Teaching practices among college-based teachers of apprentices

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Summary

This paper provides a glimpse into current teaching practices among teachers working with traditional trade apprentices ('trade teachers') at Australian public and private providers of vocational education and training (VET), which are known as Registered Training Organisations (RTOs). The research is drawn from a major national study funded by the Australian Research Council, designed to examine the effects of different levels of vocational teachers' qualifications upon the quality of VET teaching. For this paper, data from trade teachers, in different industry areas, was drawn out from a major survey of VET teachers/trainers, which included questions about their teaching approaches, as well as from focus groups of trade teachers.

Keywords: Trade teachers, apprentice learning

Introduction

Australian and international literature on apprenticeships recognises well the 'dual' nature of most apprenticeship systems: i.e. the fact that learning of apprentices generally takes place both in workplaces and in college/school settings (Smith, 2010). But the tendency in the literature is however, particularly in Australia, to focus on the learning that takes place in the workplace (e.g. Billett, 2015). There are exceptions internationally (e.g. Fjellstrom & Kritsmansson, 2016). In a similar way, while the quality of teaching in VET has been the subject of much discussion in Australia recent years (Wheelahan & Moodie, 2011) and internationally (e.g. Ofsted, 2014), there has been little specific focus in Australia specifically on teachers of apprentices. Moreover, while apprenticeships have been the subject of much public attention in Australia over recent years there has been a neglect of public attention to how they are taught, with the focus primarily being on matters of their employment. For example a major government study (Australian Government, 2011) did not mention teaching and learning at all. This uneven emphasis is not confined to Australia (Smith & Brennan Kemmis, 2013).

This paper aims to begin to redress the balance on a small scale, by looking closely at the teaching practices of VET teachers who primarily teach apprentices (although they may teach in other courses – for example, at Diploma level - as well). The sample for both the survey and the qualitative components of the study was drawn both from teachers working in the public ('TAFE') system and the private training system. The research question for this paper is 'What teaching approaches do college-based trade teachers employ?'

In Australia, the term 'apprentice' is very much confined to traditional craft and manufacturing occupations, known collectively as 'trades' (Smith & Keating, 2003). While the system was expanded in the 1980s to incorporate other occupations such as retail, business and IT, the apprentice-like arrangements for those occupations are known as traineeships (Smith, Brennan Kemmis, Brennan Kemmis & Smith, 2009) and do not have the same status nor do they have equality in status or in funding arrangements. Numbers in traineeships have fallen dramatically recently due to funding changes, while traditional trade apprenticeship numbers have remained relatively constant at around 130,000 (NCVER, 2017). This paper is confined to teachers in the traditional trade apprenticeships. In most instances, apprentices in Australia take three to four

years to complete their apprenticeship. Their off-the-job training is the responsibility of a registered training organisation (RTO) selected by their employer. RTO is the term used for training providers who are registered and audited in the system and covers TAFE Institutes and private providers alike. Apprentices attend an RTO either weekly on day release or in blocks of several days or weeks. The Australian system allows for what is known as 'fully on-the-job' apprenticeships (Wright, 2016), although they are uncommon; in such cases the RTO is required to send a teacher on-site for a specified number of visits each year.

Methodology

A lengthy on-line survey of VET teachers and trainers (n=550) was administered in 2016, through participating RTOs, as part of a larger project on VET teachers and their qualifications, which was funded by the Australian Research Council and industry partners from the VET sector. 26 responses were from trade teachers who mainly or wholly taught apprentices (Table 1).

Table 1: Survey respondents who primarily taught apprentices

Industry area of survey respondents	No.
Automotive retail and repair	4
Construction	4
Manufacturing and engineering	7
Commercial cookery	6
Utilities and electrical	5
Total	26

The survey questions about teaching approaches utilised a set of VET teaching standards that had been developed with wide consultation nationally, by the Queensland College of Teachers (See Appendix). There are five Standards, which in turn contain 23 items altogether, covering all aspects of teaching and training in VET. The five Standards are as follows:

1. Know learners, their context and how they learn;
2. Know the content and how it can be taught;
3. Plan, design and deliver effective teaching/training experiences;
4. Assess, provide feedback and report on learning; and
5. Engage with industry, colleagues, community, regulatory and professional bodies

The survey respondents were asked to say, for each of the 23 items , using a scale of 1 to 5, how important they thought each standard was for VET teachers; and what their personal level of confidence was in that item. Respondents were asked to provide examples of how their teaching addressed selected items. The Standards and their constituent items are listed in the appendix.

In addition, analysis was undertaken of focus groups of trade teachers discussing their teaching. These focus groups, in two Australia States and Territories in 2015 and 2016, were undertaken as part of case study visits to investigate teaching practices and the effects of qualifications on them. Teachers from the construction trades and from commercial cookery were involved in these teacher groups. The focus groups analysed for the paper were undertaken by the author of this paper and each session lasted around one hour. Ethics Committee approval was gained for the research, and all focus groups were taped, with permission, and transcribed. Table 2 shows the focus groups and their composition.

Table 2: Composition of teacher focus groups

Focus group no.	Teacher or student group?	Type of training provider	Industry area	No. of participants
1	Teacher	Public (TAFE)	Building	3
2	Teacher	Public (TAFE)	Commercial cookery	2
Total				5

The number of participants was small, but the total data set for this paper – including the quantitative and qualitative phases - includes trade teachers from both major types of training provider and a range of industry areas, improving generalisability.

Results

Findings from the survey

A brief summary of the quantitative findings follows. The teacher respondents to the survey (n=550) were divided into three different types for analysis – trade; non-trade professional - e.g. nursing; and non-trade 'other' – e.g. business. The trade cohort as a whole showed statistically significance differences from the other groups. For each of the five standards, trade teachers attributed lower importance to the constituent items than other groups; and their personal confidence was lower than 'non-trade other' for each standard, too. However, it needs to be stated that the teachers of apprentices formed only a minority of the 'trade' cohort, as there were other respondents from the relevant industry areas who were teaching higher-level qualifications than apprenticeships. When groupings were undertaken by specific industry areas, manufacturing and automotive teachers showed the lowest confidence of any group; however, again these calculations included all those teaching in those industry areas not just those who concentrated on apprentices.

For the survey's qualitative data reported in this paper, the responses of only the 26 respondents specifically identified as teachers of apprentices (hereafter called 'trade teachers) were included. Teachers were asked to select one item within each standard to provide comment on how they implemented that particular skill. For reasons of space, only the most frequently chosen item in the first three standards are presented here (Table 3). Standard 5 was not included in the analysis as it is not directly related to pedagogical practice; and Standard 4 responses are also not provided, as they related mainly to matters of compliance with the regulatory regime for assessment of students.

Table 3: Analysis of qualitative responses from trade teachers relating to implementation of items from the VET Practitioner Standards

Most popular item in each Standard	No of responses	Responses typical of 'more thoughtful' and '*less thoughtful*' (in italics) respondents
1.5 Understand a range of inclusive strategies to encourage participation	7	• Using a variety of modes and methods to cater for the wide range of learners' capabilities. • Sometimes I remove the learners from the classroom environment… this opens up a different paradigm. • I find social learning useful in practical and theoretical lessons. • *Language literacy and numeracy assessment*
2.1 Demonstrate current industry knowledge and skills	10	• Keeping up to date with innovations and new products relevant to the automotive trade qualification. • I worked in the hospitality industry for 40 years and have always shared my experiences with my students… this has been a great learning tool. • When assessing the [students' work] I garner evidence of evolving work practices and [use of] new technologies. • *[Teachers] must have been a tradesman for min. of 10 years*
3.4 Reflect on your practice to improve the learning experience	10	• I am always looking at better ways of delivering training that engage the apprentices better with the latest technologies. • I found reflecting with another like-minded teacher enabled a synergy of ideas that results in improved delivery. • I regularly discuss classes I have taught, with my peers.

The choice of items for comment is in itself interesting. For Standards 2 and 3, clear 'winners' in chosen topics for discussion, while for Standard 1 the most popular item was not far ahead of

the runner-up. For Standards 2 and 3, then, the choice indicates trade teachers who are proud of their industry expertise and its contribution to their teaching, and also keen to improve their pedagogy through reflection. The qualitative comments generally confirm this picture of the trade teacher, showing teachers keen to experiment with different teaching methods, to learn from a range of sources themselves, and to discuss their practice with colleagues. However, some comments were more pedestrian, indicating an uneven level of sophistication. The less thoughtful responses are indicated in italics in Table 3. Item 3.4, however, had no 'pedestrian' responses.

Findings from the focus groups

The two focus groups were with quite different groups of teachers. A brief overview follows.

Group 1: Building teachers: These were older teachers who taught at a rural TAFE Institute in Victoria and were not well qualified; they had Certificate level qualifications in their trades and had all studied to Diploma (sub-degree) level, as part of their current employment, in VET pedagogy. They had all only undertaken the latter as it qualified them for a pay rise, but all stated that they had learned quite a lot from the qualification. Their apprentice students were quite diverse in age and ethnicity, and many had literacy problems. The students came in for block release from time to time and quite a lot of the teaching involved workplace visits by the teachers and on-line contact.

Group 2: Commercial cookery teachers. These taught at an inner-city TAFE campus in Queensland. They were both well qualified and had long industry experience. Teacher A was German and had qualified to Meister status. Teacher B had undertaken a degree in VET pedagogy, giving up his job to study full-time for a year. Teacher A taught on campus and had international student cohorts as well as apprentices. Teacher B worked currently in a relatively junior position which mainly involved teaching apprentices in their own workplaces - i.e. apprentices learning fully on the job'.

Group 1 teachers had developed, collectively, quite sophisticated ways of addressing the way they taught their students and dealing with the fact that the students were distributed over a wide geographical area. They had learned to be flexible, to make teaching arrangements that suited the employers, and to use technology to teach and assess students. They had also learned to work with other departments within the college (whom they had got to know through studying alongside them in the Diploma of VET) to extend their apprentices' learning. The teachers agreed that the best thing about teaching apprentices was to see them develop and mature over the years and, one said, to see the ex-apprentices he had taught send their own apprentices for training. The teachers developed relationships of trust with employers so that they could discuss individual apprentices' progress, so that it became, as one put it, 'a team thing between us and the builders.' They all said that they trained the apprentices as they would if they were in a workplace, which sometimes involved a lot of 'yelling' if the apprentices misbehaved or made mistakes. When talking about their own learning about teaching they referred to learning about the industry from doing site visits and from hearing the apprentices 'talk among themselves' at college about what they did in their workplaces. They also asked apprentices questions about their workplaces (e.g. materials being used) based on what they saw in the photos that apprentices sent in to have their workplace tasks assessed.

In Group 2, Teacher A said that he set up his training kitchen like a workplace and that he kept apprentices on task and reprimanded those who made mistakes. Teacher B reported with pleasure that the students whom he visited in workplaces called him 'chef'; and similarly reported provided 'corrective action' to students who failed to pick up on what he was explaining. Despite their firm rooting in their trade, both of these teachers placed more emphasis than did Group 1 teachers on formal learning about teaching, stating that pedagogical qualifications were essential to equip VET teachers to help students learn, and that industry knowledge was not sufficient. In

terms of their own future development, both looked to qualifications rather than informal professional development.

Conclusion

From the survey, trade teachers' approaches to teaching appeared to vary from a few who seemed to focus primarily on what was required of them to meet VET regulatory requirements, to a larger number who thought deeply about their teaching and sought to meet the learning needs of all of their students. The focus group members' approaches also differed, seeming to be shaped by the length of prior industry experience before becoming VET teachers and by the teachers' qualification levels. Some specific approaches appeared to emerge from both sets of data as characteristic of apprentice teaching: the responsibility taken for development of the 'whole person' of the apprentice, the partnerships with employers, the replication of workplace practices in the classroom, and the constant iterative learning including learning by teachers from the apprentices and the apprentices' workplace practices. The findings are limited by the small size of the sample. As the project has only just concluded, there is more data from trade teachers available for analysis, which may render the findings more robust. However the focus of the project was not specifically on trade teachers, and it is suggested that there is a need for larger-scale research into the teaching of apprentices.

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