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paths to success

**Practical and  
Vocational Education  
in the UK**  
**A health check**  
**July 2009**

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**Angela Carter**

1. DSCF (2009) *Independent Review of the Primary Curriculum: Final Report* (The Rose Review)
2. See the recent Nuffield Review of 14–19 Education and Training, England and Wales (2009) *Education for All: The future of education and training for 14–19 year olds* Routledge
3. The Centre for Real-World Learning's two reports for Edge will be available later in 2009

## Practical and Vocational Education In The UK

### A health check

**'All education is, in a sense, vocational, vocational for living'.**

**John Newsom**

**'That is what I'm looking forward to the most, practical learning. I want to be a registered nurse so getting to talk to people who already work in those jobs can really teach me what to expect when I get out in the real world'.**

**Angela Carter**

**There is much talk of reform in UK education at the moment. Whether it is at Primary level<sup>1</sup> or later on at 14–19<sup>2</sup> there is a strong suspicion that we have not yet created engaging options for all learners – in particular those who are not drawn to or good at academic learning, and may be steered towards more practical kinds of learning. In this paper, we 'take the pulse' of practical and vocational education (PVE) in the UK. We should note at the outset that what we offer here is a part of a bigger piece of research for the independent education charity Edge in which we are looking more broadly and deeply at research into PVE.**

It is abundantly clear that, despite the real interest being shown by each of the four home nations, PVE still faces an up-hill struggle to achieve 'parity of esteem' with other more academic educational routes and achievements. There are many possible reasons for the prevailing disparity. Partly it may be because, since the Enlightenment, European (and increasingly global) societies have favoured rationality and theorisation over ways of knowing that involve feeling and practical experimentation. This predominance of explicit rationality has bred a tendency amongst educationalists to burden practical and experiential learning with abstract theory designed to make it seem academic and serious – a well-intentioned ploy that may, however, serve to alienate some young people even from domains where they thought they would have felt more at home.

It is helpful that Edge's own campaigning is already bringing such issues to the attention of educationalists and to the wider public. But what we are seeing is still patchy: good in parts but lacking wider coherence. We will argue that to make further and faster progress, a number of factors are in need of clarification. We need a more detailed picture of who gets PVE. We need to know more about how they experience the provision they receive. We need to be clearer about what PVE is and is not. It would help to identify areas where there are current grounds for optimism. And, perhaps most importantly, we think we need a clearer picture is needed of the learning that is actually going on when PVE is taking place. In this paper our aim is simply to welcome UK PVE into our friendly doctors' surgery and assess the state of its health. Later in 2009<sup>3</sup> we will be seeking to draw more substantial conclusions and offer some more considered recommendations.

#### Defining our terms

Though the phrase 'practical and vocational education' is widely used, we think it is helpful at the outset to distinguish between its two components. Though they are closely related ideas, there will be times in this paper when we find it helpful to pull them apart.

Roughly, by vocational education (VE) we mean the provision of learning that is designed to enable people to function, at a specified level, in specific roles in the context of paid employment. In the case of many occupations, the skills required and the settings in which they will be required can be fairly precisely anticipated, whether we are talking about landscape gardening or becoming an accountant. Though this forward-looking specification of the 'contexts and purposes of eventual use' cannot always be clearly articulated, nevertheless there is a presumption in VE that students are being prepared to function well in some future context(s) of employment.

4. One of the underlying themes of the larger project from which this paper derives is the need to problematise the relationship between competence and comprehension more fully.
5. [www.edge.co.uk/faqs](http://www.edge.co.uk/faqs)
6. By analogy, perhaps, with the work of the organisation IntoUniversity, which take primary school children into the worlds of university research. See [www.intouniversity.org](http://www.intouniversity.org)
7. UKCES (2009) *Ambition 2020: World class skills and jobs for the UK* (the 2009 report) [www.ukces.org.uk/PDF/UKCES\\_FullReport\\_USB\\_A2020.pdf](http://www.ukces.org.uk/PDF/UKCES_FullReport_USB_A2020.pdf)

By practical education (PE), we mean the provision of learning experiences where the goal is to be able to work effectively with a particular kind of material to produce desired levels of products and performances. Typically, such kinds of material include hair, make-up, food, plants, sports equipment, musical instruments, electronic equipment, machinery and engines, water pipes, construction materials and so on. By extension, we can include working with numbers to produce a balance sheet, and working with words to produce a newspaper article. We could also include working with young children, the elderly and those with physical or learning difficulties. The goal of practical education is to help people do things well, not just to demonstrate understanding or knowledge about them.<sup>4</sup>

Clearly, in terms of these definitions, there is a good deal of overlap between VE and PE. This has already been clearly acknowledged by Edge: 'Much practical learning in the UK is done on vocational courses'<sup>5</sup>. But vocational learning is just one context for practical learning. A good deal of practical learning is not aimed at paid employment. And of course, some vocational learning may not fit with the practical emphasis on 'working with material', however broadly defined.

Sometimes we have also found it useful to distinguish between practical and vocational education (PVE), which is the deliberate provision of learning experiences designed to achieve either vocational or practical ends; and practical and vocational learning (PVL), the psychological, behavioural and social processes that enable individuals to achieve those ends. When we are focusing on provision, we will talk of education (curriculum, pedagogy, assessment, governance and so on). When we are focusing on what is going on for the students and apprentices we will talk of learning (watching others, imitating, practising, self-evaluating, experimenting, reflecting and so on).

To anticipate one of our conclusions, we will argue that one of the most important research gaps in the field relates to the naïve, incomplete and sometimes doctrinaire models of learning that underpins PVE. Some of the recurrent problems with PVE, we believe, reflect these inadequate conceptualisations of what is – or needs to be – going on at the learners' end. In a later paper, we will offer what we consider to be a richer and more fruitful model of practical and vocational learning.

**In these terms, we argue that the importance of learner engagement has been underestimated in discussions of the design of PVE. If the education offered fails to engage significant numbers of learners, it is no use blaming the recipients; it is badly designed. We also suggest that this engagement will be weakened if learners have:**

- a) misconceptions about the nature of practical learning (the kinds of learning challenges and processes will be required of them); and/or
- b) inadequate understanding of the 'world of work' (in its socio-cultural as well as practical manifestations).

Take the second of these, for example. The worlds of work are changing dramatically. Many people will go on to have more than one vocation or career in their lifetime. More and more people already find themselves with portfolio work and life-styles. We think that some of the problems of esteem and engagement in PVE could be alleviated if school pupils were introduced to a rich variety of 'worlds of work' earlier on and in a more systematic fashion in their educational career. Many 14-year-olds have only a very limited knowledge of the worlds of work which might be available to them, on which to base their choices and pathways, and this lack of knowledge may well cause problems and dissatisfactions later on. Yet this process of information and familiarisation could arguably be started in Primary school or at the very least in the early years of Secondary.<sup>6</sup>

8. [www.dius.gov.uk/skills/policy\\_at\\_glance](http://www.dius.gov.uk/skills/policy_at_glance)
9. [www.scotland.gov.uk/Topics/Education/skills-strategy](http://www.scotland.gov.uk/Topics/Education/skills-strategy)
10. [www.wales.gov.uk/topics/educationandskills/?lang=en](http://www.wales.gov.uk/topics/educationandskills/?lang=en)
11. [www.delni.gov.uk/index/publications/pubs-sectoral/skills-strategy-ni.htm](http://www.delni.gov.uk/index/publications/pubs-sectoral/skills-strategy-ni.htm)
12. [www.edge.co.uk/faqs](http://www.edge.co.uk/faqs)
13. Nuffield Review of 14–19 Education and Training, England and Wales (2009) *Education for All: The future of education and training for 14–19 year olds* Routledge
14. [www.findyourtalent.org](http://www.findyourtalent.org); [www.tes.co.uk/article.aspx?storycode=6011645](http://www.tes.co.uk/article.aspx?storycode=6011645)

## The variety of provision

### Vocational education

VE prepares young people, in an applied way, for work in a specific job or industry. It provides young people with the skills they need to prosper in the workplace, and as they develop and refine these skills, so they grow in confidence. VE is the way in which the education system directly addresses skills gaps and skills shortages<sup>7</sup>, providing employers with the skills needed to improve the UK's competitive position within the modern global knowledge economy. These positions are summarised in the policy objectives of the respective UK governments.

### UK governments' skills policies

'We want the UK's businesses and citizens to prosper and flourish. To be able to do this, the country needs its workforce to be equipped with a world class skills base so that we can compete against our international peers...to ensure that the UK is a powerhouse of prosperity and social justice...[and]...can be a world leader in skills by 2020'<sup>8</sup>.

'Learning and skills are at the heart of a more successful Scotland because they support self-confident individuals and stronger communities...smarter Scots are the powerhouse of a more dynamic economy...The strategy sets out...ambitions for skills, in a lifelong learning context, from cradle to the grave'<sup>9</sup>.

'Lifelong learning creates better opportunities, empowers communities and helps to provide the jobs and skills that people need. Lifelong learning will help to bring a bright and sustainable future to the people of Wales'<sup>10</sup>.

'The Government's aim is to enable people to progress up a skills ladder, in order to raise the skills level of the whole workforce; to help deliver high productivity and increased competitiveness; and to secure Northern Ireland's future in a global marketplace'<sup>11</sup>.

### Practical education

As we stated earlier, practical education ensures that people not only know about something, but are able to do it competently too. It is all too easy to lose sight of the fact that learning is often a practical, hands-on undertaking. In childhood, for young and curious minds, learning is the process and result of practical investigation. The world is a laboratory and a test-bed for emerging ideas and understandings. There is a rich tradition of child-led, experiential, ecological learning (for example the Montessori method) and pedagogy (such as Steiner-Waldorf education).

As Edge has described, 'Practical learning is learning by doing things for real. It is learnt from experts, and clear links are made between theory and practice'<sup>12</sup>. But we would like to go further than this. Practical learning refers to the psychological, behavioural and social processes that help people to:

- turn experience into competence and expertise
- interpret and question these practical experiences and their engagement with materials
- learn and observe from more experienced or skilled others
- learn how to problem-solve using knowledge, theory and mental models
- improve their own learning and self-understanding.

The recent Nuffield review<sup>13</sup> argues clearly for a shift towards more practical education: "Attention should be given to more active and practical models of learning as part of the general education for everyone, whether in school-, college- or work-based learning".

15. [www.accac.org.uk/uploads/documents/695.pdf](http://www.accac.org.uk/uploads/documents/695.pdf)
16. [www.accac.org.uk/uploads/documents/695.pdf](http://www.accac.org.uk/uploads/documents/695.pdf)
17. [www.curriculum.qca.org.uk/key-stages-1-and-2/subjects/citizenship/keystage2/index.aspx](http://www.curriculum.qca.org.uk/key-stages-1-and-2/subjects/citizenship/keystage2/index.aspx)
18. [www.tes.co.uk/article.aspx?storycode=6015737](http://www.tes.co.uk/article.aspx?storycode=6015737)
19. [www.tes.co.uk/article.aspx?storycode=6014862](http://www.tes.co.uk/article.aspx?storycode=6014862)

## A map of PVE provision

**With these clarifications and sketch-maps in mind, we now turn to a brief review of how the UK nations have addressed the problems and issues around PVE more directly. We will also map the pathways that young people take following selection at 14.**

### Early Years and Primary phase

All UK governments have made a feature of practical learning in their respective Early Years frameworks, emphasising active and experiential learning through play, and recognising the importance of learning outside the classroom.

In Key Stage (KS) 1, children tackle much of their learning in practical ways. A thematic approach to curriculum delivery allows for more natural and less fragmented learning; tasks are set that promote the development of creative, inquiry and collaborative skills. This investigative, exploratory approach suits young children's curiosity about the world and the process of socialisation.

Thematic learning may continue as children progress to KS2, but practical learning often decreases as the teaching of abstract concepts increases, especially in Years 5 and 6, as preparation for national tests occupies more space in the timetable. In England, the DCSF's Find Your Talent initiative (currently being trialled) offers some protection to practical learning, by guaranteeing children five hours of quality cultural and creative activities per week, in the form of acting, dancing, playing musical instruments and digital art<sup>14</sup>. However, this approach may result in space being timetabled for practical and creative experiences, rather than being permeable across curriculum areas, as is the intention of Creative Partnerships. So even though practical learning continues, it becomes divorced from the learning associated with more symbolic, abstract and high-status subjects. This separation thus provides the ground within which the disparity of esteem can take root.

There is nothing by way of vocational education in the early and primary years in Scotland, and very little in the rest of the UK, save for units within the Citizenship curriculum, where children in KS1 learn about the roles of different people in the community: typically these roles are those in the emergency services. Children in KS2 in Wales additionally learn about 'the process and people involved in the production, distribution and selling of goods' as part of the 'vocational' aspect of the personal and social education (PSE) framework in Wales<sup>15</sup>.

The Primary Citizenship and PSE curricula in the UK centre on learning about developing effective relationships, assuming greater personal responsibility and keeping healthy and safe. Lessons introduce pupils to concepts of social justice, moral responsibility and understanding the effects of personal choices and behaviour on themselves, others and on local, national or global issues (e.g. the environment)<sup>16,17</sup>. VE, in the sense of providing children with their first impressions of the world of work, tends to be linked to the social institutions they learn about as part of these curricula; for example, the role of the police in relation to morality, justice and law rather than about what it is like to be a policeman or policewoman.

In England, the Conservative party is talking about moving SATs from the end of KS2 to the start of KS3<sup>18</sup>. Were this to happen, it is unclear at the moment what opportunities it would create at Primary level, and what consequences it would have for KS3. As far as PVE is concerned, there are both unexplored possibilities and risks associated with this initiative.

20. Royal Society for the encouragement of Arts, Manufactures and Commerce

21. [www.thersa.org/projects/education/opening-minds-old/opening-minds-framework](http://www.thersa.org/projects/education/opening-minds-old/opening-minds-framework)

22. [www.thersa.org/\\_data/assets/pdf\\_file/0019/155125/RSA-Opening-minds-impact-update-2008-final.pdf](http://www.thersa.org/_data/assets/pdf_file/0019/155125/RSA-Opening-minds-impact-update-2008-final.pdf)

23. [www.newstatesman.com/pdf/education-supplement-july-08.pdf](http://www.newstatesman.com/pdf/education-supplement-july-08.pdf) + OECD 08

24. Bill Lucas & Guy Claxton (2009) Wider skills for learning; what are they, how can they be cultivated, how could they be measured and why are they important for innovation? A paper for the National Endowment for Science, Technology and the Arts

25. [www.qca.org.uk/qca\\_10327.aspx](http://www.qca.org.uk/qca_10327.aspx)

26. [www.ltscotland.org.uk/curriculumforexcellence/curriculumoverview/aims/index.asp](http://www.ltscotland.org.uk/curriculumforexcellence/curriculumoverview/aims/index.asp)

27. [www.wales.gov.uk/topics/educationandskills/curriculumassessment/arevisedcurriculumforwales/careerworldofwork/templates/?lang=en](http://www.wales.gov.uk/topics/educationandskills/curriculumassessment/arevisedcurriculumforwales/careerworldofwork/templates/?lang=en)

28. [www.nicurriculum.org.uk/skills\\_and\\_capabilities/index.asp](http://www.nicurriculum.org.uk/skills_and_capabilities/index.asp)

### Secondary phase

Once children transfer from primary to secondary school, practical experiences tend to become even more firmly embedded within discrete subjects, such as Art and Design, Drama, Physical Education, Food Technology and Science. There is some effort to offer practical learning through the whole curriculum via the Creative Partnerships initiative, but typically these projects are only woven through the curricula of the expressive arts and do not engage with other subject areas.<sup>19</sup> The core subjects of English, Mathematics and Science, plus Humanities, still rely heavily on didactic teaching of abstract concepts and knowledge. As in primary schools, this is largely seen as the de facto pedagogical style needed for effective performance in examinations.

Some secondary schools shape National Curriculum content around an alternative framework, such as the RSA's<sup>20</sup> Opening Minds (OM) curriculum. Some 200 UK schools have adopted OM – mostly for KS3 – which promotes a mixture of thematic classroom-based instruction and practical experience.<sup>21</sup> Ofsted has commented favourably on the OM curriculum, noting its impact on results and attainment<sup>22,23</sup>.

### In terms of vocational education, it is a statutory requirement that schools in England provide opportunities for:

- learning through work (such as work experience)
- learning about work and careers education; and
- learning for work (for example by developing enterprise and employability skills).

In respect of the latter two points, there are efforts to give greater prominence to the 'wider skills' that, to a greater or lesser degree, acknowledge the linkages between school, lifelong learning and workplace skills, and which aim to prepare children and young people for life outside and beyond school. Some examples of the wider skills curricula in use in UK schools are outlined in the box on the next page. In a recent paper for NESTA, Lucas and Claxton explored the different frameworks on wider skills for learning. They conclude that various national and regional educational departments, research institutions, third sector and private sector bodies have been 'much more successful at producing extended wish-lists of desirable qualities' than they have at addressing how education systems can be reconfigured so that 'the cultivation of these qualities occurs naturally and reliably' and 'the development of such qualities might be tracked and measured'<sup>24</sup>.

### Examples of 'wider skills' curricula in the UK

The QCA's Personal Learning and Thinking Skills (England) cover the areas of competence most often demanded by employers.

Integrating these skills into the curriculum and qualifications will provide learners with a platform for employability and further learning. These skills are: team working; independent enquiry; self-management; reflective learning; effective participation; and creative thinking<sup>25</sup>.

The Curriculum for Excellence (Scotland) encompasses a whole architecture of curriculum, assessment and qualifications from 3 to 18, which aims to ensure that all children and young people develop the attributes, knowledge and skills needed to flourish in life, learning and work, now and in the future. These are summed up as four 'capacities': successful learning, effective contribution, self-confidence and responsible citizenship<sup>26</sup>.

Careers and the World of Work (Wales) aims to ensure that young people can: develop the attitudes and values required for employability and lifelong learning; manage their individual learning pathways and make effective career choices; develop the skills required by employers; become entrepreneurial; and be motivated to face the challenges, choices and responsibilities of adult life<sup>27</sup>.

Thinking Skills and Personal Capabilities (Northern Ireland) is 'an explicit emphasis on the development of skills and capabilities for lifelong learning and for contributing effectively to society. They are embedded and infused throughout at each key stage: "The ability to think both critically and creatively and to develop personal and inter-personal skills and dispositions is essential for functioning effectively in a changing world"<sup>28</sup>.

These 'wider skills' curricula seek to develop skills for lifelong learning, employment and effective citizenship. They exemplify how the capacities which are needed to develop one's knowledge and understanding (such as problem-solving and investigation), insight into one's learning (reflection), ability to collaborate (team-working and interpersonal skills), and innovate (invention and entrepreneurship), are not necessarily well cultivated by a traditional teacher-led, knowledge-driven curriculum.

29. Edge (2009) *The VQ Landscape 2009: A review of vocational qualification achievements in the UK* [www.edge.co.uk/media/uploads/Downloadable/756c721f-0e64-414a-b3c3-ed467440618f.pdf](http://www.edge.co.uk/media/uploads/Downloadable/756c721f-0e64-414a-b3c3-ed467440618f.pdf)

30. Interview by Guy Claxton with Professor William Richardson

31. Interview by Bill Lucas with Chris Humphries

We suspect that seeing the cultivation of wider skills as a central aim of the curriculum will have implications for PVE. It may well be that extended experiences of crafting and working with material (be it wood, food or words) provide a more effective incubator for the development of wider skills than do some traditional objects of study and forms of instruction. We think that more research into pedagogies that are effective at developing wider skills, in the context of both academic and vocational learning, is urgently required.

#### **Selection at 14**

**At the end of KS3, 14 years-old make the decisions that determine the learning path they will follow until they reach school leaving age (currently 16, but rising in England to 17 in 2012/3 and to 18 in 2015). Broadly, a young person will follow either an 'academic' route, (expressed in terms of general qualifications, such as GCSEs and A Levels) or a vocational route which, under the 14–19 reforms in England, will lead to qualifications from one of three pathways:**

- Apprenticeships
- Foundation Learning Tier; or
- Diplomas.

Functional Skills (FS) in English, maths and IT, plus Personal Learning and Thinking Skills (PLTS) feature in all four pathways. We think that FS, currently an area of policy under development, could provide opportunities for more systematic introduction of PVE into the curriculum. FS will be recognised as stand-alone qualifications and will also be embedded into new revised GCSEs from 2010 onwards. The new Diplomas also, we believe, offer real opportunities for further embedding both practical and vocational learning. Part of their success has been in the way they are beginning to talk about 'applied' learning rather than defining their approach in terms of being either 'academic' or 'practical'<sup>29</sup>. It may well be that the language itself being used by Edge and others ('practical' and 'vocational' could become problematic in its polarising of the argument where more inclusive terms such as 'applied' suggest ways of extending the range of PVL).

Selection into either the vocational or academic route at 13/14 years old is a major filtering point in a young person's education – and one that currently risks perpetuating and strengthening the divide. This is where, in UK education systems, all young people are separated and allocated to a pathway based on their suitability or unsuitability to the academic route, rather than their suitability or unsuitability to the vocational route.

Young people are often allocated or counselled into a vocational pathway not on the grounds of talent or interest in those domains, but because they are thought unlikely to succeed at the next level of academic education; and this reasoning presupposes and perpetuates the idea that practical and vocational learning is less cognitively demanding than academic learning. We are increasing of the view that, while the modes of learning may be different, there is no good reason to suppose that PVL is in any way less complex or sophisticated than academic learning – indeed, often the reverse.

In a recent interview<sup>30</sup> William Richardson argues that there is 'no theoretical or cognitive basis' for the guidance processes young people are subjected at 13–14 years, and which assign them to a pathway: "It's to do with assumptions about cultural capital and the nature of broad intelligence...diffusely described by the professionals who have to make the decisions, and not very precise".

Chris Humphries suggests that society "hold[s] the intellectual in far greater esteem than [it holds] the capacity to apply what your intellect carries". This is a trap to be avoided. In terms of their particular skills, Humphries sees a whole range of professionals as being equally skilled: "...for me a doctor is as skilled as a lawyer is as skilled as an electrician is as skilled as a civil engineer"<sup>31</sup>.

Below we trace several 14–19 pathways that give an optimistic flavour of the education provisions on offer in the UK nations. We have defined them as either in the academic tradition or the vocational tradition. However, it should be noted that the reality of some provision (such as the academic Diplomas in science, humanities and languages) mean that a strict separation is often unhelpful.

32. [www.cbi.org.uk/ndbs/press.nsf/0363c1f07c6ca12a8025671c00381cc7/e4d176ad9bfe0f9d8025746a00448d88?OpenDocument](http://www.cbi.org.uk/ndbs/press.nsf/0363c1f07c6ca12a8025671c00381cc7/e4d176ad9bfe0f9d8025746a00448d88?OpenDocument)

33. [www.news.bbc.co.uk/1/hi/education/7468444.stm](http://www.news.bbc.co.uk/1/hi/education/7468444.stm)

34. Whether such subjects function as good preparation for university study, however, is a moot point. It is common for university tutors in psychology, for example, to advise school students to take more conventional science subjects, rather than A-level Psychology, as they consider these to provide a better grounding.

35. Interview with Chris Humphries, the Chief Executive of the UK Commission for Employment and Skills conducted by Bill Lucas, May 2009

36. [www.qca.org.uk/qca\\_8153.aspx](http://www.qca.org.uk/qca_8153.aspx)

37. Credit accumulation is the process of putting together a combination of credits or awards to meet the achievement requirements of a qualification. Credit transfer is the process of using credits earned from one qualification towards the achievement requirements of another qualification (from the QCA's glossary of terms [www.qca.org.uk/qca\\_22536.aspx](http://www.qca.org.uk/qca_22536.aspx))

38. [www.dcsf.gov.uk/14-19/index](http://www.dcsf.gov.uk/14-19/index)

### The academic route

There is some confusion about the purpose and function of the academic Diplomas, and concern that they might duplicate GCSEs and A Levels. The CBI – whilst strong supporters of the vocationally-oriented Diplomas – argue that employers may well reject academic Diplomas in favour of established, trusted and understood academic qualifications if their distinctive value of is not clear<sup>32</sup>. It may be that the academic Diplomas will provide alternative, more congenial and effective pedagogical pathways for some young people who struggle with more traditional methods of teaching at GCSE and A Level, enabling them to achieve at a higher level in subjects such as science, for example, that they would otherwise have thought of as 'too hard'<sup>33</sup>. But this potential benefit obviously depends on the development of such a distinctive pedagogy.

At post-16, the AS/A levels and Scottish Highers/Advanced Highers in subjects appear as expanded versions of familiar curriculum subjects. The Sciences, for example, grouped together at secondary level, reappear as separate disciplines and branch out further in the form of Environmental Science and Human Biology, among others. These and other subjects, such as psychology, economics and computing map onto undergraduate degree courses<sup>34</sup>.

The practical element at both the further and higher education levels is too often underplayed in A levels and undergraduate degrees. Yet in reality, many degrees are vocational with considerable elements of applied learning. In a recent interview, Chris Humphries<sup>35</sup>, the Chief Executive of the UK Commission for Employment and Skills, told us that, in his estimation, around two-thirds of undergraduate degrees are in applied subjects; that is, they are explicitly for a job. On the next page, in the form of an imaginary case study, we detail a typical academic route to a well-known profession in Scotland.

Andy hadn't really thought about working with kids until he took a Skills for Work (SfW) course in Early Education and Childcare aged 14 alongside his Standard Grades (equivalent to GCSEs). Andy really enjoyed the SfW course, especially as it was geared towards experiential and practical hands on learning at a local nursery. Andy's school has been really supportive and helped with transport between school and the nursery. The experience gave him the confidence to take Early Years Care and Education as part of his Highers/Advanced Highers, along with in English, History, Drama and Photography (equivalent to AS/A levels). Andy went to university to study English, spending the summer holidays working for a children's play-scheme, and after graduation, he returned to complete a one-year Professional Graduate Diploma in Education (PGDE) initial teacher education course.

### Vocational routes

The Foundation Learning Tier (FLT) aims to improve the skills of 14+ year-olds achieving below Level 2 of the NQF (those predicted or awarded GCSEs at grades D to G). The FLT emphasises 'personalised learning programmes' that provide a balance of functional skills, personal and social development and appropriate vocational subject-based learning. These programmes will be designed by learning providers to engage and motivate young people who have missed out on learning or need to overcome difficult challenges. The FLT aims to help these learners develop skills for "employment, further study or independent living"<sup>36</sup>.

Part of FLT's motivation is the credit accumulation and transfer system<sup>37</sup>, which allows learners to progress to higher qualifications at Level 2 and 3 via the achievement of Entry level and Level 1 vocational awards. In other words FLT's allow learners to gain appropriate access to higher levels of study which they would previously have not had.

The UK government's Apprenticeship scheme combines paid work with on-the-job training, qualifications and progression. Once it becomes an Act of Parliament, the proposed Apprenticeships, Skills, Children and Learning Bill 2008–09 (which recently received its second reading in the House of Lords) will establish a statutory entitlement to an Apprenticeship place for every suitably-qualified young person who wants one from 2020 onwards. The DCSF expects one in five young people in England to take up apprenticeships over the next decade<sup>38</sup>.

39. [www.dcsf.gov.uk/14-19/index](http://www.dcsf.gov.uk/14-19/index)

40. [www.dcsf.gov.uk/14-19/index](http://www.dcsf.gov.uk/14-19/index)

41. Ofsted (2004) *Vocational A levels: the first two years* (HMI 2146)

42. [www.wbq.org.uk/home](http://www.wbq.org.uk/home)

Apprenticeships are well suited to young people who are settled and determined to train for a career in a particular occupational area. Around 130,000 employers in 80 employment sectors now offer 180 different types of Apprenticeships such as construction, engineering, hospitality, media, retail, accounting and childcare. Prompted by the present recession, public sector areas – education, health and local government – are expanding the number of Apprenticeships available<sup>39</sup>.

Patsy decided several years ago that she wanted to become an auto-mechanic. Having picked up some of the basics from her older brother – who spent most weekends repair old cars – the on-the-job nature of an Apprenticeship appealed to her learning style. As part of the KS3 and KS4 curriculum at school, Patsy had timetabled modules in Learning for Life and Work, which covered employability, skills and qualities for work in the local and global economy, and career planning management. She felt that these skills helped her to secure the Apprenticeship she wanted at a local garage when she left school at 16. A year in to her Apprenticeship, Patsy became a victim of the global recession. The garage lost several large commercial contracts and she was placed on a part-time contract. Under the Skillsafe initiative, her employer obtained a subsidy to continue the Apprenticeship and Patsy was able to complete an NVQ Level 2 in Car Painting and progress to Level 3 ahead of schedule.

The 14–19 Diplomas in England offer rigorous applied learning, combining theoretical study with practical experience. As a key reform Diplomas, as an alternative to GCSEs and A Levels, increase the ways in which the interests and learning styles of young people can be met. Diplomas will cover 17 lines of learning by 2011, and are transferable between other provisions: Foundation and Higher Diploma students can go on to study for the next level of Diploma, take a different type of qualification (e.g. GCSE or A Level), take up an Apprenticeship, or enter the labour market. The Advanced Diploma can count towards the entry requirement of undergraduate degree.

The Diplomas ostensibly provide learners with opportunities to experience different styles of learning in different environments (school, college and workplace), with an emphasis on practical activities. They aim to provide young people with a combination of the knowledge and skills employers and universities look for (such as teamwork, self-management and critical thinking skills)<sup>40</sup>.

Similar arguments might be made concerning the vocational diplomas to those we considered above about the academic diplomas. Certainly, they have clear links to an occupational 'context and purpose of eventual use' and thus students may stand a greater chance of success than they might have, for example, through the now-defunct Advanced Vocational Certificate of Education (the Vocational A-Levels), which Ofsted judged was neither 'well designed...seriously vocational nor consistently advanced'<sup>41</sup>. Again, however, the proof of the pudding will be all in the implementation.

#### **An imaginary pathway for a learner taking the diploma route might look something like this:**

Georgie studies films meticulously. She likes to try out different cinematographic techniques she's picked up in the short films she makes with friends and uploads to Youtube. She's gained confidence from the dozens of messages she's received from people applauding her imaginative ideas. The Creative and Media Diploma is helping to develop her talent: exploring different creative disciplines and potential careers; working up ideas with others; and making things. Georgie computer literate but struggles with numeracy. The Functional Skills in Maths, which emphasise the practical application of number skills in real-world scenarios, are helping her to overcome her difficulties. A local animator agreed to support her work placement and work up ideas for her extended project.

The Welsh Baccalaureate (WB) has parallels with the English Diplomas. The WB combines personal development skills with existing qualifications to make a wider award valued by employers and universities. It aims to provide a broader experience than 'traditional learning programmes' in order to suit the diverse needs of young people.

The WB allows students to carry out 'enterprise' activities in the community and with local employers, providing exposure to a mix of delivery styles and learning environments. The four components of the WB cover: key skills of problem-solving, teamwork and improving one's own learning and performance; learning about Wales and its place in the world; work-related education; and personal and social education<sup>42</sup>.

43. Education and Training Statistics for the United Kingdom 2007 (Internet only) [www.dcsf.gov.uk/rsgateway/DB/VOL/v000761/Vweb02-2007final.pdf](http://www.dcsf.gov.uk/rsgateway/DB/VOL/v000761/Vweb02-2007final.pdf); Vocational qualifications in the UK: 2006/07 [www.dcsf.gov.uk/rsgateway/DB/SFR/s000773/SFR03-2008.pdf](http://www.dcsf.gov.uk/rsgateway/DB/SFR/s000773/SFR03-2008.pdf)

44. Alison Wolf (2007) *Diminished returns; how raising the leaving age to 18 will harm young people and the economy*; Policy Exchange

45. Mark Corney et al (2007) *Raising the leaving age to 18; symbol or substance?* CfBT Education Trust

**The example we have created below shows progression working in this system.**

Dave's a computer whizz. His individual project he carried out as part of his Welsh Baccalaureate, allowed him to develop a small project he'd been doing – writing an innovative Welsh language application for his i-phone. Dave learnt how his application can help Welsh-speakers when travelling abroad. He developed entrepreneurial skills and learnt how to sell himself and his product to internet businesses. He boosted his application to university by taking an extra A level in Computing at the local further education college, where he also got his first taste of campus life.

It is important to note that the vocational route to qualifications commensurate with higher education is much less travelled than the academic route. Awards of NVQ Level 4 – which the table on page X shows is equal to an undergraduate degree – and NVQ Level 5 (equivalent to postgraduate study) are rare. The most recent UK statistics (for 2006-07) show that for 791,700 people between the ages of 20 and 24, their highest qualification was at Level 4 on the NQF; for just 2,500 of these people, that qualification was either an NVQ Level 4 or 5 (predominantly the former)<sup>43</sup>. The vast majority of these Level 4 qualifications were undergraduate degrees.

While there is much to be commended in the current 14–19 reforms, it is early days. There are currently some 12,000 young people taking diplomas and in 2009/2010 this is anticipated to rise to 40-50,000, still, given these will potentially be spread over years 10, 11, 12 and 13 less than 5% of the total young people in each year group. Diplomas may or may not take off and, in a period of political uncertainty, were the Conservative party to form a government, they might not all survive. And, while some universities have been making warm noises about the utility and value of diplomas as a route into university, if higher education were to be squeezed of funds there is no guarantee that these words would translate into actions.

In other ways diplomas may not deliver the economic and social benefits the DCSF is hoping for. Alison Wolf<sup>44</sup>, for example, argues that the promised £2.4 billion in economic benefits is hugely exaggerated (and contradicted by DCSF's own figures) and that the costs to employers are underestimated. At the same time she suggests that the government is failing to distinguish between paper qualifications and real skills.

Mark Corney<sup>45</sup> argues that the new qualifications on offer – specifically the diplomas and the Foundation Learning Tier – are not flexible or enticing enough to attract disaffected learners. He also suggests that the number of apprenticeship places required is unattainable.

With regard to apprenticeships we can see the advantages of reinvigorating them and making a virtue of the difficulty of finding traditional manufacturing and craft apprenticeships by moving into government and other office-based work environments. But we also not that, as they are currently configured, their continued existence (at least in their current format) perpetuates the academic vocational divide. For they would be most unlikely to be a possibly pathway for a learner taking GCSEs and A levels/Highers.

There are workforce issues, too. For while there has been considerable investment in workforce development for the 14–19 reforms in England, the issue is broader than training. As curricula become more applied, where will the teachers come from? How will they be recruited? What will their initial training look like? How will in-service development need to change to ensure that teachers can move in and out of worlds of work beyond school and college?

46. QCA (2008) *The diploma and its pedagogy*

47. [www.apprenticeships.org.uk](http://www.apprenticeships.org.uk)

48. Wolf, A. (1998) *Portfolio assessment as national policy: the National Council for Vocational Qualifications and its quest for a pedagogical revolution*. *Assessment in Education, Policy and Practice*, 5(3) pp413-445.

### Delivery methods

The PVL which makes up these vocational routes is delivered in and through a mix of educational and workplace settings.

The pedagogy of the diplomas was built on sound research evidence, in particular on work undertaken by the Centre for Education and Industry at Warwick University. As this direct extract from QCA's document outlining pedagogy<sup>46</sup> makes clear, diplomas seek to ensure that:

#### “learners benefit from:

- rich and varied learning environments that engage learners in authentic tasks
- different ways of learning, including learning by doing; use of new technologies and collaborative, problem-based approaches, that meet affective as well as cognitive needs
- playing a central role in planning and reviewing their own learning to meet their interests and needs
- interactions with a variety of others, particularly those with experience of working in relevant sectors or contexts
- assessment for learning and development of meta-cognitive capabilities, such as reflection, that promote deeper learning and the making of connections between contexts and subjects”.

If pedagogy of this kind does turn out to be the lived reality of diplomas, then diplomas will indeed be different from other routes through education.

By contrast, there is almost nothing which explicitly describes the pedagogy underpinning apprenticeships. Clearly these are predominantly workplace-based. But beyond stating the obvious, that apprentices are employees and work alongside experienced staff to gain job-specific skills, it is unclear how teaching and learning are being conceived. From descriptions of the experience of being an apprentice we infer that it may involve observing how something is done (such as a particular plumbing technique), receiving real-time commentary on what is being done, and then attempting to replicate skills under supervision. It is significant that the newly created site for apprenticeships<sup>47</sup> makes no mention about the nature of the PVL involved.

NVQs and BTECs (which form part of an Apprenticeship) are also work-based and are achieved through competence-based training. Employers create the conditions for students to practise in order to develop specific, pre-identified skills; for example, if a student has to perform a specific task in order to be passed competent at it (such as fitting a thermostat to a boiler), the employer must allow the student the chance to do so on-the-job when the opportunity arises.

There is considerable lack of clarity about what constitutes pedagogy for qualifications gained via work-based learning. On the one hand, the ‘unofficial’ pedagogy is that the learner is responsible for their own learning<sup>48</sup>; they build an assessment portfolio demonstrating that they have met the criteria specified for a particular qualification. But as we suggest above, employers have a responsibility for facilitating learning. The reality is likely to be the pedagogy will be determined by the task. Learners may learn by doing, by watching and then doing, by trial and error and so on. Or they may simply be told something or instructed to read a manual or to copy something out or a mixture of all three. In many cases pedagogy may be heavily influenced by assessment and in particular the need to “tick off” various assessment criteria. Assessment aside, this type of learner-led learning will be recognisable to most of us as the kind of on- (and off-) the-job learning of which we will all have had some experience. But our point is that there is little or no systematic research into which work-based learning pedagogies are most engaging or most effective (in terms of the acquisition of expertise) and not enough understanding about the impact of different contexts and subjects on pedagogy.

The work experience element of Diplomas and the WB is typically a two week period which in the case of the former, will be linked to the Diploma subject. Due to their shorter timeframes, these workplace visits are chiefly an opportunity to be exposed to an occupational area and are less likely to afford the same practical experiences as an Apprenticeship or NVQ. Instead, work experience in this sense is an opportunity to learn about the skills and personal qualities, careers, roles and structures that students would find in a workplace or company; it is more about absorbing workplace culture and working life.

49. [www.cityandguilds.com/documents/ind\\_general\\_learning\\_keyskills/Vocational\\_pedagogy\\_final\\_summary.doc](http://www.cityandguilds.com/documents/ind_general_learning_keyskills/Vocational_pedagogy_final_summary.doc)

50. NUT (2008) National Union of Teachers Survey: 14–19 Reforms and 14–19 'Gateway' Consortia [www.teachers.org.uk/story.php?id=4288](http://www.teachers.org.uk/story.php?id=4288)

Delivery in educational settings in the case of Apprenticeships is usually on a day release basis. Apprentices and others taking NVQs and BTECs in the workplace, receive training with a local training provider, such as a further education college. As well as providing the theory and knowledge to support the practical, hands-on learning students undertake on-the-job in the workplace, school and college teachers can also have a mentoring role. In this role, teachers provide one-to-one advice to students to help them hone their practice in order to meet specific assessment criteria. Personalised mentoring could be seen as an important bridge between what goes on in institution-led learning and in workplace learning. The efficacy of mentoring – be it from school or college teachers or employers – and its impact on learner engagement and learning outcomes, are areas which could be informed by research. Again, the pedagogy of apprenticeships – what's really going on at the learner's end - is unclear.

Michael Young<sup>49</sup> (in a City and Guilds seminar in 2004) saw the diffusely spread expertise in vocational pedagogy and assessment among intuitions as problematic. He argued that between them, universities and colleges have little or no expertise in vocational pedagogy, but at least some in vocational subjects. By contrast, awarding bodies, such as NVQ and BTEC, have expertise in vocational assessment, but little in pedagogy. Employers and those who supervise workplace learning and training have very little expertise in either vocational pedagogy or assessment. 'Therefore', Young suggested, 'vocational pedagogy in each case gets lost at a time when the complex issues of bringing together off-the-job knowledge and the acquisition of skills through workplace experience are recognised as increasingly important'. We suspect that this line of argument is still a valid one today.

Even reading this description of the kinds of methods employed in delivering vocational education makes it immediately clear that one priority must be some thorough research into the range and effectiveness of vocational pedagogy. Our hunch – and one to which we will return in our later reports – is that range of vocational pedagogy is far too narrow. While the setting and context may be engaging (workplace or well-equipped college) the methods used can sometimes be uninspiring and not interactive.

In all of these different pedagogies there are challenges to effective delivery, not least in ensuring that those teaching them are appropriately skilled. Not all teachers will be comfortable with the pedagogy required by the new diplomas. In fact an NUT survey found that more than half of teachers said they had not received clear information on how to go about teaching for the Diplomas, and many felt that the three days of training they had received was insufficient<sup>50</sup>.

A levels and undergraduate degrees have at their core a body of relatively static knowledge; the processes of delivery and assessment are routine. William Richardson argues that since the 1940s, governments have failed to understand that 'the most difficult and complex curricula are not the traditional academic ones', but those that are vocationally-oriented.

Curricula serving vocational and occupationally-relevant learning are more susceptible to changes in the economy and fluctuating trends in skills shortages (for example the inadequate supply of appropriately-skilled applicants in industry sector labour markets, as defined by employers). For their part, learning providers would have to respond to these variable and, at times unpredictable, circumstances in more sophisticated curricula and pedagogy. But as we have argued, for teaching and learning to have real meaning, the logistical complexities – managing a variety of learning styles; locations and resources; mix of teachers, trainers, instructors and mentors; as well as transportation and timetabling issues – have to be overcome.

In terms of the health of PVE in the UK our spot check suggests that the picture is mixed. Strong aspirations to ensure that more learners receive PVE, inadequate understanding about what PVE actually is, early separation into vocational or academic pathways and some potentially exciting new opportunities being developed.

52. Scottish qualifications operate on Scottish Credit and Qualifications Framework (SCQF). Approximate comparison with the NQF is given here). SVQ = Scottish Vocational Qualification

## The Qualifications Jungle

**For many young people, the tangible evidence of success in VE are qualifications (VQs). The table below details the range of vocational qualifications across the UK, together with 'academic' equivalents according to the national qualifications frameworks.**

As well as providing a widely-accepted standard of achievement and competence recognisable to employers, VQs are the currency of the labour market. The process of completing most VQs also builds self-esteem and instils the development of other 'soft' skills (e.g. initiative and teamwork). In 2006-07, 1.4 million VQs were awarded in the UK.

NQF Level	Examples of qualifications in the UK and their place within the National Qualifications Framework (NQF) for England, Wales and Northern Ireland <sup>52</sup>		Equivalent Further/Higher Education qualifications (UK)
8	BTEC Level 8 Advanced Professional City & Guilds Fellowship		Doctorates
7	BTEC Level 7 Advanced Professional City & Guilds Membership SVQ Level 5 (SCQF Level 11)		Master's degree PGCE
6	BTEC Level 6 Professional City & Guilds Graduateship		Bachelor's degree Graduate Diploma
5	BTEC Higher National Diploma BTEC Level 5 Professional City and Guilds Full Technological Certificate SVQ Level 4 (SCQF Level 8)		Foundation degree Diploma of Higher Education
4	BTEC Level 4 Professional City & Guilds Licentiate Scottish Advanced Higher (SCQF Level 7)		Certificate of Higher Education
3	A Level AS Level Advanced 14-19 Diploma Welsh Baccalaureate Advanced Diploma	BTEC National Level 3 NVQ City & Guilds, Level 3 Scottish Higher (SCQF Level 6) SVQ Level 3 (SCQF Level 6)	
2	GCSE at grades A*-C Higher 14-19 Diploma Welsh Baccalaureate Intermediate Diploma BTEC First Diploma	City & Guilds, Level 2 Level 2 NVQ SVQ Level 2 (SCQF Level 5) Intermediate 2 (SCQF Level 5) Credit Standard Grade (SCQF Level 5)	
1	GCSE at grades D-G Foundation 14-19 Diploma Welsh Baccalaureate Foundation Diploma BTEC Introductory BTEC Level 2 Level 1 NVQ	SVQ Level 1 (SCQF Level 3-4) Intermediate 1 (SCQF Level 4) General Standard Grade (SCQF Level 4) Foundation Standard Grade (SCQF Level 3) Access 3 (SCQF Level 3)	
Entry	Entry Level Certificate Foundation Diploma BTEC Level 1 Certificate	Access 2 (SCQF Level 2) Access 1 (SCQF Level 1)	

53. [www.direct.gov.uk/en/NI1/Newsroom/DG\\_071123](http://www.direct.gov.uk/en/NI1/Newsroom/DG_071123)
54. [www.wbq.org.uk/news/1602](http://www.wbq.org.uk/news/1602)
55. GCE/VCE/Applied A/AS and Equivalent Examination Results in England, 2007/08 (Revised) (FR 01/2009) [www.dcsf.gov.uk/rsgateway/DB/SFR](http://www.dcsf.gov.uk/rsgateway/DB/SFR)
56. <http://www.assemblywales.org/08-046.pdf>
57. West, J. & Steedman, H. (2003) *Finding our way: Vocational education in England*, p10, The Centre for Economic Performance, ESRC
58. The Capey Review (GNVQs) 1995; The Beaumont Review (NVQs) 1996; and The Cassells Review (Modern Apprenticeships) 2001
59. Stanton, G. (2008) *Learning Matters: Making the 14–19 reforms work for learners*, CEBT
60. Interview with Chris Humphries, the Chief Executive of the UK Commission for Employment and Skills conducted by Bill Lucas, May 2009
61. Hayward, G. (2006) *Participation, progression and success in vocational learning: A quantitative analysis of system performance*, London: Learning and Skills Research Centre.

Ministers in England are hopeful that 14–19 Diplomas could become the qualification of choice for young people, delivering the mix of practical skill, conceptual understanding and wider attitudes and habits of mind that employers and universities value<sup>53</sup>. A similar sentiment has been expressed by Welsh Assembly ministers over the WB<sup>54</sup>. But these new qualifications will have to compete in the marketplace with established “brands”, such as A Levels, BTECs and NVQs. It is too early to consider the impact of these new qualifications on the dominance of GCSEs, but in terms of the post-16 marketplace in England, A Levels remain by far the most popular Level 3 qualification route. In 2007–08, 72% of young people (16–18 year olds) in England were entered for A level examinations/assessment. Nearly 20% favoured BTECs (more popular among males) and much smaller proportion took an NVQ Level 3 (3%)<sup>55</sup>. For the same period, 36,800 young people in Wales achieved A level passes, but only 1,200 were awarded an Advanced Level Welsh Baccalaureate<sup>56</sup> (around 3% of those taking NQF Level 3 examinations).

There is a clear danger then that, despite worthwhile aims, Diplomas and the WB will only add to the ‘qualifications jungle’ that has sprung up over the years – the result of the overlay of many different initiatives, courses and awards, all with a differing underlying philosophy and purpose in mind<sup>57</sup>. The continual reorganisation of qualifications and curricula has tended to be prompted by the recurrent failure of the education sector to meet centrally-set targets on qualifications or participation rates, or by complaints from industry sectors that the immediate to mid-term needs of employers are not being met by recent cohorts of school-leavers.

However, three reviews<sup>58</sup> between 1995 and 2001 to evaluate and reform GNVQs, NVQs and Modern Apprenticeships<sup>59</sup>, plus the Tomlinson Review of 2004 and the 14–19 Education and Skills White Paper the followed in 2005 (and which rejected many of Tomlinson’s proposals), have fully documented the piecemeal nature of vocational education reform.

In his evaluation of 14–19 reforms, Geoff Stanton argues that ‘the learning of policy-makers also matters’; that is, what can be learned from what has been done before. The ‘lack of policy memory’, as he puts it, is down to politicians’ and civil servants’ brief stays in any one department. We must conclude that the motivations to reorganise VE tend to produce changes that are not necessarily in the best interests of vocational students’ learning, nor of the desire of their teachers and tutors to provide the best possible learning environment.

The need for policy responses, which can show quick returns on meeting employers’ needs and re-engendering public interest and increasing participation, often do little more than restructure and rebrand qualifications and assessment. Chris Humphries<sup>60</sup> suggests that re-badging of this nature simply adds to the noise and confusion surrounding VE and, in fact, discourages people. He estimates, for example, that there is 90% to 95% similarity between the many definitions of ‘key skills’. Humphries notes over 20 other definitions in common usage among institutions, learning providers, curricula and employers (e.g. core skills, soft skills, generic skills, employability skills and functional skills).

Clearly, this culture of ‘policy churn’ – where programmes and initiatives ‘are rolled out before they have been fully evaluated and their utility assessed’<sup>61</sup> – is partly to blame for the plethora of qualifications that currently exist, and the continual doomed attempt to calibrate them against each other. This culture also results in the recurrent re-drafting of the curricula that comprise new courses, and endless changes to the methods by which they are assessed. In short, the broad picture of PVE within 14–19 education is one of near-constant change and but never quite the fundamental kind of change which would be likely to lead to significant improvement.

62. Nuffield Review of 14–19 Education and Training, England and Wales (2009) Education for All: The future of education and training for 14–19 year olds Routledge

63. See [www.forestschoools.com/](http://www.forestschoools.com/)

64. See [www.essex.ac.uk/news/event.aspx?e\\_id=584](http://www.essex.ac.uk/news/event.aspx?e_id=584)

65. [www.primaryreview.org.uk/Downloads/CPR\\_Curriculum\\_report\\_briefing.pdf](http://www.primaryreview.org.uk/Downloads/CPR_Curriculum_report_briefing.pdf)

66. *Opening Minds*, the Royal Society for the Encouragement of Arts, Manufactures and Commerce, 2000; Guy Claxton, *Building Learning Power*, TLO Ltd, 2002.

## Glimmers of interest

**Despite these concerns, the recent Nuffield Report<sup>62</sup> highlighted a number of initiatives which give grounds for some optimism about the state and development of UK PVE. The patient is somewhat dazed and confused, but is showing signs of life! From the Nuffield list we would want to single out:**

- Paul Hamlyn's Learning Futures. Initially with an emphasis on practical music-making, the principles of active learner engagement are now being extended across the curriculum.
- The Young Foundation's studio schools initiative, which show how running a business can actually be integrated into the curriculum.
- Futurelab's work with young people, using ICT to harness the outside school interests of learners and stimulating a range of inquiry-based projects.
- Human Scale Education with its emphasis on smaller schools where the quality of relationship between teacher and learner seems to bring considerable learner engagement.
- The Forest schools movement<sup>63</sup> with its emphasis on outdoor practical learning
- Edge's own work in its two academies and in its planned Hotel School<sup>64</sup>.

Three specific areas of national curriculum development seem to offer some real potential.

### Wider skills

At both primary and secondary levels, the importance of wider skills seems, at last, to have been acknowledged. The Primary Review describes wider skills as 'the capacity to do something...which is in the broadest sense practical and which is honed through concentration and practice'<sup>65</sup>. At secondary level, Personal Learning and Thinking Skills are embedded in the curriculum. These national developments are informed by a number of path-finder projects such as the RSA's *Opening Minds* and Guy Claxton's *Building Learning Power*, both of which combine innovative classroom teaching methods with the development of a whole-school ethos that deliberately welcomes and guides the development of habits of mind such as resilience, curiosity and collaboration<sup>66</sup>.

### Functional Skills

Currently in development the new Functional Skills (FS) in English, Mathematics, and ICT also offer a chance for real-world learning and appropriate assessment. FS will now form part of the redesigned GCSEs and be a constituent element of the 14-19 Diplomas. FS will allow KS4 pupils to gain and demonstrate practical skills, and be assessed through task-based scenarios. FS in English, maths and IT, plus personal learning and thinking skills feature in all four pathways. DCSF and QCA have had a number of recent changes of policy with respect to FS and it will therefore be interesting to see whether FS are a genuinely interesting opportunity for PVL or something more to do with reassuring employers about skills levels.

### Projects

Students taking A levels or Advanced Diplomas will also undertake an extended project. The extended project aims to test a wider range of skills and help students acquire a 'toolkit' of transferable skills, knowledge and understanding in relation to project-based tasks; skills such as decision-making, problem-solving, use of initiative and enterprise, plus the ability to think critically and synthesise and evaluate data. Young people in England taking Advanced Diplomas have increased opportunities to work in real-world situations, in consortia with employers and work-based learning providers. Again, the practical element is high and, more than is currently allowed by A levels, Advanced Diplomas allow students to embed their extended project within their work placement. If this element of post 16 learning really takes off it will undoubtedly present new opportunities for practical learning.

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## Conclusions

Let us summarise some of the main points to have emerged from this brief 'health check' of the state of PVE in the nations of the UK.

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### Political football

There is widespread recognition of the problems that arise from treating PVE as a 'second class' educational track, primarily for those who are not 'bright enough' to pursue more academic studies. However a good many political initiatives seem not to have touched the underlying problem, or even to have made the situation worse. Attempts to raise the esteem of PVE by making it more academic, for example, merely serve to perpetuate the underlying disparity of esteem, alienate some of those very students at whom PVE is aimed, and reinforce inappropriate models of teaching and learning. Politicians and policy-makers tend to focus on pulling a rather narrow set of levers, specifically those to do with governance and organisation of the sector, forms of assessment and accreditation, and, to a lesser extent, the prescription of curricula and syllabuses. Yet these levers seem only to have a weak effect on such underlying and abiding concerns as the levels of uptake and retention in PVE throughout the UK. We think politicians should be brave enough, and humble enough, to allow those who understand the needs and pedagogies of the PVE sector to develop a rich and distinctive culture of education.

### Wider skills

'Becoming a hairdresser' (or website designer, or retail manager) involves more than developing certain skills and attitudes. There are the wider, more generic skills of problem-solving, collaboration, resilience, experimentation and so on that are needed when situations become non-routine, or when career paths change. We need to know much more about the conditions under which this more general-purpose intelligence grows. Different institutions and providers have different working theories about this, we imagine, and some may not have thought this through in sufficient detail. It would be very useful to have a clearer and more systematic picture of how this issue is being tackled on the ground, and how the effectiveness of different approaches is being – or could be – contrasted and monitored.

### Earlier and more imaginative induction.

The enforced choice point at age 13 or 14 is unfortunate for two reasons. First, it tends to be based on judgements of suitability or unsuitability for the academic route, rather than (equally) on suitability or unsuitability for a vocational route. And secondly, choices are often made on far too little knowledge and experience of what the different options entail. We think practical learning should continue, for academically-inclined and disinclined alike, throughout Key Stages 2 and 3. And we think that much greater opportunities to sample a wide variety of worlds of work should similarly be available right from the beginning of primary school.

**Gaps in research.**

The seemingly endless process of re-arranging the deck-chairs on the Titanic of PVE reflects in part, we believe, a lack of detailed information about the fine structure of how PVE is actually framed and delivered in colleges, schools and work-places. We think this information is needed in order to distil out the principles that underlie best practice. We think students would have a lot of insight to offer here, and we would recommend that work on 'student voice' in the primary and secondary sectors be developed still further in tertiary education.

The focus on tinkering with the provision of PVE reflects, we believe, naive assumptions about the relationship between teaching and learning. Learning is not the reciprocal of teaching. What goes on at the learners' end is not the 'effect' of which teaching is the cause. Even in the context of didactic or academic teaching, whether the emphasis has traditionally been on the transmission of bodies of knowledge, clear explanations do not necessarily produce the understanding that was intended. When the goal is the development of skills and attitudes, rather than merely knowledge that can be retrieved and displayed, this impoverished view of learning is all the more inadequate. It is partly for this reason that we recommend continually bearing in mind the distinction between PVL and PVE. Talking only about 'education' encourages us to focus, by default, on the modification of provision, and to ignore the issues of learning and engagement that are even more important.

Yet the absence of good information about the situation on the ground in colleges, in schools and in work-places is matched by a lack of good basic research and theory-development about the nature of practical and vocational learning – PVL. There are the glimmerings of some very interesting research on the nature of 'thinking in the making', and the sophisticated learning and problem-solving skills of the craftsman or woman, for example, but the implications have yet to be worked through in the context of PVE. We need to know much more about how accomplished chefs, carers and mechanics actually think, and the wider habits of mind they have to fall back on when routine operations do not suffice. And we need to know much more about how these attitudes and resources can most effectively be developed in students and apprentices.

We think it may also be helpful to keep disentangling the practical from the vocational. 'Practical' focuses our attention on understanding better the processes that lead to the development of competence. This is at the core of the preparation for many trades and professions, but it is by no means the whole of it, 'Vocational' education also requires us to see PVE as a process of socialisation into the cultures, societies, languages and 'funds of knowledge' that characterise each vocational world. Both practical and vocational are important, but neither can be reduced to the other.

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On the other hand, there is case for not perpetuating the distinction between 'academic' and 'practical'/'vocational'. The very attempt to emphasise the validity and importance of the latter, in the face of the higher esteem in the former is traditionally held, may serve to harden the categories even further. We suggested that the label 'applied' might be preferable, but even here the same caveat may well be necessary. Within the academic subjects, it is self-evident that English is a very different beast from Science, and they get lumped together only in the context of this very broad contrast between Academic and Vocational. Maybe it is time to start un-lumping the many and varied domains that have been thrown together in the Vocational bag.

We will return to all of these issues in later reports when we hope to offer up some suggestions which may help to improve the health of UK PVE.

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