**Expanding apprentice responsibility in the assessment process: the competency progression challenge**

**Abstract**

Competency-based progression has the potential to increase the numbers of tradespeople and encourage greater flexibility in the training of apprentices. This paper reports on a qualitative study on the impacts of competency progression on three trade qualifications, namely Commercial Cookery, Engineering - Metal Fabrication and Carpentry. Rather than the traditional 'time-served' approach to apprenticeships, the 2006 Council of Australian Governments-initiated policy provides the framework for apprentices to qualify as tradespeople as soon as they are able to demonstrate competency against industry standards. Assessment is a key element in the promotion of progression and in the judgment of completion. This NCVER-funded research, therefore, sought to elicit, from 26 TAFE teachers and 21 workplace supervisors across four jurisdictions, how assessment approaches might have altered in order for apprentices to progress at their own pace. While assessment methods remained relatively unchanged, assessment was being increasingly facilitated by technology. Significantly, greater responsibility was being placed on apprentices to gather evidence of workplace performance often with little advice on what constituted quality evidence. Although they are in a position to determine whether they are ready to progress, apprentices cannot make valid decisions unless they have the skills and knowledge to do so. This paper sets out a number of suggestions for preparing apprentices to determine readiness for progression.

**Introduction**

For many years, concerns have been expressed about the low completion rates of apprentices in Australia. Apart from the evident financial and social wastage that is associated with this problem, low completion rates exacerbate skill shortages and impact significantly upon productivity. In 2006, the Council of Australian Governments determined to reverse this trend by promulgating a series of reforms to the apprenticeship system. Chief amongst these was the introduction of the competency-based progression and completion policy which set in place arrangements that allowed apprentices to become fully qualified tradespeople as soon as they were able to demonstrate competency against the relevant industry standards. The aim of this policy was to break down the traditional time-based model for apprenticeships and encourage the development of much more flexible training arrangements including early completion.

As with any new policy in VET in Australia, reforms inevitably have significant impacts upon training providers and employers - impacts which are not necessarily recognised before policy is enacted. This qualitative research, funded through the National VET Research Program and managed by NCVER, sort to examine what impacts the introduction of competency-based progression had on three trade qualifications delivered by seven TAFE institutes delivering Engineering – Metal Fabrication, Carpentry and Commercial Cookery. Teachers and workplace supervisors with joint responsibility for the training of individual apprentices were interviewed to ascertain the extent to which training and assessment had been modified so that apprentices might avail themselves of the opportunity to progress at their own pace through their apprenticeship. The findings indicated that while the assessment methods used to assess apprentice knowledge and skills had not changed markedly, greater responsibility for collecting evidence about apprentice performance was being placed upon the apprentices themselves. There was also some evidence of closer integration between provider-based and workplace training and assessment which potentially offered improved opportunities for apprentices who wished to proceed at a pace through their training to do so. Flexibility was greatly enhanced by the increasing use of technology. This provided apprentices with the possibility of being assessed at work, home and at college.

Importantly, many teachers and workplace supervisors expressed concerns that some apprentices were less able to take on the role of evidence gatherers that was now being demanded of them because they lacked the confidence, the skills or even the commitment required to undertake the task. It is apparent, therefore, that consideration needs to be given to the preparation of apprentices if they are to become more active participants in the assessment process. Apprentices need the requisite skills to determine their own readiness to progress. They need to develop the capacity to effectively monitor their own performance, evaluate it against the established industry and enterprise benchmarks, determine areas for improvement and seek advice on how those improvements might best be undertaken. Supporting the development of these skills in apprentices could and should be the joint responsibility of teachers and workplace supervisors. The successful implementation of competency-based progression and completion may well depend on them doing so.

**Background**

When competency-based training was first introduced in the late 1980s and early 1990s, one of its most-vaunted features was to free those being trained from the rigid time-served system thus shortening the training for some apprentices. The intent was that contracts of training would, potentially, become variable in length. The connection between policy intent and practice on the ground, however, was never made and the traditional time-based system remained intact for the majority of apprentices (Workplace Research Centre 2012).

Early in 2006, the rigidity of the time-served model again became a focus when the Council of Australian Governments (COAG 2006, p.14) determined all governments would set in place arrangements that allowed ‘apprentices and trainees to work as qualified tradespeople ‘as soon as they demonstrated competency to industry standards, without having to wait out a set time period or make special application’. Again the intention of the initiative was to shorten the duration of apprenticeships. The approach was seen to bring a number of benefits which were outlined by the Apprenticeship for the 21st century Expert Panel (DEEWR 2011, p.92). The perceived advantage for apprentices was gaining a trade qualification in a shorter period of time. For experienced but unqualified workers, their skills could be formally recognised and enhanced Recognition of Current Competencies or Prior Learning would allow earlier completion. A shorter period in training would also be attractive to mature-age apprentices. Whilst the intent was to accelerate training for those who had the capacity to pick up vocational skills and knowledge quickly, it was also acknowledged that competency-based progression would still allow the essential support for those that needed additional time to complete an apprenticeship. The identified benefits for employers were an increasing pool of qualified tradespersons and a greater emphasis on the workplace component of apprentice training. Both would lead to productivity gains for enterprises. Competency-based progression and completion also opened up opportunities for more flexible training arrangements and more effective training partnerships between enterprises and training providers.

Whilst competency-based progression had technically been enacted in 2006, uptake proved to be relatively slow and numbers progressing low (DEEWR, 2011). The Expert Panel suggested that this was an outcome of resistance on the part of teachers and trainers to adopt effective competency-based approaches particularly in relation to workplace evidence gathering and workplace assessment strategies. There was also a deal of resistance to the policy on the part of employers who preferred the traditional time-served model for their apprentices.

Whilst implementation of the competency progression policy was struggling to make headway on the ground, significant debates were also occurring around the quality of competency-based assessment. Research into industry views of assessment (Precision Consulting 2008) revealed a lack of confidence in assessment processes and decision-making particularly where assessors lacked current industry knowledge or adopted a ‘tick and flick’ approach to evidence gathering. Poor assessment practice was a major theme in numerous reports (Productivity Commission 2011; Skills Australia 2011, Wheelahan & Moodie 2011) and the credibility of VET qualifications was seen by policy-makers and regulators to be increasingly under threat. Given these concerns, what if any, were the implications for the implementation of competency progression?

In research undertaken for Group Training Australia in 2012, the Workplace Research Centre (2012, p.32) proposed ‘the issue of quality and how to preserve quality standards in assessment as a contentious issue in the competency-based progression model’. Stressing the risks associated with turning out workers deemed competent through poor assessment, the researchers suggested that apprentices needed to be provided with ‘diverse scenarios to “test” skill (i.e. require apprentices to extrapolate existing knowledge and to “problem solve”) Workplace Research Centre 2012, p.33). However, when many VET practitioners had only minimal knowledge and skills in assessment and the time for apprentices to practice and demonstrate competency was limited, the view expressed by many was that the maintenance of any consistency and quality in assessment was indeed problematic (Halliday-Wynes & Misko 2013).

In the Australian VET context, research has rarely focused upon the role of apprentices in the assessment process yet with the advent of competency progression this would seem to be a critical issue if apprentices were to be the ones electing to accelerate their training or not. In other educational fields, increasing learner engagement in assessment has been the subject of research and the many benefits of doing so identified. Early work by Sadler (1989) for example, emphasised the importance of learners being given the opportunity and skills to evaluate their own performance. To do this effectively, it was suggested, learners need to understand what high quality performance looks like and be able to compare in an objective way their work against the standards required. Integral in this approach, is the need for learners to receive feedback that informs improved practice and have ready access to advice on how best to proceed. Developing the skills to monitor personal performance (self-assessment) and the performance of others (peer or collaborative assessment) is seen as engaging learners more actively in the learning process. This then motivates them to achieve the standards of performance required (McMillan & Hearn 2008). It would appear reasonable to think, therefore, that involving apprentices more actively in the assessment of their own performance could provide similar motivation and potentially improve the numbers electing to progress more rapidly (or more slowly) through their apprenticeship. Greater motivation and engagement in assessment could also impact upon apprentice completions in a positive way.

**Research method and procedures**

The key purpose of the research reported in this paper was to gain a broad understanding of how national competency-based progression policy was being enacted by a sample of TAFE institutes and workplaces. The study was framed around four research questions which had as their focus the integration of on- and off-the-job training and assessment, assessment methods and evidence, assessment decision-making and validation and issues arising from the implementation of competency progression policy into practice.

The trade areas and qualifications selected for examination were the Certificates 3 in Commercial Cookery, Carpentry and Engineering – Metal Fabrication. These qualifications were chosen because chefs, carpenters and metal fabricators are all National Skills Needs listed occupations and the training of apprentices in these areas is seen as a priority within the relevant industry sectors. Further, each of three sectors had differing experiences with competency progression. While competency wage progression had been part of the metals and engineering award for many years, it was only introduced into the building and construction industry award at the beginning of 2014, the year in which the research was being undertaken. Competency progression was therefore mandated for apprenticeships in metal fabrication and carpentry. This was yet to be the case with Commercial cookery.

A purposive sample was used to identify and invite seven TAFE institutes from across three states and one territory to become involved in the research. These institutes had the target qualifications on scope and expressed willingness to participate in the study. The decision to have a TAFE-only focus was made because as large organisations with significant training infrastructure, high numbers of apprentices and a multiplicity of employers training and assessment under a competency progression regime was likely to be logistically more challenging than for smaller providers.

To explore the experiences and perceptions of participants and illuminate any multiple standpoints on the impacts of competency progression, a predominantly qualitative research approach was adopted (Greene 2007). Research methods included a review of relevant literature and policy documents, a pre-interview questionnaire composed of forced-response items followed by a semi-structured interview consisting of open-ended questions.

A total of 47 interviews were undertaken, 26 with TAFE practitioners teaching and assessing the designated trades and 21 workplace supervisors drawn from commercial cookery, building and construction and engineering enterprises. The supervisors were those who were directly responsible for providing the work-based learning component for one or more apprentices being trained and assessed by the participating TAFE teachers. The intent was to draw out ‘paired’ perspectives on the impacts of competency progression on the training and assessment of apprentices.

Both pre-interview questionnaires and interview transcriptions were analysed by hand and major themes relating to the research questions identified and variations and interrelationships in the responses highlighted. Whilst the scope of the research extended to aspects of communication between teachers and supervisors and their strategies to integrate the on- and off-job components of apprentice training, this paper focuses only on the methods and procedures being employed to assess apprentices in the three trade areas.

**Findings and discussion**

In interview, many of the TAFE teachers acknowledged that there was not a marked change in the way they undertook provider-based or workplace assessment with the introduction of competency progression. A small number, however, suggested that it had forced them to think differently about their approaches and that they had initiated quite substantial changes to ensure that the learning and assessment needs of apprentices wishing to operate at their own pace were met. Some also confirmed that not all apprentices wanted to move more rapidly through their apprenticeship program, on the contrary a number needed to take a longer time to build their skills.

*Assessment off-the-job*

To establish a picture of assessment practices, teachers were asked to describe what strategies they were using to assess apprentices in the off-job component of their training. The traditional short answer tests, multiple choice quizzes, work books and oral questioning were revealed as the common strategies for evaluating the theoretical knowledge although most teachers indicated they were increasingly relying upon technology to facilitate knowledge assessments. Online quizzes of varying types, extensive online item banks and technical resources together with online research activities which required apprentices to use the internet to search out information were commonly mentioned. Moodle and Blackboard, the commercial e-learning platforms and the Didasko resources in cookery were also being utilised.

Importantly, over half of the teachers viewed increasing access to technology, e-platforms and e-resources as the only means by which they could provide the flexibility demanded by competency progression, particularly as individual apprentices in different stages of their programs were needing to be assessed in a multiplicity of competencies and at different times. Often referring to their strategy as ‘self-paced’, a number of teachers stressed that they were attempting to meet the needs of individual apprentices and their employers by providing opportunities for learning and assessment to be undertaken from almost any location 24/7. Whilst still evident in some institutes, less delivery was being carried out in the traditional mode requiring all apprentices in the first stage of an apprenticeship attending at the same time on the same day. Instead, timetabling of learning and of assessment was becoming much more flexible.

As with theory, the assessment of practical skills in each of the three trades remained relatively unchanged with assessment being conducted through observation of apprentice performance completing tasks associated with a single competency or clusters of competencies. Generally accompanied by the use of checklists, observation focused on specific elements of the competence as well as on planning and set-up, product quality (as expressed in the relevant Training Package/Australian Standard), problem-solving, teamwork and communication skills. Oral questioning provided the opportunity for teachers to gauge apprentice understanding of processes required in completing various tasks. A number of teachers emphasised the importance of questioning which included examination of problems encountered by apprentice in the conduct of tasks and how they had overcome them.

With apprentices operating at different stages and engaged in learning often divergent sets of competencies, assessment of performance tended to be ‘just in time’ and highly individual in nature. Typically, an individual apprentice would carry out three or four skill practices of a single competency or cluster of competencies before undertaking a project-based assessment activity. As teachers were dealing with between 50 and 150 apprentices at various stages and flexible timetabling, high level assessor, management and technological skills were seen to be crucial.

In parallel with this individualised assessment, the majority of the teachers were using extensive group assessment activities. These were specifically designed to assess clusters of competencies where apprentices were required to carry out substantial and highly authentic work-related tasks. For example, groups of metal fabrication apprentices were asked to work together to develop a project plan, produce a full set of drawings from a set of specifications, document the workflow, estimate the materials required and build a product. Teamwork and communication were critical to this task and to underpin the work, they were required to undertake research using text-based and online resources. Assessment in this case, focused on process, product, the soft skills and the theoretical underpinnings as well as competent performance of the tasks with no artificial separation of theory and practice. To facilitate this integration of theory and practice, apprentices had direct access to computers, small teaching spaces and the workshop all of which were co-located.

Project-based assessment activities such as these, demanded individuals work together, to monitor and evaluate the performance of the team as a whole. As a group they had to meet the standards set and to fully understand why the work they produced met those standards. Often, groups were also given a degree of responsibility for documenting and presenting the evidence they had accumulated to demonstrate competence.

*Assessment in the workplace*

On returning to work, individual apprentices continued to be given a great deal of responsibility for collecting evidence of their workplace performance. The majority of teachers utilised log books to guide evidence-gathering. Quite a number of these were e-portfolios. Apprentices carried out specific tasks, evaluated their own performance and then sought workplace supervisor verification that the tasks performed were to the standard set by that particular workplace. Process and product evidence were both collected through photographs mostly captured via i-Phones and i-Pads. Photographs taken by apprentices (and sometimes workplace supervisors) were variously emailed directly to teachers, deposited in online file-sharing and storage systems or uploaded directly into e-portfolios.

An apprentice’s understanding of the need to present good quality evidence (and their ability to do so) would appear to be paramount given the degree of responsibility being placed upon them to provide valid, reliable, current and sufficient evidence for decisions to be made about competence. During interviews with both teachers and workplace supervisors there was some suggestion that apprentices were not necessarily made ready for this important role as evidence gatherers. In fact, only two of the 26 teachers mentioned that they had spent any length of time preparing students to carry out this critical task. A number of teachers expressed concerns that some apprentices being lax about maintaining log books while another highlighted a different problem by suggesting ‘some of the guys do not have the skill sets and struggle, others, the good ones, go over the top in collecting evidence’. This situation was made even more difficult when an apprentice was confronted by differing views on the benchmark for competent performance and where that had to be demonstrated – in the college or in the workplace.

*Enhancing apprentice involvement in assessment*

The evidence from this study suggests that competency progression is best facilitated when assessment is accepted as a collective responsibility by teachers, workplace supervisors and importantly, apprentices. Where theory, practical and workplace learning is well integrated and assessment approaches highly flexible, there is considerable potential for some apprentices to move more rapidly through their training. They do, however, require ready access to assessment opportunities at times and locations that best suit their circumstances. And, as they increasingly taking responsibility for the harvesting of evidence of their own workplace performance, apprentices should be well placed to determine whether progression is something they want to do or not.

To make sure that they have the skills and knowledge to make such decisions, it is apparent that teachers need to dedicate more time to providing apprentices with specific guidance on how to undertake the role of evidence gatherers and the protocols associated with carrying out the task in a workplace. Where photographic evidence is required, guidelines need to be established in consultation with employers about when, where and how such evidence might be captured. To ensure that apprentices have a clear picture of what competent performance looks like, discussions also need to occur which clarify or confirm the benchmarks for performance particularly in situations where workplace practices are highly diverse. Finally, teachers and workplace supervisors need to work with apprentices to help them develop the skills of self-assessment so that they can realistically and confidently judge when they are ready to be assessed and when they are ready to progress.

**Conclusion**

Competency-based progression policy, as enacted through the Council of Australian Governments (2006) has the potential to increase the numbers of tradespeople and to support greater flexibility in the training arrangements for apprentices. Information from the 26 TAFE teachers and 21 workplace supervisors in this study confirmed that in most cases on- and off-the-job training for apprentices in the target trade qualifications was becoming better integrated and more flexible to meet the needs of apprentices and employers. Whilst assessment methods remained relatively unchanged from those traditionally used, assessment was generally being facilitated in some way by technology and much more responsibility was being placed on apprentices to gather evidence of their own workplace performance. For some apprentices, this task was undertaken with little preparation, established protocols or even advice on what constituted quality evidence. It was unsurprising, therefore, that a number of teachers and workplace supervisors questioned the capacity of some apprentices to undertake this task. Assessment is the crucial element in the successful implementation of competency progression and completion. Whether progression occurs or not is largely dependent upon apprentices having ready access to assessment at the point when they believe they are able demonstrate competent performance. It is also dependent upon apprentices having the confidence and ability to monitor, evaluate and improve their performance in order to meet agreed industry standards. By developing the self-assessment knowledge and skills of apprentices and continuing to encourage them to become active partners in assessment decision-making, apprentice interest in making the most of what competency progression offers might well be raised.

**References**

Council of Australian Governments’ Communique. 10 February, 2006. Accessed February 2014. http://archive.coag.gov.au/coag\_meeting\_outcomes/2006-02-10/index.cfm#apprenticeships.

Department of Education, Employment and Workplace Relations. (2011). A shared responsibility – Apprenticeships for the 21st century: Final report of the Expert Panel. DEEWR, Canberra.

Greene, J. (2007). Mixed methods in social inquiry. Jossey-Bass, San Francisco.

Halliday-Wynes, S & Misko, J. (2013). Assessment issues in VET: minimising the level of risk, NCVER, Adelaide.

McMillan, J. & Hearn, J. (2008). ‘Student self-assessment: the key to stronger student motivation and higher achievement’. Educational Horizons, vol.87, no.1, pp.40-49.

Precision Consulting. (2008). Investigation into industry expectations of vocational education and training assessment: Final report.National Quality Council, Melbourne.

Productivity Commission. (2011). Vocational education and training workforce: Research report. Productivity Commission, Melbourne.

Sadler, R.D. (1989). ‘Formative assessment and the design of instructional systems’. Instructional Science, vol.18, pp.119-144.

Skills Australia. (2011). Skills for prosperity: A roadmap for vocational education and training. Skills Australia, Canberra.

Wheelahan, L & Moodie , G. (2011). The quality of teaching in VET: Final report and recommendations. The Australian College of Educators, Canberra.

Workplace Research Centre. (2012). A step into the breach: Group Training initiatives and innovations using competency-based progression. Workplace Research Centre, Sydney.