EDGE FOUNDATION

Debating the first principles of English vocational education

May 2020

Introduction

Within the world of academic education, **persistent debate and work has taken place over recent decades** to look at underlying questions about its purpose, the way in which knowledge and information is structured, the means of teaching and assessing and the role of education in society.

This has been **much less the case for technical, professional and vocational education**. Society and the educational establishment have tended to view this as secondary to academic education and to jump straight into practical delivery rather than taking time to consider the underlying principles.

This results in two challenges to the system. The first is that there is **no consensus around what vocational education is for** and so answers can vary widely – from vocational education as an elite route to professional careers, to vocational education as second chance provision for disengaged young people.

The second is that this fuels the state of **constant revolution in the skills system** that has been highlighted so well in reports like City and Guilds' *Sense and Instability.*[1] This is a direct contrast to the approach taken in established and successful systems of vocational education and training internationally.

We want to foster a **real debate about the underlying principles and philosophy of English vocational education** so that we can move away from instability towards a more settled and focused vision. We are delighted to be working in partnership with Professor Chris Winch from King's College London to drive that debate.

This report brings together some excellent contributions and perspectives from contributors to our third big debate on this area in November 2019. It represents the next step in that journey, but we **want this to be part of an ongoing discussion**, with further opportunities to contribute to the debate during the Autumn and beyond. Do get in touch with your reflections or to register your interest in future debates (onewton@edge.co.uk).

OLLY NEWTON*, Executive Director, Edge Foundation*

"We want to foster a real debate about the underlying principles and philosophy of English vocational education so that we can move away from instability towards a more settled and focused vision."

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Conceptualising Vocational Education and Training (VET)

Prof. Chris Winch, *Professor of Educational Philosophy and Policy, King's College London*

The third debate on the principles of vocational education was lively and informed. It penetrated further into the detail of policy reform than the previous discussions and, unsurprisingly, generated differing views on how we should proceed. But this is very healthy as we can only make progress with our VET provision if we confront difficulties and disagreements and try to resolve them. In this respect, the debate was exemplary. Here I want to **draw out some of the main points of disagreement or at least difference in emphasis** amongst the participants.

Often, the **fulfilment of aspirations is hindered by 'real world' constraints of fixed attitudes and limited capacity and resources**, leading to inevitable compromises where disagreement about priorities becomes evident. A broader but closely related issue is that there may have to be trade-offs between the satisfaction of different objectives and difficult decisions about prioritisation may have to be made. This is often difficult for participants in policymaking to admit. It is often necessary to consider these trade-offs explicitly and to consider where the balance of advantage may lie in contemplating change. It is also good practice to try to 'game' outcomes using scenarios and role-play to try and **flush out possible unintended consequences of policies**.

There still seems to be a lack of clarity about the relationship between **proposing a distinctive VET offer and, at the same time, maintaining at least a significant amount of esteem**. No-one has really come up with an answer to this question in the English context although it is not such an acute problem in the German-speaking countries. There was general agreement that more esteem for VET routes was necessary, even if the issue of parity of esteem was not resolved.

It was generally recognised that there are **tensions within market-based VET systems between competition and the need for some degree of co-ordination**. These tensions relate to quality assurance and the need to stimulate demand where it may not yet exist, not to mention the inability to supply a given need, as Edge's own *Skills Shortage Bulletins* show. Quality assurance of a myriad of training providers in a situation of limited knowledge on the part of consumers can be problematic and the market may not prioritise areas where there is demand from policymakers. It was generally agreed that 'Social Partnership' structures only work when the interested parties (state, employer associations, trade unions) are engaged with VET issues and prepared to collaborate. Entrenched attitudes and established ways of working can be difficult to shift.

There are **persistent problems over the use of vocabulary** which reflect, not just linguistic variation, but conceptual variation as well, for example over such

concepts as *competence, learning outcome,* and *know-how* which are used in different ways in different countries. While these differences are manifested at an international level, they also present within particular jurisdictions, particularly when one is looking at different levels of a system. We cannot guarantee, for example, that what a learner understands by a 'learning outcome', is the same as what an assessor or policymaker does and these latter two may also differ in their understandings.

The problem of the **lack of collective memory concerning VET** was alluded to, but it was also pointed out that even if such memory exists, the context of VET policy is likely to have changed over relatively short periods of time, meaning that learning from the past is not necessarily straightforward. However, **if one does not know anything about the past then this learning is not even possible**. Our ability to develop a collective policy memory for VET leaves something to be desired.

There was some disagreement within the group about **how and to what extent basic academic ability for example, literacy and numeracy, can best be**

developed within VET and whether it should be insisted on for certain levels of programme. There are different approaches to the issue, both in the UK and abroad. The seemingly attractive solution of contextualised academic knowledge as opposed to generic literacy and numeracy instruction may pose pedagogic and curricular challenges. This is one of the major areas of disagreement amongst VET specialists and it is not clear what the resolution should be, with firmly held convictions both in favour of and against different forms of 'remedial' provision. The sequencing of theory and practice in VET programmes, together with their degree of integration, also provokes considerable disagreement.

There seems to be a lot of uncertainty about the **nature of professional judgement**, how it is developed and in what contexts and how it is related to theory and experience. This is also reflected in the uncertainties mentioned in the paragraph above. The different elements of professional judgement need to be considered: experience, situational awareness, proximate knowledge and theoretical considerations. How they are integrated into different types of professional judgement can also be a subject for debate and merits further investigation, together with the implications for VET programmes.

There are likely to be **ongoing disagreements about assessment**, about its aims and where it is situated, about the relationship between assessment and award of qualification and about the distribution of risk amongst the stakeholders. There is also a failure to distinguish sufficiently between the different aims of assessment and the instruments appropriate to those aims, leading to problems of using inappropriate assessment instruments. These disagreements are partly related to larger disputes about the nature and purpose of assessment in education more generally which are far from being resolved.

These are the key areas where, despite widespread agreement on the general direction of travel for English VET, there **remain a range of different views and much scope for further detailed debate and consideration**. This discussion showed a clear enthusiasm amongst the community for tackling these issues and gaining further clarity and eventually consensus on the way forward. ■

Defining Technical Education

Prof. Martin Doel, *Visiting Professor, University College London (Institute of Education)*

With the successive publication of the Sainsbury Panel Report, the Skills Plan and the Industrial Strategy, **the term 'technical education' has become increasingly ubiquitous**. But nowhere in any of these publications is the term 'technical' directly defined.

The Sainsbury Panel Report[2] comes closest to an inferential definition of technical education with its insistence that content of qualifications associated with the technical pathway be determined primarily by the needs of the work place and employers:

> *Technical education must require the acquisition of both a substantial body of technical knowledge and a set of skills valued by industry.* (Page 33)

Quite aside from the tautological nature of this reasoning, with the word *technical* remaining undefined in relation to either *education* or *knowledge,* **this is not sufficiently comprehensive a definition to inform curriculum development, pedagogy, quality assurance, or assessment methodologies**. Each of these latter considerations could be critical in ensuring that the policy proposals relating to technical education have longevity in the face of widespread scepticism and the potential for self-interested stasis.

In searching for a more comprehensive characterisation of technical education, it may be worth posing some key questions:

- What is to be taught in terms of content and skills?
- Who should be the teachers?
- Where should it be taught?
- How should it be taught?
- How should it be assessed?

It is only the first of these questions that the Sainsbury Panel Report answers to any significant degree. In identifying what might be required of teachers of high quality technical education, the report of the Commission on Adult Vocational Teaching and Learning (CAVTL)[3], though prepared in relation to adults has salience for technical and vocational education at all ages. A key conclusion of the Commission was that **excellent vocational education was most likely to be delivered by what they termed *dual professionals*** – teachers or lecturers who were both expert in their occupational profession or trade and as teachers.

A further condition of excellent vocational teaching identified by CAVTL was the need for a ***clear line of sight* between the learning environment and the work environment.** This line of sight was most likely to be engendered by what the Commission called a *two way street* of continuous engagement between the education provider, its teachers and the industries in which students were being prepared for employment.

The *clear line of sight* also benefits from education and training being conducted in **industry-standard facilities, or by using high quality simulators**, enabling the most realistic experience for students. In completing its work, however, CAVTL made no distinction between *vocational* and *technical* education

These answers to the what, where and who questions could, however, **be equally applied to the term 'vocational education'** and the use of the word 'technical' in recent policy discourse could simply be cosmetic, with a low status word (vocational) being replaced with a higher status word (technical).

It is, though, in the last two 'how' questions, in relation to pedagogy and assessment, that a differentiator between vocational and technical might be found. In the case of both, **a key conceptual differentiator could be the *consequence of error*.** In technical

education, the consequences of error are immediate, unforgiving and personal for those other than the learner, while in academic education risk is abstract, remote and personal to the learner.

Servicing an aircraft, repairing a braking system on a car, installing an electrical ring main, applying chemicals in a hair salon or cooking a meal for 50 diners must be done safely and comply with stringent quality conditions. Fundamentally, at the outset students in technical education must understand that there are right and wrong ways to do things. This does not mean that creativity and innovation have no place in technical education, but they must be based upon sound technique.

It may too be that **the relationship between theory and practise is inverted in technical education** when compared to academic study, with practise necessarily preceding theory. Rather than being taught concepts and then seeking exemplification in reality, in technical education theory is most often used to interpret experience, to understand why techniques are used.

Each of the occupations quoted above are instructive when it comes to assessing technical education. Most of the occupations noted are closely regulated and often subject to a 'licence to practice.' The granting of that licence to practice, or of freedom to work unsupervised in a regulated environment, is most often the product of a judgement made by another professional tradesperson. **The assessor/supervisor is trusted to make the decision, but that decision-making trust is subject to periodic quality assurance** by a peer.

This approach is very much in keeping with the traditional approach to apprenticeships as conceived in the medieval guilds, with a master craftsman or woman signing off the indenture papers of an apprentice. **Distinctive technical education depends upon the mastery and demonstration of practical skills**, not simply upon the completion of written exams or papers. Such a requirement poses considerable challenges to systems of mass education, though use of virtual realities may provide a way forward here, albeit without the jeopardy involved in fully realistic circumstances. ■

The Vocabulary of Vocational Education

Nuzha Nuseibeh, *PhD Candidate, Oxford University*

One of the key points to emerge from this debate was the **importance of common language**. Throughout the various discussions, terminology was a recurring theme, as participants defended and clarified the meaning of words commonly used in vocational education.

- What do we mean when we refer to "knowledge", and how does this differ from "judgment"?

- How do we define "vocational" in contrast to "technical" education, and why is one often preferred over the other?

- What impact comes of referring to "skills" rather than "learning outcomes"?

- Can "Bricklayer" encompass all the attributes required of a high level qualification, or is a different label needed, such as "Construction Manager"?

These differences are more than mere semantics. They highlight the ways in which the language we use can shape the possibilities of policy development. Skills, for instance, are central to debates about work and employment, and are often seen as the answer to a wide variety of economic and social challenges.[4] But what is meant by "skills" is often neither clear nor fixed; they can be hard, soft, transferable, analytical, and technical. They can refer to resilience and creativity, as well as to the general ability to speak eloquently, write well and collaborate effectively.[5]

In short, they appear to encompass everything necessary for "job readiness", though even what this means is subject to change (a result, perhaps of the 65 Ministers responsible for skills over the last three decades) and has indeed broadened significantly since the 1950s.[6]

Of course, **these variable definitions in and of themselves impact how skills policy is created**. Importantly, though, the word "skills" itself is also key: it suggests an expertise or training that can be acquired and improved, rather than an in-built personality trait such as might have, at one time, been associated with something like creativity or resilience. This, in turn, creates a problem of responsibility: a lack of creativity becomes not simply a genetic predisposition, but a missing competency that should have been learned or taught—hence a preoccupation with skills "gaps".

Moreover, **a "skill" is deeply individualised, something that can be carried through by a person from one context to another**. This individualisation is not immediately obvious when applied to all the abilities now understood as "skills", for instance, effective teamwork arguably depends on group dynamics and institutional culture as much as on a single person, and yet an individual can lack teamwork skills too.

Language can therefore be hugely important for creating and determining policy, and this becomes particularly troublesome when concepts are unclear or no shared language exists, since linguistic differences can mean significant conceptual differences as well.

How can we discuss skills gaps, or technical and vocational education without properly defining them (beyond the general "anything non-academic")? And how can we have debates without agreeing on these definitions?

Though it may seem unnecessarily philosophical or pedantic, we do in fact need to have a basic understanding of what everyone is saying in a given conversation or policy. The term "skills" is overused and it is clear that other attributes like character and attitude are also important. **We need to continue to construct a more precise and differentiated vocabulary if we are to have the constructive debates much needed in this field.** ∎

Trade Unions, Expertise and Aspiration

Norman Crowther, *National Official (Post 16 Education), Trades Union Congress*

Listening to Jakob Kus (Polish trade union leader) at the seminar reminded us that not only do countries change their policies and politics around further education and skills, but that **the mechanisms and structures that support or hinder education and skills development are crucial**.

While Poland, as Jakob noted, was moving from a centralised political and bureaucratic system to a more market-based arrangement, it still had a culture of political mediation. In other words, stakeholders and agencies assumed that **coherence was better than incoherence; that consensus was better than dissensus; and that social outcomes were more important than individual outcomes**.

UK concerns around the structures of further education relate to a longer period of change than the Polish case - arguably, from the Labour Party's 1945 collectivist vision of the public good to the present. The collectivist vision at that time was social democratic and not Marxist. We have had a much more radical market agenda since the late 1970s than has Poland. Further, the UK decline of manufacturing and the ensuing decline of Trade Union membership meant that a key voice was diminished in the move to a market model of the economy and society.

Currently, it looks like **we are still slipping into further fragmentation of provision** – more distinct groups of 'consumers' in the education market, and less cohesion than ever as academicisation of schools and now colleges, UTCs, Institutes of Technology, National Colleges, 'super sized' colleges are all developing. Yet, the Area Based Review ambitions[7], the Sainsbury Report[8] and the Augar Report[9] have been the latest policy

exhortations that have argued for **more systematic structures and more co-ordination in the sector**.

Structures, though, need people and how they interact is what either maintains or disturbs structures. The idea of how people are motivated, what they assume, what they wish for, within social and political structures is something that Marius Busemeyer has detailed well in *Skills and Inequality*.[10] He argues that the UK 'market' based system is a reflection of the political constituency of successive governments since 1945. In short, over time, **the UK has incrementally developed a more and more market based system** that ignores, at best, and actively discourages consensus between capital and labour.

What we lack is what Busemeyer calls a mediating ethos that is shared by more co-ordinated economies: Central Europe and the Scandinavian countries, are the examples he gives. Both have legislated for skills development with employers (Germany, Austria and Switzerland) or schools (Scandinavian countries). This has happened even though, as his case study shows, the UK, Germany and Sweden all began their vocational and education visions in 1945 at similar starting points.

We are now in a fair position to see that **the market led approach has its limitations** for professionalism, for colleges and for achieving the core purpose of teaching and learning (Crowther and Lucas).[11] Whatever period we look at, the development of education and skills has also been pinned on to a larger set of divisive industrial relations that a market based or a non-coordinated economy can engender (Busemeyer 2014).

The **yearning for some coherence and system to underpin FE and skills development** in general, though, has further been seen in Ewart Keep's recent work[12] and the debates that have flourished from that. The recent Commission for the College of the Future includes a senior trade union figure (Paul Nowak, Deputy General Secretary of the TUC) and has included invited talks with all of the UK trade unions, which shows a real credible intent to 'solve' the problem of skills development and post 16 education. For this, it has to be commended.

With the increase in voices on the matter, including trade unions, a more coherent picture can be painted. And who better to engage in debate about workplace skills, career aspirations and expertise than those who want this for their members? The high productivity economy is one that accepts that people will develop and move on because the more skills that people have, the greater the productivity in each workplace, and the easier to recruit at times of change or retirement. This should also be matched in FE colleges as workplaces themselves, with a standard national contract for FE professionals.

The TUC have argued for policies that promote collaboration and encourage a more 'mediated' ethos – for instance in recent reports such as Macleod's *Engaging for Success*[13] and the understated impact of Unionlearn.[14] We need to **continue to put our ideas and assumptions to the test around vocational education and training**. Doing that will make the ideas better and it will enable us all to help serve the learners and communities that we cherish. But we need to talk about what new legislation we need and how vocational education and training can flourish in a more systematic, structured and mediated way – they are the lessons from the most stable and robust vocational and education training systems, after all. ■

Collective Action in a Free Market Economy

Carmen Nicoara, *PhD Candidate, King's College London*

Vocational Education and Training (VET) policy in England sees **private sector involvement in skills formation as fundamental**. In particular, the apprenticeship system by its nature relies heavily on training investment decisions made by individual firms to meet their private skills needs, which do not always replicate society's wider skills needs.

The latest apprenticeship reforms – the creation of employer-designed standards, the new Institute for Apprenticeships and the Apprenticeship Levy - represent **the latest state-designed attempts to persuade the private sector across the board to invest in and demand high-quality training.** For these reforms to achieve this goal, they depend on convincing not just any one firm, but a group of firms to invest almost simultaneously in training, create high quality jobs, and participate in innovation. In the context of a free market economy such as England, a firm's decision to invest in training is very likely to be influenced by local collective decisions regarding training investment.

Especially for small and medium-sized enterprises (SMEs), investing in high-quality expansive apprenticeships* can be a difficult choice. If small firm A shares similar skills shortages to local competitors (firms B, C, D) and notices that over the years the competitors have primarily relied on the external labour market in order to meet their private skills needs, they face a number of risks. **They could train and risk losing their investment** given the skills acquisition strategy of their competitors.

They could **try to free-ride by attempting to recruit someone else's skilled worker**, a scenario that avoids the cost of training and the risk of losing the skilled worker they have trained to a competitor. Bearing this in mind, the capability of the English apprenticeship policy to persuade SMEs to coordinate training strategies is weak.

According to Culpepper, '*the best candidate capable of playing this intermediate role is an employers' association or a union*'. In England, neither currently have the strength and influence to do so. We do not have social partnerships in the way that many of our European neighbours do, but we do have public-private partnerships in the shape of Local Enterprise Partnerships (LEPs).

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Their closeness to the local business community is not yet fully exploited in this arena. They rely heavily on a ring-fenced, centrally-designed funding system that was set up to **incentivise individual firms whilst bypassing the collective need for building trust amongst local competitors**.

Empirical data indicates that what SMEs need is a local ecosystem that motivates firms to communicate with each other, support each other, create partnerships when training is too expensive for an individual small firm, and ultimately build trust in each other.

This system needs to be maintained and 'policed' by the businesses themselves through **collectively agreed incentives and sanctions and local mechanisms for collective action to be achieved**. ▪

*Fuller and Unwin[15] introduced the concepts of expansive and restrictive apprenticeships as two opposite poles of a continuum of training approaches, highlighting that training does not achieve its full social value unless it is expansive. Expansive apprenticeships create 'well-rounded experts' and need to **focus on teaching broader occupation specific and transferable skills** as well as what is specifically needed for that individual job role.*

THE EXPANSIVE-RESTRICTIVE FRAMEWORK IN THE CONTEXT OF APPRENTICESHIPS[16]

EXPANSIVE	RESTRICTIVE
Apprentice develops occupational expertise to a standard recognised across an industrial or service sector.	Apprenticeship develops or has existing skills assessed within a limited job role.
Employer and training provider share commitment to apprenticeship as a platform for career progression and occupational/professional registration.	Apprenticeship doesn't build the capacity to progress beyond present job role.
Apprentice has dual status as learner and employee: explicit recognition of, and support for, individual as learner.	Status as employee dominates: limited recognition of, and support for, apprentice as learner.
Apprentice makes a gradual transition to productive worker and is stretched by employers and providers to develop expertise in their occupational field.	Fast transition to productive worker with limited knowledge of the wider occupational field.
Apprentice is a member of an occupational community with access to the community's rules, values, history, occupational knowledge and practical expertise.	Apprentice treated as extra pair of hands with access to limited knowledge and skills to perform job.
Apprentice participates in different communities of practice inside and outside the workplace.	Training restricted to narrowly defined job role and workstation.
Apprentice's work tasks and training closely mapped against recognized occupational standards and assessment requirements to ensure they become fully competent.	Weak relationship between workplace tasks, occupational standards and assessment requirements.
Apprentice gains forms of certification with labour market currency and enabling progression to next level (career and/or education).	Apprentice doesn't have the opportunity to gain valuable and portable forms of certification.
Off-the-job training includes time for reflection and stretches apprentice to reach their full potential.	Supporting apprentice to fulfil their potential is not seen as a priority.
Apprentice's existing skills and knowledge recognised and valued and used as platform for new learning.	Apprentices have limited opportunity to expand their existing skills.
Apprentice's progress closely monitored with regular constructive feedback from range of employer and provider personnel including managers, who take a holistic approach.	Apprentice's progress monitored for immediate job performance with limited developmental feedback.

The Relationship between Content, Learner and Educator

Dr Jim Hordern, *Lecturer in Education, University of Bath*

In England, and arguably across the Anglosphere, we still lack a conceptually coherent tradition for making sense of the **complex processes that lead to the acquisition of vocational expertise**. We lack not only the ideas of *Kompetenz* prevalent in continental Europe in various forms, but also the notions of *Bildung-Centred Didaktik*, *Erziehung and Pädagogik* that have informed educational approaches in those countries.*
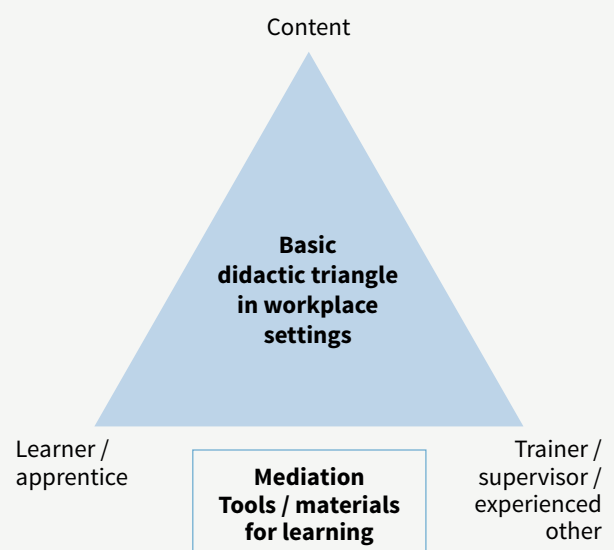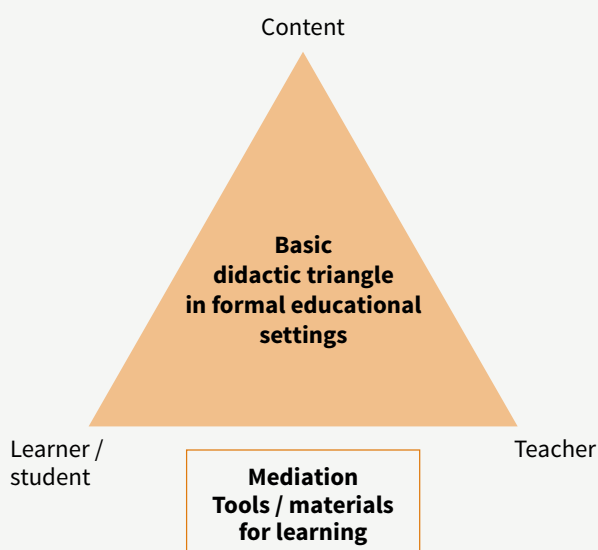
This is not a call for more 'borrowing' from continental Europe but a suggestion that we need to think much more seriously about developing a **concise and well-reasoned representation of vocational educational processes** that can inform Initial Teacher Education in VET, VET policy and curriculum development, and stimulate further enquiry into curriculum practice.

There needs to be a **re-theorisation of the relations** between (i) student/learner, apprentice; (ii) teacher, trainer, mentor; and (iii) 'content' (which could include various forms of know-that, know-how, acquaintance knowledge, work process knowledge, skills and transversal ability[17]) within and between formal educational contexts and workplaces. This also includes a consideration of how those relations and understandings are shaped through processes of mediation, which will differ significantly according to the occupational area.

The diagrams below represent **simplified versions of the didactic triangle**. In vocational education we usually need to consider not only the relations between content, learner and teacher in formal educational settings but also these relations in workplace settings, where 'content' may be less formalised and 'teachers' may be supervisors, colleagues or more knowledgeable others.

Furthermore, we also need to consider how the processes **interrelate and interconnect between formal institutions and workplaces** and this will depend substantially on the type of vocational programme and the context of the settings themselves. Learning and knowledge acquisition is always relational and mediated, and the various tools and materials for learning are important considerations as activity theory and socio-material approaches have highlighted.

Content

Basic didactic triangle in formal educational settings

Learner / student

Teacher

Mediation Tools / materials for learning

Content

Basic didactic triangle in workplace settings

Learner / apprentice

Trainer / supervisor / experienced other

Mediation Tools / materials for learning

Although a direct translation of these terms is problematic, an approximate English version of each is competence (Kompetenz), Education or upbringing (Erziehung), pedagogy or the study of education (Pädagogik). 'Bildung-centred didaktik' is an English description of the principal German pedagogical tradition of Bildungstheoretische Didaktik

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We need to consider *where the content* (in all its variations - propositional, procedural and personal knowledge) *comes from* and how it is manifested in various contexts (e.g. both formal educational institutions and workplaces and through engagement in work processes). This means **considering what knowledge is contained within each 'vocational subject'**, from carpentry to bakery, from hairdressing to engineering.

Such subjects may consist of a wide range of knowledge, including that which emerges from research activity and academic subjects, but also from workplaces (innovations, new techniques) and from representative bodies (agreed operational procedures and standards). The type of knowledge and the extent to which it is taken from fields of research and workplace innovation varies by occupation and sector. **In many occupations tacit knowledge may be crucial for expert practice**.

While the vocational subject is (ideally) attuned to the current problematics of vocational practice, redundant knowledge may also linger on in programmes of vocational education. In some vocational areas, **fundamental principles or concepts may be longstanding** – but may need to be taught (or re-contextualised) in new ways. The extent to which knowledge is systematised in a coherent knowledge base may vary considerably by occupation.
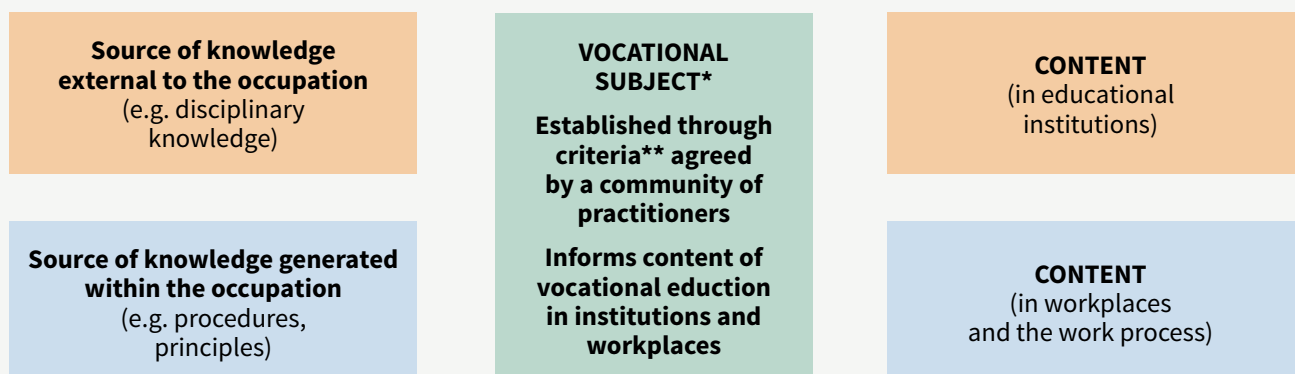
The development of some form of **agreed vocational subject or body of knowledge is important** for the vocation. It is not enough to base this solely around

requirements to perform specific workplace tasks, as this does not prepare learners for all that could be required of them or provide them with the grounding that will *enable them to develop and adapt in the workplace*.

Instead, a vocational subject should be based on a **more substantive concept of expertise and competence that** will enable the vocational learner to progress within the occupation or sector, and participate in debates relating to the occupation.

This diagram outlines **how a vocational subject can be conceptualised**, as representing a body of content that sits between sources of content and their representation in the processes of vocational education. ■

Source of knowledge external to the occupation (e.g. disciplinary knowledge)	**VOCATIONAL SUBJECT*** **Established through criteria** agreed by a community of practitioners** **Informs content of vocational eduction in institutions and workplaces**	**CONTENT** (in educational institutions)
Source of knowledge generated within the occupation (e.g. procedures, principles)		**CONTENT** (in workplaces and the work process)

*Something akin to the occupationally-orientated Bernsteinian 'region' (Hordern 2016[18]).

** For example, through a 'criterial practice' (Addis and Winch 2018[19])

The Importance of Professional Judgement

Dr Geoff Hinchliffe, *Honorary Lecturer in Education, University of East Anglia*

I wish to explain the importance of **judgement in professional action**. One of the key elements that identifies any profession (be this teaching, soldiery, construction, vehicle maintenance or surgery) is that the role involves 'professional judgement'. **This is what marks off the professional from the 'operative',** who performs tasks as instructed, usually on a repetitive basis. It might be said that even an operative has to exercise judgement as well; but whilst one can certainly concede this, judgement is not a central role in this case. The ability to exercise judgement is, from the professional's standpoint, a recognition of his or her autonomy and responsibility. From the standpoint of the organisation, judgement is needed because it is efficient: individual decisions and actions need to be made on a regular basis just because it is a better way of solving problems and achieving goals and results. Naturally, the professional is also expected to be able to judge (e.g. when colleagues and stakeholders need to be brought in).

We expect a professional to know the limits of their own expertise and judgement. **But what exactly is judgement?** It often appears as a rather mysterious ability that is possessed only by those individuals who have toiled over many years – judgement and 'experience' are often linked in this way. But invoking 'experience' still doesn't take us any further in our understanding of what judgement actually is. And since it is generally agreed that judgement is rather important for the professional – any professional – it is worth reflecting further. One way of approaching the idea of judgement is to contrast it with 'knowing'. If I look out of the window and see that it is raining, I know this to be the case. The computer programmer knows how certain data sets are to be accessed. They also know what durable code looks like in terms of its modularity and efficiency.

Similarly, a pilot knows how to land a plane – they are able to land the plane and they can also explain the procedures involved, the factors to be taken into account and the risks. If required, they could talk through the process as they actually land the plane. Of course, someone may be mistaken in their knowing, but the broader point is this: **when I know something I am able to state 'what is the case'.** Moreover, the knowledge that I have is not something that is contestable as far as the acting out of my professional duties is concerned: knowledge is both shared and mutually acknowledged. I grant that knowledge can be contested in the seminar room, in the laboratory or even in a discussion group – knowing 'what is the case' can change (but not, I suspect, that quickly or easily). In all the examples I have given I suggest that the term 'judgement' does not really apply.

I would be seriously worried if a pilot said they could merely 'judge' how to land a plane without knowing how to do so: I want them to know how to land it before I get aboard, even though this may involve making judgements during the course of landing the plane.

One interesting feature of knowledge – including technical knowledge – is that what we might term 'epistemic agency' runs out – i.e. it has no further application. I cannot 'choose' whether it is raining or not; nor can I land the plane 'in my own way'. Our scope for agency is bounded by our knowledge, by 'what is the case'. **Judgement only comes into play once its bounds are set – and these bounds take the form of knowing**, of knowledge. My judgement is immediately questionable if I do not respect those bounds or ignore them, whether from ignorance or hubris. However, this still gives judgement a great deal of scope.

Why is this? The reason is that **once we factor out 'what is the case' there is still considerable scope for human agency.** This happens in two kinds of ways. The first is the way in which problems arise. In my example, 'raining' as such is not a problem; but my roof leaking certainly is. Epistemically – i.e. from knowledge's standpoint – there is no problem, only an explanation; it is only human concerns that turn an event (rain getting through the roof) into a problem. Judgement then comes in two ways –first, how much of a problem is it? Second, how it can be fixed.

We make a judgement on the scope of the problem (is it just a loose slate or is the whole roof in need of replacing) and in this case our knowledge is bound to be approximate: a judgement is made, taking into account the age of the roof, the materials, the likely cost, etc. How problems arise requires knowledge in the form of an explanation; how they are solved requires judgement. But when we judge, it is often the case that our knowledge can only be approximate. **Professionals often have to make 'constrained' judgements based on limited situational knowledge.**

The second way in which agency 'intrudes' is more straightforward: new aims and goals are fashioned based on needs and wishes. Here, **judgement is based not only on what is known 'to be the case' but also on taking into account similar aims and projects**. Typically, we look to other projects in order to gather metrics and often a project goes awry just because not enough research on similar projects has been undertaken. In addition, when we are faced with a new project we need to isolate what really is new about it and this requires judgement working together with knowledge. Too often projects are framed in terms of 'problems to be solved' but this can prevent us from recognising what is genuinely different about the project in question. The feasibility of a new project is always more or less problematic simply because something new is being brought into existence, through human agency.

If the above reflections are right, then **it is mistaken to suppose that VET programmes should focus exclusively on knowledge,** whether this be of the 'knowing that' variety or the 'knowing how'. Knowing is vital, of course: without knowledge, judgements would be impossible. However, if professional life chiefly involves problems and projects then this must be reflected in VET programmes, both in terms of curriculum and pedagogy. In this way the capacity for judgement is more likely to be developed early on.

The curriculum needs to be framed around problems and at the same time, trainees must be given full scope to fashion their own projects. In addition, they need to learn about 'real' projects, including those that were not successful. In this way, practitioners get used to making judgements early on, without having to wait years and years before the osmosis of experience makes itself felt. There is one further observation worth making. As I have described it, the knowledge gained through a VET programme, will be initially framed in terms of problems and projects. This would inevitably have the effect in the trainees' minds of supposing that all knowledge is essentially pragmatic. Part of the skill in delivering a VET programme is to show how the knowledge required stands on its own, irrespective of what problems or projects are in play. **Gradually, the trainee acquires a sophisticated appreciation of the knowledge needed and why it is so valuable.** ◼

The Future of Vocational Assessment

Siân Owen, *Head of Stakeholder Engagement, Pearson UK*

VOCATIONAL ASSESSMENT

Simply put, assessment shows how well an individual has performed in a qualification. Ensuring assessment is appropriate is crucial – as **the award of a qualification rests on an individual's successful performance in that assessment**. Those using qualifications, such as employers, universities, and individuals, need to have confidence that the assessment of a qualification shows what an individual can do.

Anyone with an interest in qualifications will appreciate that the design of 'good' assessment is not, in reality, this simple. A huge amount of work goes on to ensure assessment is fit-for-purpose, and the concepts behind assessment design are subject to much debate.[20] This reflects the importance of qualifications to governments, individuals, universities, and employers. It also reflects **the broad purposes that qualification systems serve**, such as responding to social and economic policies, regulating national education priorities, and international benchmarking.

So what makes for 'good' assessment design?

THE IMPORTANCE OF 'PURPOSE'

All qualifications must meet requirements set out by Ofqual[21] to be deemed fit-for-purpose. They must be well-suited to do the job they are designed to do. In this respect the principles behind the design of vocational qualifications do not differ from any other type of qualifications including academic GCSEs and A levels. One of the key principles of good design is that it must be **underpinned by an understanding of the purpose of the qualification.** It follows that it is critical that the assessment used also reflects this purpose. It must be able to measure how an individual has performed, *according to the purpose of the qualification*.

In general terms the purpose of a qualification is to show the behaviours, skills, knowledge and understanding an individual has developed. **For vocational qualifications, a specific vocational context – broad or narrow – is used to define the focus for learning and assessment.** Vocational qualifications can be designed to meet more specific purposes – for example, to confirm competence in a job role, or to show that an individual is 'work-ready'. In all cases, in order to meet their purpose, vocational qualifications are developed by working closely with employers to ensure the qualification reflects changing working methods and patterns in industry.

A PRACTICAL EXAMPLE – NEW QUALIFICATIONS, AND THEIR PURPOSE

The purpose of the new BTEC Level 3 National qualifications in Art & Design Practice, and Creative Media Practice is to develop the behaviours, skills, knowledge, and understanding, necessary to prepare post-16 year-olds for progression into higher education and training, or employment within industry.

The qualifications reflect the changing needs of the sector. They **move away from a focus on discipline-specific skills towards the cross-disciplinary skills** currently sought after in industry. Employers need individuals who have the knowledge and skills to adapt to working in different contexts, and who are able to manage and deliver extended projects from initial brief, to presentation of a proposal, to fully realised outcomes. It is not, therefore, assessed by written exams, but instead **in a way that prepares individuals for the work they will encounter in a career in these industries**. The qualifications:

- Are **assessed through project work and portfolios** which allow individuals to demonstrate their capabilities in major projects reflecting the size and scope of real industry projects. The portfolios also support individuals' applications to higher education and employment.

- Are **internally assessed by the teacher/lecturer** and quality assured. This approach reflects the way these types of courses are assessed in higher education, but more importantly, allows for work to be contextualised in line with latest industry practice, career interests, and progression opportunities in the local industry.

- **Require employer input** in the brief for the final project providing valuable, real, industry experience.

THE FUTURE OF ASSESSMENT

We know that the skills needs of industry are constantly evolving.[22] The recently published Global Learner Survey[23] tells us that to meet the demands of this new world of work, individuals are also changing. They are increasingly embracing lifelong learning and taking control of their own learning. This is an exciting and challenging time for those of us in education and training – we are able to bring together the best of the technology and innovation open to us to help individuals take advantage of the opportunities open to them, by **providing qualifications that best prepare individuals for their future**. ◼

Conclusions and next steps

The contributions in this collection are a good reflection of the major fault lines in the way in which we in England think about vocational education. They have emerged however against the background of a **wide-ranging consensus about the need for a more expansive conception of vocational education in England** than has been evident for some decades. They set out trenchant views about major issues, but do so in a way that can stimulate long-term VET policymaking. The issues raised about the role of knowledge and judgement in action, engaging diverse stakeholders in productive collective action, the need to obtain a balance between market imperatives and national priorities all deserve further consideration to inform robust policymaking. This is also true of the key educational issues of aims, curricula, pedagogy and assessment as is evident in some of the contributions.

One of the problems here is that **our choices usually and unavoidably reflect compromises between advantages and disadvantages in pursuing a course of action.** We have to gauge the balance of advantage and disadvantage and adopt a course knowing that we may have to make compromises in other areas. In this respect, debates like the current Edge series on the Principles of English VET are invaluable. **Now that we have identified the main areas that need further attention, we look forward to subjecting these to a sharper focus in subsequent debates.**

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EDGE
FOUNDATION

The Edge Foundation
44 Whitfield Street
London, W1T 2RH

T   +44 (0)20 7960 1540
E   enquiry@edge.co.uk

www.edge.co.uk

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www.edge.co.uk