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Not just skills: what a focus on knowledge means for vocational education

LEESA WHEELAHAN

This contribution to the symposium on Michael Young's article 'Overcoming the crisis in curriculum theory: a knowledge based approach', supports his contention that curriculum theory has lost sight of its object—'what is taught and learned in schools', and argues that this has particularly deleterious consequences for vocational education and training (VET). VET is unproblematically positioned as applied, experiential and work-focused learning, and it is seen as a solution for those who are alienated from or unsuccessful in more traditional forms of academic education. This article argues that rather than being a mechanism for social inclusion, VET is instead a key way in which social inequality is mediated and reproduced because it excludes students from accessing the theoretical knowledge they need to participate in debates and controversies in society and in their occupational field of practice. It presents a social realist analysis to argue why VET students need access to theoretical knowledge, how a focus on experiential and applied learning constitutes a mechanism for social exclusion and what a 'knowledge rich' VET curriculum would look like.

Keywords: vocational education and training; social realism; applied disciplinary knowledge; curriculum; knowledge

Introduction

In his 2013 article 'Overcoming the crisis in curriculum theory: a knowledge based approach', Young (2013) argues that there is a crisis in curriculum theory because it has lost sight of its primary object—'what is taught and learned in schools' (p. 105). Elsewhere, Young (2010a) argues that:

> The purpose of (formal) education is to ensure that as many as possible of each cohort or age group are able to acquire the *knowledge* that takes them *beyond their experience* and which they would be unlikely to have access to at home, at work or in the community. (pp. 5–6)

Arguably, the loss of knowledge as the object of curriculum is exemplified most strongly in vocational education and training (VET) offered in the senior schools and in colleges in the second, vocationally oriented sector of tertiary education. In Anglophone countries such as Australia and England which have particularly impoverished models of VET (Clarke & Winch, 2006), VET has been recast as about skills and not knowledge, and the key curricular questions—what should we teach and why?—have

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been reduced to the skills needed to get a job and for work. Knowledge, where it exists, has been subordinated to and tied to skills. Curriculum theory has abandoned vocational education because it has colluded in the approach that VET is about skills for work, thus exempting VET curriculum from the obligation to provide students with access to the knowledge that they cannot get at work, at home or in their community.

And the consequences are great, given the large percentage of young people who participate in VET (Organisation for Economic Co-operation & Development [OECD], 2015). As the importance of VET has grown in policy, the loss of knowledge as the object of VET curriculum has become more pronounced. VET is viewed both as a mechanism to promote economic growth by providing skilled labour for the workforce, and social inclusion, particularly for disadvantaged groups who do not do well in school (OECD, 2015). The emphasis in this curriculum is on applied, experiential and work-focused learning, and it is seen as a solution for those who are alienated from or unsuccessful in more traditional forms of academic education. This article argues that rather than being a mechanism for social inclusion, VET is instead a key way in which social inequality is mediated and reproduced because it excludes students from accessing the theoretical knowledge they need to participate in debates and controversies in society and in their occupational field of practice.

In responding to Young's (2013) article, which is the subject of this symposium, this article argues that a knowledge-based approach is essential to revitalize curriculum in VET. The article is based in the same 'social realist' school within the sociology of education as Young's work (see also Maton & Moore, 2010; Moore, 2013; Muller, 2000; Wheelahan, 2010; Young, 2007). It explains why it is necessary to refocus on knowledge in vocational curriculum, and it explores how vocational curriculum may differ from more academically focused curriculum in schools and colleges, while at the same time providing students with access to the knowledge they need to be full participating citizens in society and in their occupational field of practice.

The first section of the article draws on Emile Durkheim and Basil Bernstein to explore why we need access to knowledge in society and in work, and why such access is intrinsic to democracy. It explains why theoretical knowledge is 'powerful' knowledge and the implications of this for curriculum. The second section distinguishes between social inclusion on the one hand, and social justice on the other, in discussing the way in which the 'problem' of low achievement in education is conceptualized. The following section explores the knowledge demands made on students who are shunted into applied, experiential, work-focused learning, and argues that paradoxically these demands are greater than for students engaged in 'academic' learning, while the opportunities to learn such knowledge are reduced. The final section explores what a knowledge-rich VET curriculum would look like, and how this would differ from academic curriculum, and its links to and differences from curriculum for the professions.

Why access to knowledge matters in society and in work

Young (2007), like all those within the social realist perspective, acknowledges his debt to Durkheim (1922/1956) who wrote at the turn of the twentieth century, and to Bernstein (2000) who wrote at the turn of the twenty-first century, in developing his theory of knowledge in education. Durkheim argues that theoretical knowledge consists of society's 'collective representations', which play two roles. The first is that they allow society to understand and develop knowledge about the nature of the (natural and social) world beyond that which is accessible through individual experience. Collective representations are society's 'work-in-progress' which are 'the product of a vast cooperative effort that extends not only through space but over time' (Durkheim, 2001, p. 18). Collective representations allow societies to make sense of the world, to connect the past, present and future and to consider alternative futures (Bernstein, 2000). This does not mean that they are 'true', but that they are our best efforts thus far.

Historically, societies have used religion to make sense of the world, and Durkheim (2001) argues that this is what endows collective representations with their 'sacred' character, in contrast to the concerns of the 'profane' everyday world. However, with the establishment of medieval universities, collective representations became secularized over time in the form of the academic disciplines. The academic disciplines have developed, proliferated and changed since the medieval universities (Durkheim, 2006). They tend to be concerned with, and are differentiated by, different aspects of the natural and social worlds, reflecting the growing complexity of society and its increasingly differentiated division of labour (Bernstein, 2000).

The second role that collective representations play is a normative one. They are the means through which society conducts its conversation about itself, and considers alternative futures and debates what it *should* be like. It is the way society establishes its values, norms and mores. This is what leads Bernstein (2000) to argue that access to knowledge is essential for a democracy. He argues that individuals have the 'right to the means of critical understanding and to new possibilities', the right to be 'included socially, intellectually, culturally and personally' and, 'the right to participate' (p. xx).

Students need access to theoretical knowledge to realize these rights, because it enables them to participate in conversations in society and in their occupational fields of practice about what they have done in the past, what they should do differently in the future and why. This takes on added importance because the increasing complexity of technology, work and society means that the knowledge demands of most occupations has increased. Each occupation has its own (big and small) challenges about the nature of practice, ethical issues and dilemmas, and different perspectives about how practice and their field should be developed in future. If students are to participate in these debates, they need to have access to, and be able to use, the specialized knowledge that underpins practice in their occupational field.

Students also need to be able to distinguish between different voices in the conversation in society and in work, and this means entering the disciplinary system of meaning that is being used to conduct these conversations. Bernstein (2000) argued that 'To know whose voice is speaking is the beginning of one's own voice' (p. xxv). Similarly, Muller (2000) argues that the condition for entering debates or to change the terms of the debate is to understand the boundaries that shape the debate, and the rules through which it is conducted. He explains:

> … to cross the line without knowing it is to be at the mercy of the power inscribed in the line. The question is *how* to cross, and that means paying detailed attention to the politics of redescription and translation and to the means required for a successful crossing. (p. 71)

As an example of a debate in *society*, students need to be able to distinguish between the different voices who argue on the one hand that global change exists as a consequence of human activity and that it is a threat to our existence, and on the other, that it is a natural phenomenon that poses no particular challenges. In *work*, students will need access to knowledge to make judgements about practice. For example, electricians need access to mathematics and not just formulas if they are to be autonomous practitioners. Childcare workers need access to theories about child development and the child in society if they are to support the children they work with and their families. VET teachers need access to theoretical knowledge about their specialist field of practice *and* theories of pedagogy if they are to be effective teachers who can support students, and not merely trainers who have a repertoire of procedures that they apply in different circumstances.

However, access to such knowledge is unevenly distributed. Bernstein (2000) argues that education is 'based on a distributive principle such that different knowledge and their possibilities are differentially distributed to different social groups' (p. xxi). This is the essence of the argument that VET is much less likely to provide students with access to the knowledge that they need to realize these rights in society and in their occupational field of practice. This is because the emphasis in VET is on procedural knowledge, whereas the emphasis in academic education is on accessing theoretical knowledge as a condition for understanding and changing practice (Buchanan, Yu, Marginson, & Wheelahan, 2009).

Theoretical knowledge is 'powerful knowledge' because it provides us with epistemic access to aspects of the world we are exploring, even though that knowledge is always incomplete, fallible and revisable in the light of new evidence. There is not a direct 'correspondence' between knowledge and the objects that it is about, because we use pre-existing knowledge to interpret what we see, and to create new knowledge in exploring and increasing our understanding of the world (Bhaskar, 1998). Theoretical knowledge is socially produced by specialized communities, and these communities develop the rules and criteria we use to frame our research questions, and guidance for how we conduct our exploration. It is this that gives knowledge its 'objective' character and the capacity to make judgements about competing knowledge claims (Young & Muller,

2013). This does not mean that such knowledge is 'true', but that it is our best efforts in reaching the truth thus far.

Young (2013) argues that powerful knowledge has two key characteristics, both of which entail boundaries. The first is that it is specialized knowledge in how it is produced and transmitted. It takes the form of academic disciplines in universities and subjects in schools and colleges 'which define their focus and objects of study' (p. 108). The second is that the conceptual knowledge that students engage in at school, college or university is differentiated from 'everyday' knowledge. Students need to be supported to develop the understanding they need to traverse both sets of boundaries, and this is through recognizing and negotiating boundaries, rather than traducing them. This is what gives students the passport they need to cross boundaries, so they can choose when and how to move between theoretical and everyday knowledge, and between different types of theoretical knowledge. Without such a passport, students are left stranded at the borders of knowledge without the means of entry, and without an understanding as to why this is so. This has curricular implications that are addressed in the last section of this article in considering the nature of VET curriculum. The pedagogic implications are that students need to be able to *recognize* the distinctions between everyday and theoretical knowledge on the one hand, and between different types of theoretical knowledge on the other, and to be able to use each appropriately (Bernstein, 2000). VET students need to be able to select and use contextually appropriate applications of theoretical knowledge in their practice. However, the structure of VET curricula that focuses on skills at the expense of theoretical knowledge precludes students from this access.

Policy: social inclusion at the expense of social justice

Young (2013) concedes in his article that:

> The kind of knowledge-based curriculum that I am proposing could, if there were no other changes in staffing of schools or the preparation of teachers, almost certainly increase [the] … proportion of failing pupils and encourage more disaffection and drop out. (p. 112)

The policy response to student failure has been to 'channel' students who are struggling academically into applied or vocationally oriented programs, particularly in Anglophone countries such as Australia and England where VET is a low status option. This is in contrast to VET in Northern Europe, particularly systems such as the 'dual-system' in Germany where apprentices spend part of their time in the workplace and part of their time in school. The differences between Australia, England and similar Anglophone countries on the one hand, and Northern European VET systems on the other, reflects the differences in the nature of the 'transition' systems between education and the labour market in these countries (Iannelli & Raffe, 2007). Transition systems refer to 'the enduring institutional and structural arrangements' with their differing social, economic and political frameworks that mediate the transition of young

people from education into the labour market and the trajectories of those moving within and in and out of the labour market (Raffe, 2008, p. 278). In Northern Europe, VET is more embedded in the labour market, particularly in those countries with strong apprenticeship systems. Iannelli and Raffe (2007) explain that young people in these countries have systematic access to employers and recruitment networks, and employers have more direct knowledge of the students and their qualifications. The occupations that students are preparing for are valued in society and knowledge 'rich', and this is reflected in the curriculum. The *ends* or purposes of VET are to prepare students for work and also to be citizens (Hanf, 2011).

In contrast, the links between VET and the labour market in countries such as England and Australia are very weak and most VET graduates do not end up working in jobs directly associated with their qualification (Wheelahan, 2015). And, while the rhetoric about the importance of VET in policy is pervasive, in reality the occupations that students are prepared for are lower status and often low skilled (Keep, 2013), with the exception perhaps of occupations in the traditional trades. The curriculum is narrowly focused and reflects a narrow and behaviourist conception of work based on workplace tasks and roles, rather than occupations (Wheelahan & Moodie, 2011). The consequence is that VET is 'seen as a siding into which weaker pupils can conveniently be shunted' (Bosch & Charest, 2008, p. 445).

The importance of this analysis is that it shows that education systems are embedded in broader social and economic systems, and they reflect the nature of those societies. Northern European societies have lower social inequality, stronger welfare states and strong public education systems (Hall & Soskice, 2001). Compared to other OECD countries, they invest a higher than average percentage of public funding in education, while Anglophone countries invest a lower than average percentage (OECD, 2014a, p. 246). One of the international 'star performers', Finland, has one of the highest performances on international tests of academic achievement such as PISA, but also one of the lowest gaps between the most disadvantaged and advantaged students (Reay, 2012). The reason for this has to be found in the broader structure of society, its relatively low level of social inequality, its public investment in a public education system (it has very few private schools) and the emphasis it places on achievement for all students (Reay, 2012). Reay (2012) argues that Finland is the closest example of a socially just education system that we can find.

Instead of addressing broader inequalities in society and in education, policy in Anglophone countries individualizes and pathologizes poor academic performance by finding the problem to be within students. Bernstein (2000) argues that those students who are excluded in school from accessing the knowledge necessary to exercise the rights needed to participate in a democracy, 'come from social groups who do not receive these rights in society' (p. xxii). He argues that schools produce hierarchies based on success or failure of students. He says 'failure is attributed to inborn facilities (cognitive, affective) or to cultural deficits relayed by

the family which come to have the force of inborn facilities' (p. xxiv). Educational 'failure' is understood as individual, family and community deficits so that culture of poverty arguments are implicitly if not always explicitly invoked (Avis, 2006).

These deficit approaches are reflected in discourses about social inclusion. If students are failing, then the policy response is to find a form of education that will include them, keep them at school and offer them a credential even if that credential does not necessarily have value in the labour market. Current social inclusion discourses dominant in policy emphazise the deficits of those who are excluded, rather than the social conditions that give rise to inequality (Reay, 2012; Wheelahan, 2009). Social inclusion discourses are less concerned with the nature of participation offered to those who are excluded, only that they have a 'place' within education. In contrast, social justice emphazises distributive justice, the structuring of relations of privilege and disadvantage, and the way education mediates access to high status occupations (such as the professions) and to social power. Social justice is concerned with distributive justice, and asks about the nature of participation and the outcomes that are achieved by different social groups.

Arguably, social inclusion approaches that are concerned with access, without questioning the nature of access and the type of knowledge that students have access to, help to perpetuate existing social inequalities. Most wealthy countries have universal participation in secondary school and near universal participation in tertiary education. The mechanism for mediating social inequality hinges less on whether students are included or excluded from access to education (although that still remains important); increasingly, it hinges on the type of access to education that students have. Young (2007) explains that: 'Without an explicit concept of knowledge acquisition, policies that give priority to widening participation and student choice could well be the basis for new, albeit less visible, inequalities' (p. 10).

Experience is not enough

Young (2006b) explains there are two assumptions underpinning the emphasis on applied, experiential, work-focused learning for 'low achievers' struggling with academic curriculum (p. 58). The first is that they will find it easier to learn curriculum that relates explicitly to their everyday lives and relates to their primary objective of getting a job; and second is that they will find vocational curriculum more motivating than academic curriculum. Arguments about the importance of employability skills or twenty-first century skills (OECD, 2014b) help to legitimize this approach to curriculum for disadvantaged students, because it is seen as the means to provide them with 'work-relevant' knowledge and skills for the labour market. This is based on a very narrow notion of participation, which is defined as getting a job rather than broader social, civic and political participation (Preston & Green, 2008).

Young ([2006b]) asks a series of questions about applied, experiential, work-focused learning: first, 'do learners with a limited knowledge of language or mathematics in practice find it easier to apply such knowledge than to acquire it in the first place?' (p. 59). Second, will a focus on 'key skills' in many applied, vocationally oriented programs of learning allow students to progress to higher level qualifications? And third, will an applied, experiential and work-focused curriculum provide students with 'alternative ways of acquiring the intellectual capacities associated with the study of language and mathematics, or do they result merely in more elaborate representations of what students already know about work and everyday life?' (p. 59). In all three cases, the answer is no.

While pedagogically, the entry point to learning may well be students' experiences, the curricular objective needs to be to help them access higher order concepts in disciplinary systems of meaning. This provides students with opportunities to reflect on their experience in ways that they would not have the opportunity to do otherwise. This is important, because, as Collier ([1994]) argues, experience is not, of itself, self-authenticating and self-explanatory. He explains that experience is not determined 'just by what is there, but what we have already learnt' (p. 72). Providing students with access to theoretical knowledge provides them with opportunities to go beyond their individual experience and to locate themselves and their experiences in a broader conversation. Young ([2010b]), in drawing from the work of the Russian learning theorist Lev Vygotsky, explains that:

> … access to higher order concepts … [is] a complex two-way pedagogic process. Initially, the learner's everyday concepts are extended and transformed by pedagogy through engaging with the theoretical concepts of the curriculum. The process is then reversed; learners draw on their newly acquired theoretical concepts to re-engage with and transform their everyday concepts. (p. 16)

Theoretical knowledge becomes part of the lens through which they view the world.

Freebody ([2006]) argues that shunting students who are academically weaker into inquiry-based or project-based programs with more 'apparent real world applicability' paradoxically requires a more sophisticated use of knowledge by these students than 'does "straight-ahead" higher-classified disciplinary teaching and learning' (p. 25). Students are required to select and deploy contextually appropriate applications of theoretical knowledge and to use it as a 'pragmatic recruitable resource' without criteria from within the discipline to judge whether this is a 'good, bad [or] indifferent' application of knowledge (p. 25). He explains that: 'A lack of any apparent connection to a tradition of topic, inquiry, and epistemology means that durable pragmatic value simply cannot be estimated either way' (p. 25).

As well as not being able to judge knowledge claims, arguably knowledge is also not under control of the student because they are limited to contextually specific applications of knowledge tied to particular contexts, rather than the capacity to choose appropriate applications of knowledge

from the disciplinary system of meaning (Wheelahan, 2007). This has particular implications for VET which is meant to prepare students for the workplace; it limits their agency and autonomy at work because knowledge is not under their control.

Conceptualizing VET curriculum—what should it look like?

This section examines what a knowledge-rich VET curriculum would look like and how it differs from an academic curriculum on the one hand, and its similarities to and differences from curriculum for the professions on the other. Current competency-based training (CBT) models of curriculum in Australia and England consist of learning outcomes that describe workplace tasks, roles and requirements. 'Underpinning knowledge' in CBT consists of applications of contextually specific concepts that have been taken from the disciplinary system of meaning, and in models such as in Australia, knowledge is restricted to what is actually applied at work (Wheelahan & Moodie, 2011). Students are not provided with access to the relations between concepts, or the criteria needed to evaluate knowledge claims. They are not provided with access to powerful knowledge.

In contrast, Young and Muller (2014) cite Winch in explaining that the constituents of 'powerful' knowledge include knowledge that allows students access to: first, propositional knowledge ('knowing that') in their field; second, knowledge of the *inferential relations* between propositions; and, third, knowledge 'of the *procedures* in assessing, testing and acquiring new knowledge' (p. 6). Students need access to all three kinds of knowledge, as well as the limits of this knowledge, and the criteria to judge good and bad applications of it. They need to be able to enter into the nature of the 'reasons' that define practice in their field and 'this entails being able to tell what is a reason, for what purpose, and being able to distinguish good reasons from bad' (p. 7).

In contrast, CBT leads to behaviourist models of curriculum where the processes of learning are presumed to be identical with the outcomes of learning, where outcomes can be described in advance as observable behaviours that are aligned to a particular task, role or requirement. It ties knowledge to the present by reducing it to contextually specific applications tied to current workplace tasks, requirements or roles and it emphasizes procedural knowledge.

How then should VET curriculum differ from academic curriculum? What would a knowledge-rich vocational curriculum look like? VET curriculum differs from academic qualifications because the purpose of academic curriculum is to induct students into a body of knowledge in academic disciplines, whereas the purpose of vocational curriculum is to induct students into a field of practice and the theoretical knowledge that underpins practice as the basis for integrating and synthesizing each.

A knowledge-rich VET curriculum would be based on *applied* disciplinary knowledge in contrast to academic qualifications, because the applied disciplines consist of disciplinary knowledge that has been recontextualized for use in a vocational field of practice (Barnett, 2006; Young, 2006a). Vocational curriculum needs to provide students with the capacity to *recognize* different types of knowledge so that they can, for example, distinguish between psychology and sociology or between business economics and human resource management. It is essential that these boundaries are rendered visible so that students can recognize and *use* knowledge appropriately.

Vocational curriculum consequently needs to 'face both ways' and provide students with access to both types of knowledge—to the theoretical knowledge that underpins vocational practice within an occupational field, and to the tacit, context-dependent knowledge of the workplace (Barnett, 2006). Trying to collapse the distinction between each type of knowledge does violence to both. It also means that the distinction between educational institutions and the workplace as sites of learning is important. An exclusive focus on learning in the workplace denies students access to disciplinary systems of meaning, because, generally speaking, students have access only to contextually specific applications of theoretical knowledge in the workplace, and not to the system of meaning in which theoretical knowledge is embedded. Similarly, an exclusive focus on learning theoretical knowledge in educational institutions does not provide students with access to the tacit, context-dependent knowledge of the workplace. *Both* sites of learning are needed, and students supported to recognize and navigate the boundaries between the two.

How is VET curriculum similar to and different from curriculum for the professions? The continuity between vocational and professional curriculum is that both prepare students for a field of practice, and both need to provide students with access to the knowledge base of practice, and to learning in work as a condition for entering practice. There is also diversity in the kinds of knowledge demands made on workers in VET-trained occupations, as there is on workers in the professions. Muller (2009) explains that fields of practice differ in the knowledge demands they make upon practitioners and the level of abstractness they are required to use. Some may emphasize conceptual depth and abstraction (e.g. in a science laboratory), whereas others may emphasize breadth of knowledge and the breadth of contexts of practice to a greater extent (e.g. in hospitality). However, overall, the emphasis on the contextual is likely to be greater for VET-trained occupations compared to the professions, but this is only matter of degree. Arguably, there is greater continuity between vocational and professional curriculum, than there is between vocational and academic curriculum.

Moreover, Young (2006b) argues that the knowledge demands of jobs are growing as the complexity of society and technology grows and that as people progress in their careers, they will need to be able to use theoretical knowledge in different ways and in different contexts. Consequently, progression in the workforce is strongly related to educational progression and students need to be able to study at the next level in their field.

If lifelong learning is to mean anything, it should be to provide students with the knowledge they need to engage in higher levels in their field to support occupational mobility. Supporting occupational mobility from VET trained to higher education trained occupations will require a greater emphasis on the educational purposes of VET to ensure students have the knowledge they need to proceed to higher levels of study and to support their broader social inclusion in their communities and in society. Narrow skills-based training will not achieve these purposes—students will need access to theoretical knowledge as well.

Conclusion

Arguably, the primary object of curriculum theory in VET should be 'what is taught and learned in VET'. Curriculum theory in VET needs to address questions such as the nature of knowledge, the distinctions between theoretical and everyday knowledge and between different types of theoretical knowledge, the relationship between knowledge and skill and the implications of this relationship for VET curriculum and the conditions under which students access and integrate knowledge and skill. Such an analysis would provide the basis for distinguishing between academic and vocational curriculum, while at the same time providing the basis for a knowledge-rich VET curriculum. It would also provide the basis for considering the relations of continuity and discontinuity between VET-trained occupations and the professions.

The ends of VET are to enable students to participate in debates and controversies in society and in their occupational field of practice as the basis for their participation in a democratic society. This is not an argument for induction into the disciplines (or applied disciplines) as timeless truths. The focus is on introducing students to the debates and controversies within disciplines and within their occupational field of practice and for creating the conditions for active agency so students can participate in these debates and controversies. Students need to be inducted into disciplinary systems of knowledge so they have access to the criteria used to judge knowledge claims, and over time, change the terms of the debate. Knowledge needs to be the starting point for considering pedagogies that will support students be part of this conversation.

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