise: 'why now?', 'for what purpose?' and 'how can it be done?'

Recent evidence[1] presents a mixed picture of the state of play in VET, particularly in terms of initial VET, or for what in some cases passes as VET but clearly is not (I refer to the pre-vocational provision offered in many secondary schools). There is some excellent practice evident in the inspection reports of 'outstanding' provision within the post-compulsory phase, both in our further education colleges and amongst training providers. There is also 'unsatisfactory' provision, and there is some provision about which we probably do not know very much – the detail of in-company training, for example. Therein lies one of the abiding problems for VET, it is an area about which not very much is known beyond the circle of those who actively participate in its delivery or who experience the system as learners, or employers: sometimes even the learners are unsure. As one learner recently said to me: 'Just what are we supposed to be doing here?'

Changing economic, social, technological, and global conditions have led to an increasing awareness at national and international level of the need for high quality VET in order to meet labour market needs as well as wider inclusion goals. In response we have witnessed, over the recent past, the introduction of a range of new qualifications (some of which have been short-lived); the formation and amalgamation of different types of institutions; new programmes; constantly shifting funding regimes and accountability measures and, positively; professional recognition for teachers of VET. The list is not exhaustive, but it has been exhausting for those engaged in the delivery of VET and confusing for learners, parents and employers[2].

From 2013 young people will be required to participate in some form of education or training

1 See: Nuffield Review, Education for All: The Future of Education and Training for 14-19 Year Olds, Department of Education (2009); Ofsted, Implementation of the 14-19 Reforms, Including the Introduction of Diplomas (2009); UKCES, The Employability Challenge (2009); A Wolf, Review of Vocational Education, Department for Education (2011)
2 IOD/CFE, Reforming the Skills System: lessons learned the hard way (2011)

until the age of 17 and to age 18 by 2015. This argues a compelling case for the development of a strong VET route for those who are not only trying to join, or about to join, the labour market but for those already in it. What precisely will be on offer is not yet wholly clear, other than talk about increased numbers of apprentices. But this will not be the whole story.

For too long attention has been focused on the academic route, which in reality serves about 40% of the cohort; twice as many 16-18 year olds study in FE colleges full-time than in maintained schools, academies and city technology colleges[3], the majority, but not all, of these are following a vocational route. Many other young learners attend on a part-time basis; some attend as a condition of receiving benefit. Last year, 63,000 14-15 year olds studied in colleges, either part-time or full-time. The academic route has not served many of these young people well; schools have attempted to meet the needs of learners by offering 'so-called' vocational programmes alongside a more traditional curriculum but too often: 'many lessons from the past point up the risk of unwittingly applying an academic mind-set to vocational provision.'[4] There is a growing recognition that vocational programmes cannot be delivered in the same way as academic programmes and yet:

> '... VET has been oddly neglected and marginalised in policy discussions, often overshadowed by the increasing emphasis on general academic education and the role of schools in preparing students for university education. It has also often been seen as low status by students and the general public. As a result, comparative policy analysis is undeveloped, and there are very limited data available, especially data that can be reliably compared across countries.'[5]

If the proposed policy changes outlined in the recent Skills Strategy are to take effect then attention will need to be given not just to the type of VET provision but to the way in which it is delivered; if this is to be achieved, then attention needs to given to appropriate pedagogy.

Why is vocational learning different?

Vocational learning brings together teaching and learning within specific contexts which often have wider developmental concerns, for example lifelong learning, but also seek to develop other generic, or transversal, skills, as well as sector-specific knowledge and skills. Although defined within the Oxford English Dictionary as 'the science of teaching,' pedagogy is not just about teaching – it brings together learning, teaching and assessment within a context underpinned by particular values about what constitutes an effective learning experience and environment for the development of the individual learner. Watkins and Mortimore[6] describe pedagogy as: 'any conscious activity by one person designed to enhance learning in another.' In the context of VET this opens up an enormous range of opportunities in which learning, both formal and informal, can occur. Vocational learning necessitates making sense of, and linkages between, experiences drawn from different contexts, 'boundary crossing'.[7] It privileges experiential and active learning, provides access to rich and varied learning environments with opportunities to engage in authentic tasks and to encounter, and learn from, experts within communities of practice. This goes far beyond just linking theory to practice.

3 Association of Colleges, College Key Facts - Summer 2011(2011)
4 G Stanton, Learning Matters: Making the 14-19 reforms work for learners, CfBT (2008) p8
5 OECD, Learning for Jobs (2007)
6 C Watkins & P Mortimore, Pedagogy: What do we know?, in P Mortimore (ed.) Understanding Pedagogy (2004)
7 D Guile & T Griffiths, Learning through work experience, Journal of Education and Work 14(1) (2001) pp113-131.

Changes and developments within VET have been affected by forces which have their origins in wider economic, technological and social change; in ways that do not impact so dramatically on mainstream education. These changes have included not only the changing character of work itself, but the places in which work occurs. This gives rise to a diversity of potential learning environments, way beyond the confines of a traditional classroom. This is something which the traditional, seasoned teacher sometimes has difficulty in acknowledging and accommodating.

In parallel to these changes in the nature of work and workplaces, the content of VET has, or should have, changed to reflect current workplace standards and practice. Advances in technology, 'mass customisation', increasingly globalised markets require different knowledge and skills from those required ten years ago, or even more recently.

> 'It is worth emphasising that new learning demands are difficult to cope with unless learning individuals possess the necessary pre-requisites. Therefore, the promotion of 'curricular flexibility' through the development of a balanced mix between specific/technical knowledge and transversal/generic skills has been identified as a crucial factor in the modernisation of vocational curricula. These build the basis for self-reliant workers who are able to '(co) shape' the triangle of work, technology and knowledge.'[8]

Whereas traditional teaching and learning has been far more concerned with the transmission of knowledge, or at worst, 'filling empty buckets', a tendency exacerbated by the development of outcomes based qualifications, which risks the danger of becoming a 'box ticking' exercise, in vocational education:

> 'The emerging guiding principle of pedagogical practice is constructive alignment. That is the appropriateness of particular pedagogical strategies to the different purposes and settings in which contemporary vocational, workplace and organizational learning takes place.'[9]

This requires alignment of subject knowledge to actual workplace practice through the provision of authentic tasks and experiences within classrooms and workshops; access to realistic environments that is, real workplaces which are inhabited by experts with recognised professional expertise and identity. It opens up opportunities to learn in different contexts and in different ways and, most importantly, for the learners to be able to recognise and choose different ways of learning.

Vocational learning involves learning about 'what', 'how' and 'where'? That is, it brings together content, process and context. Competence, used in its widest sense, involves knowing how to do something as well as knowing how to become, for example a skilled craftsperson. Skilled craftspeople provide strong role models for young learners. Donning chefs 'whites', purchasing the first set of professional cook's knives provide reinforcement not only of the skills to be learnt but about transition into a community of practice and about having an identity beyond that of learner.

8 Heidegger (1997), cited in QCA, Achieving the Lisbon Goal: the contribution of VET - Final Report to the European Commission (2004)
9 C Chappell, Contemporary vocational learning – changing pedagogy, AVETRA (2004) p1

Challenges

What I have said so far suggests that there is a need to develop vocational experts who are also learning specialists if we are to equip worker-learners for future work roles. This implies a move away from merely instruction to a more holistic approach to learning, encompassing the broader based development of generic and transverse skills.

> "...vocational education and training is aligned directly to learning for work and includes training for specific job roles. 'Vocational education and training' is also a contested concept. The 'vocational education' dimension is emphasised by those who contend VET is (or should be) about holistic and integrated development of underpinning knowledge and broad-based, transferable work and life skills. The 'training' dimension tends to be emphasised by those who believe that VET should address itself exclusively to the acquisition of a relatively narrow band of employment related or job specific skills and competencies."[10]

The polarisation of views has in part been exacerbated by the introduction of narrowly defined occupational qualifications which have tended to atomise learning into separate 'dollops' of instruction (sometimes very small ones at that) rather than broader vocational qualifications that provide access to a more general learning entitlement. When funding has depended upon, and been tied to, qualifications outcomes then a 'payment by results' mentality has prevailed. Compulsory general education has not, of course, been exempt from targets linked to the numbers of qualifications achieved. As Wolf has pointed out this has led schools to encourage pupils to pursue 'so-called' vocational qualifications in order to improve league table scores.

Situating initial VET programmes in educational institutions whose pedagogies and predispositions are rooted in different cultures and which are not aligned with current workplace practice is selling learners short. However, such institutions have perforce been required to develop initial VET programmes, or more appropriately pre-VET programmes, in order to meet performance targets. Put quite simply, such institutions should not be seen as providers of VET. Confusion has arisen in terms of what these programmes are and where they lead. We need to state quite categorically what VET programmes should contain, where they should be located and who should be entrusted with their delivery.

In terms of our FE colleges, which have for over a hundred years been the natural heartland of VET, recruitment of teaching staff has traditionally been on the basis of their vocational expertise[11]. Many staff carry a dual professionalism: the majority are employed on a part-time basis and continue to work in their professional field as well. This is a strength; learners have access to real practitioners, but it brings disadvantages in that large numbers of part-time, causal and 'sessional' staff do not have access to pedagogical education. However, it should be noted that since 2007 and the introduction of the Framework for Teaching in the Post-Compulsory Sector an attempt has been made to ameliorate the situation[12] by providing a framework of standards and qualifications for those preparing to teach, and those already teaching within the sector. Although the extent to which they meet pedagogical concerns, as distinct from instructional techniques is a subject for further research.

10 Anderson, Brown and Rushbrook, Vocational Education and Training (2004) p234, cited in S Darwin, The changing contexts of vocational education: the implications for institutional vocational learning (2007)
11 P Huddleston & L Unwin, Teaching and Learning in Further Education (2007)
12 DfES, Further Education Teachers' Qualifications (England) Regulations(2007)

What has not been possible thus far is the recognition of such qualifications for teaching within the school sector. Whilst it is possible for the qualified school teacher to practice, and be appropriately rewarded in colleges:

> 'For vocational instructors employed in schools their conditions of service are inferior to those employed as school teachers. Yet, the vocational curriculum would not be able to be delivered without their expertise both as vocational experts and as experts in the pedagogy for their vocational area.'[13]

If the recommendations of the Wolf Report are implemented and teachers' qualifications can be recognised across pre- and post-compulsory education boundaries, then this situation should not only be vastly improved in terms of equity but also in terms of VET more generally. 'Early research suggests that teaching vocational subjects successfully may be more challenging and require more training than teaching academic subjects.'[14]

If boundaries between schools, colleges and workplaces become more permeable, and if the locations of learning – classrooms, workshops, laboratories, offices, studios, for example – are better aligned in terms of what is being learnt and for what purpose, this would go some way to building an understanding of what is required to develop pedagogies for vocational learning.

Some modest proposals

'Participation in meaningful projects, learning by doing, encouraging problems and solving them, not only facilitates the acquisition and retention of knowledge but fosters the right character traits: unselfishness, helpfulness, critical intelligence, individual initiative, etc. Learning is more than assimilating; it is the development of habits which enable the growing person to deal effectively and most intelligently with his environment. And where that environment is in rapid flux, as in modern society, the elasticity which promotes readjustment to what is new is the most necessary of habits.'[15]

The date of this is quotation is perhaps surprising since the views espoused resonate with current debates concerning an appropriate VET pedagogy, where a much greater emphasis is placed on generic and transversal skills rather than on narrowly defined 'technical' skills.

Building strong identities in learners as aspiring craftspeople through association with 'real' practitioners, both in colleges and workplaces, is essential in terms of learning not just the technical skills but also the work and business process knowledge required. Whilst learning by 'sitting next to Nellie' was a very hit-and-miss affair, there was much that Nellie could tell the youngster about the 'way things were done round here.'

Wherever possible the integration of theoretical and practical aspects of vocational programmes should be achieved through co-teaching facilitated by possibilities for teachers in workplaces and workplace staff in colleges/training establishments. Joint projects, test pieces, the development of prototypes, such s the final 'trade test' compulsory for Danish apprentices, set and assessed by workplace supervisors and tutors, are examples. Simulations are poor substitutes.

13 Skills Commission, Teacher Training in Vocational Education (2009) p23
14 J Margo (2008) p6, cited in Skills Commission (2009) p42
15 F Warde, John Dewey's Theories of Education, International Socialist Review 21(1) (1960)

Learning processes need to allow opportunities for active learning, 'learning by doing', but learning that has a clear purpose so that learners know why they are doing it. Instruction will not serve here. Context can provide the motivation for knowledge; the trainee chef needs to understand quantities and ratios to scale up recipes, for example, he needs to understand why the soufflé has not risen, but he will probably not tell you that he is learning maths or science.

Flexibility is demanded of vocational teachers and trainers in helping learners to make these connections and, of course, to see them for themselves. Where the development of broader-based skills is demanded then it is challenging for vocational teachers to be able to make connections, for example in the case of personal, learning and thinking skills. Yet, these are the very skills which employers say are lacking in college leavers[16].

In the drive for accountability and, it has to be said, cost reduction, outcome measures have been narrowly conceived in terms of qualifications, or units of qualifications, achieved. Whilst no one would deny that where public money is being expended there has to be a measure of transparency and accountability, but the issue is what is it that is being measured? A narrowly defined set of technical outcomes do not measure up to the alleged requirements of the 21st century workplace – one characterised by flexibility and change, staffed by creative thinkers and innovators. The content of such qualifications needs to be examined more closely; but the broader aspects of whole programmes, rather than simply qualifications should be reviewed.

Conclusions

It has been shown that high-quality VET serves both economic and social policy goals and that the demand for such provision is likely to be intensified by the implementation of the Raising Participation of the Participation Age agenda from 2013. Tinkering at the edges of the old, faltering systems will not serve; introducing more qualifications will not address the more fundamental questions about 'learning what', 'learning where' and 'learning how', and most importantly for the new 16-18 participants, learning for some purpose.

European priorities have also highlighted the need for more extensive articulation of key transversal competences in VET curricula; the need for more practical opportunities (work-based learning, apprenticeships, education-business partnerships) and; the need for innovation in learning methods and environments. Pedagogically this implies a move away from instruction to more learner-focused approaches which facilitate the development t of a broader set of vocational outcomes that move beyond the acquisition of technical skills and competencies. Ultimately, these may prove to be the more enduring in a rapidly changing economic climate where employment, particularly lifetime employment located within a particular job or sector, cannot be taken as given.

This requires a shift away from a neo-liberal VET model based upon market approaches, including highly regulated content (qualifications) and outcomes measures based on qualifications achieved, towards a broader liberal VET model that takes account of the need for wider personal, inter-personal, generic and transverse skills development.

16 CBI, Time Well Spent: Embedding Employability in Work Experience (2007)

This requires a pedagogy which brings together work-related content (authentic tasks), located within real workplace environments and which mirrors the processes of workplaces in its delivery.

Prue Huddleston is a Professorial Fellow and former Director of the Centre for Education and Industry at the University of Warwick.

Digital learning in further education

John Yates

This article briefly reviews three areas relating to the use of technology in Further Education. Firstly, the use of e-learning and technology to support teaching and learning. Secondly, the use of e-assessment to assess competence, and finally the use of technology to create efficiencies within our system overall. In considering each of these areas, the essay asks whether we should we adjust our regulatory framework to encourage more innovative use of technology for the assessment of knowledge, and competence.

e-learning credits for further education?

A sound platform for the effective deployment of technology for learning within our Further Education sector has been created, and our challenge now is to use it. As the UK focuses its efforts on trying not to slip further down the global skills league tables, it is essential to our economic prospects that we exploit every means at our disposal to maximise successful learning outcomes and increase the efficiency of teaching delivery. We need to create a system that gets learners into the right jobs, when they are needed. It is perhaps surprising, therefore, that the Wolf Report makes little reference to the use of technology for the benefit of effective vocational educational outcomes.

One way of addressing this area is to consider whether now is the time for Government to stimulate investment in the use of e-learning content in FE colleges in the same way it did schools through Curriculum Online, the government's drive to get more ICT and multimedia resources into school classrooms. BECTA's 2010 FE college survey[1] shows that 98% of FE Colleges now use a virtual learning environment. It also shows that the majority of colleges have sufficient hardware infrastructure to meet learner demand, while almost all staff now have access to an internet-enabled laptop or desktop PC. This technology is most frequently used to communicate with other members of staff, plan lessons or create paper-based resources, and 75% of staff surveyed report that they use technology most days every week to help deliver lessons.

The technology has also been found to have a significant impact on staff productivity, with the majority reporting up to an hour a week saved in lesson planning, lesson delivery, record keeping and communicating with learners. However, staff reported that they are most likely to lose time using technology for marking and assessment. 75% of staff now use e-learning to support learning, but text documents, images and presentations remain the most frequently used resources, and over 50% of staff make infrequent use of multimedia software. The majority of staff rarely use digital resources to support the learner working by themselves, either in the

1 BECTA, Harnessing Technology survey of technology use and adoption in FE colleges 2009-10 (2010)

classroom or at home. These are lost opportunities for a community of learners that have been using technology for learning throughout their schooling.

Spending on software for the curriculum increased substantially in primary and secondary schools as a result of the introduction of e-Learning Credits[2], with teachers becoming more likely to use ICT resources frequently in lessons between 2002 and 2005. This trend has continued ever since, and today's school leavers are now fully-fledged digital natives, with high usage of technology for social interaction, play and education.

They take this expectation with them to their FE Colleges, which, whilst well-equipped to supply them, continue to invest less in digital content for skills and knowledge development than they might to help supplement face-to-face delivery. It is clear that creation of a funding allocation to stimulate the market for effective e-learning content that supports acquisition of vocational skills and knowledge within our college sector would be timely.

Encouraging innovative use of e-assessment

Equally positive would be a review by the regulator of the use of e-assessment for examinations. As she left the regulator, Ofqual's former Chief Executive Isabel Nisbet made welcome reference to the need to review our national obsession with paper-based examinations for school children who are increasingly unfamiliar with pen and paper. Ofqual has been reluctant to embrace innovative approaches to the assessment of literacy, and particularly numeracy, in Functional Skills examinations. In the case of Functional Skills ICT, it is hard to see how any assessment method other than onscreen (via simulation) makes sense for our learners. As a nation we seem to still associate quality and rigour with the old-fashioned examination hall, and crates of paper being shipped to markers with red pens.

But we're looking in the wrong direction. Assessment of vocational competence is a continuous process as the learner demonstrates their skills in the classroom or the workplace. As we deploy e-portfolio and e-assessment platforms effectively within the learning environment itself, and create formative assessments that are linked effectively to e-learning materials for immediate and effective revision and remediation, the need for artificial, summative assessment should reduce, or disappear forever. What is important is whether the learner can demonstrate that they can do the job effectively, not whether they can pass an exam. When we are in a position (and it is not far away) to connect diagnostic assessment with personalised learning plans, regular and adaptive formative tests with e-learning and face-to-face teaching and remediation, it can be argued that the time and place for summative assessment may be drawing to a close.

Technology for efficiency

Finally, I would like to encourage the Government to review and implement the recommendations of the Curriculum Online Final Report, a BIS-commissioned report on efficiencies gained through use of technology within the FE sector[3]. Its view of potential benefits were very significant. BECTA[4] estimated that the tactical and structural use of technology could lead to total savings of over £895 million per year, after five years in FE and skills across England, mainly at the provider level. Almost £50 million of these savings would be realised via integrated back-office systems.

2 BECTA, Curriculum Online Final Report (2006)
3 ibid
4 The Government's lead agency for ICT in education, scrapped in the post-election spending review

BECTA estimated that £170 million in cost-efficiencies could be delivered by the effective use of e-learning, including through course compression. Such a saving would support investment in the 'Online Curriculum for FE' suggestion made earlier in this article.

Further, BECTA estimated that up to £40 million could be saved through deployment of e-assessment in support of Apprenticeships, using e-portfolios to reduce assessor time, and further compressing course provision whilst maintaining high standards and delivering programmes appropriate for industry. Government's investment in Apprenticeships funding is strongly welcomed, and a similar endorsement of innovative use of technology to support their assessment could provide an opportunity to re-invest in yet more apprentices.

Conclusion

This brief article has aimed to emphasise that appropriate use of technology to support learning, assessment and efficient delivery within Further Education could make significant savings to the public purse while improving learning outcomes and skills acquisition. Government encouragement of more widespread investment in e-learning materials through an FE equivalent of Curriculum Online, and sponsorship of a regulatory environment that stimulates innovative use of e-assessment techniques, would be widely welcomed.

John Yates is Director of Product Development at City & Guilds.

4. SYSTEMS

More than just knowledge – a Whole Education

John Dunford

The Government White Paper, *The Importance of Teaching*[1], published in December 2010 states that:

> *"There is much of value that children need to learn and experience which sits outside subject disciplines… which makes up national curricula across the globe. So we will ensure that there is space in the school day… to guarantee a truly rounded education for all."*

The brief given by the Secretary of State to the Government's review of the National Curriculum was, however, much narrower in scope, emphasising knowledge at the expense of skills, which reflects the dismissal in some quarters of the role of schools in developing skills in young people.

The curriculum – whether a National Curriculum or a school-based local curriculum – should seek to develop knowledge and skills seamlessly. It is impossible to grow knowledge in a skills-free environment, or to develop skills devoid of content. Education cannot be merely a list of facts to be learned, nor can it be content-free exercises to learn useful skills.

Whole Education[2] is committed to this approach in order to provide all young people with a fully rounded education. We bring together a broad partnership that demonstrates a commitment to an education for young people that:

1. develops a range of skills, qualities and knowledge that young people will need for the future;
2. makes learning more relevant and engaging, with students at the centre of their own learning, providing a mix of practical and theoretical learning;
3. recognises that learning takes places in various settings, not just the classroom, and that the best schools engage the wider community in learning.

We believe that a well rounded education – a 'whole education' – must look at all of that holistically. We know, too, from the evidence of our partner organisations that a whole education, with its emphasis on engaging young people in learning, improves attainment, as well as broadens education.

Children do not acquire knowledge and skills separately. Learners need skills to understand knowledge. The two are inexorably linked and the National Curriculum Review should not seek to place knowledge above skills, as is implied in the Introductory Letter to the Review's Call for Evidence. To state that *"… the inclusion of skills development and the promotion of generic dispositions have distorted the core function of the National Curriculum and diluted the importance of subject knowledge"* is a travesty of the current situation.

1 Department for Education, Schools White Paper: The Importance of Teaching (2010)
2 www.wholeeducation.org

Fortunately, the National Curriculum is not, and never should be, the whole of a school or college curriculum, which should be the sum of the whole learning experience, not merely the content of the subjects on the timetable.

Schools and colleges should attempt to provide young people with the knowledge, skills and interests that they can maintain and build upon in the rest of their life. They are as important in the arts as they are in science. In relation to knowledge and skills, this is the both/and approach; it is not either/or.

Looking forward

If, as promised by ministers, the National Curriculum is to be briefer, it gives teachers – working with students, parents, community and employers – the chance to plan for each stage of their learners' development, doing some fundamental thinking about skills and qualities, as well as knowledge, for children of all abilities.

For the first time since 1988, school and college leaders can become curriculum planners again. They can start to look outwards to the many excellent schemes available to provide a more rounded education and cease to look upwards, as they have done for the last 20 years for each and every government instruction. If done in a planned way, school leaders can begin with an audit of skills development in their current curriculum and then decide what skills they want to prioritise and through which parts of the curriculum they will teach them. Skills such as team working, leadership, communication, presentation, as well as ICT, literacy and numeracy, can be worked into the teaching programme of all learners. Personal qualities such as resilience, empathy and determination are important to every young person and can be similarly prioritised.

Employers have long complained that young people do not enter employment with the right blend of skills and knowledge. The school curriculum should be informed by the views of employers, but not constrained by them, since knowledge, skills and attributes needed for successful employment are a subset of the wider range of skills needed for a successful and happy life.

A 'whole education' is part of the legal framework of state education. This is expressed as a "broad and balanced" education, which should be a combination of theoretical and practical learning – a more useful distinction than academic and vocational – and schools and colleges, the National Curriculum and the examination system should all encourage both theoretical and practical approaches in all subjects.

Higher education is a broad church and its needs should not be defined solely by Russell Group universities. Good preparation for higher education includes, of course, subject knowledge in depth, but it should also include the development of skills that enable students to flourish at university. The most successful university students are not necessarily those with the highest grades at A Level.

Ebacc and international comparisons

High stakes primary school accountability, based on external national tests at 11, has led to a narrowing of the curriculum for 10 and 11 year olds, which is at odds with the notion of a whole education at the time when children most need holistic educational development in order to cope with the transfer to secondary school.

The Government has made clear that it considers that GCSE exams will continue to be the "benchmark examination"[3] that most state secondary school students will sit, and which act as the "principal accountability mechanism for those schools"[4]. However, the accountability measure most affecting the decisions being made by secondary schools in 2011-12 is the English Baccalaureate (Ebacc), which was introduced retrospectively in early 2011. The percentage of 16 year olds with a pass at grade C or above in English, mathematics, two sciences, history or geography, and a limited range of languages (including Latin) is acting as a major constraint on the freedom that schools – even academies – were told by Government ministers that they were being given. The E-Bac is a threshold measure – and all threshold measures create perverse incentives. It is already narrowing the curriculum in an undesirable way for many young people. In particular, it provides no incentive for schools to look beyond a narrow range of subjects or to design a programme to develop skills in young people. If England is to have a genuine baccalaureate – and the E-Bac isn't one – then it should be an overarching qualification that is greater than the sum of its parts and should include the development of skills and qualities as an integral part of its design. Whole Education is leading a coalition of organisations developing proposals for a "Better Bacc".

Transposing elements of education systems from around the world is not a matter of simple 'cut and paste'. Any education system must be seen in its entirety and transposing a single element from one country to another may not work. Nonetheless, it is instructive to study the curricula of other countries and use them to reflect on policy in England. Many countries are taking a holistic view of the development of knowledge and skills in their national curriculum. The Singapore curriculum aims to produce "a holistic education, focused on both academic and non-academic areas ... to develop the skills and values that [students] will need for life". The National Curriculum in Finland includes creative problem solving skills. Hungary includes knowledge, skills and attitudes in its National Curriculum. Nearer to home, the Welsh Bacc operates at three levels and has a strong core programme. Its website states that "it combines personal development skills with existing qualifications like A Levels, NVQs and GCSEs to make one wider award that is valued by employers and universities." The International Baccalaureate "seeks to promote the whole person through an emphasis on intellectual, personal, emotional and social growth". England has much to learn from these proven qualifications.

Community-based and work-related learning

Schools and colleges should allow space for community-based learning. Deep and sustained learning within a community setting allows students to learn in, and make connections to, the communities in which they live. Making the world of school relevant to the one in which they live improves engagement in young people[5] and teaches learners how to apply their skills and knowledge to real world problems. Learning in the community is not new; indeed, many notable PISA performers, including Singapore, Canada and Australia, use it to enhance the

3 Department for Education, Schools White Paper: The Importance of Teaching (2010) p42
4 Ibid
5 Futurelab, Enquiring Minds, Engaging Schools (2007)

learning of their students. It empowers students by showing them how their actions can have real-world impact and has a role to play in encouraging students to think of themselves as members of a community who can have a positive influence upon it[6].

Work-related learning also offers opportunities for the development of useful skills and knowledge alongside each other. Engaging young people in work-related learning projects improves student engagement and reduces the number of young people abandoning compulsory education early[7]. Work-related learning in the US is associated with higher grades and better motivation[8]. Studies have found that work-related learning helps students to: "gain knowledge and skills in particular occupations; providing career exploration and planning; learning all aspects of an industry; improving personal and social competence related to work in general; and enhancing students' academic achievement and motivation through contextual learning."[9]

Conclusions

Although the Government is emphasising the supremacy of academic content, the importance of knowledge and skills together must continue to frame the way in which schools and colleges deliver the curriculum. Without the capacity to critically evaluate knowledge learned, as well as the ability to use and apply it, the usefulness of subject content cannot be realised. Projects such as the RSA's Opening Minds or the Paul Hamlyn Foundation's Learning Futures show how knowledge and skills can be taught in tandem, even when the content has been defined externally. By looking out towards projects such as these, schools and colleges can design curricula fit for the 21st century.

Dr John Dunford is chair of Whole Education and of the Chartered Institute of Educational Assessors. He was formerly head of a secondary school and general secretary of the Association of School and College Leaders.

6 Crick, Education for citizenship and the teaching of democracy within schools (1998)
7 J Kemple & J Snipes, Career Academies: Impacts on Students' Engagement and Performance in High School, (2000)
8 W Swail & E Kampits, Work-based Learning and Higher Education: A Research Perspective, Education Policy Institute (2004)
9 P Chin, H Munby & N Hutchinson, Post-secondary students' intentions for participating in high school co-operative education programs: a descriptive study, Journal of Vocational Educational Research 25(2) (2000) pp126-54

What about the majority? Rethinking post-16 opportunities

Alison Fuller

Year after year the annual August media fest surrounding the publication of the A Level and GCSE examination results in England paints a glorious picture of academic success. There are stories of individual young people achieving breathtaking numbers of A* grades and overall rising pass rates. In addition, successive governments have focused on increasing participation in higher education to include more students from lower socio-economic groups. This background risks creating the perception that the majority of 18 and 19 year olds are now progressing to university. This is not the case. Recent figures indicate that the participation rate for the 2009/10 entry cohort was 36 per cent[1]. Moreover, Alison Wolf's recent Review of 14-19 Vocational Education showed that only a third of 16 and 17 year olds are pursuing three or more A-levels in the 'clear academic route'. Around two-thirds of young people are not on track for higher education but their trajectories attract much less policy and media attention. In this essay, I explore patterns of participation for the majority of post-16s and argue that there are longstanding systemic weaknesses in the English education system. I conclude by calling for policy makers to take the opportunity created by the raising of the participation age (RPA) to 18 in 2015 to conceptualise the post-16 phase as a 'transition system' with the purpose of creating transparent, high-value pathways to further or higher education, or the labour market for all young people.

Opportunities for the majority

If well over 60 per cent of young people are not following what is sometimes termed 'the royal route' to university, what are they doing? Apprenticeships might be perceived as the alternative 'flagship' route promoted by successive governments in recent years. The Coalition government, building on the direction of travel set by the previous government, has made repeated announcements about the expansion of the apprenticeship programme and its determination to allocate extra public funds to support this, in the face of widespread cuts elsewhere in the public sector. However, inspection of the official statistics indicates that only six per cent of 16 to 18 year olds are in apprenticeships, and the vast majority of these are located at Level 2. Although obtaining an apprenticeship even at Level 2 ensures that participants gain some experience of employment, training and access to qualifications, too often they fail to provide a robust enough scaffold to facilitate young people's career or educational progression[2].

Of the remaining post-16 cohort, approximately half are pursuing courses at Level 2 or below and about a quarter are pursuing at least one qualification at Level 3. Just over seven per cent of 16 to 18 year olds fell into the NEET category[3] - Footnote at right. The Wolf Review made the headlines

1 HEFCE, Trends in Young Participation in Higher Education: Core Results for England (2010)
2 See: A Fuller & L Unwin, Change and continuity in apprenticeship: the resilience of a model of learning, Journal of Education and Work 22(5) (2009) pp405-416; A Fuller & L Unwin, Participation by 16-19 year olds in education and training – vol. II, oral and written evidence, House of Commons Education Committee (2011)

for exposing the weak currency and value of low-level vocational qualifications stating: "… on even the most conservative of interpretations, it seems clear that at least one in five of each cohort is getting very little benefit from the post-16 education system."[4] Within a context in which Awarding Bodies and providers are competing for students, there is a danger that attention is concentrated too narrowly on qualifications and particularly the numbers awarded. There should be more focus on understanding the characteristics of, and challenges involved in, creating a strong post-16 'transition system' consisting of transparent programmes of study with clear goals, content and processes, as well as clarity about how pathways articulate and what they lead onto. In the space available here, I want to focus on three of the issues that reveal the challenges we face if more young people are to have access to good post-16 provision once the RPA comes into force.

First, in a powerful paper, Shavit and Muller[5] identify the importance of examining the extent to which countries' upper secondary systems have strong or weak 'diversion effects' and strong or weak 'safety nets'. By diversion effects, they refer to how stratification of the cohort into academic and vocational streams (or different schools) with little permeability between them has the effect of diverting young people from lower socio-economic groups into vocational pathways, leaving them under-represented in the academic route. The notion of a safety net is used to refer to the extent to which the linkages between the vocational tracks and the labour market support young people's successful transition to work. Normally, those systems with strong diversion effects, such as Germany, also have strong safety nets. This is because a large proportion of young people (up to 60 per cent) participate in an apprenticeship system that is characterised by strong linkages to employment, reinforced by formal labour market arrangements. The strength of this approach for individuals from less advantaged backgrounds is that they have very good chances of obtaining skilled jobs. The flip side is that the lack of movement between tracks seriously limits their ability to progress to higher education. Despite the expansion of higher education in the UK, research has shown that the current education system is still stratified:[6] young people from disadvantaged backgrounds are less likely to participate. The additional concern for this country though is that there is also a relatively weak safety net for young people because of the small size of the apprenticeship route and the generally weak linkages that exist between education and work.

The second issue refers to the lack of standardisation that imbues post-16 provision. Lorna Unwin and I have written extensively about the variation that exists in the apprenticeship programme, whereby young people ostensibly doing the same apprenticeship in the same sector can have wildly differing experiences and outcomes. What surprised me in a recent EU funded research project[7] (involving Austria, Denmark, England and Germany) on general vocational qualifications at Level 3 was also how much scope there was for variation in students' experiences, even if they were all following full-time courses. Our research[8] indicated that depending on the type of educational institution, the local links it has developed with employers and the energy and commitment of teachers, young people doing the same course may or

3 Department for Education, NEET statistics (2010) http://www.education.gov.uk/16to19/participation/neet/a0064101/16-to-18-year-olds-not-in-education-employment-or-training-neet
4 A Wolf, Review of Vocational Education, Department for Education (2011) p52
5 Y Shavit & W Muller, Vocational Secondary Education, European Societies 2(1) (2000) p29-50
6 M David (ed), Improving Learning by Widening Participation in Higher Education (2009)
7 Details about the project, country reports and presentations are available from the project website at http://hq-lll.eu/
8 G Davey & A Fuller, Best of Both Worlds or Falling between Two Stools?: The case of hybrid qualifications in England (2011). Second Country Report available to download at: http://hq-lll.eu/presentations/Second_country_reports_2011/July%202011%20England%20report.pdf

may not have access to additional provision, for example, the chance to obtain coaching and life-guarding certificates for Sport and Leisure students. Moreover, they may or may not have access to any work placement as an integral part of their programme. This sort of variation creates a considerable challenge for employers and higher education providers – how can they develop shared understandings of what the provision means, how can they trust the quality of the product? In comparison with the other countries involved in the research, the lack of standardisation in the English system was startling, and is likely to create higher transaction costs. Trust developed over time but on an ad hoc basis between local institutions is vulnerable to being undermined when, for example, key individuals move on.

Third, in relation to the length and intensity of provision, England was also out of line. In this country, full-time study post-16 is defined as requiring (only) 15 or 16 contact hours a week[9]. This was much less than in our partner countries in the research. For example, in Austria, a full-time college-based programme that prepares them for entry either to higher education or the skilled labour market takes up to 40 hours (contact time) a week for five years (ages 14 to 19).

In a speech on 12th May 2011 Michael Gove stated:

> 'Securing our country's future relies upon us developing our own world-class education system, from which young people graduate not just with impeccable qualifications and deep subject knowledge but also with the real practical and technical skills they need to succeed.[10]'

There is someway to go before we can claim to have achieved this aspiration. In my view, there is a need for a real debate about the purpose of post-16, (or upper secondary) education and training. A sensible starting point would be to think about it as a 'transition system' with a clearer mandate to improve the educational and vocational prospects of all participants. This would help concentrate attention on a range of key issues including diversion effects and inter-path permeability, the strength of safety nets, standardisation, length and intensity, and progression opportunities that need to be addressed. From a research perspective, we also need to know much more about the aspirations and 'lived experiences' of the majority of 16 to 18 year olds who are not in the solely academic track, and are currently navigating their way through an uncertain landscape.

Finally, of course, the elephant in the room is to what sort of labour market are young people in transition, to what extent will a better designed and quality transition system produce well-educated and qualified leavers who are able to find jobs offering further training and career development?

Alison Fuller is Professor of Education and Work, and Head of the Lifelong and Work-related Learning Research Centre at the University of Southampton.

9 Examples would include full-time (two year) courses such as BTEC Nationals or the pursuit of three A-levels.
10 M Gove, Oral Statement: Wolf Review of Vocational Education: Government Response (2011)

Supply and demand for further education: a Principal's view

Dave Linnell

The acquisition of education and skills is an essential prerequisite to the achievement of economic growth, personal achievement and social equality. Faced with increasing global competition, a vibrant further education sector is crucial to the development of the skills essential to continued economic competitiveness. On numerous occasions, senior politicians have suggested that "FE's time has come" but this has never become a reality. Despite the current financial pressures on the sector, Further Education (FE) maintains its ability to make a major contribution.

Recent developments and current practice

The FE sector has many effective organisations providing education and training opportunities of the highest quality for individuals and businesses. However, it is a sector that is heavily audited. A minority of failings in self-regulation have led to excessive auditing that absorbs resources that could have been spent on teaching and learning. There are also a number of institutional barriers discouraging work with schools and higher education. Only a commitment to partnerships, and a desire to provide the best for learners, can overcome these barriers.

The FE sector has become focussed, flexible and dynamic despite, not because of, frequent and unpredictable changes in policy. Repeated changes to the curriculum, funding methodologies and organisational structures have created confusion, wasted effort and led to some lack of confidence in FE. These changes have been far greater than those in schools or the HE sector but have taken place almost unrecognised outside of FE. They have shown a country that lacks a coherent vision and plan for its skill development, despite the many attempts to create one.

FE has a crucial role in the economic and social fabric of communities. Providing education and training opportunities for all is the mission of FE. Communities look to their FE college for the development of skills, and colleges are very aware of the needs of their community and of businesses. Yet frequently national priorities create a barrier to meeting these aspirations. Explaining to an individual or firm that their needs are not a funding priority creates frustrations and a lack of confidence. It is heartening that the simplificiation of funding streams and creation of the 'Single Pot' has recognised the need for local autonomy. This is a development that must continue, giving FE the opportunity to interpret and apply national policy in the local context.

The post-14 curriculum in England is the most complex in Europe. This, together with declining provision of advice and guidance, makes it more difficult for learners to understand the qualifications available to them and the pathways to future employment. Imposing new qualifications without removing existing ones has created confusion, reinforcing the reputation of traditional pathways. Discerning learners, aided by supportive parents, might understand the complexities but others make poor choices. Greater clarity is needed on the post-14 curriculum framework and improved information is needed for learners and parents.

The organisation of FE has been characterised by structures that are complex and expensive. There has been some reduction in the number of agencies but these agencies and the sector are confused about their functions. Separation of responsibilities for FE, schools and higher education creates confusion and competition and undermines the potential for FE to be more effective in the delivery of education and skills. Separation of funding for FE colleges and HE makes no sense as the higher skills agenda evolves.

Where FE is at its best it is characterised by organisations that are embedded in their communities, and communities who feel they have a stake in their college. Partnerships are an effective way of using limited resources but can be time-consuming and made difficult by institutional barriers. Encouraging these partnerships is important in the development of education and skills. Partnerships between Cornwall College and schools have created vocational skills centres, whilst a partnership with the Fifteen Trust has had a major impact on educational and training. National and regional structures should be used to facilitate partnerships, as well as encouraging diversity in the type of education and training provided.

Funding of colleges is closely linked to success rates – i.e. the percentage of learners who successfully achieve their learning objective. This can have the effect of encouraging providers to offer courses that are easy to pass, while discouraging them from taking on students who might be risky. Particular providers might not be as responsive to the needs of those Not in Education, Employment or Training (NEETs) whose recruitment might affect success rates, funding and reputation. However, skill acquisition and retraining are important to economic development and social cohesion. Our experience at Cornwall College of supporting this group has been very favourable but, to be effective, it needs partnerships. This can be more expensive but the outcomes justify the costs.

Vocational education and skills are not valued as much as their academic equivalents. Whilst the recent focus on promoting apprenticeships has raised their profile, it has failed to convince learners and their families of the financial opportunities that derive from successfully completing vocational and work-based programmes. The availability of apprenticeships also depends on the willingness and ability of employers to offer them. Greater priority must be given to the importance of achieving technician level qualifications.

Towards a demand-led FE system

So, how can FE ensure that it is demand-led with a focus on the needs of students, employers and the community? Payment of fees will bring greater accountability to providers and there is recognition that this will be a feature of the funding as we move forward, as we have already

seen with the introduction of pilot Job Outcome Payments. However, individuals and employers need to have more influence on the qualifications they think are relevant to them, with the onus being on providers to ensure that their provision meets these needs and demands. This needs to be complemented by financial support that allows individuals to obtain the skills relevant to them. Public funding should be targeted at allowing individuals to access education and training that allows them to secure employment and play a positive role in society. However, some changes in policy are necessary. Changes in employment and labour markets might require individuals to retrain at the same, or even a lower level – the current funding policy makes this difficult. In addition, improved information and guidance is essential if a demand-led system is to work effectively.

The new economy which emerges over the next two decades will demand higher level skills. Clarity is needed on what this will mean for colleges, and frameworks will have to be co-designed by providers and businesses. The distinction between further and higher education needs to be abolished and development of employer-focussed higher education continued. Degree courses delivered in FE colleges should have employability skills embedded into the programme.

Conclusions

Whilst supporting the principles underlying the present thinking that public services should be built on fairness, freedom and responsibility and that individuals and firms should contribute to costs, I believe that artificial barriers separating educational institutions, should be removed and greater trust placed in providers with a proven track record.

Demand for FE needs to be consistently encouraged and facilitated, if the skills the UK needs to compete effectively are to be developed. The supply of Further Education, whether in the private and public sector, will respond to this demand. This requires a coherent strategy running through compulsory education into the post-compulsory phase, with a curriculum that is flexible but is underpinned by essential principles. The skills agenda has to engage learners, parents and business, and be credible with them, with clear pathways to employment and future training. The grant from the state towards the cost of skill training needs to be easy to understand and targeted to meet education and business needs. The preconditions for an effective post-compulsory sector are in place but consistency and coherence in policy is paramount.

Dave Linnell has been Chief Executive of Cornwall College since February 2009. He was Principal of John Leggot College, Scunthorpe from 1990 to 2006, leading it to Beacon College status. He was awarded an OBE for services to education in January 2006.

The accidental loss of vocational higher education

John Randall

"Whatever happened to the HND?" is a question asked by employers, and by many of our overseas competitors, who find it hard to understand why a two year, vocational programme has largely vanished from mainstream higher education in England.

Research by UKCES[1] has found that the density of broad skills shortages *"is greatest in associate- professional, technical [and] skilled trades and personal service occupations"* and that *"the increasing importance of higher and intermediate jobs in some of our key existing and emerging sectors"* gave growing importance to intermediate vocational career pathways, from Level 3 up. It is precisely these needs that qualifications such as the HND were designed to meet. So why has provision shrunk whilst need has grown?

The mission drift away from vocational higher education

The problem goes back to the terms of the Further and Higher Education Act 1992, which allowed polytechnics and some other colleges to become universities. Seduced by their new titles and enhanced status, a number of these institutions sought to adopt a research-led approach to their teaching, accompanied often by a reduction in the availability of vocational courses, and a significant shift away from one-year and two-year courses, in favour of full degree programmes. The impact of this shift in emphasis was then magnified by the expansion of higher education. A policy target was adopted of half of the age cohort passing through some form of higher education. For 50% of the cohort to gain an honours degree was never a sensible policy, in relation to the needs of the labour market. But higher education is defined as anything above A Level/OND. An ambition for only 50% of the age cohort to have a qualification beyond that gained at the age of 18 or 19 is worryingly modest. Yet, in practice, universities chose to interpret the 50% age participation target as meaning that all must have degrees. The one-year and two-year qualifications valued by employers were simply not on offer.

How did this happen? Put simply, universities will do what they are paid to do. But if they are paid without being told what to do, they will do what they like. And they like teaching for degrees.

Degree level, research-led teaching is seen as having a higher status than sub-degree, employment-led teaching, and a research track record is often seen as the route to promotion. Not surprisingly, individuals will always look for opportunities to take on higher level work, and the sum of that entirely understandable individual ambition will shape the direction taken by the university. That direction is reinforced and justified by universities by reference to student

1 UKCES, Skills for Jobs: Today and Tomorrow – the National Strategic Skills Audit for England 2010, Volume 2: The Evidence Report (2010)

demand. Student demand has been conditioned, in part, by the rhetoric adopted in relation to student fees, that graduates have higher lifetime earnings. The fact that vocational qualifications also enhance life chances and earnings did not feature in the public discourse. Student demand is shaped further by the advice given by school teachers, whose own experience of higher education is, in general, academic rather than vocational. So the degree becomes the qualification of choice amongst applicants.

This would matter less in a system built on individuals spending their own money and universities responding to the market so created. But higher education depends on substantial public investment, and this will remain so even after the recently announced reforms to higher education funding. The state is entitled to have a voice in determining the priorities for taxpayer funded higher education. The Further and Higher Education Act 1992 muted that voice.

The Further and Higher Education Act 1992

At its best, higher education, in all its forms, is a transformational experience for the individual, gained through study at the current limits of our knowledge and understanding. There are two broad, and overlapping paradigms of higher education, the research-led and the employment-led. They overlap most obviously in fields such as medicine, but even in disciplines which have little immediate connection to particular jobs, intellectual skills are developed which are of obvious application in many fields of employment. The ability to "critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution – or identify a range of solutions – to a problem,"[2] to quote the words of the generic descriptor of the honours degree, is of significant relevance to employment.

But it is not enough simply to point to the generic intellectual skills of a graduate as a justification for leaving universities to teach whatever they like. If 50% of the age cohort is to pass through higher education, it follows that 50% of the first time entrants to the labour market will come from higher education. Neither universities nor government can ignore the reality of that interface with employment.

Prior to 1992, there were separate funding bodies for the universities on the one hand, and for the polytechnics and colleges on the other. As a part of the unification of the higher education sector, and the granting of university status to most higher education institutions, the two funding councils were merged to form the Higher Education Funding Council for England (HEFCE). Amongst the pre-1992 universities there were concerns that the new funding body, with its interests in both employment-led and research-led approaches to higher education, might represent a threat to the traditional autonomy of universities in teaching and research. There was a campaign to amend the legislation, as it passed through Parliament, to introduce explicit safeguards for that autonomy. The campaign succeeded, and introduced limits on the Government's ability to shape spending which went considerably beyond those contained in earlier legislation.

The Universities Funding Council (UFC), like the University Grants Committee which went before it, was designed to act as a buffer between the Government and the universities. The

2 QAA, Qualification descriptor for the honours degree, The Framework for higher education qualifications in England, Wales and Northern Ireland (2008)

Education Reform Act 1988, which established the UFC, provided that any condition subject to which the Secretary of State made a grant to the UFC "shall not relate to the making of grants or other payments by the Council to any specified institution"[3]. In other words, it was for the UFC, not the Government to decide which eligible institutions were funded, and to what extent.

The Further and Higher Education Act 1992 continued the general power of the Secretary of State to place conditions on grants to the new HEFCE, so long as the conditions related equally to all higher education institutions, or to a class of such institutions, but did not allow conditions to relate to "activities carried on by any particular institution or institutions"[4]. However, s.68(3) of the Act went much further in placing restrictions on the conditions to which the Secretary of State might make grants to HEFCE subject. It said:

> "Such terms and conditions may not be framed by reference to particular courses of study or programmes of research (including the contents of such courses or programmes and the manner in which they are taught, supervised or assessed) or to the criteria for the selection and appointment of academic staff and for the admission of students."

In short, there was to be no role whatsoever for the Secretary of State, on behalf of the Government, the taxpayer or the employer, to express any view on the programmes of study which were to be supported by public funds. At one level, and for a proportion of public funding to universities, this is entirely appropriate. It is right that universities should receive some funding which is entirely unfettered, to support scholarship, no matter how unfashionable or unpopular. And an arm's length funding body is a good way of providing that funding. But, in a unified higher education system, which brought together the research-led traditions of the universities and the employment-led traditions of the polytechnics, a funding mechanism which safeguarded one tradition ran the risk of undermining the other. And that is exactly what happened.

International experience

Many other countries looked on the reforms of higher education embodied in the 1992 Act as a warning of what could go wrong if nothing was done to protect and enhance the employment-led tradition. In the late 1990s, the South African education minister Kader Asmal expressed his determination that the transformation of higher education which followed the apartheid era should not suffer from the same mission drift. He said: *"We will not make the same mistakes you did."*[5]

Different countries have adopted different strategies to maintain the plurality of provision as higher education has expanded. Some have simply maintained the binary line, which the 1992 Act abolished in England. In the Netherlands a distinction has been maintained between the universities offering Wetenschappelijk Onderwijs (research-oriented higher education) and the hogescholen offering Hoger Bereopsonderwijs (professionally-oriented higher education).

A similar division is maintained in Ontario, Canada, where the Ontario Colleges have a role distinct from the universities. The role is: "to deliver a comprehensive program of career-oriented, postsecondary education and training that: assists individuals in finding and keeping employment; meets the needs of employers and the changing work environment; and Supports

3 Education Reform Act 1988, s134(7)
4 Further and Higher Education Act 1992, s68(2)
5 Private conversation with the author

the economic and social development of their local and diverse communities"[6].

Within the Ontario College system there are pressures to increase the number of vocational degree programmes, potentially at the expense of shorter courses. In some cases the demand of some types of employment for degree level capabilities is undeniable, and it is proper for the Colleges to meet those demands. Nevertheless, the overall mission, reinforced by the Ministerial directive, by provincial quality assurance arrangements focused on the College role, and by funding remains robustly employment oriented.

Hong Kong offers a different model. In the Netherlands and Ontario, intervention to ensure that employment needs are met is at the level of the sub-sector. In Hong Kong it is at the level of the institution. Each of the eight publicly funded institutions has a role agreed with the University Grants Committee and the government. Three have a role which is explicitly research-led[7], three have roles which are related to professional and higher vocational education[8], and two have a liberal arts role[9]. Since 2004 a Performance and Role-related Funding System has been used to inform the triennial funding allocations made by the University Grants Committee on behalf of the Government. Each institution has to submit an Academic Development Plan, and this is judged, inter alia, on effectiveness of performance against the agreed role, and adherence to that role. A percentage of funding (the "competitive allocation") – 6% in the 2011 exercise – is put at risk. An institution which fails to perform effectively, or fails to adhere to role, could lose all or some of that funding. All institutions may also submit bids for additional funding from the pool of funds placed at risk. The funding mechanism is thus able to transfer resources from those who are most effective in adhering to and discharging their role, at the expense of those performing less well, or drifting away from their agreed role. This provides a powerful incentive to adhere to role.

In addition, the Hong Kong government earmarks a number of the places it is prepared to fund. The University Grants Committee is obliged to devote a proportion of its grant to these "manpower planned" places. Most are in fields in which the Government has a direct interest, such as medicine, dentistry, professions supplementary to medicine, social work and teaching. In the past places in law have also been specified, but these are now left to the market judgement of institutions.

What happened in England?

In England there were two responses to the mission drift away from vocational provision. Just as in Hong Kong, the Government has a direct interest in some forms of vocational higher education. Providing funding to universities and colleges through the HEFCE mechanism would not allow specification of programmes to meet specific needs. So funding for programmes designed to prepare students for employment as schoolteachers, or in the NHS, is provided through different routes. For school teaching, funding is via the Training and Development Agency for Schools (TDA), whereas the NHS, in respect of many of its requirements (notably in nursing), commissions training from universities through a process of competitive tendering. A similar approach is adopted by the National Offender Management Service (NOMS) in respect of the training of probation officers.

6 Ontario Ministry of Training, Colleges and Universities, Minister's Binding Policy Directive (2003) revised (2009)
7 The University of Hong Kong, the Chinese University, the University of Science and Technology.
8 Polytechnic University, City University and the Institute of Education
9 Lingnan University and Baptist University

The funding provided by these Government agencies is for specific programmes, and conditions can be attached to the funding to enable an agency to specify the detail of what is taught, or the balance between types of programme, to ensure that employment needs are met. There has been no reluctance on the part of universities in accepting funding which comes subject to such conditions.

The second response was a more general initiative to re-introduce two-year, vocationally relevant programmes, in the form of the foundation degree. There is an expectation that employer interests will be engaged in the specification of such programmes, and a number of Sector Skills Councils have had an involvement. There are now 100,000 students enrolled on foundation degree programmes at any one time, so they have met with some success.

However, the design requirements[10] for the foundation degree contain an expectation that there will be an articulation between the degree and the final year of at least one honours degree programme. This means that whilst the learning outcomes for foundation degree programmes may be based, in part, on employment needs, they must also be equivalent to the point reached by a student at the end of the second year of a three year honours degree programme. This runs the risk that outcomes based on employment readiness may become subservient to the requirement to provide progression to an honours degree.

What should be done?

From 2012 there will be a major change in the funding of higher education, with most of the money to support teaching coming from loans, brought by students to the institution, rather than by direct grants from HEFCE. This will create a market of student demand, which may go some way towards redressing the balance between the research-led and employment-led traditions of higher education. However, by itself this change may not be enough.

First, the change does not give any direct voice to employers. At present, public sector employers have some ability to specify the programmes which are offered in higher education, through the commissioning arrangements which sit outside HEFCE, involving bodies such as TDA, the NHS and NOMS. It would be equitable to allow private sector employers an equivalent influence. A possible mechanism for this would be to give a role to the UK Commission on Employment and Skills, of advising HEFCE on the allocation of a proportion of its funding, in accordance with priorities determined through the engagement of UKCES with Sector Skills Councils and employers generally. The funding thus influenced would fall within the residual direct funding of teaching, envisaged in paragraph 1.25 of the recent White Paper[11]. This says that HEFCE should continue to fund "… public policy priorities that cannot be met by a student-led funding system alone" and that direct funding support may be appropriate "… where it is necessary to ensure supply of graduates".

The legislation necessary to implement the proposals of the White Paper[12] could provide an opportunity to consider whether the restrictive provisions of s.68(3) of the Further and Higher Education Act 1992 remain appropriate. Unfettered funding remains appropriate for some university activities, but an ability to support employment-related programmes in some fields, and to specify these, would seem to follow logically from the policy set out in paragraph 1.25 of

10 QAA, Foundation degree qualification benchmark (2010)
11 Department for Business, Innovation and Skills, Higher Education: Students at the Heart of the System (2011)
12 Ibid

the White Paper.

Second, student choice needs to be better informed. The White Paper proposal[13] that information should be available, by institution and course, on likely future earnings, has the potential to assist in this. Awareness that some courses are available because employers have asked for them to be funded will also be relevant. But there remains a need for applicants to have access to careers advice from those with direct experience of employment in the fields to which vocational higher education can lead.

Third, students can only choose from such courses as are available. Availability will be shaped by student demand, and could be shaped additionally by employer input. Capital funding by HEFCE also has a role to play, as capital investment shapes the pattern of provision. This could be of particular relevance in ensuring the provision of two-year technician level programmes, which will have laboratory and workshop costs. The proposed new single regulatory framework for higher education[14] must provide appropriate incentives for alternative providers of higher education, from the private and voluntary sectors, to offer employment-led programmes.

Finally, the design requirement for foundation degrees to provide a direct pathway to the final year of an honours degree programme should be removed. Any such articulation should be an incidental benefit, not a requirement. The primary requirement should be that the foundation degree, like the HND before it, produces work-ready graduates.

Conclusion

All higher education develops generic, transferable intellectual skills which are relevant to employment. But with higher education providing a substantial number of the first time entrants to the labour market, there is a need also for more specific employment-related abilities to be developed, through at least a proportion of higher education programmes. A better balance is needed between the research-led and the employment-led traditions of higher education.

Funding shapes behaviours. Students taking on a greater responsibility for the costs of their study may help shape the market of student demand. But the market of employer need must also be able to direct some public funding. This does not require additional funding, merely better direction of whatever funding Government is able to provide.

Intervention to secure employment-led higher education may come at the sub-sector level (as in the Netherlands and Ontario), at the institutional level (as in Hong Kong), or at the programme level (as with teaching, NHS and probation programmes in England). Given the way in which higher education has developed over the last two decades, and the desirability of enhancing parity of esteem between the employment-led and research-led traditions, a return to a binary system is not sensible. At the institutional level, with likely changes in the pattern of student demand arising from increased fees, and the focusing of the main research spend on a relatively small proportion of institutions, some institutions may well adopt a more specifically employment-led mission anyway. But the greatest potential for intervention is probably at the programme level, where some direction of the residual direct funding of teaching offers a

13 Ibid, paragraph 2.18
14 Department for Business, Innovation and Skills, A New Fit-For-Purpose Regulatory Framework for the Higher Education Sector (2011)

promising way forward.

John Randall is a higher education and professional training consultant. He is a former Chief Executive of the Quality Assurance Agency for Higher Education, former Chair of Skills for Justice and former Director of Professional Standards and Development at the Law Society.

When will we ever learn?

Alan Tuckett

The need for lifelong learning has never been as clear as it is today. Demographic change means that with fewer labour market entrants there is a greater premium on enabling older workers to upgrade skills and prolong their working lives. The pace of industrial change means that people often need to prepare mid-career to take on wholly different areas of work. It means, too, that people who have weak literacy and numeracy are vulnerable in an economy where more and more jobs need higher levels of skill. Educating parents has a marked impact on the performance of their children at school. There is powerful evidence, too, that carrying on learning delays morbidity – making essential savings on health budgets stretched to the limit by the demands of a population with dramatically more people over the age of 80. And with all these challenges to confront, education for our increasingly diverse community to foster well-informed and active citizenship must make sense.

Why then, despite the good intentions of well-meaning politicians are we still so far from a coherent strategy for lifelong learning? It is not for want of trying. For twenty-five years successive governments have declared their commitment to lifelong learning and the creation of a learning society. Each adopts new targets, and declares a new dawn, in which we will increase the competitiveness of the nation by capturing the imagination of employers and transforming the skills of the workforce. Less often there is a complementary nod to the need to support a vibrant civil society through broad-based opportunities in life-wide as well as lifelong learning. After a year or two, officials change, and all too often ministers with them. Policy memory is lost. Initiatives stumble on – orphans in a world of frenetic change. Then a new broom arrives, and after re-organising the Department of State responsible sets about making a new commitment – very much like the last, but without the benefit that stable systems can provide in tackling thorny problems.

This is not to say that there have not been some valuable, indeed some inspirational, initiatives that have made a real difference. Support for Unionlearn – the brain-child of David Blunkett's period in office – has been endorsed across party boundaries. The renaissance of apprenticeship and the renewed confidence in the value of vocational learning is also welcome. The ten year old Skills for Life strategy has been impressive in supporting millions of learners through literacy, language and numeracy to acquire a first certificate. But there have been howlers, too, like the introduction of the policy that denies financial support to people studying for equivalent or lower level qualifications just when we need flexible and well-educated workers in middle age. And too often good ideas are tinkered with to distraction. The University for Industry (UfI, learndrect – the name changes), offers a clear example. It was created to offer the

high quality open and distance learning that the Open University provides in higher education opportunities has had more than a billion pounds of public investment – yet the almost annual changes in its remit mean that the return on that investment has been far more modest than could have been achieved with a stable remit.

The overall result of the nervous changes of focus, within as well as between governments, is frankly, less than impressive. Whether you measure our performance by productivity or workforce qualifications – the twin drivers of most public skills policy – the UK remains stuck outside the upper quartile of the OECD league tables, as our business led Commission for Employment and Skills (UKCES) reports each year. This is hardly surprising when you look at the European Union's analysis of investment in learning for the workforce. It shows that whilst large numbers of adults in the UK have some training, the time they get for training is less than half that offered in any other OECD country. Whatever the rhetoric, workforce skills development does not command the same priority in Britain as it does in comparable industrial countries.

But if the comparative record on productivity and workforce skills is weak, the position is far worse in equality of access to learning – where we are 23rd among OECD countries. Back in the eighties the CBI highlighted 'the long tail of under-achievement of the UK labour force'. It could repeat its critique today. Yet the best businesses and the public sector invest in the development of their staff as well as anyone anywhere. The difficulty comes in the lack of a regulatory framework which guarantees every worker access to training and every employer the assurance that their competitors will also bear the costs of staff development, as they invest in their own people. Lord Leitch recognised this when he suggested in his 2006 report that regulations should be introduced unless there was a sea change in voluntary employer investment by 2010.Whilst that proposal was quietly dropped long before the end of the decade on the recommendation of UKCES, it needs to be resuscitated as a key first plank of policy.

After all, the rhetoric of the last 20 years is surely right: everyone does need to invest more – individuals, employers and government alike, and Leitch's proposal would secure a minimum guarantee for people at all levels of seniority at work, where most adults get their chance for lifelong learning. It would also go some way to re-balancing current investment patterns – where 86% of post-18 spending is concentrated on 19-24s. Whilst public investment in further education increased by 50% in real terms under Labour, investment post-25 flatlined and then reduced.

In addition to a regulatory framework for learning at work we need for a properly balanced policy to have a vibrant range of learning opportunities where adults can make sense of the world around them, and imagine ways of organising it better. Community-based adult education is not, and cannot be an optional extra. A healthy democracy relies on such critical engagement. This is something uncontested in Finland and the Scandinavian countries, in Canada and Japan, Austria and Germany. Indeed, we established the German folk high schools in 1945 as a bulwark for democracy and cultural inclusiveness. Here, though, we have too often been in thrall to the Treasury's narrow utilitarianism.

Next, the NIACE Inquiry into Lifelong Learning two years ago proposed that we should seriously consider how schools can better prepare young people for learning throughout their lives – but held back from saying just how challenging it is to create a culture of lifelong learning when so many leave compulsory education with low levels of basic skill, poor self-esteem and curiosity and delight in learning squeezed out of them. No strategy can succeed altogether whilst we continue to fail so many in initial education. Elsewhere, NIACE has consistently argued the importance of complementing good schooling with a coherent focus on family learning – recognising the vital motivation engaged parents have on their children's performance.

Beyond school we need to sustain and enhance the right to basic skills – in literacy, numeracy, language, and – surely – in using information and communication technology. Yet despite the success of the Skills for Life Strategy, the half-million adults in greatest need remain substantially unreached – in part at least because the target regime focused providers' attention on learners with the shortest journey to an initial qualification. Linking those rights to the existing commitment to a first Level 2 provides a platform for further study, but it is at Level 3 that adults' life chances are most effectively changed. It is possible to design entitlements attached to different levels of support (as we see in higher education) – and vital if adults are to be encouraged to strengthen skills throughout working life. Within this policy portfolio we need clearer policies on learning for people migrating to the UK to work or settle. All our projections expect a continuing inflow, but we run our system as though their presence is a constant (and unwelcome?) surprise.

The current government's commitment to the creation of an all-age careers service is encouraging, and a necessary component of a coherent strategy – but there is a long history of policy initiatives in this area failing for lack of resources, and for lack of articulation with teachers and support staff working in provider institutions. But advice and guidance need complementing with motivational strategies, like Adult Learners' Week, which celebrate existing learners in their diversity, to encourage others to join in, as well as skilled outreach to engage adults in significantly under-represented groups.

The NIACE inquiry argued that we need to change how we collect and analyse statistics post-school, to recognise the differing demands for learning affecting different age cohorts, and that there is a learning life beyond conventional retirement. They identified young adults (up to 25), preparing for labour market entry and the responsibilities of adult life; adults between their mid-twenties and fifty, challenged to fit learning into busy working and family lives; people between 50 and 75 adjusting to a changing relationship to the world of work, and active in maintaining the fabric of civil society; and finally adults in the increasingly elongated phase of later life. Each has distinct learning needs and as a society we are currently better at meeting the needs of the first group. The NIACE inquiry argued that modest rebalancing of investment – made possible by the shrinking of the numbers in the youngest cohort could have a dramatic effect. It would lead to creative curricular innovation, and highlight the merits of providing entitlements to learning at key moments of transition (parenting, redundancy, retirement and bereavement spring immediately to mind) to facilitate change.

The sooner we move to a single tertiary system of further and higher education, where full-time and part-time students learn on equal terms, and where credit is portable anywhere the better. This government has made modest steps, but there is a long way to go.
In all these areas technology offers innovative and imaginative options for extending reach and making new connections, as do well qualified and professional teachers, working alongside the autonomous initiatives generated outside of public provision.

There is nothing in these proposals that has not been considered in recent debates. But take them together and we would be well on the way to achieving the vision elaborated by Jacques Delors in the UNESCO report, Lifelong Learning: The Treasure Within, where he argued that there were four pillars of a learning society - learning to know, learning to do, learning to be – I might have said learning to become – and learning to live together – and that an effective policy needed to address all four. We would, too, move beyond the repetitive cycle of recent policy failures.

Alan Tuckett is President of the International Council for Adult Education. He was Chief Executive of the National Institute of Adult Continuing Education (NIACE) from 1988 to 2011, and previously worked as Principal of a further education college. He was awarded an OBE in 1995.

5. INTERNATIONAL

Vocational education and skills policy in Australia

Tom Karmel

Australian vocational education - a definition

Vocational education and skills is not a term that is used in Australia. Rather we talk about vocational education and training (VET), although other terms have been used including technical and further education, and vocational training and education. VET is surprisingly difficult to define in the Australian context. An obvious characterisation would be education and training with an occupational focus, but this does not distinguish it from higher education which provides occupational training for a wide range of occupations such as medicine, engineering and accounting to name a few. To restrict the notion of VET to sub-professional occupational training would not be useful because of changing qualification requirements for many occupations. Credential creep has seen many occupations requiring degrees as an entry qualification where lower level qualifications were previously sufficient. Qualification levels are a possibility, but under the Australian Qualification Framework diplomas are delivered in both VET and higher education, as are post-graduate diplomas and certificates. An institutional framework also does not provide a clean delineation, with the majority of universities registered to deliver VET qualifications, a number of dual sector institutions (the Royal Melbourne Institute of Technology, for example) operating in both sectors and a few Technical and Further Education (TAFE) institutes delivering higher education degrees. All in all, VET in Australia cannot be tidily defined.

What we can do, however, is point to some distinctive features of VET in Australia:

- It is centred around certificates I-IV, diplomas and advanced diplomas. To give this some context, the certificate III is the central qualification for trade training, and certificate IV generally introduces managerial competencies. Advanced diplomas are broadly comparable (at least in effort) to two years of a bachelors degree.
- It covers almost all fields of education, with the exception perhaps of the physical sciences. Its target occupations cover all occupational groups apart from the professions. While VET is described in occupational or industry terms, most of it (the trades and caring occupations being the exception) is generic in nature, if not intent, with a very loose match between the training and the occupations in which the graduates end up working.
- Courses are based on competencies specified in 'training packages'. These packages are developed by Industry Skills Councils and centrally endorsed through a national committee, the National Skills Standards Council. The packages provide guidance on the skills to be learnt and assessed, but do not set out how the training should be delivered.
- Pedagogy is distinctive, with competency-based training delivered in classrooms, remotely and

in the workplace. Classroom delivery typically involves small classes, unlike universities where lectures are delivered in some cases to many hundreds of students.
- An important element of VET is the delivery of the training component of apprenticeships and traineeships, although apprentices and trainees make up less than a quarter of students.
- The student body is very broadly based in comparison to universities, with a preponderance of part-time students, large numbers of older students, and high representation from disadvantaged groups.
- Funding and accountability is quite separate from the higher education system, reflecting Australia's federal system more than any innate logic.
- Students in publicly funded places pay relatively low tuition fees; otherwise they pay full commercial fees (although income contingent loans are available for diplomas).

The VET industry consists of over 5,000 registered training organisations, varying from niche providers to large TAFEs such as Sydney Institute with 60,000 students. Historically these providers were regulated by authorities in each state or territory, but this is changing with the creation of a national body, the Australian Skills Quality Authority (to which all states except Victoria and West Australia have referred powers). Tables 1 and 2 provide a snapshot of the publicly-funded part of the sector. Official statistics are not available for the full-fee places at non-government providers, but a number of estimates put that part of the sector at over 40% of overall provision.

VET reform

The fundamental reforms to the sector occurred in the early 1990s with the introduction of competency-based training driven by national industry-based skills councils. The other fundamental reform was the 'marketisation' of the sector – a transition from TAFEs that were essentially extensions of state education departments to a market in which over 5000 providers compete for government funding, as well as for students. The earliest manifestation of this shift was the introduction of 'user choice' for apprenticeships and traineeships which allowed employers to choose any registered training organisation to deliver the formal training component of the apprenticeship or traineeship.
While these changes are now embedded, governments continue to stress the need for further reform. The recent Council of Australian Governments Meeting communiqué of 19 August 2011 Revitalising the National Vocational Education and Training System sets out the latest official pronouncements. The main ingredients of the directions mooted in the communiqué are:

The desirability of moving towards a demand-driven system with greater contestability of funding for publicly-funded training and greater competition between providers. Demand driven means that either students or enterprises can choose their registered training provider. Contestability means that the government TAFEs will not be guaranteed market share, although their role in addressing disadvantage privileges them to some extent. While the rhetoric is about competition, the delivery of publicly-subsidised training is not a real market, with the government setting its contribution to the cost of delivery and putting strict rules around any additional tuition fees. One issue is the extent to which demand is specified through an entitlement or whether it is capped or constrained in some way. The Victorian entitlement model, arguably the purist exemplar of a demand-driven model at the moment, allows anyone

to enrol in any course and get a public place if the course is at a higher level than the highest qualification the person already has. By contrast, in the South Australian model the program is driven largely by student demand, but the government reserves the right to apply caps and incentives to help 'manage' the market. One suspects that any government would be somewhat nervous of a pure entitlement model because of the potential for a budget blow out.

More higher-level qualifications. All evidence points to higher-level qualifications (that is, diplomas and degrees) having better employment and wage outcomes than certificates. Thus there has been a push for some years to increase the number of diplomas that are delivered. At the same time, the government has set ambitious targets for the proportion of the population with a degree (40% of 25-34 year olds). These two policy goals may not be consistent because diploma and degree graduates tend to compete for the same jobs, and the evidence is that employers tend to favour degrees over diplomas. On the other hand, if diplomas become more of a pathway than a terminal qualification perhaps increases in provision of diplomas can co-exist with the expansion of higher education. In fact, the communiqué does refer to the importance of pathways between the sectors.

Greater transparency. Transparency is code for a number of developments revolving around information to inform consumer choice and provide public accountability. Current gaps that are being worked on include the collection of comprehensive data for the whole VET sector rather than just for the publicly-funded part of it, and the publication of performance information by provider. The former will be effected by making the provision of data a mandatory requirement of a training organisation's registration – not something that is popular with private providers. The latter would bring the VET sector into line with what has been happening in the school and higher education sectors, and again is likely to be controversial among providers. The current investigation into the introduction of a unique student identifier also falls under the need for greater transparency.

Improved quality. New regulatory arrangements have been introduced in both VET and higher education, primarily as a result of the collapse of a number of providers of education to international students. Thus there are two new national regulators: the Australian Skills Quality Agency, mentioned earlier, for the VET sector and the Tertiary Education Quality and Standards Authority for higher education. The stated intention is to bring these two bodies together in 2013 – although the very different cultures of the two sectors will make this difficult. One area that is explicitly mentioned in the communiqué is 'teacher development'. Again this needs to be translated for a lay audience. Unlike the school sector where an education degree is mandated, the minimum qualification for teaching in VET is a certificate IV in training and assessment. This qualification does not have to be obtained before commencing teaching. Indeed, a teacher can work under supervision of someone with this qualification. The preponderance of casual teachers makes this issue particularly salient. The Productivity Commission (the government's primary office for advising on economic reform) has already reported on this issue and further policy work is to be expected, most likely driven by either the Australian Skills Quality Agency (as the national regulator) or the National Skills Standards Council (with its responsibility for standards).

While not specifically mentioned in the communiqué there are two particular features of the Australian VET sector that have made it difficult to manage quality across the sector. These are the absence of external assessment or validation and the focus on skills rather than time served. Both of these emanate from the competency philosophy. In respect of the former, the role of the trainer is to ensure that the student is competent in the appropriate range of skills contained in a qualification; the role is not to prepare the student for examination. Similarly the focus on competencies implies that time served is irrelevant; what counts is whether the person is competent or not. However, this philosophy has led to cases in which diplomas, for example, are delivered over a weekend – it is difficult to see how high-quality training could have been provided in such cases. Regulation has focused on compliance with process rather than testing outcomes. These issues are very much alive in policy debates and it is to be expected that considerable attention will be paid to how assessment can be validated or moderated to ensure that poor quality training is stamped out.

Final comments

While recent reforms may not be in the same league as the move to industry-based competencies, their import should not be underestimated. Certainly, greater marketisation (allied to the concept of entitlement) is very significant. But also the move to greater transparency through more complete data and the publication of provider level indicators is a fundamental change to the way the sector has been managed. The sharper focus on quality is very welcome.

Tom Karmel is Managing Director of the National Centre for Vocational Education Research in Adelaide, Australia.

ACKNOWLEDGEMENTS

The Associate Parliamentary Skills Group and National Skills Forum would like to thank all the organisations and individuals who have contributed to this project.

Special thanks must go to City and Guilds and the Tec Trust Fund for sponsoring the project, Rosanna Fforde for her support, and our editorial advisory board – Nic Dakin MP, Geoff Stanton, Andrew Sich, and Jacqui Henderson – for their advice and guidance.

Contribute to the *Open to Ideas* series

The publication of this collection marks a beginning, rather than the end of the Open to Ideas project.

Going forward, every two months the Parliamentary Skills Group will be publishing additional chapters, containing new thinking on education and skills policy on our website: www.policyconnect.org.uk/nsfapsg/open-to-ideas

If you have something to say about the challenges facing our education and skills system and would like to contribute to the series please get in touch.

Designed by Richard P Chapman Design Associates