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Afterword: A fresh look at workplace learning for VET teachers

I would like to thank the editors of this special issue for inviting me to write an Afterword. They are to be congratulated for initiating and bringing together this important contribution to the field of VET teacher development. In this Afterword I set the general scene for the topic and follow with an analysis of the papers, utilising and developing some existing theoretical frameworks relating both to the VET teacher development and to learning at work more generally. The Afterword concludes with some potential implications for policy, practice and research which arise directly from the analysis of the papers in this issue.

Introduction and background

Internationally, Vocational Education and Training (VET) systems underpin national economies and labour markets. In an increasingly competitive global economy, and in a situation where Industry 4.0 and other factors are changing the way that many industries operate, from manufacturing to health care (Schwab, 2017) the skills of national workforces are of paramount importance. VET systems also perform an important social role, providing an alternative educational pathway for those who choose not to follow, or are excluded from, higher education pathways. In the Foreword to this special issue, Francisco and Henning Loeb explain VET's important social role in educating a huge diversity of learners of all ages. VET helps to prevent unemployment among vulnerable youth, important because internationally youth unemployment far exceeds adult unemployment (ILO 2017); it is also a key element in helping unemployed people return to the workforce.

Thus, government, employers and individuals alike would like to be confident that people with VET qualifications actually possess appropriate skills and knowledge. The contribution of VET teachers is therefore of paramount importance. VET teachers are generally recognised as being 'dual professionals' – requiring knowledge and skills in the industry areas for which they teach, and the ability to translate these to students, as well as knowledge and skills in their teaching role. And yet VET teachers are very often underqualified in comparison with school teachers; and their role in the quality of VET systems is often underplayed compared with the often-foregrounded importance of providing industry with what it wants in terms of training.

Qualifications and professional development for VET teachers

A firm belief that qualifications have a role in teacher quality is evidenced in rigorous requirements for lengthy and mandatory university-level teaching qualifications in other education sectors in most countries. For example, the school education sector generally requires at least a bachelor's qualification in Education to practice; higher education requires masters level or above qualifications in discipline areas, and most universities, in Australia at least, require lecturers to have a postgraduate qualification in university teaching. In Australia, early childhood teachers need at least a VET-sector diploma (ISCED Level 5B), and recently a requirement was introduced for a specific ratio of teachers in each children's facility to have a degree qualification.

These secondary and early childhood teaching qualifications all involve extensive and mandate practicum (teaching practice) requirements, and accreditation bodies associated with the national government oversee the delivery of teacher qualifications in these sectors (Smith & Yasukawa, 2017). In many countries, VET teachers are only currently required by regulation to have only a much lower level pedagogical qualification than teachers in other sectors, for example in Australia a VET-

sector Certificate IV (ISCED 4B) level, and are required only to have industry qualifications at the level at which they teach, not at a higher level as the case in the higher education sector.

Each country differs in its approach to qualifications for VET teachers (Paryono, 2015). Harris (2019) discusses differences between the Australian system, described above, and the German system, contrasting the former with Germany, where VET teachers are required to complete a five-year teaching degree. Another example is India. Wessels and Pilz (2018) describe a number of qualification requirements for teachers and trainers in different parts of the Indian VET system, ranging from short courses for a few weeks to one-year full-time courses for private training institute teaching. Those teaching VET in secondary schools in India have different qualification requirements from those teaching at colleges and at private training providers; but similar to other teachers in secondary schools. This varied pattern holds in many countries. Also, as VET is a frequent area for policy interventions, qualification regimes for VET teachers change quite frequently (for example, this has happened in the UK), so that a proportion of the VET teaching workforce might have higher or lower qualifications than their colleagues, depending on when they were first recruited.

While not every country is the same, a contributing factor to decisions about qualification levels of teachers is likely to be the lower status of VET compared with higher education (Billett, Choy & Hodge, 2019; Harris 2019). VET's lower status makes young people less inclined to choose a VET rather than higher education pathway after school: 'As the saying goes, vocational education is a great thing... for other people's children' (Coughlan, 2015). What is called in some countries the 'stigma' of VET also makes the profession of VET teacher less prestigious (Vlaardingerbroek & El-Masri, 2008, in Lebanon) and less aspirational (e.g. Simons et al, 2009), than that of teachers in other sectors. It could be that the opacity in qualification requirements contributes to the occupation's relative lack of attractiveness.

However qualifications do not tell the entire story. As in any occupation, continuing professional development is important, and is mandated in some countries. For VET, this normally relates to development both in teachers' industry/discipline area and in VET pedagogy. There has been a recent increase in research into professional development for VET teachers- including a briefing note from CEDEFOP (2016) and country-specific studies in the UK (Husband, 2015), Canada (Hoekstra, 2018), Sweden (Köpsén & Andersson, 2018), Italy (Serafini, 2018), and Australia (Dymock & Tyler, 2018).

Workplace learning for VET teachers

We now move to the topic of this special issue. The quality and potential contribution of teachers in any sector, including VET, also depends on the workplace learning of those teachers. The professional development studies mentioned above do not focus solely on workplace learning; they also examine participation in professional development outside the workplace, such as engagement in courses, webinars and conferences. Within the workplace, professional development may also be of varying degrees of formality, ranging from in-house conferences to short training sessions to formal or informal 'communities of practice' working on specific projects (Tuck & Smith, 2017).

Workplace learning for VET teachers also occurs during their teaching qualifications, whether the qualification is at a degree level or a lower level, as such programs generally include a 'practicum' or teaching practice, requirement. Compared with the large literature on school-teacher practicum, and indeed on work placements in other discipline areas, such as nursing, there is very little on

practicum arrangements in VET sector teacher-education. In Australia, an early work by Brennan and Smith (1997) examined the practicum in VET teacher-education courses being undertaken by already-experienced VET teachers. More recently, Ellicott (2006) studied the challenges of organising the practicum in rural and isolated areas, while in the UK, O’Leary (e.g. 2013) has researched the observation processes in further education teacher-training.

In 2020, the OECD is administering a survey to member countries on the preparation and development of VET teachers: ‘Teachers and leaders in VET’. This follows on from related recommendations in the major summary of OECD country reviews on VET (OECD, 2015). The survey includes the collection of profile data about teachers in VET, the supply of VET teachers, professional development in pedagogy and in vocational areas, as well about teachers’ initial qualifications; and also asks about professional development in specific emerging issues such as teaching about new technology and developing social and emotional skills. The survey will provide much-needed international comparative data.

Hence this special issue of the *International Journal of Training Research* comes at a moment when international attention is focused on VET teachers. The site-based research reported in the papers in this current volume will provide a useful counterpoint to the large-scale research being undertaken by the OECD.

Towards a categorisation of site-based learning

The papers in this issue address several aspects of site-based learning for VET teachers. Of the five papers, two papers focus only on ‘teacher-trainees’ – that is, not-yet-fully-qualified VET teachers. Both of these papers discuss teaching only; not industry/discipline learning. Of the other papers, one focuses on novice teachers, one on experienced teachers, and one, although a small study, includes examples from all stages of qualification and experience including teacher-trainees. Three of the papers are based on research in Sweden, one in England and one in Australia.

Tables 1(a) and (b) provide a summary of the papers, dividing them between those that relate to VET teachers who are still qualifying, and those which relate to teachers who have completed their VET teaching qualifications. It is a feature of VET teachers, compared with school teachers, that many are already practising when they are undertaking higher level studies, and Table 1(b) therefore represents papers relating to these ‘in-service’ teacher trainees, in effect working as apprentices in the occupation, as opposed to ‘pre-service’ teacher trainees [Table 1(a)], who are studying full-time at university. Some of the papers in the issue straddle more than one category due to their particular focus.

Table 1(a). Papers about ‘qualifying’ VET teachers

‘Pre-service teacher training’ practicum	‘In-service teacher training’ assessed practicum	‘In-service teacher training’ normal practice (unrelated to qualifications)
Berglund, Gustavsson & Andersson (teacher-trainees’ evaluative reports)	Powell (interviews with in-college teacher educators, and focus groups with in-college teacher-trainees) Henning Loeb (interviews with teachers about a specific topic)	Henning Loeb (interviews with teachers about a specific topic)

Table 1(b). Papers about qualified VET teachers

Extent of teachers' experience	Learning about teaching	Learning about teachers' industry/discipline area
Recently-qualified VET teachers	Francisco (interviews with teachers)	Francisco (interviews with teachers)
Experienced VET teachers	Gåfvvels (interviews with teachers from two specific industry areas) Henning Loeb (interviews with teachers about a specific topic)	Gåfvvels (interviews with teachers from two specific industry areas)

It should be noted that the papers about 'pre-service' (qualifying) teachers discuss learning about pedagogical issues only, while the papers in Table 1(b) address learning about teaching and about the industry/discipline area – that is, the 'dual professional' aspect of VET teaching.

Two papers are noted as having specific foci. The paper by Henning Loeb examines teachers' strategies in teaching 'second language' students – i.e. students for whom the language of their country of residence (in this case Sweden) is not their first language. The paper by Gåfvvels reports on research with hairdressing and floristry teachers. The remaining three papers do not focus either on specific discipline areas (although they do report on differences among the discipline areas), or on specific pedagogical issues.

Although drawn from only three countries, the papers show the diversity of VET systems which is typical of those around the world. The paper by Henning Loeb, for example, although based on interviews with only four teachers, provides valuable and fine-grained details about the backgrounds and practice sites of these four teachers which help the reader to understand the complexity of the VET system in the country, in this case Sweden.

Even within a single country a VET system may function in several spheres: in secondary schools, in public further education colleges, in private colleges and even solely within industry workplaces, where the employer offers accredited qualifications (known in Australia, for example, as 'Enterprise Registered Training Organisations' (Smith, Smith, Walker & Costa, 2015). VET teachers may be working in one or several of these spheres. The training for VET teachers to some extent reflects the multiple sites in which VET itself is offered and its diversity is also a result of the fact that VET teachers generally come to VET as a second or third career (Simons et al, 2009).

Despite the diversity of VET, the papers discuss – and reflect – some basic attributes of VET teachers: that they are usually drawn from a specific industry and identify with that industry, often passionately; that they have often had substantial working experience before entering the profession; and that they feel strongly about developing others to work in the areas from which they themselves come.

Types of learning at work

A number of methods of learning about work were identified in a study of young people's learning in the early years of work (Smith, 2003), which seem to apply here. A typology was proposed in that study, consisting of learning which is **taught**, learning which is **sought** and learning which is **wrought**.

The latter applies to learning which is ‘fashioned’ from experience rather than being intentional, and roughly equates to Marsick & Watkin’s (1990) category of ‘incidental learning’. It was noted, though, that the young people needed to be capable of reflection (Kolb, 1984) for much learning to be ‘wrought’ from experience. The more reflective they were, the greater the learning.

The papers in this issue illustrate these three forms of learning, and also three others are posited here – ‘**caught**’, ‘**brought**’ and ‘**thought**’. Examples are shown in Table 2.

Table 2. Categories of workplace learning for VET teachers, and examples from the papers in this edition (after Smith, 2003)

Category of learning	Example from the papers
Taught	The teachers in Powell’s paper reported teaching strategies they had learned from the in-college teacher-education staff.
Sought	A teacher in Francisco’s paper sought out advice on how to use a Smartboard in teaching
Wrought	A teacher in Henning Loeb’s paper learned about other cultures’ approaches to childcare through reports from her students about their placement experiences.
Caught	In Henning Loeb’s paper one teacher said that learning happened among colleagues because of office co-location. In Francisco’s paper this ‘caught’ learning ‘ did not happen for one teacher who was in an isolated office.
Brought	The hairdressing and floristry teachers in the paper by Gåfvæls brought habits of learning from the previous industries, Such as vendor training by product companies and industry association activities. In several papers the research participants refer to ideas about good teaching and about bad teaching garnered from their previous experiences as learners.
Thought	The two papers based on VET teacher-training students (Powell and Berglund et al) illustrate learning that is evidenced through the reflections of the teacher-trainees, in written work and in group discussions.

The individual attributes of the VET teacher as a worker/learner

While the papers all provide valuable insights, one aspect of site-based learning that is relatively understated is the importance of individual teachers’ attributes for their learning. The theory of practice architectures (e.g. Mahon, Kemmis, Francisco & Lloyd, 2017) depicts the nature of occupational practice, with its cultural-discursive, material-economic and social-political arrangements; and some of these features are described in the papers in this issue. However, the role of the individual ‘worker’ (in this case the VET teacher) is not a feature of this theory. In the study of new workers referred to earlier (Smith, 2003) it was noted that the young people’s motivation, willingness and ‘intelligence’ affected the extent of the learning opportunities offered to them by their employing organisations and by individual co-workers and supervisors. In a related

vein, Billett (2001) discusses the provision of ‘affordances’ for learning in workplaces, but stresses that the extent of learning depends on the individual’s decision to engage. Sometimes the personal characteristics of the learners are the primary driver for decisions not to engage, but it is also the case that learners may purposefully not engage if they do not see relevance in the learning activities. As Billett puts it, ‘Individuals need to find meaning in their activities and value in what is afforded for them to participate and learn’ (2001: 213).

Turning to research specifically on VET teachers and their development, Smith (2019) notes a number of factors that affect individuals’ engagement in professional development activities: these can be categorised into those relating to teachers’ prior qualifications; to their employment situation; to their personal situation such as career stage or family commitments, and finally to the nature of the professional development – the topic and the mode of delivery. In earlier work Smith (2000) found that VET teachers actively resisted professional development about competency-based training, which was at that time, and still remains, a training approach that some VET stakeholders disapprove of. This resistance is in line with Billett’s (2001) argument that individuals need to find meaning in activities in order for them to engage with them. Francisco’s paper illustrates two of these factors. The ‘fringe teachers’ in her study engaged less in professional development (the ‘employment situation’); and a beauty teacher is reported to have ignored advice from an experienced teacher because that teacher was from a different branch of the beauty industry (the ‘nature of the professional development’).

The features which were favourably regarded by colleagues and managers in the Smith (2003) study of young workers could be clustered as ‘professionalism’. A study by Smith (2019) developed a model of VET teacher professionalism based on the Australian context. The model is based on historical developments in Australian VET teacher qualifications and professional development, and a major research project, and is presented in Table 3. In interpreting the table, it should be noticed that, for VET teachers in Australia, the level of qualification in both pedagogy and industry/discipline area (above the low regulatory minima) is a matter of personal preference.

Table 3: Characteristics of different levels of professionalism in full-time VET teachers, based on research evidence

Levels of professionalism	Qualifications in VET teaching	Qualifications in discipline area	Professional development (PD)
High	The highest available VET teacher-training qualification (Degree or Graduate Diploma)	The highest available qualification of relevance to the discipline area	Engages in frequent PD, whether funded or not, and often in own time. Identifies and seeks out PD. Provides PD to others.
Moderate	Diploma of VET	One level higher qualification than that taught to students.	Engages in PD as often as possible when brought to attention; makes occasional own-expense and own-time contributions.

Low	Certificate IV in Training and Assessment	The qualification level that is taught to students	Only attends PD where it is funded and in working time; may even avoid PD unless necessary.
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Notes: (i) The Australian context is used for this table, with regard to qualification levels.

(ii) Research evidence is taken from the research project 'VET teachers: Qualifications and quality', which is available at <http://federation.edu.au/research-vet-quality> and involved research by Smith, Tuck, Yasukawa, Harris, and Guthrie.

Table 3 above could be adapted for different national contexts, incorporating different factors if, for example, differing levels of qualifications were not so important as an indicator of professionalism as they are in the Australian context.

In the papers in the current issue we can see examples of 'highly professional' teachers in the hairdressing teachers, and to a lesser extent the floristry teachers, in the paper by Gåfvels, who engaged in frequent PD which they often sought out themselves. In Henning Loeb's paper, two of the teachers had put immense amounts of work into organising public events and industry projects. We also see, in Berglund's paper on critical reflections on practicum, that nine of the 26 teachers had moved in their reflection to a 'critical' stance, suggesting that they were likely to become highly professional teachers.

Implications for policy, practice and further research

The papers in this issue make useful individual contributions to the literature in their detailed and site-specific information. While practices vary among countries, the reader gains sufficient understanding from the provided context to transfer the understandings to other national contexts. But the strength of the papers also lies in their collective impact.

The analysis by category of workplace learning (Tables 1(a) and 1(b)) could form the basis of a detailed examination of the different types and extent of learning to be expected from, and achieved from, the different categories. This could inform the development of new types of VET teacher-training programs or even new systems of VET teacher preparation and development. Specifically, the dearth of papers on the VET teaching practicum, noted earlier, may arise from the diversity of practicum situations, making research more complex compared with other professions where the practicum is routinely undertaken before commencing work in the occupation. Table 1(a) may help to identify the differing types of practicum and prompt further research comparing these types. In a similar manner, Table 2 may help those training VET teachers to alert participants to the potential for learning in different ways.

As noted earlier, the papers do not specifically discuss the role of the individual (see Table 3) as a major factor in site-based learning. Rather, they address contextual factors and practices of the workplace, primarily because of the theoretical basis - site-based learning - adopted for the special edition. To specifically examine the role of the individual is problematic, primarily because it would necessarily involve judgements about people's attributes and performance. But it could be that explicit attention to the topic may encourage VET teachers to re-examine and perhaps amend their practices. This would be a fruitful, even though sensitive, area for further research.

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