Research Report

A Transformational System for On-Job Assessment in the Building and Construction Industries

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Executive Summary

This report discusses findings from the Transforming Industry-Led Assessment of On-Job Learning project. The project has been a collaboration between the New Zealand Council for Educational Research (NZCER) and the Building and Construction Industry Training Organisation (BCITO), funded by Ako Aotearoa. The project's aim was to shed more light on systems of on-job assessment generally by focusing on one ITO specifically—the BCITO—and its improvements in organisational capability in order to improve outcomes for learners.

The four principles of good assessment systems

The project discussed in this report was preceded by another one in which NZCER (contracted to the Industry Training Federation and funded by Ako Aotearoa) researched the structures and systems for the assessment of on-job learning across all industry training organisations (ITOs). The project involved a background paper, a survey of all ITOs, and several sets of focus groups with assessors and ITO staff. The research culminated in the production of a *Guide to Good Practice in Industry Training Organisation Structures and Systems for On-Job Assessment* (the *Guide*) (Vaughan & Cameron, 2010b). The Guide was based around a set of four high-level principles for developing and maintaining good assessment systems:

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1. ITOs and workplaces should have a clear purpose for assessment and work together

This principle emphasises the collaborative nature of assessment that can produce a well-trained and qualified workforce. The principle promotes clarity around what assessment needs to do and that ensures the right knowledge and skills are being assessed. It also highlights the importance of good communication between ITOs and employers, and the need for ITOs to support employers so that employers and their workplaces can, in turn, support their apprentices.

2. The ITO's assessment structures and systems must support the learning process

This principle confirms the connections between the processes of learning and assessment. It highlights the need to align systems and processes to ensure that assessment processes do not impede, and preferably support, learning. Summative assessment results tell us whether or not the person has met the standard. Formative assessment helps the learner to reach that standard. Ideally these are combined to lead to "sustainable learning"—equipping learners for a lifetime of learning by constructing them as active participants in the assessment process (Boud & Falchikov, 2006).

> **3. Good assessment systems require appropriately recruited, trained and professionally developed people**
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> This principle reminds us that the skills of the trainer and those of the assessor are complementary, but different. People currently in assessor roles, who have been in a trainer role at some point in their career and/or worked in the building and construction industry, need training and ongoing professional development in assessment. People involved in assessment as verifiers of evidence also need professional development and support.
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> **4. Moderation contributes to reliability and validity**
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> This principle reaffirms that the consistency of assessment judgements can be quality assured by engaging assessors and moderators in discussions and that these are also a way to establish and maintain the standards overall. Good moderation requires judgement. So it is better, from a reliability standpoint, to moderate *with* assessors and before, during, and after assessment takes place. It is even better for reliability and validity if moderation can become a collective exercise.

The *Guide*'s elaboration and discussion of the four principles included good practice examples and questions that ITOs could use to direct and develop their own specific assessment systems. The principles were deliberately designed as a resource based on the best available evidence so that ITOs could interpret them for use *in their specific industry contexts.* In other words, they are intended as a way forward but not as a blueprint. What the *Guide* could not do was point to any real on-the-ground examples of an ITO's specific assessment system working in practice. However, we got an opportunity to do exactly this when the BCITO developed their new system around the same time as we were conducting the ITO Assessment Systems research.

This executive summary will now go on to describe the BCITO's new assessment system and how we approached this research, examining how it gives life to the four principles. The main report (Sections 2–5) provides the detail of what the system and principles look like "on the ground" in building and construction businesses (*e.g.* the interactions, concerns and practices of employers, apprentices and assessors), based on our observations, interviews and other data collected. This executive summary reviews what we believe are the most important system mechanisms developed by the BCITO, how these cohere around two particular ideas about learning, emergent outcomes for learners, and implications for other industry training organisations (these ideas are discussed in more detail in Section 6).

The BCITO's new system

The BCITO had encountered many of the problems explored in our previous research on ITO Assessment Systems (2009–2010). For example, the BCITO's previous system used structured worksheets as assessment tasks but these were not effective in discriminating between what really mattered (*i.e.* the intent of the standard as described by the elements) and what was intended more as guidance for assessors (*e.g.* the items in a listed range statement). This rigidity was further exacerbated by the instruction to assessors to ensure that "all questions are answered correctly"; this instruction sat alongside a set of model answers, which were intended to guide the assessor, but which became "gospel". That sometimes led to correct answers being overlooked because they did not comply with the model answers, or in oral questioning being conducted in a rigid way that failed to elicit what the apprentice actually knew. Although these approaches arose from good intentions to ensure the consistency of assessment judgements, they had resulted in a lack of alignment between the assessment process and the learning environment. Apprentices would tend to complete the theory work in their worksheets (*e.g.* installing hardware) long before they were in a position, or sufficiently trusted, to actually *do* that work onsite (*e.g.* do chisel work on a new door). The new system was thus designed to clearly establish relationships between supportive learning environments and purposeful, professional assessment of learners' progress.

The BCITO's new system removed responsibility for assessing from its workplace assessors and placed it in the hands of BCITO's 75 regional training advisors. It immediately relieved employers of the burden of assessing the theoretical aspects of the apprenticeship. It also made it possible to provide professional support and development in assessment to the training advisors, who were now a much smaller group than employers and were BCITO employees. A new responsibility for evidence evaluation has been designed for employers. Responsibility for evidence collection has been more clearly conceptualised as being one for the apprentice role.

The key elements of the new BCITO assessment system are:
- a shift from around 6000 workplace or employer assessors to around 75 ITO-employed assessors
- a face-to-face internal moderation system that deliberately aimed to build a community of assessment practice
- the establishment of "assessment teams", each comprising a evaluator/trainer, training advisor/assessor, moderator and apprentice
- revisions of learning and assessment resources to reflect and support the other changes.

Research approach

As the BCITO's new system is now fairly established (though still developing), we were able to take the opportunity to inquire into how an assessment system in one industry might give life to the four principles in practice. We approached the research by examining instances of on-job assessment as expressions of the four good practice principles. We wanted to know what actually happened that was likely to contribute to successful learning outcomes. So we examined the "production space" of assessment—that is, the formal assessments and informal assessment-related events, interactions, conversations and reflections generated by on-job assessment that ultimately produce learning outcomes.

We based our exploration of the production space around the "assessment team" of the carpentry apprentice, employer/trainer/evaluator, training advisor/assessor and moderator. We devised a careful recruitment strategy to locate and recruit the five most suitable "assessment teams" in five different parts of New Zealand.

Assessors who used the system well were our best opportunity to see the new system being demonstrated. We therefore selected five of the most proficient assessors based on BCITO's ratings of its 75 training advisors/assessors. We then used the BCITO datasets to identify carpentry apprentices who were fairly typical (in terms of gender, ethnicity and age) of the overall cohort of the 5000 carpentry apprentices, and were between 18 months and two and half years into their apprenticeship (as this would give us the best opportunity to observe assessments taking place). We then turned to locating the workplaces that offered good training and assessment opportunities as this would provide the best opportunity to see the four principles in practice. We relied on the BCITO training advisors for their advice on this, as they had relationships with all the employers. Finally, we recruited each of the five moderators working with each of the selected training advisors. The BCITO facilitated initial contact with many of the participants, and our research team then spoke separately to everyone to confirm their interest in participating, explain the research, answer questions, and determine the best approach for workplace visits.

We visited five workplaces twice each over a six to eight-month period to observe formal assessments and interview everyone in the assessment team. We also conducted a survey of all training advisors/assessors, observed at a BCITO National Moderation Workshop, and interviewed training advisors appointed under new selection criteria designed to take account of experience, skills and dispositions associated with supporting and assessing learning, rather than solely experience as a builder or builder-employer. In addition to interview and observation data, we collected BCITO internal documentation, examples of training plans and apprentice work records.

Diagram 1: Overall fieldwork summary

Fieldwork	No.	Date
Face-to-face group meeting with recruited assessors (5) and moderators (5)	1	June 2011
Phone discussions with recruited apprentices (5) and employers (5)	10	June 2011
Assessment observations	10	Interviews and observations from 2 visits each to 5 workplaces.
Apprentices interviews	10	
Employer interviews	10	
Assessor interviews	10	July 2011–Feb 2012
Moderator interviews	3	
Employer-assessor session observations	1	
Survey of all 75 assessors	1	September 2011
Moderation group session observations	9	National Moderation Workshop.
Moderation group discussion	1	February 2012
New training advisor interviews	5	3 regional BCITO offices. April–May 2012

We analysed our observation and interview notes from workplace visits looking for similar patterns and themes across the teams (*e.g.* the situation of team 1) and across the types of team members (*e.g.* the apprentices, the assessors). We examined the themes and patterns in interactions and perspectives in terms of their expression of the intent and approaches of each of the four principles. We also analysed the moderation workshop, all documentation, and interviews with new training advisor interviews and the Group Manager, Standards Leadership in these terms.

Findings

A range of mechanisms express the principles

The strength of the four principles of good practice for on-job assessment is that it asks ITOs to understand the strengths and weaknesses of their own current systems, and then recreate them in principle-aligned ways, with structures adapted to their unique industry circumstances. We found some specific mechanisms by which the BCITO does this:

- **Training advisors as assessors**
  Transferring the role of assessor from employers to training advisors has enabled the BCITO to offer a range of training and management opportunities that were not

previously financially or operationally viable. Training advisor/assessors can now combine both of their roles to the best effect. As training advisors they partner with employers around the recruitment of the apprentice, the set-up of the training relationship and the overall coordination of the training. As assessors, who now engage in professional learning and development specific to that role, they extend their partnership with employers into assessment collaboration. The apprentice benefits from the training advisor brokerage and support role being combined with the assessor learning support role.

- **The assessment team**
  The BCITO approaches the issues of meeting all assessment purposes through its concept of the "assessment team". Each team comprises an apprentice (learner), a training advisor (assessor), an employer (trainer and evaluator) and a moderator. The assessment team concept repositions everyone's roles in relation to the key purpose of promoting learning through assessment to produce a well-trained workforce that knows the right things and is skilled in the right ways. It raises awareness of learning and its relationship to assessment.

  The team is designed to place the learner at the centre of assessment activity and underline the importance of everyone's contribution to the promotion of learning through assessment. So, for example, although employers no longer undertake the formal summative assessments, they are still part of the assessment process through their role as the trainer and provider of formative assessment (feedback), and as an evaluator of evidence that is gathered by, or described by, the apprentice. The team approach also means that moderators are now collaborators rather than people who exist only to "check up on" assessors or assessment results.

- **The Training Plan**
  The Training Plan is one of the key tools that help members of the assessment team to work together to a common purpose. The Training Plan contains overview details about the apprenticeship such as unit standards, credits and dates of assessment. It also contains more detailed records of workplace visits, discussions held, progress comments, evidence used to determine competence, and assessor judgements about competence. What the training advisors actually write in the Plan, and how much they involve the apprentice and employer/evaluator in developing it, is critical. Everyone— and this would include any new or replacement training advisors and employers— needs to be able to read the Training Plan and understand the training advisor's thinking or reasoning, how they determined competence, and what evidence they used to support decisions.

- **The walk-around**
  The assessments we observed typically began with a "walk-around" of approximately 10 minutes, depending on site access and what sort of work being done by the apprentice could be observed. The training advisor asked the apprentice to show him around the site and point out work the apprentice had done. The training advisor would question the apprentice, asking for details about individual tasks involved in the work, processes and tools used by the apprentice, and interactions with the employer and, if applicable, workmates and subcontractors.

  The walk-around process mimicked the everyday nature of apprentice work—walking around the site and seeing it as a whole, focusing on specific tasks, discussing the tasks with the employer, and perhaps showing off good work. This process enabled the training advisor to directly observe apprentice competence through real work under way or completed. In other words, the assessment revolved around "naturally occurring evidence" derived from the apprentice's real everyday work, often over a period of time. The discussion during the walk-around helped the apprentice to articulate his understanding and helped the training advisor to probe for areas in which apprentice might be weaker, need help, or not yet be competent.

- **A custom-made record of work**
  Trainees record their practical, onsite work as part of the evidence-gathering process that informs assessment decisions. These records of practical work are reviewed by the training advisor during assessment visits, to help to build a picture of the apprentice's knowledge and skills in relation to the qualification requirements. By discussing the records with the apprentice and using them to probe understanding, the training advisor can decide either to "sign off" relevant unit standards or to provide guidance on what further learning needs to take place.

  In the new system, apprentices are expected to take an active role in managing their learning and assessment. In line with this approach, there is no rigid, prescribed way of recording practical work completed on site. Instead, training advisors actively encourage apprentices to come up with their own ways of collective evidence. The most important consideration is that the method of recording should be time-friendly and allow the apprentice to work within their comfort zone, rather than being a barrier to learning. We collected a range of examples of these records, which included scrapbooks with sketches and photographs, diaries, magazine columns and blogs. Most records were either project-based (evidence grouped around a particular job) or diary-based (evidence recorded on a daily, dated basis). The process of gathering evidence and choosing what to record and how to record it involved apprentices in actively

thinking about, and reflecting on, their learning. This is a well-recognised educational strategy to promote high-quality, deep learning.

- **The ride-along**
  Moderators offer support to the assessor in a number of ways. They provide advice around managing relationships with apprentices and employers, gathering of evidence, and the use of assessment tools. In a more formal moderation role, Training Plans and assessment judgements are reviewed.

  Moderators sometimes accompany training advisors as they visit apprentices in a practice known informally as "the ride-along". Moderators observe, and sometimes participate in, the assessment activities. They are then in a position to provide analysis and advice to assessors about better preparing learners for assessment, techniques that improve the validity of questioning, and better tools for observing and acknowledging learner progress. There has been a tendency for moderation to be applied to decisions made in the past with the sole purpose of evaluating the consistency of assessment judgements. The BCITO's new moderation system seeks to look forward rather than backward and to examine practice as well as outcome. This enables interactions with learners to be evaluated and improved.

- **National Moderation Workshops**
  There is general agreement within the assessment literature that the most effective form of moderation occurs when assessors meet to discuss and reach agreement about assessment processes. Moderation improves reliability by helping assessors to develop a shared understanding of what counts as sufficient evidence of achievement prior to the formal assessment taking place. Through its National Moderation Workshops, the BCITO regularly brings its national group of training advisors/assessors and moderators together for professional development opportunities. These workshops run up to several times a year and occur in addition to moderation sessions at Area Meetings, held on a quarterly basis. These are part of a deliberate strategy for creating an assessment community of practice. The open conversations (which we observed as one National Moderation Workshop) disrupt the earlier model of moderators "reporting on" and "checking" assessors. Instead, they engage everyone in the shared purpose of improving practice all around.

A principles-based system is holistic in practice

This report is structured according to the four principles of good practice from the previous study and guide (Vaughan & Cameron, 2010). This is done so that readers get a picture of what the four principles look like as practised through the BCITO's new assessment system.

However, in reality each of the mechanisms in the BCITO's system serves at least *two* principles because the mechanisms are designed to create coherence throughout the system. For example, having *training advisors as assessors* enables the professionalisation of the assessment workforce and makes use of the relationship-building and relationship-management dimensions of the training advisor role to support the assessment process (principles 1, 2 and 3).

The *Training Plan* is a prompt to the employer to find learning opportunities for the apprentice (principles 1 and 2). It is also a recording and goal-setting tool for apprentices and training advisors (principle 2). It is a transparent record of judgements made and evidence used for moderators, and for overall organisational improvement (principles 3 and 4).

The *assessment team* approach builds a sense of shared purpose and responsibility around assessment, especially for employers and training advisors/assessors. It draws the apprentice towards active participation in, and responsibility for, their own learning because other team members look to the apprentice to know how to best help them. It also supports assessors and moderators to work together in a collegial way (principles 1, 2, 3 and 4).

Because apprentices can choose how to construct and use their *record of work* they can take further responsibility for their learning and their progression through the apprenticeship. The records of work can serve as reflective learning devices and as evidence of competence for the apprentice. They also help employers to learn about recognising and evaluating evidence, and they help them to think about the further learning opportunities for the apprentice (principles 2 and 3).

The *walk-around* reduces apprentices' anxiety about the assessment process. Most apprentices have not had positive experiences of assessment and sometimes not of learning (at school) either. The walk-around enables them to demonstrate their competence in a business-as-usual fashion, using all the available contextual cues that help them show and articulate what they know and can do. It gives training advisors a chance to develop judgement about a wide range of evidence (principles 2 and 3).

The *ride-along* approach and the *National Moderation Workshops* function to build an assessment community of practice that fosters a spirit of openness, peer-support, innovation and organisational excellence. The ride-along and the workshops build the collegial assessor-moderator relationship and provide each with a wealth of professional development opportunities (principles 3 and 4).

The mechanisms and principles cohere around two ideas

Perhaps the most interesting and important thing about all of these mechanisms is that they consistently cohere around two strong ideas:

1. supporting the apprentice to learn (not just pass)
2. making *everyone* in the assessment team a learner.

These two ideas mirror each other across the assessment system. It is useful to think of both formative and summative assessment as 'points on learning trajectories' and as providing 'windows on episodes of practice' (Eraut & Hirsch, 2007, p. 17). The BCITO's assessment system takes care to do just that by focusing on developing, supporting, and assessing apprentices' real understanding and competence. The walk-around and the discussions between apprentice and training advisor are not just assessment practices that come after the learning; they are meaningful moments of learning in their own right. They draw in other people who can also promote that learning—employers and supervisors who evaluate evidence, strategise with the training advisor, and design the right learning environment and opportunities for their apprentices.

The BCITO also makes use of "windows on episodes of practice" for its training advisors/assessors and moderators. Just as training advisors and employers/evaluators seek and consider naturally occurring evidence, within a business-as-usual approach to assessment, the BCITO's overall system bases evidence, judgement-making and moderation around naturally occurring professional conversations, many of which now occur on an ordinary, business-as-usual basis. BCITO's assessment community of practice and its assessment team around the apprentice create two interwoven feedback loops. The increased transparency of the assessment process means a greater range of feedback is possible, as well as more frequency of feedback, and a better quality of feedback. It seems to work for everyone involved at every level.

The BCITO's changes have been decisive but also measured, and they have been implemented over several years. Parts of the system are still evolving, even as this report is being written.

Learner outcomes: emerging evidence
Ultimately the BCITO's new assessment system is designed to improve learning outcomes for its apprentices. Some evidence of this is already emerging although it is too early to tell how definitive these trends really are. There are the beginnings of a possible reduction in time taken to complete, although, as we discuss in Section 2, there are cautions about the data available to pursue this line of inquiry.

There are also the beginnings of a change in the pattern of credit achievement. As assessment visits are organised around the work actually being done onsite, and as assessment teams focus on what apprentices can do *and* know, the theory and practical aspects of the apprenticeship are becoming more integrated. Training advisors have some anecdotal evidence of this already and we may see data-based patterns at a future date. The BCITO are supporting this integration with the new resources for apprentices and through the encouragement of apprentices to keep learning records that invite reflection.

We can certainly say, then, that holistic assessment in the BCITO's system gives apprentices more *opportunity* to learn deeply. Learning deeply is not only important for the development of competence but for the development of a learning disposition. If apprentices can enjoy learning (including the assessment as form of learning), they are enabled to judge the adequacy and progress of their own learning. They have a chance to "own" the process of assessment because they can see how it actually works.

Sustaining the building and construction industry
Training advisors/assessors, moderators, and employers/evaluators/trainers have a chance now to "own" the process of assessment. They have all moved away from relying on rigidly set criteria that may not always apply in the real world setting of the building site. The training advisors, employers and moderators need to understand the assessment process so they can develop their own judgement and not be reliant only the judgements of other people or other measures. The BCITO are creating an internal workforce of lifelong learners.

This bodes well for the sustainability of the building and construction industry. It is good for the industry to have people who have developed a lifelong learning outlook. Apprentices who love learning, and will keep learning, are more likely to become builders who want to share their love of learning and the industry with others. They are more likely to want to "give back" to the industry that grew them. They are more likely to be concerned with the quality work and innovation that makes the industry attractive, satisfying and worthy of status in society. Training advisors and moderators are more likely to see their assessment role as a specific expertise and a positive career choice (not second-best to actually being a builder). These things all lay the foundations for a building and construction industry that has the capacity to recognise, respond to, and lead in relation to new and different design, legislative and customer demands as they inevitably arise.

Extending the system to other industry training organisations
The four principles of good assessment systems were never a blueprint and neither is the BCITO's system. The four principles are a resource based on the best available evidence that ITOs can interpret for use in their specific industry contexts. The BCITO have now provided

evidence that a principles-based assessment system can work. Their system not only gives life to the principles but illustrates how they operate holistically across the different parts of an assessment system.

Before embarking on the change to the assessment model in 2009, the BCITO surveyed their employers, asking them if they supported the concept of a changed system. Over 80 *per cent* did. Two years on, in response to a BCITO client satisfaction survey, 80 *per cent* expressed that they were satisfied or very satisfied with the assessment process (a further 17 *per cent* were neutral). With 90 *per cent* satisfied with the books and material, and 80 *per cent* satisfied with the support provided, there is reason to believe that the implementation has been a success from their point of view. A couple of the employers participating directly in this research expressed some dissatisfaction over the loss of "final say" about an apprentice's competence. However, the idea of the assessment team is designed to address precisely this by including the employer in assessment decisions and making clear the importance of their role as an evaluator of evidence. If there are other ITOs that are considering moving away from using employers as assessors, we suggest they too canvass the views of their employers on possible new arrangements and learn from how the BCITO have created a new, valued role for employers.

We think the BCITO's system may be suitable for a wide variety of industries, largely because it relies on professionalising the assessors and developing a solid community of practice. The BCITO has already begun approaching the other trades within its coverage, seeking to extend the assessment model into their industries. In their proposal they have emphasised the training in assessment practice that the BCITO provided to assessors, the well-developed moderation system, and the assessment workload relief for employers. The proposal has been accepted by all trades. A key part of this acceptance has been that the assessment team approach provides industry stakeholders with reassurance that specific trade knowledge will always form part of assessment decisions. We suggest that other ITOs adopt such an approach. Not only does it not make sense for assessment to be "done to" trainees, but it does not make sense for an assessment system to be "done to" ITO staff or employers. We encourage ITOs to consider *all* their stakeholders and how they too might build a community of practice within their assessment systems.

Introduction: The search for good practice

This report discusses findings from the Transforming Industry-Led Assessment of On-Job Learning project. The project has been a collaboration between the New Zealand Council for Educational Research (NZCER) and the Building and Construction Industry Training Organisation (BCITO), funded by Ako Aotearoa. The project's aim was to shed more light on systems of on-job assessment generally by focusing on one industry training organisation (ITO) specifically—the BCITO—and its improvements in organisational capability in order to improve outcomes for learners.

In the next sub-sections we briefly review a previous research project that formed the basis for this current project.

Researching on-job assessment systems

In 2009 and 2010 NZCER conducted research for the Industry Training Federation (funded by Ako Aotearoa) on structures and systems for the assessment of on-job learning. Industry training is distinctive for its significant use of on-job learning and on-job assessment. However, little was actually known about assessment in on-job contexts, compared to off-job or classroom-based contexts. Even less was known about the systems that support the on-job assessment practices. To address those gaps the project considered different models of workplace assessment used around the world and in New Zealand through the industry training system. The research, as it was initially conceived, was limited to a focus on assessment systems, rather than the practices. However, since the structures and systems are there to support assessment practices, we made some comments about high-quality assessment practices and how ITOs could support those.

The research had three main phases. The first phase was a review of national and international research and literature. There was very little literature directly about on-job assessment

systems—partly because assessment tends to be taken for granted (especially when it is less visible, as with everyday feedback) and partly because it sits within the field of workplace learning, which is a newer and growing area, and currently attracts less research interest than institution-based learning and assessment. However, we found relevant issues and lessons that could "hold true" for workplace-based situations in the wealth of literature on assessment in classroom-based settings.

We used our review to write a background paper (Vaughan & Cameron, 2009). In the paper we highlighted the different purposes of assessment (namely assessment *for* learning and assessment *of* learning) and how it can be used to support or limit learning in any setting. We explored the distinctiveness and implications of the on-job setting for assessment and the separation of the roles of trainer, mentor and assessor across workplaces and institutions in New Zealand. We found great potential for authentic assessment of actual performance with on-job assessment, particularly if it was integrated into everyday work and learning. However, we also found a lack of understanding of assessment as an activity requiring a specific and deep expertise. As a consequence there was a lack of training and development for assessors and a lack of understanding as to how systems could be designed to support the development of good assessor judgement that could promote learning and support learners to be more involved in their learning.

Our background paper in turn informed the development of the second phase of inquiry: a survey sent to all ITOs. The findings provided specific detail about ITOs' assessment systems and supported the findings of the background paper. We used the findings from the survey to develop questions and exercises for the third phase: a series of focus groups, which probed more deeply into issues emerging from the survey (and background paper). Subsequently we produced a report that integrated the survey and focus group findings (Vaughan & Cameron, 2010a), making some suggestions about possible improvements to aspects of assessment structures and systems. From the survey findings we generated a draft set of principles as the basis for discussion in a further set of focus groups. Finally we drew on findings from across phases of the project to produce a good practice guide. We discuss this guide in more detail in the following sub-section.

Principles for good practice

The *Guide to Good Practice in Industry Training Organisation Structures and Systems for On-Job Assessment* (the *Guide*) (Vaughan & Cameron, 2010b) based around a set of *four high-level principles* for developing and maintaining good assessment systems:

1. ITOs and workplaces should have a clear purpose for assessment and work together.
2. The ITO's assessment structures and systems must support the learning process.
3. Good assessment requires appropriately recruited, trained and professionally developed people.
4. Moderation contributes to reliability and validity.

The *Guide*'s elaboration and discussion of the four principles included good practice examples and questions that ITOs could use to direct and develop their own specific assessment systems. The principles were deliberately not designed to be highly prescriptive because nobody can know what constitutes best practice across all situations. The principles were instead designed as a resource based on the best available evidence so that ITOs could interpret them for use *in their specific and unique industry contexts.* In other words, they are intended as a way forward but not as a blueprint.

The research left us with one gaping hole: we never actually saw what the principles might look like in practice. That was always going to be beyond the scope of the project and we found very little in the literature to help. As we explain in the *Guide*, we constructed the examples of good practice from an amalgamation of our own education expertise in learning and assessment and the different kinds of examples and stories told to us by ITO staff and assessors. In some instances we fleshed out any direct examples from ITOs' developing or desired ideas for an assessment system and in other instances we "flipped" stories about their frustrations and issues faced in order to produce an example of what it could be like. But ultimately we still keenly sought knowledge of a cohesive attempt to put the principles into practice in specific industry settings. We wanted to know: what would this system really look like? What challenges would arise? What more could we learn from *specific practice situations* about on-job assessment systems?

The BCITO's new assessment system

Around the same time that NZCER began research into on-job assessment systems, the BCITO began implementing their own new assessment system for carpentry apprentices. It did not result from the NZCER research, but it derived from the same kinds of issues that the research surfaced and analysed for the industry training sector as a whole. Thus, the BCITO's assessment system design appeared to be consistent with the research findings and the principles of good practice for assessment systems.

The BCITO designed a new system for the overarching purpose of raising the quality of assessment and promoting learning and better outcomes for apprentices. The approach involved actively counteracting what had become rigid and mechanistic approaches to assessment, largely as a result of the way the National Qualifications Framework had been implemented. For example, the use of structured worksheets as assessment tasks struggled to be effective in discriminating between what really mattered (*i.e.* the intent of the standard as described by the elements) and what was intended more as guidance for assessors (*e.g.* the items in a listed range statement). This rigidity was further exacerbated by the instruction to assessors to ensure that "all questions are answered correctly"; this instruction sat alongside a set of model answers, which were intended to guide the assessor, but which became "gospel". That sometimes led to correct answers being overlooked because they did not comply with the model answers, or in oral questioning, being conducted in a rigid way that failed to elicit what the apprentice actually knew.

These approaches often arose from good intentions to ensure the consistency of assessment judgements, particularly since they were made by people untrained in assessment (*i.e.* employers). However, those good intentions had resulted in a lack of alignment between the assessment process and the learning environment. Apprentices would tend to complete the theory work in their worksheets (*e.g.* installing hardware) long before they were in a position, or sufficiently trusted, to actually do that work onsite (*e.g.* do chisel work on a new door). The new system was thus designed to clearly establish relationships between supportive learning environments and purposeful, professional assessment of learners' progress.

The main, explicit driver for change to the BCITO's assessment system was quality. There was simply no way that the BCITO could assure the quality of assessment from around 6000 workplace assessors (usually employers). The workplace assessors were right there in the workplace with apprentices and were usually also their trainers. They, therefore, had the advantage of easy and longitudinal access to evidence of apprentice performance and competence. However, the workplace assessors had no background or particular expertise in assessment and the benefits of proximity to apprentice and performance could just as easily be outweighed by poor assessment processes and judgements. There was no way for the BCITO to logistically or sustainably develop high levels of assessment expertise in all these workplace assessors. Furthermore the majority of workplace assessors felt burdened by having to take full responsibility for assessing the knowledge identified as theoretical within the apprenticeship.

The BCITO's new system removed responsibility for assessing from its workplace assessors and placed it in the hands of BCITO's 75 regional training advisors. It was immediately possible to provide professional support and development to the training advisors. They were a far

smaller group of people to deal with and they were employees so the assessment role, and participating in professional development, could form part of their performance objectives.

The key elements of the new BCITO assessment system are:
- a shift from around 6000 workplace or employer assessors to around 75 ITO-employed assessors
- a face-to-face internal moderation system that deliberately aimed to build a community of assessment practice
- the establishment of "assessment teams", each comprising a trainer, assessor, moderator and apprentice
- revisions of learning and assessment resources to reflect and support the other changes.

It should be noted that the introduction of the new assessment model coincided with the first months of a significant downturn in the construction industry driven by the global financial crisis. Numbers of apprentices under BCITO's care dropped from over 9000 at the end of 2007 to around 5000 three years later. From the organisation's point of view, the decrease provided the opportunity to up-skill the existing field force to meet the requirements of the new model without interrupting service provision. The assessment model changes were made, and still are being made, in a series of steps. We discuss the details of these steps in relation to the four principles throughout the rest of this report.

The following diagram (Figure 1) shows the changes in the BCITO assessment system. The top tier of boxes in each layer shows the assessment-related roles and the bottom tier of boxes indicates the person responsible for those things. The "assessment" and "moderation" roles have shifted position away from employer and training advisor, respectively, to training advisor and the training and development team. A responsibility for evidence collection has been more clearly conceptualised as being one for the apprentice role. A new responsibility for evidence evaluation has been designed for employers.

Figure 1: The BCITO assessment system: from old to new
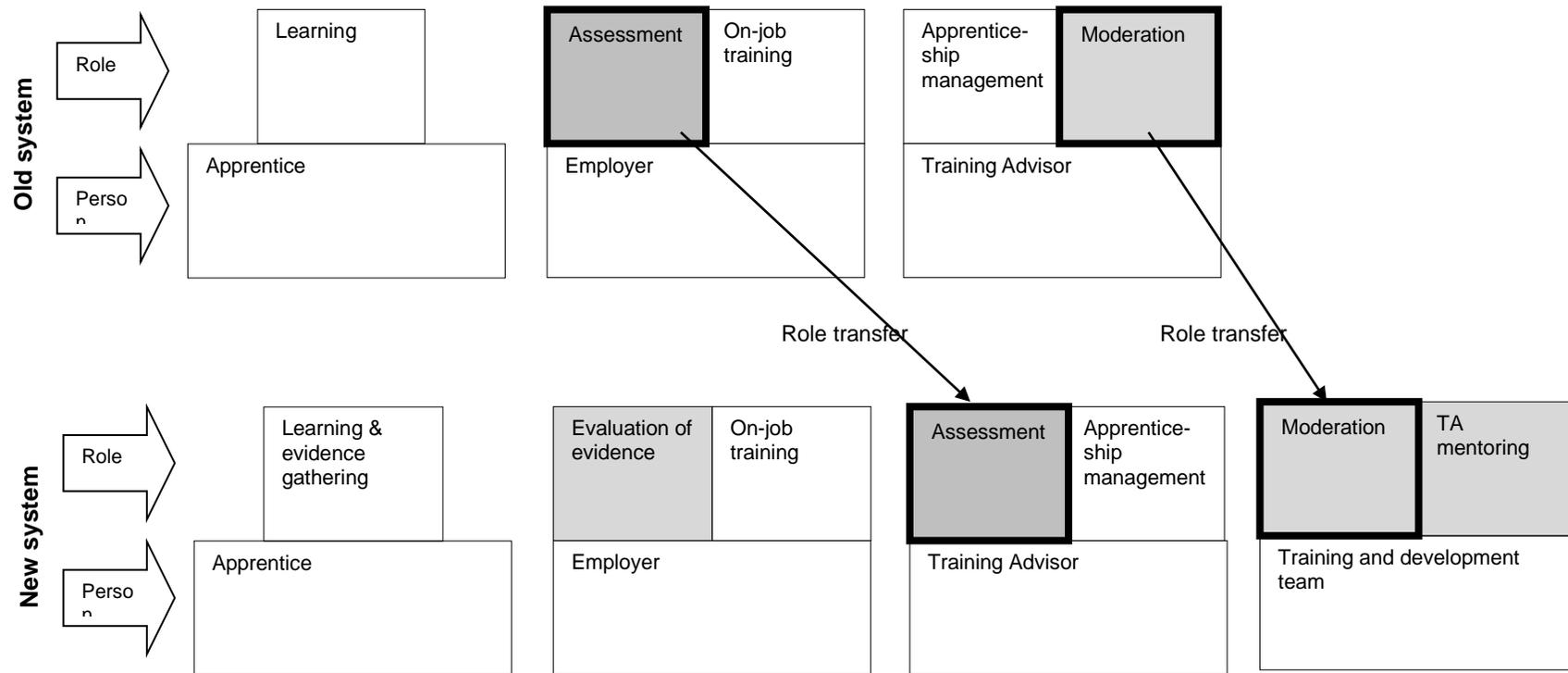
Research approach

Our overall approach to the research was to examine instances of on-job assessment as expressions of the four good practice principles. We wanted to know what actually happened that was likely to contribute to successful learning outcomes. So we aimed to examine the "production space" of assessment—that is, the formal assessments and informal assessment-related events, interactions, conversations and reflections generated by on-job assessment that ultimately produce learning outcomes.

We based our exploration of the production space around the assessment team of the carpentry apprentice, employer/trainer/evaluator, training advisor/assessor and moderator. We invited five assessment teams to participate in the study according to the recruitment criteria (see following sub-section) and all four team members in each of the five teams selected agreed to participate. We held an initial group meeting with the participating assessors and moderators at the BCITO head office (although, at our request and for purposes of confidentiality, only the participants and researchers were present for the meeting). This meeting allowed us to discuss broad themes of interest around the assessment process and decide together on a workable approach to the workplace visits.

We made visits to the workplaces associated with each team twice over a 6–8 month period to observe formal assessment events. The timing of our visits depended on the availability and readiness of other members of the team for the assessment (*e.g.* sometimes we needed to wait for an apprentice to be ready to be formally assessed for particular skills. Sometimes we needed to fit in with the work being done onsite).

At each visit one of the researchers in our team would observe an assessment event, which always included the formal assessment of the apprentice by the training advisor. We ensured the same researcher conducted both of the visits and all of the assessment team interviews for each workplace in order to facilitate relationship-building and trust, and a continuity of discussion content across different visit times.

We observed the assessment event at each workplace by following the apprentice and assessor around during any walk-and-talk sessions. We noted the style and nature of interaction around workbook review, question-and-answer sessions, discussions and planning or goal setting. The observed event sometimes also included discussion between the training advisor and the employer, and between the training advisor and a site foreperson. We also individually interviewed the members of the team (apprentice, training advisor, employer and moderator) about their learning and assessment role and experiences, including the observed

formal event that had just occurred. As part of the workplace visits we collected examples of Training Plans and apprentice work records.

The workplace visits, observations and assessment team interviews formed the mainstay of our fieldwork. However, we also complemented this core of fieldwork with other data collection activities and used some of these to inform other activities. We designed and conducted an online survey of all 75 training advisors employed by the BCITO. We used survey findings to get a sense of how the new assessment system was perceived by the entire cohort of BCITO assessors/training advisors and to inform our interview questions for the five assessment teams. The findings are best considered as a background to the detailed level of assessment-related interactions that we actually observed and discussed. The survey findings have therefore been placed in Appendix 2.

We also took advantage of an unplanned opportunity to observe assessors and moderators at work in a rescheduled BCITO National Moderation Workshop. The workshop helped us gain a deeper understanding of how assessors managed the dual role of training advisor and assessor, how moderation was practised in the new BCITO system, and how the process of moderation was used to create a community of practice for assessors and moderators. We also used this workshop as an opportunity to report back to the BCITO assessment staff on survey findings and fieldwork. At the moderation workshop we were able to gather documentation associated with the workshop activities as well as more examples of training plans.

We interviewed five new training advisors/assessors appointed under the BCITO's new selection criteria, which were designed to take account of experience, skills and dispositions associated with supporting and assessing learning and learners, rather than experience as a builder or builder-employer (see Section 4 for more discussion). We also talked with the Group Manager, Standards Leadership at the BCITO as the architect of the new assessment system and he provided us with internal BCITO documentation on the system's development.

The following table summarises the fieldwork and data collected. Note that the "workplace" refers to the employer's business, not the physical work site where the building work occurred, which changed according to the employer's work schedule and contracts. In most instances assessment event-related interviews were conducted on building sites. In one instance the weather forced the assessment visit and our interviews offsite. In several cases we interviewed assessors offsite after their visit since working conditions onsite made it inappropriate to stay. In one case we had an unplanned opportunity to observe a meeting between an employer and an assessor, which took place in a café.

We were able to take advantage of these serendipitous occasions for several reasons. Firstly, our whole approach was focused on the "production space" of assessment—the formal and informal assessment-related events, interactions, conversations and reflections—so we were prepared for variation in when, where and how this space was produced. Secondly, we were sometimes able to "ride along" with the BCITO assessors as they drove to and from sites. This was simply an efficient way to meet up, as the actual site for the assessment could change at short notice or the site might be difficult to find. However, it did mean we could be privy to off-the-cuff as well as planned interactions (*e.g.* stopping briefly to say hello to an employer, dropping off some papers to a moderator). This gave us further insight into the duality of their role (*i.e.* assessor and training advisor). Finally, our ability to take advantage of these occasions was facilitated by the willingness of all our participants to be flexible and open about letting us shadow them as they conducted their business.

Table 1: Overall fieldwork summary

Fieldwork	No.	Date
Group meeting with 5 assessors and 5 moderators	1	June 2011
Discussions with apprentices and employers (by phone)	10	June 2011
Assessment observations	10	Interviews and observations from 2 visits each to 5 workplaces. July 2011–Feb 2012
Apprentices interviews	10	
Employer interviews	10	
Assessor interviews	10	
Moderator interviews	3	
Employer-assessor session observations	1	
Survey of all 75 assessors	1	September 2011
Moderation group session observations	9	National Moderation Workshop. February 2012
Moderation group discussion	1	
New training advisor interviews	5	3 regional BCITO offices. April–May 2012

We analysed our observation and interview notes from workplace visits, looking for similar patterns and themes across the teams (*e.g.* the situation of team 1) and across the types of team members (*e.g.* the apprentices, the assessors). We examined the themes and patterns in interactions and perspectives in terms of their expression of the intent and approaches of each of the four principles. We also analysed the moderation workshop, all documentation and

interviews with new training advisor interviews and the Group Manager, Standards Leadership in these terms.

Choosing participants
We devised a particular strategy to locate the most suitable "assessment teams".

Assessors
Assessors who used the system well were our best opportunity to see the new system being demonstrated. We therefore selected five of the most proficient assessors based on BCITO's ratings of its 75 training advisors/assessors. The BCITO's ratings were based on records of assessment interactions in which moderators had been involved, discussions between moderators and assessors, management observations from cluster meetings, and moderators' evaluations of assessor capability.

Apprentices
We sought carpentry apprentices who were fairly typical of the overall cohort of the BCITO's 5000 carpentry apprentices. We used the BCITO's datasets to identify five apprentices (linked with the five training advisors/assessors) who were representative of the BCITO carpentry apprentices in terms of ethnicity, gender[1], progress through apprenticeships, and age. We also looked for apprentices who worked for companies that were representative in terms of size, configuration and training history.

BCITO's data on retention, progress (credit accumulation) and completion shows that apprentices accumulate very few credits in their first 18 months and most of them after two and a half to three years. The reasons given for this pattern included that competence in many aspects of building and construction takes time to acquire, and the nature of the processes is that learning opportunities do not necessarily arise on a daily basis. As credits represent assessments successfully completed and our research needed assessments to observe and to discuss with participants, we sampled apprentices within the one and a half to three-year range.

Workplaces and employers
We sought workplaces that were fairly typical according to BCITO's data. This means that nearly all of their employers are SMEs (small to medium-sized enterprises) or "micro enterprises" and employ four or fewer employees. We also sought workplaces that offered good training and assessment opportunities as this would provide the best opportunity to see the four principles in practice. Since not all employers are willing and/or able to offer their apprentices good training and assessment opportunities, we relied on the judgement of the

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[1] There are only 25 female apprentices and we excluded them from the sample as they are atypical, and confidentiality and anonymity were likely to be compromised by their inclusion.

BCITO management and training advisors to guide us in selecting employers most likely to give good opportunities and to be fairly stable businesses (*i.e.* not about to cease trading).

Recruiting participants

BCITO and NZCER were jointly responsible for recruiting the participants in line with the sampling strategy outlined. BCITO made initial contact with assessors to ascertain their interest and ability to participate (including their knowledge of suitable employers and apprentices). They used the sampling strategy to find the five assessors needed; *i.e.* they sought assessors who met the criteria of being most proficient with the new system, had apprentices who met the criteria (see above) and worked for employers who met the criteria (see above). BCITO then contacted the moderators associated with each of the five assessors to ascertain their interest, then the employers and apprentices. All of the assessors, apprentices, moderators and employers approached agreed to be part of the project.

Once we had five sets of willing assessment teams, we sent information sheets and consent forms to them. We also met with assessors and moderators early in June 2011 to establish a relationship, discuss the project's aims and methods, work out a possible plan for arranging workplace visits, and get some information about the employers and apprentices to guide our approach (for example, any specific workplace protocols or safety measures, assessment timing, communication strategies *etc.*). We contacted apprentices ourselves prior to the first workplace visit to ensure that their consent was informed and voluntary—something we thought was particularly important since anecdotal evidence suggests apprentices can sometimes get caught between the interests of employers and ITOs, and since they might have felt uncomfortable and that we were examining them somehow (whereas we were in fact examining the system in practice). Contacting them ahead of time also gave apprentices a chance to ask questions about the research and how it might affect their work (*i.e.* their employer would need to grant them some time away from work tasks in order for us to individually interview them).

How to read this report

We have structured this report according to the four principles of good practice presented in the previous study. This is so that readers can get a picture of what the four principles look like as practised through the BCITO's new assessment system for carpentry apprentices. This has meant having to contrive a division of the BCITO's system into a set of dimensions, assigned against each principle with examples from our field observations and interviews. Readers will no doubt spot that some examples seem to speak to several different principles. For example, we might just as easily have discussed communication in relation to "assessment system supports learning" as "ITOs and employers have a shared purpose". We could have assigned

the discussion of Training Plans to "assessor professional development" instead of "assessment system supports learning".

This is the reality of having a coherent *system*; activities, processes and outcomes are inevitably intertwined and will fit some or all of the many dimensions of good practice. The principles really serve as a means for drawing out the dimensions involved in good assessment systems. We want to make more visible the parts that go to make up the whole so that good practice systems might be replicated through industry-appropriate adaptation. So what we have really done is to provide examples that *best* give life to each principle. We acknowledge that the example-principle matches we provide are by no means the only possible matches, just as we acknowledge that this is one ITO's system and one way of interpreting the principles within a particular industry context.

In the final, concluding section we analyse the overall features of the new system in relation to the four principles in practice.

Terms used

The industry training system involves people in multiple roles (*e.g.* employer and trainer). Given that our primary audience is the industry training sector, followed by the wider tertiary sector, we have referred to the term most commonly used by people in industry training (*e.g.* employer, rather than evaluator). In some instances we refer to two terms (*e.g.* training advisor/assessor) where we wish to make a point about the duality of role or to underline someone's particular tasks. The following table shows the roles and the terms we mostly use throughout this report.

Table 2: Roles and terms used in this report

We mostly refer to:	Who are in these assessment-related roles:
Apprentice	Trainee, learner
Employer	Trainer, evaluator
Training advisor	Assessor
Moderator	Moderator, trainer for training advisors

Throughout the report we use pseudonyms for the apprentices, employers, training advisors and moderators whom we have quoted.
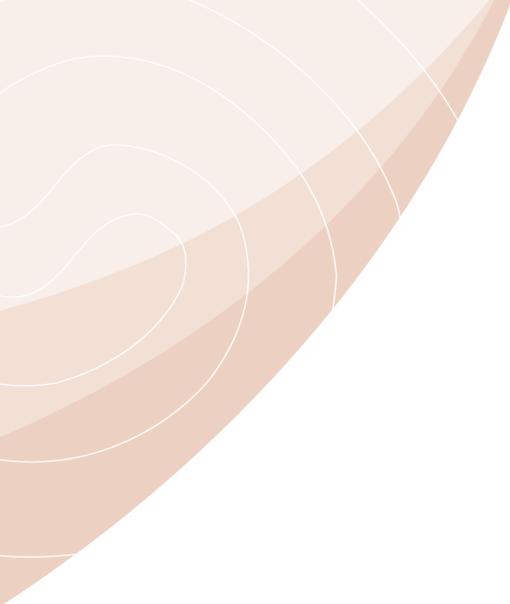
SECTION 2

Principle 1 in action: ITOs and workplaces have a clear purpose for assessment and work together

This principle emphasises the collaborative nature of assessment that can produce a well-trained and qualified workforce. The principle promotes clarity around what assessment needs to do and that ensures the right knowledge and skills are being assessed. It also highlights the importance of good communication between ITOs and employers, and the need for ITOs to support employers so that employers and their workplaces can, in turn, support their apprentices. We discuss the challenges involved in doing this in the following sub-section, before discussing the assessment team and Training Plan as tools for bringing the principle to life.

What is assessment for?

Assessment can be understood as being for the purposes of judging competence. It might be for the purposes of ensuring people become qualified. We note that the latter and former should align but there can be unfortunate misalignments here (*e.g.* where assessment is used to qualify people according to criteria that do not reflect actual competence). Assessment can have the purpose of promoting learning. It may also serve as a way to evaluate programmes of learning (*e.g.* for organisational accountability or improvement). In many cases it does most or all of these but it is significant when one of these takes precedence over the others, and which one that is. Given that ITOs are in part funded according to the completion of qualifications, it is clear that assessment must serve the purpose of credentialling people. It is also clear that ITOs, as industry leaders, must ensure that credentials are based on competence according to the right standards. However, if we want the investment in apprentices to pay off, it must also support their successful learning and progress. The real issue, then, is ensuring that smart processes mean that all of these purposes can be achieved.

The assessment team: clear purposes and shared responsibility

The BCITO approaches the issues of meeting all assessment purposes through its concept of the "assessment team". Each team comprises an apprentice (learner), a training advisor (assessor), an employer (trainer and evaluator) and a moderator. The assessment team concept repositions everyone's roles in relation to the key purpose of promoting learning through assessment to produce a well-trained workforce that knows the right things and is skilled in the right ways. It raises awareness of learning and its relationship to assessment.

The team is designed to place the learner at the centre of assessment activity and underline the importance of everyone's contribution to the promotion of learning through assessment. So, for example, although employers no longer undertake the formal summative assessments, they are still part of the assessment process through their role as the trainer and provider of formative assessment (feedback), and as an evaluator of evidence that is gathered by, or described by, the apprentice. The team approach also means that moderators are now collaborators rather than people who exist only to "check up on" assessors or assessment results.

Training advisors and employers have already been partners for some time. Their partnership has typically been based around the recruitment of the apprentice, the set-up of the training relationship, and overall coordination of the training. The assessment team now extends that partnership from training coordination into assessment collaboration. While the employer is no longer the assessor, they continue to contribute to the overall assessment as *evaluators* (see the section on Principle 3 for more discussion). The partnership model also includes the apprentice as a partner too, since the new system requires them to take a more active role in managing their learning and assessment. The training advisor's role is, therefore, to direct the entire assessment process in collaboration with the other team members. In taking this team approach, assessment becomes an ongoing and shared responsibility, rather than a series of imposed burdens. The employer no longer has to find the time to assess as well as train. The apprentice no longer has to experience assessment events as something "being done to" him/her.

Our research team specifically looked for, and found, evidence of the assessment team working to a common assessment purpose during field visits. The timing and organisation of site visits occurred through negotiation between the training advisor, employer and apprentice. The parties took a number of things into account in order to schedule visits. These included people's availability and, particularly, the type of work which would be occurring onsite and whether it was appropriate to visit (*e.g.* a concrete pour demands all hands on deck and so is not a good time to schedule an assessment visit). The training advisor, employer and

apprentice also had open conversations about the apprentice's needs, with a view to making training advisor/assessor visits productive in relation to these.

Conversations addressed *readiness* for a visit and—importantly—the *purpose* of the visit. Not every visit was about signing off unit standards. As the Group Manager, Standards Leadership often says to training advisors to encourage broad thinking about this, 'Every visit is an assessment'. We saw several planning discussions about visits that focused on other types of apprentice needs such as finding more or better motivation, setting goals, using feedback about their understanding and progress, and giving them clarification about particular concepts. These were all in addition to the apprentice's need to have their competence recognised and get unit standards signed off against their Training Plan. Importantly, it was the fact that everyone involved had to think about the visit's timing and purpose, rather than accept it as imposed, that lifted the visit's status to being something that everyone had a hand in constructing.

Most communications between the apprentice and the training advisor, or between the training advisor and employer, occur on an as-and-when-needed basis. Some communications take the form of strategy meetings, such as when an apprentice seems to be struggling with the work and therefore cannot meet the standards and gain credits towards the qualification. Several training advisors described having these meetings:

> *[The apprentice] was struggling a lot with simple tasks but [the employer] says he has improved a lot. He's learned to work smarter. [The employer] and I met—a very intense meeting—to identify areas for [the apprentice] to focus on. I talk to the employer so he feels confident there's a structured process. I talk about roles—he is the evaluator; I am the assessor that visits. We talk through the unit standards and qualifications. I tell him I'm putting together a jigsaw puzzle.* (Matt, training advisor)

> *It was a training goal for apprentice and employer to talk and make sure everyone is on the same page.* (Will, training advisor)

One training advisor found value in having three-way conversations (with the employer and the apprentice), but often found it easier to maintain harmonious relations by meeting with the employer and the apprentice independently and then translating a clear message back to each about what is needed.

We also observed one meeting where the employer was very frustrated and upset about his apprentice making basic errors of skill and judgement after having been given sole responsibility to go to building a site and complete particular tasks. The employer was upset

about the mistakes but, more than that, he was upset at feeling the apprentice was now a liability rather than an important team member:

> *I don't have as much confidence in him right now...I am looking at him and thinking that I cannot send him [to any sites] now [because he'll stuff up].* (Conrad, employer)

He and the training advisor discussed at length how the apprentice could learn from what had happened and how the employer could support that learning, without preventing the apprentice from doing real work (and therefore real learning). As the training advisor put it, 'Guys learn best when their actions have significance' (Barry, training advisor). They also talked about how to rebuild employer-apprentice trust and restore the apprentice's place in the team.

Using the partnership to create a learning environment

With on-job learning there is always a tension between the learning environment and the commercial environment. On the one hand, the employer is focused on providing goods and services to customers, building their business, and earning a good living profiting from their labour and the labour of their employees. On the other hand, the employer has committed to teaching an apprentice when they offer them an apprenticeship. They must therefore also provide the apprentice with an environment in which the apprentice can learn, practise, and become a member of the industry. The issue facing the BCITO and its assessment system was how to use partnership in a way that could meet both learning needs and commercial imperatives.

A sound partnership between ITOs and employers is critical here. Problems arise when the employer is unwilling or unable to provide a good learning environment for the apprentice. Training advisors and the BCITO do have to sometimes manage situations where the employer does not want to invest much in their apprentice's learning, or when they see the apprentice simply as a labour unit. More commonly though, training advisors' work with employers is about ensuring employers understand what their apprentices need and that apprentices have access to the right scope of work to become competent and qualified. An employer's business model or circumstance can determine the amount and type of work that apprentices get the chance to do. For example, a builder may use only pre-nailed framing, or never set out and undertake foundation work because they focus on renovations, or the local economy may restrict the type of work. Depending on how restrictive the scope of the work is, apprentices can struggle to gain credits in some areas, simply because they never get the opportunity to do the kind of work specified in the standard. All of the training advisors we spoke to had negotiated their way through exactly these situations. They observed the way in which some

assessments had been affected by the business model of the employer or by even regional trends in construction:

> *There can be issues—such as not getting the scope of work. An apprentice may need other opportunities later on to get all his units. I've had to intervene to get an apprentice the chance to get specific work so they can sign units off. Sometimes at bigger commercial companies, guys get good or fast at a particular task—then they get kept on that sort of work—and after four years it's "hey, why hasn't he finished?" My role now (as TA and assessor) empowers me to say "you can't sign off until X, Y, Z is done".* (Will, training advisor)

> *At [X] location, the apprentice was on the job start to finish. So it was a great environment. And because I know that, I can feel confident about his learning outcomes. Being on one site for that long, it would be impossible not to improve really. Now the workflow is different; it's moving around from site to site. So it's hard to monitor the learning environment. Plus there is no consistency as there is from a start-to-finish job.* (Barry, training advisor)

> *By 20 months the apprentice should have done levelling and demolition. Often demo hasn't been done (in this area) as there are so many new builds. If things are going well in [X] location, there is very little demo.* (Tom, training advisor)

The Training Plan: a tool that everyone can use

The Training Plan is one of the key tools that help members of the assessment team to work together to a common purpose. The Training Plan contains overview details about the apprenticeship such as unit standards, credits and dates of assessment. It also contains more detailed records of workplace visits, discussions held, progress comments, evidence used to determine competence, and assessor judgements about competence.

What the training advisors actually write in the Plan, and how much they involve the apprentice and employer/evaluator in developing it, is critical. Everyone—and this would include any new or replacement training advisors and employers—needs to be able to read the Training Plan and understand the training advisor's thinking or reasoning, how they actually determined competence, and what evidence they used to support decisions. We found that employers appreciated the fact that training advisors take ultimate responsibility for the Training Plan because, while they generally know whether their apprentice is competent or not, they tend not to keep good records about their performance. Training advisors can take care of that.

This kind of evidence of partnership is crucial if the apprentice is to ever get opportunities to learn and practise. Without those opportunities, they can never become fully competent and qualified. With everything documented clearly in the Training Plan, the employer and training advisor now have something real and meaningful to *talk about*. We saw training advisors and employers working together to see what opportunities could be provided for apprentices to learn. As two assessors put it:

> *You want to set goals with the apprentice but you need to know what the employer has lined up. It's a two-way street. The apprentice knows what he needs to do for his qualification. The TA can suggest activity in an area and encourage the employer to give the apprentice opportunities there. The employer needs to know what the goal is so he can assist in training and/or setting up chances to do X or Y.* (Alex, training advisor)

> *There is a lot of value in having a three-way conversation. Clear understanding from both of them about what he (TA) is looking for. Sometimes he does need to have a one-to-one discussion with each.* (Will, training advisor)

A third assessor explained the relationship with employers as 'a real strength of the new system', but he also emphasised the need to create and maintain a sense of partnership and acknowledge the employer's important role:

> *The conversation with the employer is important because it paints the big picture and informs me about the apprentice's progress. But some communication with the employer is also just about maintaining the relationship. It's almost marketing really. I don't really need to talk to the employer for some assessments but I do it for other reasons. That is where the training advisor and assessor roles merge.* (Barry, training advisor)

> *[My training advisor] makes it clear on what I have to achieve—what units and what I have to do. I'm not learning building with [my training advisor], but I'm learning about how to get across the line. I have clarity around what I have to do. I set goals with [my training advisor]—what to cover and so on, and we put it in my training plans.* (Pita, apprentice)

Ultimately employers want their apprentice, their employee, to be competent, and the ones we spoke to were keen to work with training advisors to help apprentices get there. We observed several instances where employers and training advisors met to try and balance work and learning needs for employer and apprentice. One apprentice we spoke to was very aware that he had recently made mistakes and that his employer did not yet trust him with certain jobs. These are precisely the kinds of situations that training advisors can help with—because

they are training advisors, as well as assessors. These challenges are documented in the Training Plan.

Thus the Training Plan not only documents progress against unit standards, it provides a sense of progress over time, with the associated discussions held, judgements made and evidence used. It stands as a statement of summative assessment. It equally forms a mechanism of formative assessment for the team by revealing the logic of the assessment process to everyone involved in its creation.

Things for other ITOs to consider

- How often, and how well, do we communicate our assessment expectations with employers, managers and supervisors?

- What kinds of mechanisms could we use to support people to work together for a common purpose?
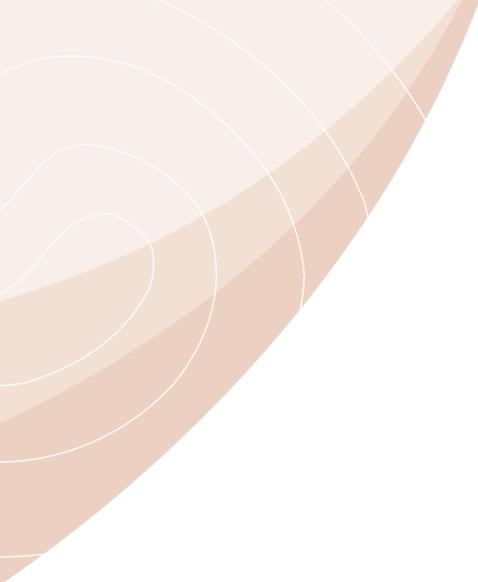
SECTION 3

Principle 2 in action: The ITO's assessment system must support the learning process

This principle confirms the connections between the processes of learning and assessment. It highlights the need to align systems and processes to ensure that assessment processes do not impede, and preferably support, learning.

In our *Guide* we provided a brief summary of the difference between formative assessment and summative assessment, saying that formative assessment happens when a supervisor gives an apprentice feedback on how they are getting on with a particular aspect of their work and summative assessment is what happens when the supervisor considers that the apprentice is ready to demonstrate knowledge of the different elements of particular tasks; this happens at the end of a particular learning process, and is when a judgement is made that the standards have been met. Summative assessment results tell us whether or not the person has met the standard. Formative assessment helps the learner to reach that standard.

Unfortunately we tend to give more attention to summative assessment because the stakes are more obviously high (though you could argue that training without formative assessment is high stakes because it is expensive if the apprentice is not actually learning and becoming competent). However, this emphasis tends to lead us to associate activities like oral questioning, oral and written feedback, self-assessment and peer-assessment with teaching, rather than with assessment that is meaningful for teaching and learning (Davies & Ecclestone, 2008). The BCITO's new assessment system offers a sophisticated combination of formative and summative assessment that looks likely to lead to "sustainable learning", equipping learners for a lifetime of learning by constructing them as active participants in the assessment process (Boud & Falchikov, 2006).

The walk-around

We mainly chose to visit workplaces when unit standards were likely to be signed off so that we would be able to observe how the team worked to support learning in a formal assessment situation. All but one of the assessment visits we observed took place on building sites. The training advisor and apprentice usually spent between 40 and 60 minutes together. Typically the assessment began with a "walk-around" of approximately 10 minutes, depending on site access and what sort of work being done by the apprentice could be observed. The training advisor asked the apprentice to show him around the site and point out work the apprentice had done. The training advisor would question the apprentice, asking for details about individual tasks involved in the work, processes and tools used by the apprentice, and interactions with the employer and, if applicable, workmates and subcontractors.

The walk-around process mimicked the everyday nature of apprentice work: walking around the site and seeing it as a whole, focusing on specific tasks, discussing the tasks with the employer, and perhaps showing off good work. This process enabled the training advisor to directly observe apprentice competence through real work either under way or completed. In other words, the assessment revolved around "naturally occurring evidence" derived from the apprentice's real, everyday work, often over a period of time. The discussion during the walk-around helped the apprentice to articulate his understanding and it helped the training advisor to probe for areas in which apprentice might be weaker, need help, or not yet be competent.

Following the walk-around, the training advisor and apprentice usually retired to the back of the training advisor's vehicle, which houses a mobile office and provides a flat surface for reading site plans and opening up folders. The mobile office is designed to allow training advisors to log details of their visits directly into the BCITO's web-based records system. Although there were occasionally some internet connection glitches, the *immediacy* of recording information and producing a new printed material (*e.g.* Training Plan) to guide future work and assessment enhanced the entire assessment process. The apprentice could receive an updated print version of his Training Plan, which included the activities and notes made about that very visit and references to what else the apprentice needed to do. The training advisor was recording almost in real time, removing the potential for inaccuracies that creep in through double handling or updating of notes later.

Assessment and learning are inextricably linked

In addition to the formal assessment process, we also saw training advisors and apprentices walking around the site and discussing particular aspects of carpentry work, and agreeing what the apprentice did and did not *know*, could and could not *do*, and what the apprentice would

focus on before the next visit. They worked together, as part of a team, to build the picture of competence.

We observed training advisors operating within the ITO ambit, not to provide training but to provide support for learning. Training advisors and apprentices reported having good relations that extended beyond the formal assessment event. Several training advisors and apprentices had connections that were personal (*e.g.* family friends) or community-based (*e.g.* sports club) and which had led to the apprentice being matched with an employer and recruited into an apprenticeship.

The training advisors used their position as employer relationship managers and apprentice recruiters to get to know their apprentices so they could develop informed assessment strategies that would support the apprentice's learning. This support includes acting in line with the BCITO strategy to improve apprentice communication skills through a focus on literacy and numeracy development. While the BCITO has for some time referred apprentices to specific literacy and numeracy interventions, apprentices are now sitting diagnostic assessments using the Literacy and Numeracy for Adults Assessment Tool (ALNAT). Data gathered through these assessments will be used to identify learning needs, and the BCITO intends to use this information in the course of considering a range of additional support processes and interventions. Training advisors also helped employers understand how to understand and work better with their apprentices, dealing with the kind of frustration expressed in the following quote:

> *My boss doesn't really seem to get how I learn or how I want to learn. I think he sees me drawing pictures and thinks it is a waste of time. I like working with him but it feels like he's always trying to hurry me up and I don't know what he actually wants. He's a good guy and we get on, but it's just [hard] around the learning.* (Simon, apprentice)

Other apprentices reported having good experiences with employers who were clearly thinking about them and providing a good learning environment:

> *[My employer] is good at seeing potential. It never feels unnatural when he puts you on a task. It always feels like the next step, not forced or making you feel nervous about being challenged. [He] might be worried inside, but you know he believes in you, he wants you to excel. I've worked with some other builders and they have a range of ways of treating you.* (Pita, apprentice)

Training advisors clearly recognised that apprentices have prior learning experiences or "learning careers" (Bloomer & Hodkinson, 2000) and "assessment careers" (Ecclestone & Pryor, 2003), which interact with and shape apprentices' dispositions and the way they see

their own capabilities. For many learners, assessment (especially anything high-stakes) can easily become an "emotional event", where 'one's very sense of self might be invested for a possible risk of failure' (Ecclestone & Pryor, 2003, p. 481). In effect, training advisors used the knowledge gathered about the apprentice and their learning experiences and preferences to provide another layer of mentoring, additional to that offered by employers.

> *I take an interest in what apprentices are doing outside of work too. I want to build that relationship. Apprentices can be nervous. Sometimes I use strategies to give them the confidence to answer. [The challenge is] how to support them without training them. Challenging their thinking is one way we can do it. In conversations I get them to think about what they know or don't know. I help them become self-aware of their knowledge.* (Alex, training advisor)

> *It is really up to the apprentice [to do the learning]. But in reality maybe only 20 per cent adopt that attitude. We've been taught to disregard working through the volumes [BCITO workbooks] in order or systematically. Instead we treat the theory as a resource to the work being done onsite. So it's like broadening your horizon and just chipping away at it. It is more likely that they will be more invested in that theory unit.* (Greg, training advisor)

We observed training advisors asking probing questions, explaining building techniques where an apprentice's understanding was weak, offering encouragement and correction, and taking an overall approach of seeking to foster apprentices' deep understanding. It was never enough for an apprentice to simply give the right answer. Where apprentices had provided written answers in their workbooks, answers were never simply "ticked off". Training advisors asked questions about the answers to check for real understanding and push the apprentice to develop deeper understanding. Their questions were also clearly aimed at providing a way for the apprentice to be able to articulate his understanding. One assessor described his approach this way:

> *I'm looking for a flow, if the apprentice can talk to me. Some tricky units don't relate to anything much onsite. So the apprentice might know parts of the work but be lacking in others. I use a range of questions to get a sense of where they are at. If I ask a question and they have no idea, I try to word it in different ways.* (Matt, training advisor)

> *He [training advisor] changes the way he asks me questions. He'll change things around so I get what he is asking.* (Stirling, apprentice)

> *It's more than just assessment sign-off. It's about* preparing *people for assessment. It's not just "Do four units"… but* what *units?* How*? And in* what order*?* (Will, training advisor)

The approach taken by training advisors fosters something similar in employers.

> *I've learnt more about how [my apprentice] learns and how he processes stuff. He's a bit different to guys I've trained in the past. I explain what I want done and get him to verbalise back to me how he's going to go about it. In the past someone might tell him what to do, and ask if he understood and he'd just say 'yes', even if he didn't always know what he was going to be doing totally. Now it's kind of like, no, you don't fully understand what I've told you, let's explain it in more detail.* (Walter, employer)

Another employer gave us a very succinct explanation as to why an approach that pays attention to supporting the apprentice's learning, and that fosters real understanding, is important for the real-life of work as a carpenter:

> *Kids have to be in the industry. Yes, they can hang a door. Yes, they can do straightforward framing. Yes, they can get qualified. But it's not the guy who can do the job; it's the guy that can get over the job—in other words, it's important to be a builder that can problem-solve and think—especially as many jobs are not straightforward and designers add more and more complexity.* (Conrad, employer)

Taking a business-as-usual approach

The walk-around is a great example of training advisors tailoring their visits and their assessment focus to what the apprentice and employer are actually doing. We observed training advisors finding out what work the apprentice was already doing and then matching this to unit standards, either to credit the apprentice for what had been done competently or to set goals for achieving credits in future visits and formal assessments. We also saw training advisors trying to match theory-based unit standards to practical work being undertaken, so that the theory would be meaningful for the apprentice.

We observed one instance of formal assessment that showed what happens when the assessment process does not, or cannot, take a business-as-usual approach. In this case the assessment could not take place onsite; instead the training advisor and apprentice met in an office at another location. There were two observers: a researcher and a moderator. Further, and rather unusually, the employer was also present and observing. The apprentice was therefore faced with quite a large collection of people watching him, in a room that was nothing like the place in which he carried out his normal work. This made a site walk-around impossible and the apprentice struggled to explain his work because he could not literally point to it, or not use any of his normal contextual cues.

The assessment was focused on using plans and specifications and although these can be read anywhere (not only onsite), they could not actually be interpreted just anywhere. Things got very tense when it became clear that the apprentice would not be "signed off" or credited for the Plan and Specifications unit standard. The employer began criticising the apprentice, as he felt frustrated with the apprentice, and felt that what was happening was a reflection on him as an employer and trainer. The apprentice felt humiliated in front of his employer, and the other observers. Months later when he showed us his work diary, we found an entry about that day in which he expressed great disappointment at his performance and the fact that it had been such a "public" failure.

The process was difficult for everyone involved and everyone has since reflected on it and what could be learned. Two things stand out. Firstly—and this relates back to the first principle—it is crucial the employer and training advisor have a shared understanding about the purpose of assessment visits so that the timing, nature and focus of the visit is useful to the apprentice. It seemed that the employer felt the assessment visit was all about passing unit standards (making a visit fairly worthless if that did not occur). It seemed that the training advisor was focused on helping the apprentice understand that he did not fully understand some things and what he needed to do about that. Secondly, it is evident that the physical context is important in enabling the apprentice to show what he's learning, and in enabling further learning to occur during the assessment process. At a later visit (onsite) the apprentice talked more about the difference between the current assessment visit and the previous offsite one. He explained that being onsite made assessment feel ordinary rather than tense:

> *When you're onsite, you can see things better. When you're at work, you're thinking about work. But last time, well, when do I ever work in an office? There's examples out here onsite that I can point to. I can show him things, what's onsite, from these Plans & Specs. We just didn't have that last time.* (Brock, apprentice)

The employer also used what happened at the offsite assessment to think about how they could better work together. The employer asked for more guidance from the training advisor about supporting his apprentice and said he appreciated the pointers he was getting about 'how to talk to my apprentice, how to explain to him what I want done and how I want it done' (Toby, employer). The apprentice later told me that he was finding his employer was not only showing him the "tricks of the trade" but also taking the approach of correcting him by showing him "a better way":

> *Just before, when I was setting out, I put out the strings and he showed me how to get them nice and level and so you can pick them up easy. He shows me* how to think your way around a building site. (Brock, apprentice)

Supporting the trainer, as well as the learner

It is important that employers understand that assessment can be about supporting learning, rather than just to credential someone after they have learned something. It is also important that employers understand that their role as trainer is complemented by the training advisor role as assessor. Part of the training advisor role is to facilitate an understanding of the learning process and that this naturally involves making mistakes, learning from mistakes, and building confidence. Most employers would readily understand this, but the nature of the business means that a learning process is not necessarily readily put into practice. The employer is trying to balance their immediate business needs (*e.g.* work done to a high standard, on time, at reasonable cost) with their longer-term needs (*e.g.* growing a new employee and contributor to the business).

We saw from observations, and heard in our interviews, that once a partnership is established with clear roles and a shared understanding of the assessment purpose, it becomes a very powerful partnership. There are still clashes of opinion and misunderstandings at times but the assessment team approach means there is a process for disentangling these.

> *Employers see the big picture and they think, "oh yeah, he did that roof" but they don't think about the hips and valleys that the apprentice has to be able to do [for the unit standard]. Or they think "oh yeah, he set out that site with me" but when I ask for detail it turns out that the apprentice just held the other end of the tape and the thinking part wasn't there. So not competent in terms of the unit standard's requirements...I get to ask about the detail of the standard—and this informs the training. The employer now knows that the apprentice has to do hips and valleys. Whereas before he was happy that the apprentice had done 15 roofs—but what if they were all gable ends? The standard requires hips and valleys. This is one of the great spin-offs from the new system—the trainer becomes more informed about what to train* for. (Barry, training advisor)

Throughout their interviews, training advisors told us they saw their role as one of facilitating opportunities for the apprentice. They helped employers and apprentices to think about what apprentices could do onsite, what they needed to be able to do, and what opportunities might be currently missing and need addressing.

> *I encourage apprentices to talk to their employer and to be active and push things along. It's one way for [apprentices] to let their employer know they are ready for new challenges.* (Alex, training advisor)

The apprentices seemed to appreciate training advisors' facilitation because they did not just want to get a qualification; they wanted entry to a community of practice in building and

construction where there is ongoing challenge and learning. They spoke to us about what it means to them to be seen as competent—that is, as autonomous and viable employees and as carpenters—by their employers. Their views seemed consistent with their emerging identities as carpenters. It also seemed consistent with recent research on how first-year apprentices need a sense of belonging to a workplace in order to maintain engagement and momentum to become qualified (Chan, 2011). BCITO's new assessment system actually forms part of the learning process because it focuses on work being done rather than a kind of frogmarch through a set of unit standards, and on learning to become a carpenter (identifying with the industry), rather than on accumulating credits.

> *I used to know what needed to be done but I'd hold back. That has changed. I get involved now. The other day my boss left and asked me to cut some gib—I did it and thought "should I nail it now or wait until he gets back?" So I just did it. The boss came back and went "yeah, that is alright". It made me feel really good.* (Stirling, apprentice)

> *The boss threw me in the deep end with door hardware. It was only the second time I'd done it. He got me to do the main entrance and I was a bit freaked out. He put me under pressure but it wasn't in a mean way. He taught me how to do it and then left me to it. Told me to take my time and do it myself. It was a situation to test myself.* (Pita, apprentice)

> *I like the variety and being left alone to get on with the work now. It's cool to problem-solve, especially if my boss is offsite. He leaves me on my own so I get to work through those decisions—it helps my confidence. I really think through how I'll approach it and maybe give him a call if I need to. And I get to suggest things—sometimes my ideas get taken up, which is cool. That feels really good.* (Simon, apprentice)

Learners' records and reflections

Trainees record their practical, onsite work as part of the evidence-gathering process that informs assessment decisions. These records of practical work are reviewed by the training advisor during assessment visits, to help to build a picture of the apprentice's knowledge and skills in relation to the qualification requirements. By discussing the records with the apprentice and using them to probe understanding, the training advisor can decide either to sign off relevant unit standards, or provide guidance on what further learning needs to take place.

In the new system, apprentices are expected to take an active role in managing their learning and assessment. In line with this approach, there is no rigid, prescribed way of recording practical work completed onsite. Instead, training advisors actively encourage apprentices to

come up with their own ways of collecting evidence. The most important consideration is that the method of recording should be time-friendly and allow the apprentice to work within their comfort zone, rather than being a barrier to learning.

We reviewed a small sample of the evidence records compiled by apprentices. These records were selected by training advisors specifically to demonstrate the variety of formats used by their apprentices, and how these formats can support learning. The records can be roughly divided into two main approaches to recording day-to-day practical work onsite: project-based and diary-based.

These records of practical work exemplify the principle that assessment systems can contribute to the learning process. They show how assessment and learning can be linked, by allowing the student to work in ways that are personally meaningful, that provide a robust platform for formative feedback, and that enable them to reflect on their learning and setting them up to become lifelong learners.

The project-based approach

Some apprentices used a particular project or job (for example, the building of a retaining wall) as a focus, and grouped their evidence around this. One apprentice used a large scrapbook to make a project-based portfolio, with photos, plans and brief annotations to tell the story of his involvement in the project from start to finish. The result is a strongly visual record of work (see Figure 2). His training advisor reported to us that the apprentice's approach allows him to demonstrate his learning.

> *I talk to him about the photos and what his involvement was in the task and how he went about it; from that [the apprentice] will go on to tell me everything I need to hear about the task in hand.* (Training advisor, by email, 1 April 2012)

Another apprentice, who had only been with the current employer for a few weeks, chose to compile a "Building CV" that would have use beyond his apprenticeship. The CV listed projects chronologically, with details of the apprentice's involvement, accompanied by a series of photographs. The training advisor was able to use the portfolio with both the apprentice and the evaluator/employer. They went through the portfolio together and the apprentice explained the photographs and his part in each project, which helped to provide a feel for his current skill levels and knowledge.

Figure 2: Example from a project-based record of work
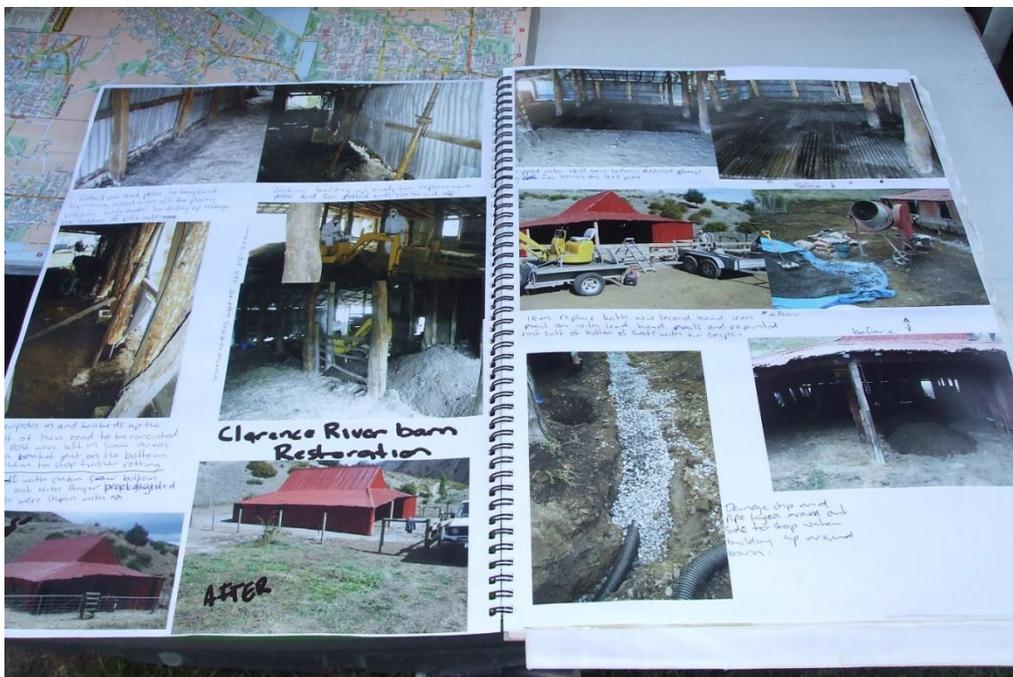
The diary-based approach

Other apprentices chose to describe their work in a diary format. Rather than grouping evidence around particular projects, they made regular dated entries describing their current work onsite. There was a wide variety of recording strategies within this approach. One apprentice was using the new BCITO Work Diary to cross-reference his practical work to the relevant unit standard requirements. Another was writing a monthly column for a retail hardware chain, in which he described and reflected on the practical work and learning he had engaged in over the past few weeks. Some used the diary to record hours worked on each job and tasks to do or what had been completed.

The apprentice whose diary example we show in Figure 3 explained how his diary served both as a personalised help-file on *how* to do certain tasks and as self-encouragement *that* he has done, and can do, them: "I record each day what I have done. I write the actual tasks that I do so I can remember for next time. I write down how I approached it. If things come up, this is how I know I can do it."

Figure 3: Example from a diary-based record of work
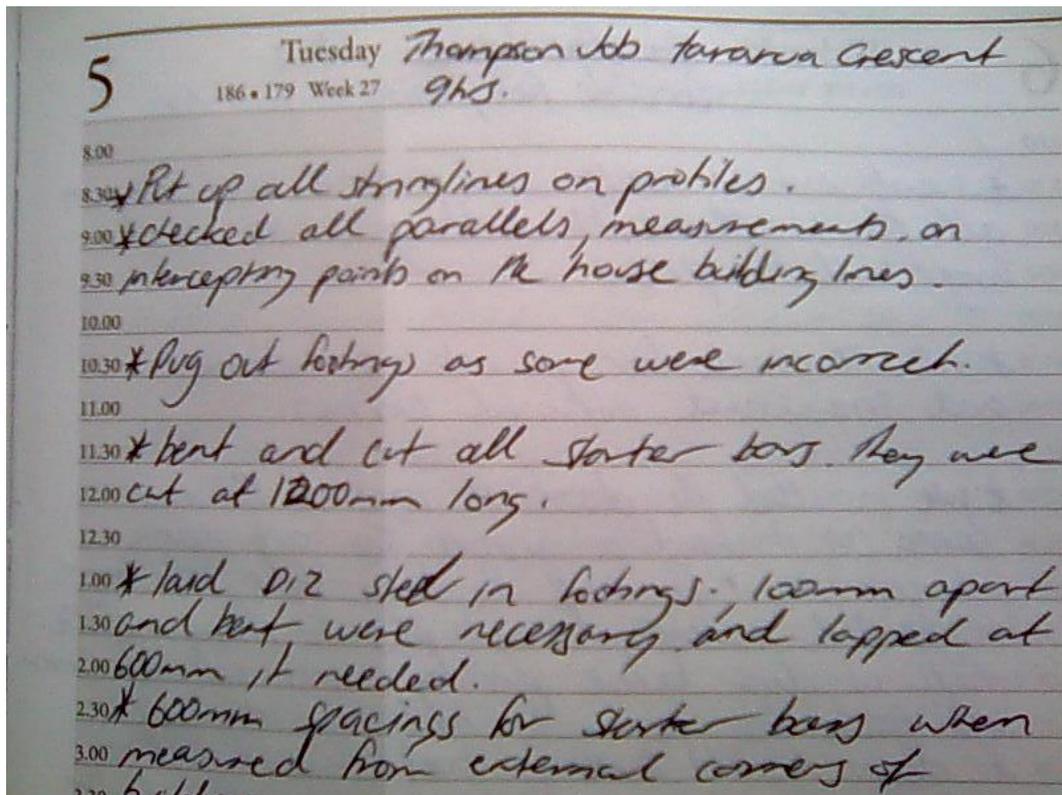
Some of the other apprentices using a diary approach wrote more detailed descriptions of the tasks they'd been involved in and annotated them with photos, diagrams, sketches, plans, calculations and notes (see Figure 4).

Figure 4: Example from a diary-based record of work using detailed annotations
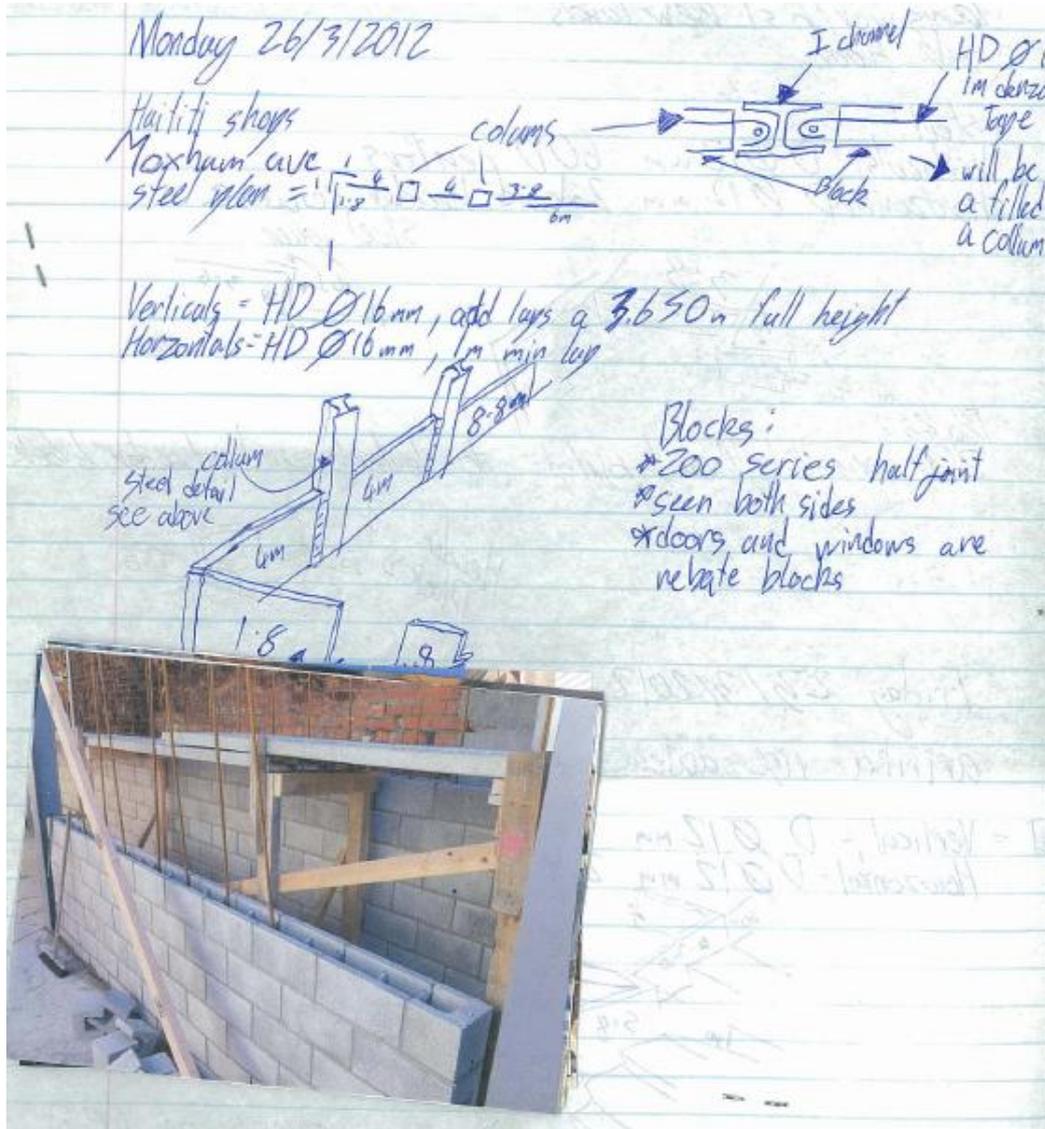
At the end of this apprentice's record of work, he has created a list of questions that he can follow up on. His questions range from ones about where he can gain more knowledge about particular aspects of his work to ones about whether particular tasks he has done provide enough of the right kind of evidence to pass specific unit standards.

Putting the student in control

Externally imposed assessment formats can present obstacles to learning, especially if the assessments are disconnected from the students' everyday experiences or require them to work in ways that are unfamiliar. Because the BCITO apprentices can choose how they record and present evidence of their practical work, they have some control over the assessment process and are able to work in ways that are personally meaningful and comfortable. The resulting records are highly individual and provide a robust platform for further discussion, questioning and formative feedback during training advisor visits. This stands in stark contrast to the format of conventional school classroom assessment, which is usually controlled by the teacher and positions the student's participation as a passive response, with "limiting effects" on teaching, learning and motivation (Filer, 2000).

The evidence records can also be a means of involving the employer or evaluator in the assessment process. For example, some apprentices included photographs of themselves on the job, taken by their employer or evaluator. These photos of the apprentice "doing stuff" help with evaluation or verification of evidence, and also get others involved in assessment conversations right from the beginning.

> It also—crucially—gets the boss involved in the assessment conversation from the word go. As well as asking the apprentice to talk about what he's doing, you can ask the evaluator why he took that particular view, how the apprentice was performing, the degree of supervision required etc. (Andrew Kear, Group Manager, Standards Leadership, email, 8 May 2012)

Enabling reflection on learning

The process of gathering evidence and choosing what to record and how to record it involves apprentices in actively thinking about and reflecting on their learning. The portfolio approach may be particularly helpful in allowing apprentices to see how parts of the process come together to build a finished project, and how competence builds up gradually over a series of projects.

Reflecting on personal performance is a recognised strategy to promote high-quality, deep learning (Brockbank & McGill, 2007; Hinett, 2002) and these sorts of activities contribute to greater depth of understanding and better practice through enhancing self-awareness and meta-cognition. The process of reflection is therefore key to learning and also key to integration of the theoretical aspect of the apprentice's learning (known as the "book work") with the practical aspects of their learning (known as "work").

Research also shows that the more students evaluate their work as they do it, using criteria they know about from the beginning, the more motivated and focused they are, and the greater the quality of their work and the sophistication of their reflections (Soep, 2006). Thus the apprentice's learning is not dependent upon the quality of experience so much as the quality of reflection (Coll, *et al*., 2009; Smith & Betts, 2000). In putting together a record of work that can demonstrate their developing competence, carpentry apprentices are evaluating what they have learned, how the parts fit together, and how the learning relates to the requirements of the qualification. They will also be making decisions about what they did well, what they might do differently, and how they would approach a similar job next time. In doing so, they set themselves up to continue being thoughtful, intelligent workers.

Learner outcomes so far

It is too soon to make definitive claims about improved learner outcomes related to the assessment system, including encouragement of apprentices to collect evidence and reflect on their learning. However, there are two areas that we can look to for early indications of improved learner outcomes: the time taken in learning and the quality of that learning.

Firstly, there *may* be a shift in the time it takes apprentices to complete their training. However, it is very difficult to provide figures for this as the Tertiary Education Commission's requirements for recording data mean it is organised by training agreements rather than by individual apprentices. There are also two other important reasons for being cautious on this point: recession effects and time for learning.

The recession has certainly had an effect as apprentices have felt pressure to complete apprenticeships as they perceived risks to ongoing employment and/or less work meant more time to study. A related pressure—to get apprentices to complete quickly—is of course also felt by employers. These figures are also influenced by the large number of experienced, but unqualified, builders who sought the national qualification over 2009–12 for the explicit purpose of fast-tracking applications for the Licensed Building Practitioner scheme. Their average time in training is less than a quarter of that of a fresh entrant to the industry.

The dramatic change in trainee numbers between 2007 and 2010 (from 9000 to 5000) also reduces the ability to draw meaningful conclusions about the assessment model's effects on credits achieved by apprentices. The number of apprentices completing their apprenticeships as a proportion of those in training has increased since the introduction of the model. On the other hand, the number exiting from their apprenticeship within a year of signing up leapt by almost 35 *per cent* over 2009/10 as the recession bit and many apprentices were laid off. Therefore, the number completing successfully as a proportion of those who embarked upon training has remained reasonably constant. This implies that those who discontinued early may

not have completed in any case. It is also important to note that, as apprentice numbers rise again as a result of the Christchurch re-build and solid growth in Auckland, and the pent-up demand in the housing market of recessionary years begins to be addressed, sign-up, discontinuance and completion data will become further confused.

A second, and more significant, caution in drawing conclusions from this information is that new builders take time to develop the necessary skills to levels that are required by the industry. The relatively slow pace of skills acquisition in carpentry produces a rate of credit attainment where, typically, the first hundred credits take three years. The remaining 220 credits for the National Certificate in Carpentry are achieved in an average of eleven months. Some skills are difficult to acquire and require repeated opportunities before the apprentice is able to perform them in a commercially viable manner. Some others occur only once in a build —setting out the building, for example—and the opportunities to experience these are therefore limited. The reality of learning the carpentry trade is that short-cutting is neither practicable nor desirable.

The other area for possible evidence of improved learner outcomes is related to quality of learning. Although it is difficult to discern changes and their meaning related to the *speed* of credit attainment, there is some evidence of change in the *nature* of credit attainment. Under the old model, the first 100 credits attained by apprentices were almost exclusively theory-based, as book work was prescribed as a means of "getting runs on the board".

More recently, with assessors focused on the actual work being done onsite, and what is likely to happen before the next visit, discussion within the assessment team focuses on what the apprentice does and does not know, and can and cannot do, in a way that blurs the distinction between theory and practical units. Thus trainees are increasingly achieving some practical unit standards earlier in their apprenticeships alongside the companion theory standards. So there are two levels of integration involved. Firstly, the theory and practical learning are both more closely linked to the acquisition of hands-on skills. Secondly, the assessment is more closely aligned to the actual work being done. Although there is not yet definitive evidence of this shift, there is anecdotal evidence from BCITO training advisors that the assessment business-as-usual focus and subsequent theory-practical integration contributes significantly to apprentice motivation.

New resources to support learners and learning

The emergent trend of an integrated theory-practice pattern of achievement for apprentices is being supported by the BCITO with a new set of resources for apprentices. Under the "old system", once the apprentice had signed up with an employer, they were issued with a series of manuals. These manuals detailed what needed to be done to complete the qualification,

unit standard by unit standard. Apprentices worked on the theory components of the qualification by working their way through the manuals, offsite and usually at home. Many struggled with completing this decontextualised "book work".

Practical work was assessed through a prescribed process detailed in other manuals, supplemented by sets of oral questions and a Record of Work. The approach was highly prescriptive, and was based on the premise that each apprentice would follow the same path through the qualification, regardless of their knowledge and skill levels on entry. The result was a rigid, one-size-fits-all system that was getting in the way of students completing their apprenticeship.

As part of its move to more holistic assessment based on naturally occurring evidence, BCITO is making changes to the resources it provides to learners. Apprentices now receive an Apprentice Pack, in the form of a compact "toolbox". Instead of the previous unit standard by unit standard approach, the new resources are based around the distinct but interrelated groups of knowledge and skills (theoretical and practical) that are needed for the qualification. Each group of knowledge and skills is colour-coded throughout the resources; for example, "Site preparation" is the yellow section of the resources, while "Framing" is the red section.

The new learning resources are being rolled out incrementally. The following items are already in use:

- *Guide for the Assessment Team*: A booklet of essential background information, including the requirements of the qualification, the approach to assessment, and the roles and responsibilities of each member of the assessment team. This is the central reference document and is designed to be used by all members of the team: apprentice, employer, training advisor and moderator.

- *Work Diary*: A ring-bound book in which the apprentice can record what they do onsite from day to day, link it to the relevant qualification requirements, and make cross-references to other forms of evidence such as photos, plans or diagrams stored elsewhere (the toolbox contains a series of colour-coded sections, in which to store related evidence). The Work Diary provides a means of gathering together a portfolio to demonstrate the apprentice's skills and abilities.

These two resources follow principles that promote ease of reading and support comprehension. For example, the tone is informal and conversational, using everyday language and addressing the reader directly, with phrases such as 'There's lots of stuff to learn in order to become a carpenter…' (Introduction, *Work Diary*). Key terms that readers may be unfamiliar with are defined; for example, 'Some of the things are compulsory (everyone has to do them) and some are elective (you get to choose from a selection)' (Introduction, *Work*

Diary). The layout is clear and easy to navigate, adhering to accessibility guidelines such as those suggested by the British Dyslexia Association (2012). For example, the text is printed in a clear, sans serif font, with a ragged right-hand margin, small blocks of text and use of bullet points. Use of colour-coding helps to guide the reader around the resources.

Resources currently under development include:

- Theory Resource/Textbook (this will replace the old set of theory manuals)

- Knowledge Evaluation Guides

- Self-assessment tools that apprentices will use instead of the old worksheets.

These resources are supplemented by intranet-based resources: the Assessment Tool Bag and the Carpentry Assessment Guide.

As we gathered samples of apprentices' work records, we realised that we could supplement the new set of resources by developing a guide for apprentices that used some of the material to illustrate different approaches taken to contributing to the assessment of practical skills. We saw that this aspect could be set in the wider context of advice to apprentices about their onsite learning and the conduct of their apprenticeship. As such it could be a companion booklet to the *Guide for the Assessment Team*, which concentrates on the roles in the assessment team and the technical elements of the carpentry qualification.

The new resource *Taking Charge of Your Apprenticeship* (Kear, Vaughan & Gardiner, 2012) is available at http://akoaotearoa.ac.nz/bci-assessment . We encourage other organisations to consider adapting this material to their own settings. It is published on the Ako Aotearoa website using a creative commons licence for this purpose (you may adapt this and create your own version as long as authorship is credited and your version is published with a creative commons licence too).

Things for other ITOs to consider

- How can we integrate our assessment processes into the daily business practices of our employers and trainees?

- How well do the records of work used by our trainees support their learning? How can we support our trainees to take charge of their learning?

- How well do our trainee learning support materials and resources work to support learning and our particular trainees?

SECTION 4

Principle 3 in action: Appropriately recruited, trained and professionally developed people

The nature of industry training, where training, assessment and evidence collection roles are divided among different people, means that it is critical that the right people are selected for the assessment roles of assessor, evaluator (verifier of evidence), and moderator. This principle reminds us that the skills of the trainer and those of the assessor are complementary, but different. People currently in assessor roles, who have been in a trainer role at some point in their career and/or worked in the building and construction industry, need training and ongoing professional development in *assessment*. People involved in assessment as verifiers of evidence also need professional development and support.

This third principle about thoughtful recruitment and professional development has largely driven the development of the BCITO's new system. By transferring responsibility for assessment from workplace assessors or employers to BCITO-employed training advisors, the BCITO made it possible to professionalise the assessment of on-job learning. Its system explicitly recognises two things. Firstly, it recognises that subject-matter experts (*i.e.* people working in the building and construction industry), while good at their industry work, do not necessarily make good assessors of that work. Assessment is simply a different skillset and invokes a different base of knowledge. Secondly, the BCITO system recognises that good assessors can and must be grown through professional development. It also recognises and supports the role of evaluators (known in some ITOs as verifiers) in the assessment process through its creation of the *assessment team*.

Recruitment and structured professional development

Transferring the assessor role from up to 6000 employers to around 75 training advisors has enabled the BCITO to offer a range of training and management opportunities that were not

previously financially or operationally viable. The training period begins with a six-week period that blends induction, operational training and professional coaching. Training advisors learn about how to be an employee, how to be a training advisor, and how to be an assessor (and participate in professional discourse). The teachers and coaches during this period are the moderators, drawn from the Training and Development Team, so this six-week period also establishes the assessor-moderator relationship.

As training advisors grow into their position, the BCITO continues to monitor, support, and develop them. One of the BCITO's key tools is its five-phase rating scale that links assessor performance to assessment expertise. It allows the BCITO to evaluate progress against set criteria. These criteria cover the progress of each training advisor and the progress of the new assessment system overall in terms of the cohort of training advisors.

Phase One describes assessors whose assessment focus is primarily on written material and model answers. Assessors at this level would typically demonstrate a lower level of confidence about making judgements using other forms of evidence. The BCITO expects that it can support most assessors to quickly progress to Phase Two or beyond.

Phase Two describes an assessment approach with less dependence on model answers and more attention to detailed knowledge of unit standards. Where assessors are not as confident in their knowledge, they might likely fall back on model answers.

Phases Three sees assessors making professional judgements. This might include a focus on evidence that conflicts with the overall judgement. Assessors will be drawing on a range of evidence in a holistic manner and utilising strategies such as verbal questioning to probe areas of doubt.

Phase Four assessors will be seeking better assessment tools to investigate areas of perceived deficiency on the part of apprentices.

Phase Five sees assessors strike a balance between subject matter knowledge and the evaluation and measurement skills of a professional assessor. Assessors in this phase are expected to make use of strategies and activities they have personally developed.

Over time these phases have been incorporated into the Key Performance Indicators (KPIs) for training advisors/assessors.

The right stuff: training advisor recruitment

In 2012 the BCITO rethought its recruitment of new training advisors. Up until recently the main criteria had been related to current industry experience. Applicants needed to be "on the

tools" (working as builders) at the time of applying for the position. It was an advantage if they also had their own business and therefore understood something about the employer role. Typically an applicant for the training advisor role would be a builder, sometimes one whose body was tiring. The training advisor role offered a more physically manageable way for them to continue working in the industry.

However, earlier this year the BCITO changed its selection criteria to favour experience, skills and dispositions associated with supporting and assessing learning and learners. Notably, industry knowledge and practical trade experience and skill were no longer considered more important or even necessary. The new criteria lean heavily towards demonstrated skill as a learning and assessment professional, higher-level thinking, coaching and mentoring, and interpersonal skills. Technical skills evaluated relate to business development and IT capabilities. The BCITO management note that new appointments against the criteria are already achieving highly against the KPIs (five-phase model).

Our interviews with the newest training advisors, appointed according to the new criteria, focused on their role in the change of culture from privileging industry experience towards recognising and developing assessment and learning support skills. Although most of the new training advisors in fact had some industry experience, it was not necessarily recent, longstanding, or based on actually being a builder. The recently appointed training advisors all told us they felt very comfortable with not necessarily having recent or comprehensive industry experience and with having been instead appointed for their potential or actual assessment expertise. They were enthusiastic and optimistic about the relationships they were building with employers, feeling that most did not question their credibility but rather appreciated the different assessment team roles and different expertise being developed.

> *The system is set up to be a process and if you understand that and the objectives, anyone should be able to come in and pick it up. I tell them [employers] I started out in the building industry when I left school. I tell them about sales and then my involvement in the education sector with technology teaching. They are happy with that. I emphasise working* with *people—the evaluation role, good marketing, sorting out their client needs.* (Trevor, training advisor)

> *I agree with the theory that you don't need trade knowledge. You just need to know how to assess skills based on unit standards. You are also relying on the verification from [the] employer. What it comes down to is an in-depth knowledge of unit standards.* (Greg, training advisor)

If you assess to the unit standards, you don't need trade experience. Having the experience helps but it can lead to getting away with things…you can end up not really reading or understanding the unit standards. (David, training advisor)

Like other training advisors we spoke with, training advisors appointed under the new criteria experienced some anxiety around the responsibility of determining competence. However, they recognised their fellow training advisors as a resource for their own development of assessment judgement and expertise.

We did a six-week induction and that was a good way to have seeds planted. When you apply it, that's when it resonates really…You can learn something off every single person. I try to stay open to that. (Greg, training advisor)

I worry about signing off [apprentices], and that they really can do it properly. BCITO do a good job of helping me. All the guys are helpful. I feel like I've had enough support and it's always there. I just ring up. I just need time and experience to get confident. (Alan, training advisor)

Their level of comfort suggests that the BCITO's recruitment, induction, training and professional development is working well to support new training advisors at the forefront of what employers may see as a cultural change. The system is similar in this respect to the organisational support lines suggested for new institute and technical polytechnic tutors "crossing boundaries" into tutoring from trades backgrounds (Chan, 2009). However, some of the new training advisors' perspectives also suggest that their relative comfort with the role is easier to achieve given that they do not come with such a strong trades-based vocational identity.

Employers as evaluators of evidence

Although the employer is no longer the assessor, they still have a vital role to play in the assessment process. As *evaluators*, they talk to training advisors about the apprentice's performance and they help collect and bear our evidence provided by the apprentice. This is arguably an even more vital role if the assessor does not have detailed trades knowledge.

Although the evaluator role is most commonly undertaken by the employer, there can be multiple evaluators involved in the assessment team. Apprentices and training advisors in larger companies, or companies with multiple sites in operation, might be dealing with a foreperson rather than the employer. This was the case in one of the businesses we visited. It is the training advisor's role, as assessor, to identify precisely who has access to the evidence that the training advisor needs and to involve the relevant people in the assessment team. At

times this might mean extending the assessment team to include people who have done particular work with the apprentice being assessed.

One assessor described employers as his 'eyes and ears' when he wasn't onsite (Alex, training advisor). Others explained it this way:

> *[The assessor] doesn't get to see the full task carried out. It's important to talk to someone who has seen it and/or can vouch for it being done to a certain level. Factors like time frame, health and safety, quality* etc *are important—a range of factors that reflect the competency requirements. The people onsite can verify what I can't see. And sometimes there will be multiple evaluators, and apprentices will rotate through them. At times I need to talk to multiple people to get information about a single task—where the apprentice only did bits with each of them.* (Tom, training advisor)

> *[As training advisors] you are building up a picture. So when you do sign off a unit standard, you are doing it as a result of five site visits. It's not just what you see on the day. When you know the employer is a good one, you can trust their judgement.* (Barry, training advisor)

The assessor-evaluator relationship therefore depends on good communication and a shared understanding of assessment purposes and processes (as we discussed in the section on Principle 1). In our *Guide to Good Practice* (Vaughan & Cameron, 2010b) we reported that the verifier role appeared to be the weak link in the overall industry training assessment system. We suggested that ITOs consider some kind of professional development for people in the verifier or evaluator role. Having seen the BCITO's model, which involves thousands of employers in small businesses, we realise that providing explicit and direct professional development would be a tall order (and the unfeasibility of this task was one of the key considerations in the BCITO's decision to make use of the existing training advisor workforce as assessors).

The BCITO's approach to the strengthening of verification/evaluation processes is therefore a more indirect and carefully managed one, through its training advisors. Training advisors ensure that employers understand their role within an assessment team, what it is that actually constitutes evidence (so that the evaluator/employer can provide an evaluation of it), and how assessment decisions are made.

> *I like to think that I do my job well enough that they're happy with my assessment judgements, that I'm informing them and they're involved in those judgements and are happy with them.* (Barry, training advisor)

I get the Training Plan from the training advisor every two or three months and it's useful because it shows what is required of [the] apprentice. It's also good because I don't [otherwise] know the apprentice's book work. Now I can ask him to do a [theory] unit while he does something similar onsite. (Tama, employer)

The system also makes use of the fact that employers still tend to feel that the apprentice's learning and competence are ultimately their responsibility. After all, it's their name on the business. The employers we spoke with understood their business reputation as intimately connected with the quality of learning and work, and the workplace culture (including learning environment). One employer explained how this altered the way he worked with apprentices:

You can moan all you like about an apprentice, but at the end of the day you're responsible for him. Don't have a go at him. Have a go at yourself. If they've got the drive, you've got to put the time in. The kids out there are only as good as we teach them. (Conrad, employer)

However, the idea of not being the assessor causes some employers to feel torn. They may feel that the training advisor does not know the apprentice as well as they do, and that judgement of the apprentice's competence is really their right as a reflection of their own business reputation. One employer, who is "off the tools" and spends much of his time coordinating the work across multiple sites, told us that his foreperson was instructed to keep tabs on the apprentice, that he makes site visits himself to check on the apprentice, and that the old system allowed him to know much more about what was happening. He also acknowledged, however, that as his business has expanded and taken him into a management role, there is also some relief that BCITO is taking responsibility for the final assessment judgements. Several other employers we spoke to seemed deeply invested in an assessment identity that gave them the final or most important say in things.

I'm the only one who knows what the apprentice can do. The TA tries to tell me but I know. (Toby, employer)

I liked assessing because I like things done right. Guys don't get away with much with me. I still feel that I do have final say. I like that. I don't want someone else to tell me when my apprentice is competent. (Conrad, employer)

This can feed into differences of opinion about an apprentice's competence. If an assessor was concerned about the reliability of an employer's opinion, this would create issues for the assessment process. There are risks for the assessment process if there are problems concerning how the employer fits into the team.

There are sometimes disputes about competence but these are resolved with discussion. When people aren't happy with the assessment process, you must take a lot of care to manage that carefully. (Barry, training advisor)

The model is therefore one where:
- the training advisor/assessor is entitled to depend the evaluator/employer/trainer for verification (to an agreed level of ability) of evidence and assistance in supporting the learner
- the apprentice can depend on the employer/trainer for learning opportunities
- the employer can depend on the training advisor to support the apprentice's learning and assessment experiences.

The BCITO is actively considering how to develop the training and evaluation skills of employers. It is currently developing some support resources that may be "delivered" indirectly through the training advisors.

Things for other ITOs to consider

- What kinds of attributes do we want our assessors to have? Are we recruiting for that? Are we training for that? What kind of professional development can we offer? How will we know it has been successful?

- How can we support our employers in an assessment-related role?
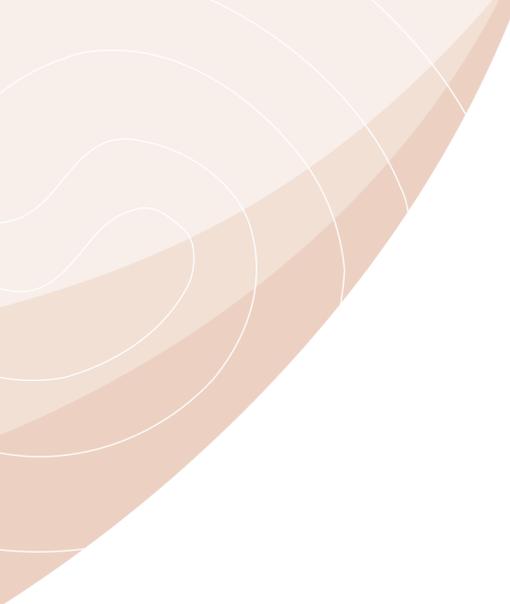
SECTION 5

Principle 4 in action: Moderation contributes to reliability and validity

This principle reaffirms that the consistency of assessment judgements can be quality assured by engaging assessors and moderators in discussions and that these are also a way to establish and maintain the standards overall. In our *Guide to Good Practice* (Vaughan & Cameron, 2010b), we pointed out that moderation was not straightforward because the meaning of evidence itself is not self-evident. Good moderation requires judgement. This means that limiting moderation to the checking of workbooks is problematic. It is better, from a reliability standpoint, to moderate *with* assessors and *before* assessment takes place. It is even better for reliability and validity if moderation can become a collective exercise.

Moderation…*in moderation*

The BCITO's move to use their own training advisors as assessors, instead of employers, has driven change to their internal moderation system. Moderation through checking workbooks was a risk under the old assessment system. BCITO has developed a moderation system that is designed to improve accuracy, fairness and reliability. This has been enabled by shifting the assessor role from employers to a smaller number of BCITO assessors. In embracing a holistic approach to evidence to inform assessment decisions, the BCITO has moved away from a tick-box approach to assessment. This is also true for the ways in which moderation occurs. It is not a heavy-handed quality control measure but a carefully structured collaborative effort to improve everyone's thinking. In a way, it is moderation *in moderation.*

The BCITO use moderation in several ways:
- to provide reassurance about *consistency*: of assessment evidence provided by evaluators (employers); of decisions made by training advisors; of structures, processes, and apprentice activities

- to collect information that contributes to the professional skill of the training advisor, the quality of assessment, and the status and success of the organisation
- to learn about their unit standards and qualifications, in order to inform qualifications development and revision processes (paraphrased from BCITO internal memorandum, May 2009).

The BCITO approach sees moderation as more than a process to improve the immediate judgements about apprentice competence. It is also seen as a powerful tool for organisational improvement. Fundamentally, moderation can assist all ITOs to refine qualification standards and align the needs of industry with the National Qualifications Framework. It does this by ensuring all requirements of a unit standard are covered in the assessment. This offers scope for the ongoing development and improvement of standards. It also limits the risk of different assessors arriving at different interpretations of what that standard is. While an understanding of the standards is important, highly prescriptive standards have the drawback of being overly specific and risk achievement becoming little more than criteria compliance in pursuit of grades (Hipkins & Robertson, 2011). Thus BCITO is working toward training advisors/assessors to interpret standards and employ a range of tools and approaches when making judgements. This is particularly important in situations where the demonstration of skill/knowledge is not explicitly covered in the material. The BCITO's system takes the form of assisting assessors and moderators to gain a deeper and broader *shared understanding* of how to go about assessment in the building and construction industries. In other words, the system fosters communication between assessors and moderators.

Moderators and the ride-along

Moderators offer support to the assessor in a number of ways. They provide advice around managing relationships with apprentices and employers, gathering of evidence, and the use of assessment tools. In a more formal moderation role, Training Plans and assessment judgements are reviewed.

All but two of the current eight moderators were recruited before the change to the new model. The Training and Development Team was originally established to provide assessor training to employers. That team has since been re-trained to train the training advisors instead and on a more intense basis (because it is such a small group compared to the group of employers). The Training and Development Team are therefore now lead practitioners. This not only provides the most high-level practitioners with a career pathway (and the BCITO retains and uses their deepening expertise) but it also establishes a close, practice-based assessor-moderator link. In other words, as the Group Manager, Standards Leadership puts it, 'a moderator is just a second assessor'.

Moderators sometimes accompany training advisors as they visit apprentices, a practice known informally as "the ride-along". Moderators observe, and sometimes participate in, the assessment activities. They are then in a position to provide analysis and advice to assessors about better preparing learners for assessment, techniques that improve the validity of questioning, and better tools for observing and acknowledging learner progress. There has been a tendency for moderation to be applied to decisions made in the past with the sole purpose of evaluating the consistency of assessment judgements. The BCITO's new moderation system seeks to look forward rather than backward and to examine practice as well as outcome. This enables interactions with learners to be evaluated and improved.

> *[Old style moderators] would write down what you did, you never saw it, and they passed it to your manager. These [new style] guys talk to you, say what you are doing well, explain what you could do that would be even better. They ask you: do you think this would work with what you do? The one-on-one, the ride-along, like when [my moderator] comes along, he checks or moderates what you are doing. He documents his assessment, he is looking and recording. Then you get a report sent, which you read before your manager does. [He is asking you] Is that accurate? Is that what you think happened today?* (David, training advisor)

> *Assessors/TAs should want moderators to be involved. Having that outside opinion is really important.* (Alex, training advisor)

> *Individual training, one to one [of training advisors], allows for a focus on people's specific needs. Looking at each individual's learning styles suits one to one better than a group approach. We have a monthly morning meeting—an ideas session. We're peers sharing ideas…We [moderators] are always learning. We will sit and discuss ideas about improving things—then discuss in the office and then with the broader group, which includes other managers and Andrew K [Andrew Kear, BCITO, Group Manager, Standards Leadership]. It's good to have those checks and balances.* (Kevin, moderator)

National Moderation Workshops

There is general agreement within the assessment literature that the most effective form of moderation occurs when assessors meet to discuss and reach agreement about assessment processes. Moderation improves reliability by helping assessors to develop a shared understanding of what counts as sufficient evidence of achievement prior to the formal assessment taking place. Through its National Moderation Workshops, the BCITO regularly brings its national group of training advisors/assessors and moderators together for professional development opportunities. These workshops run up to several times a year and occur in addition to moderation sessions at Area Meetings, held on a quarterly basis.

We observed several sessions of one National Moderation Workshop. All the BCITO training advisors and moderators participated in discussions conducted through groups carefully selected to reflect a mix of regions and a range of expertise levels (according to the five-phase model). Moderators and selected assessors acted as facilitators for each group as they worked through a series of assessment scenarios and Training Plans.

In one session, each group discussed a Training Plan chosen as an exemplar of good practice. Groups discussed the content and what information they felt it offered to the reader—who might be another training advisor, apprentice or employer. Facilitators guided the conversation to explore the different elements of the Plan and how it detailed the assessment scenario and what assessment decisions could be made based on the information recorded. Although training advisors were not reviewing "raw data", because the training advisor "author" had already decided what to record to illustrate the evidence considered, they were able to critique the level and type of recording and what it might represent.

Assessors then took turns sharing one of their own Training Plans. They explained their rationale for what was recorded and answered questions from other assessors about the assessment situation. This encouraged assessors to reflect on the purpose of the Training Plan, how they could improve their use of it, and how they could provide clarity around their recorded decision making. We noted the constructive nature of the training advisors' feedback to each other, including any criticism of each other's Training Plans and how well they described the evidence and how it was used.

Discussion of challenging and/or atypical assessment scenarios offered chances to develop greater understanding of the assessment process. Training advisors and moderators strategised together, and advised each other about maintaining and improving communication with employers, and negotiating through disagreements over assessment decisions. This interplay between discussants is an important factor in giving assessors confidence in their ability to make decisions. It creates a kind of "craft intimacy"—close interactions around shared problems and sense of commonality (Wenger, McDermott & Snyder, 2002). It is also important in building a certain familiarity with a range of unique situations that will undoubtedly arise for each assessor and moderator. The familiar situation functions as a precedent, or a metaphor, or an exemplar for the unfamiliar one (Schön, 1983, p. 138).

As well as serving as a tool for forging a shared purpose between training advisor and employer (see the discussion in the section on Principle 1), the Training Plan is an important means by which assessors' decisions can be supported. The BCITO aims for all assessors to construct Training Plans that can be picked up and clearly interpreted by any assessor, including one unfamiliar with the assessment context and people involved.

> *[If I was a moderator] and if I read a Training Plan, I should be able to see those stories, see that picture built up.* (Barry, training advisor)

The very practical purpose served by a Training Plan that contains a very full record of events and decision making is that it minimises disruptions caused by changes in workplaces or training arrangements. Other training advisors stepping in or new employers need to be able to understand an apprentice's competency levels and background. The other purpose of explicit Training Plans relates to ensuring that training advisors record the basis for their judgements in order to help them maintain consistency and validity across their apprentices, as well with other assessors.

> *We need to talk about the evidence. You say you observed them working, but where's the evidence, what did you see? The Training Plan is for whoever reads it. It's a problem now with a guy on sick leave. He was not recording. It's all in his head.* (David, training advisor)

Community of practice

The BCITO's moderation processes are a deliberate strategy for creating an assessment community of practice. Communities of practice often work best when created across and outside of hierarchical and organisational lines because participation is enhanced by the collegial, rather than reporting, nature of the relationships.

Although the BCITO's assessment community of practice operates within the one organisation, it places moderators and assessors together in open conversation. It disrupts the earlier model of moderators "reporting on" and "checking" assessors and engages everyone in the shared purpose of improving practice all round. It is important to note that this has occurred over several years, not in one giant leap. It has been akin to the development of Poell, Van der Krogt and Wildermeersch's (1999) model of learning networks, which involve dimensions that are:

- vertical (management-led, worker-implemented)
- horizontal (all workers solve complex problems together)
- external (learners inspired by theories and methods developed outside the organisation), and
- liberal (learners take responsibility for their own work and learning) (Poell, Van der Krogt, & Wildermeersch, 1999, cited in Harris, Piercy & Law, 2009, p. 25).

The BCITO management have set up the mechanisms by which communities of practice can be grown (*vertical*), but in practice the workshops function around solving complex problems as peers (*horizontal*), including sharing ideas drawn from other sources (*external*). The involvement of new training advisors as a key for the BCITO in changing the culture of practice

is a great example of the *horizontal* and *external* dimensions of learning coming together. The community of practice is not simply about the more experienced teaching the less experienced. It is about everyone sharing practice and generating ideas together so that knowledge is 'not an object that can be stored, owned, and moved around like a piece of equipment or a document. It resides in the skills, understanding, and relationships of its members as well as in the tools, documents, and processes than embody aspects of this knowledge' (Wenger *et al.*, 2002, p. 11).

> *The key for me is that they [the more experienced TAs] are disadvantaged for having been there so long... My workmates say: "you are here because of an open mind"...They actually ask me now and I can help. I have found value in the workshops but...it's not the organised part of the day, but the informal conversations, that generate ideas. That's the good part.* (David, training advisor)

This comment about informal conversations, professional conversations, is the key to the community of practice. Increasingly, the learning is taking on a liberal dimension in that assessors and moderators take up a learning identity and seek out opportunities to learn more about assessment. All communities of practice get rhythm from the presence of a coordinator who organises events and connects community members in public and private spaces. However, because communities of practice are based on collegial relationships rather than reporting ones, they need to be allowed to flourish across informal spaces in order to become part of everyday practice.

Things for other ITOs to consider

- How does our ITO think about the purpose of moderation? Is moderation practice aligned with this?

- What could we do to build an assessment community of practice?

SECTION 6

Conclusion: A holistic approach to assessment practices and systems

A range of mechanisms express the principles holistically

The strength of the four principles of good practice for on-job assessment is that it has never been a blueprint. It has instead asked ITOs to understand the strengths and weaknesses of their own current systems, and then recreate them in principle-aligned ways, with structures adapted to their unique industry circumstances.

Throughout this report we have examined and discussed the different mechanisms by which the four principles come to life through the BCITO assessment system. The specific mechanisms that the BCITO uses are:

- training advisors as assessors
- the Training Plan
- an assessment team
- a custom-made record of work
- the walk-around
- the ride-along
- National Moderation Workshops.

Each of these mechanisms serves at least one principle but, more importantly, they often serve at least two because they are designed to create coherence throughout the system. For example, having *training advisors* as *assessors* enables the professionalisation of the assessment workforce and makes use of the relationship-building and relationship-management dimensions of the training advisor role to support the assessment process (principles 1, 2 and 3).

The *Training Plan* is a prompt to the employer to find learning opportunities for the apprentice (principles 1 and 2). It is also a recording and goal-setting tool for apprentices and training

advisors (principle 2). It is a transparent record of judgements made and evidence used for moderators, and for overall organisational improvement (principles 3 and 4).

The *assessment team* approach builds a sense of shared purpose and responsibility around assessment, especially for employers and training advisors/assessors. It draws the apprentice towards active participation in, and responsibility for, their own learning because other team members look to the apprentice to know how to best help them. It also supports assessors and moderators to work together in a collegial way (principles 1, 2, 3 and 4).

Because apprentices can choose how to construct and use their *record of work* they can take further responsibility for their learning and their progression through the apprenticeship. The records of work can serve as reflective learning devices and as evidence of competence for the apprentice. They also help employers learn about recognising and evaluating evidence, and help them to think about the further learning opportunities for the apprentice (principles 2 and 3).

The *walk-around* reduces apprentices' anxiety about the assessment process. Most apprentices have not had positive experiences of assessment and sometimes not of learning (at school) either. The walk-around enables them to demonstrate their competence in a business-as-usual fashion, using all the available contextual cues that help them show and articulate what they know and can do. It gives training advisors a chance to develop judgement about a wide range of evidence (principles 2 and 3).

The *ride-along* and the *National Moderation Workshops* function to build an assessment community of practice that fosters a spirit of openness, peer-support, innovation and organisational excellence. The ride-along and the workshops build the collegial assessor-moderator relationship and provide each with a wealth of professional development opportunities (principles 3 and 4).

The mechanisms and principles cohere around two ideas

Perhaps the most interesting and important thing about all of these mechanisms is that they consistently cohere around two strong ideas:
1. supporting the apprentice to learn (not just pass)
2. making *everyone* in the assessment team a learner.

These two ideas mirror each other across the assessment system. It is useful to think of both formative and summative assessment as 'points on learning trajectories' and as providing 'windows on episodes of practice' (Eraut & Hirsch, 2007, p. 17). The BCITO's assessment system takes care to do just that by focusing on developing, supporting and assessing

apprentices' real understanding and competence. The walk-around and the discussions between apprentice and training advisor are not just assessment practices that come after the learning; they are meaningful moments of learning in their own right. They draw in other people who can also promote that learning—employers and supervisors who evaluate evidence, strategise with the training advisor, and design the right learning environment and opportunities for their apprentices.

The BCITO also makes use of "windows on episodes of practice" for its training advisors/assessors and moderators. Just as training advisors and employers/evaluators seek and consider naturally occurring evidence, within a business-as-usual approach to assessment, the BCITO's overall system bases evidence, judgement making and moderation around naturally occurring professional conversations, many of which now occur on an ordinary, business-as-usual basis. BCITO's assessment community of practice and its assessment team around the apprentice create two interwoven feedback loops. The increased transparency of the assessment process means a greater range of feedback is possible, as well as more frequency of feedback, and a better quality of feedback. It seems to work for everyone involved at every level.

The BCITO's changes have been decisive but also measured, and they have been implemented over several years. Parts of the system are still evolving, even as this report is being written.

A holistic approach matters: learner outcomes, industry future and system extension

Why does it matter that an assessment system takes a holistic approach? We think it matters to learning and assessment practice, to learner outcomes, to systems development, and to the industry as a whole. We also think there is potential for other ITOs to learn from the BCITO's experience as discussed in this report and to further develop their own assessment systems.

Learner outcomes: emerging evidence

Ultimately the BCITO's new assessment system is designed to improve learning outcomes for its apprentices. Some evidence of this is already emerging although it is too early to tell how definitive these trends really are. There are the beginnings of a possible reduction in time taken to complete, although, as we discuss in Section 2, there are cautions about the data available to pursue this line of inquiry. These cautions include the effects of recession on apprentice numbers, the difficulties in working with a dataset designed to meet Tertiary Education Commission requirements (*i.e.* organised by training agreements rather than individual apprentices), and the nature of skills acquisition and building work itself.

There are also the beginnings of a change in the pattern of credit achievement. As assessment visits are organised around the work actually being done onsite, and as the assessment team focuses on what apprentices can do *and* know, the theory and practical aspects of the apprenticeship are becoming more integrated. Training advisors have some anecdotal evidence of this already and we may see data-based patterns at a future date. The BCITO are supporting this integration with the new resources for apprentices, and through the encouragement of apprentices to keep learning records that invite reflection.

We can certainly say, then, that holistic assessment in the BCITO's system gives apprentices more *opportunity* to learn deeply. Learning deeply is not only important for the development of competence but for the development of a learning disposition. If apprentices can enjoy learning (including the assessment as form of learning), they are enabled to judge the adequacy and progress of their own learning. They have a chance to "own" the process of assessment because they can see how it actually works.

Sustaining the building and construction industry
Training advisors/assessors, moderators, and employers/evaluators/trainers have a chance now to "own" the process of assessment. They have all moved away from relying on rigidly set criteria that may not always apply in the real-world setting of the building site. The training advisors, employers and moderators need to understand the assessment process so they can develop their own judgement and not be reliant only the judgements of other people or other measures. The BCITO are creating an internal workforce of lifelong learners.

This bodes well for the sustainability of the building and construction industry. It is good for the industry to have people who have developed a lifelong learning outlook. Apprentices who love learning, and will keep learning, are more likely to become builders who want to share their love of learning and the industry with others. They are more likely to want to "give back" to the industry that grew them. They are more likely to be concerned with the quality work and innovation that makes the industry attractive, satisfying and worthy of status in society. Training advisors and moderators are more likely to see their assessment role as a specific expertise and a positive career choice (not second-best to actually being a builder). These things all lay the foundations for a building and construction industry that has the capacity to recognise, respond to, and lead in relation to new and different design, legislative and customer demands as they inevitably arise.

Extending the system to other industry training organisations
The four principles of good assessment systems were never a blueprint and neither is the BCITO's system. The four principles are a resource based on the best available evidence that ITOs can interpret for use in their specific industry contexts. The BCITO have now provided

evidence that a principles-based assessment system can work. Their system not only gives life to the principles but illustrates how they operate holistically across the different parts of an assessment system.

Before embarking on the change to the assessment model in 2009, the BCITO surveyed their employers, asking them if they supported the concept of a changed system. Over 80 *per cent* did. Two years on, in response to a BCITO client satisfaction survey, 80 *per cent* expressed that they were satisfied or very satisfied with the assessment process (a further 17 *per cent* were neutral). With 90 *per cent* satisfied with the books and material, and 80 *per cent* satisfied with the support provided, there is reason to believe that the implementation has been a success from their point of view. A couple of the employers participating directly in this research expressed some dissatisfaction over the loss of "final say" about an apprentice's competence. However, the idea of the assessment team is designed to address precisely this by including the employer in assessment decisions and making clear the importance of their role as an evaluator of evidence. If there are other ITOs that are considering moving away from using employers as assessors, we suggest they too canvass the views of their employers on possible new arrangements and learn from how the BCITO has created a new, valued role for employers.

All ITOs cover a range of different industries. In our previous research project on ITO Assessment Systems (2009–2010), we found that some ITOs had quite different assessment systems for their different industries. We also found that different industry contexts and types of workplace in part drove the kind of assessment systems inherited or supported. We think the BCITO's system may be suitable for a wide variety of industries, largely because it relies on professionalising the assessors and developing a solid community of practice. The BCITO has already begun approaching the other trades within its coverage, seeking to extend the assessment model into their industries. In their proposal they have emphasised the training in assessment practice that the BCITO provided to assessors, the well-developed moderation system, and the assessment workload relief for employers. The proposal has been accepted by all trades. A key part of this acceptance has been that the assessment team approach provides industry stakeholders with reassurance that specific trade knowledge will always form part of assessment decisions.

We suggest that other ITOs adopt such an approach. Not only does it not make sense for assessment to be "done to" trainees, but it does not make sense for an assessment system to be "done to" ITO staff or employers. We encourage ITOs to consider *all* their stakeholders and how they too might build a community of practice within their assessment systems.

References

Bloomer, M., & Hodkinson, P. (2000). Learning Careers: Continuity and Change in Young People's Dispositions to Learning. *British Educational Research Journal*, *26*(5), 583–587.

Boud, D., & Falchikov, N. (2006). Aligning assessment with long-term learning. *Assessment & Evaluation in Higher Education*, *31*(4), 399–413.

British Dyslexia Association. (2012). *Dyslexia style guide*. http://www.bdadyslexia.org.uk/about-dyslexia/further-information/dyslexia-style-guide.html [Retrieved 16 June]

Brockbank, A., & McGill, I. (2007). *Facilitating reflective learning in higher education (2nd ed.)*. Maidenhead, England: Open University Press.

Chan, S. (2009). *Perspectives of new trades tutors: Towards a scholarship of teaching and learning for vocational educators*. Wellington: Ako Aotearoa.

Chan, S. (2011). *Belonging, becoming and being: First year apprentices' experiences in the workplace*. Wellington: Ako Aotearoa.

Coll, R. K., Eames, C., Paku, L., Lay, M., Ayling, D., Hodges, D., *et al.* (2009). *An exploration of the pedagogies employed to integrate knowledge in work-integrated learning in New Zealand higher education institutions*. Wellington: Teaching and Learning Research Initiative.

Davies, J., & Ecclestone, K. (2008). 'Straitjacket' or 'springboard for sustainable learning'? The implications of formative assessment practices in vocational learning cultures. *The Curriculum Journal*, *19*(2), 71–86.

Ecclestone, K., & Pryor, J. (2003). 'Learning careers' or 'assessment careers'? The impact of assessment systems on learning. *British Educational Research Journal*, *29*(4), 471–488.

Eraut, M., & Hirsch, W. (2007). *The Significance of Workplace Learning for Individuals, Groups and Organisations*. Oxford: ESRC Centre on Skills, Knowledge and Organisational Performance (SKOPE).

Filer, A. (2000). *Assessment: Social Practice and Social Product*. London: Routledge Falmer Press.

Harris, P., Piercy, G., & Law, M. (2009). *Peer Education: Investigating the Pedagogy of On-Job Learning*. Hamilton: University of Waikato.

Hinett, K. (2002). *Improving learning through reflection—part one.* Retrieved from The Higher Education Academy.

http://www.heacademy.ac.uk/assets/documents/resources/database/id485_improving_learning_part_one.pdf

Hipkins, R., & Robertson, S. (2011). *Moderation and Teacher Learning. What can research tell us about their relationships?* Wellington: New Zealand Council for Educational Research.

Kear, A., Vaughan, K., & Gardiner, B. (2012) *Taking Charge of Your Apprenticeship.* Wellington: Ako Aotearoa.

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action.* London: Temple Smith.

Smith, R., & Betts, M. (2000). Learning as Partners: Realising the Potential of Work-based Learning. *Journal of Vocational Education and Training*, *52*(4), 589–604.

Soep, E. (2006). Critique: Assessment and the Production of Learning. *Teachers College Record*, *108*(4), 748–777.

Vaughan, K., & Cameron, M. (2009). *Assessment of Learning in the Workplace: A Background Paper*. Wellington: Industry Training Federation.

Vaughan, K., & Cameron, M. (2010a). *ITO Assessment Structures and Systems: Survey and Focus Group Findings*. Wellington: Industry Training Federation.

Vaughan, K., & Cameron, M. (2010b). *A Guide to Good Practice in Industry Training Organisation Structures and Systems For On-Job Assessment*. Wellington: Industry Training Federation.

Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating Communities of Practice*. Boston: Harvard Business School Press.

Appendix 1: Survey results from the BCITO training advisors

Transforming Onjob Assessment　　SurveyMonkey

1. Please rate how the new system enables you to do the following things:

	Very easy	More easy than difficult	More difficult than easy	Very difficult	Response Count
Work with the apprentice to develop an overall strategy about gaining their qualification	68.1% (47)	31.9% (22)	0.0% (0)	0.0% (0)	69
Prepare an apprentice to be formally assessed (to know what is expected of them and how the process will work)	53.6% (37)	42.0% (29)	4.3% (3)	0.0% (0)	69
Support the apprentice to be responsible for their own learning	52.2% (36)	40.6% (28)	7.2% (5)	0.0% (0)	69
Help an apprentice with their learning (help them know and understand something)	40.6% (28)	50.7% (35)	7.2% (5)	1.4% (1)	69
If an apprentice fails to gain credits, help them understand why and what to do about it	56.5% (39)	40.6% (28)	2.9% (2)	0.0% (0)	69
Meet or communicate with each apprentice as best suits their needs	62.3% (43)	36.2% (25)	1.4% (1)	0.0% (0)	69
				answered question	69
				skipped question	0

2. Please rate how important you think these aspects of working with the apprentice are:

	Very important	Important	Not important	Not at all important	Response Count
Work with the apprentice to develop an overall strategy about gaining their qualification	89.9% (62)	8.7% (6)	1.4% (1)	0.0% (0)	69
Prepare an apprentice to be formally assessed (to know what is expected of them and how the process will work)	79.7% (55)	18.8% (13)	1.4% (1)	0.0% (0)	69
Support the apprentice to be responsible for their own learning	82.6% (57)	17.4% (12)	0.0% (0)	0.0% (0)	69
Help an apprentice with their learning (help them know and understand something)	64.7% (44)	33.8% (23)	1.5% (1)	0.0% (0)	68
If an apprentice fails to gain credits, help them understand why and what to do about it	73.9% (51)	23.2% (16)	2.9% (2)	0.0% (0)	69
Meet or communicate with each apprentice as best suits their needs	82.6% (57)	15.9% (11)	1.4% (1)	0.0% (0)	69
				answered question	69
				skipped question	0

3. Please rate how the new system enables you to do the following things:

	Very easy	More easy than difficult	More difficult than easy	Very difficult	Response Count
Collect a range of evidence about each apprentice's learning (may be over time, in different visits, or within one visit)	53.6% (37)	44.9% (31)	1.4% (1)	0.0% (0)	69
Assess competence across standards in a real-life way (rather than assessing each unit standard in isolation)	63.8% (44)	29.0% (20)	7.2% (5)	0.0% (0)	69
Use training plans to plan visits, set goals, and track progress	60.3% (41)	33.8% (23)	5.9% (4)	0.0% (0)	68
Use evidence from the evaluator/employer in your assessments	67.6% (46)	29.4% (20)	2.9% (2)	0.0% (0)	68
Use BCITO resources about assessing	46.4% (32)	47.8% (33)	5.8% (4)	0.0% (0)	69
Refine your assessment practice based on feedback from your moderator	51.5% (35)	44.1% (30)	4.4% (3)	0.0% (0)	68
				answered question	69
				skipped question	0

4. Please rate how important you think these aspects of working with the apprentice are:

	Very important	Important	Not important	Not at all important	Response Count
Collect a range of evidence about each apprentice's learning (may be over time, in different visits, or within one visit)	82.6% (57)	15.9% (11)	1.4% (1)	0.0% (0)	69
Assess competence across standards in a real-life way (rather than assessing each unit standard in isolation)	76.8% (53)	23.2% (16)	0.0% (0)	0.0% (0)	69
Use training plans to plan visits, set goals, and track progress	65.2% (45)	34.8% (24)	0.0% (0)	0.0% (0)	69
Use evidence from the evaluator/employer in your assessments	78.3% (54)	20.3% (14)	1.4% (1)	0.0% (0)	69
Use BCITO resources about assessing	30.4% (21)	53.6% (37)	13.0% (9)	2.9% (2)	69
Refine your assessment practice based on feedback from your moderator	56.5% (39)	39.1% (27)	4.3% (3)	0.0% (0)	69
				answered question	69
				skipped question	0

5. Please rate how the new system enables you to do the following things:

	Very easy	More easy than difficult	More difficult than easy	Very difficult	Response Count
Communicate enough with the employer (either regularly or when needed)	59.4% (41)	36.2% (25)	4.3% (3)	0.0% (0)	69
Facilitate on clarity about expectations between the apprentice and employer	52.2% (36)	43.5% (30)	2.9% (2)	1.4% (1)	69
Reach agreement with the employer about the level of the apprentice's commercial competence	55.1% (38)	44.9% (31)	0.0% (0)	0.0% (0)	69
Negotiate positive outcomes from workplace issues (e.g., commercial competence, workplace attitude)	52.2% (36)	44.9% (31)	1.4% (1)	1.4% (1)	69
Get the support or advice you need from your moderator when you need it	53.6% (37)	37.7% (26)	8.7% (6)	0.0% (0)	69
Work with employers to ensure provision of good learning opportunities for apprentices	44.9% (31)	47.8% (33)	7.2% (5)	0.0% (0)	69
			answered question		69
			skipped question		0

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6. Please rate how important you think it is to:

|	Very important	Important	Not important	Not at all important	Response Count
Communicate enough with the employer (either regularly or when needed)	84.1% (58)	15.9% (11)	0.0% (0)	0.0% (0)	69
Facilitate on clarity about expectations between the apprentice and employer	76.8% (53)	21.7% (15)	1.4% (1)	0.0% (0)	69
Reach agreement with the employer about the level of the apprentice's commercial competence	82.6% (57)	17.4% (12)	0.0% (0)	0.0% (0)	69
Negotiate positive outcomes from workplace issues (e.g., commercial competence, workplace attitude)	84.1% (58)	15.9% (11)	0.0% (0)	0.0% (0)	69
Get the support or advice you need from your moderator when you need it	63.2% (43)	29.4% (20)	7.4% (5)	0.0% (0)	68
Work with employers to ensure provision of good learning opportunities for apprentices	84.1% (58)	14.5% (10)	1.4% (1)	0.0% (0)	69
				answered question	69
				skipped question	0

7. Please rate your level of agreement with the statements:

	Strongly agree	Agree	Disagree	Strongly disagree	Response Count
I feel supported in my role by my TA peers	47.8% (33)	**50.7% (35)**	1.4% (1)	0.0% (0)	69
I feel supported in my role by my moderator	41.2% (28)	**52.9% (36)**	5.9% (4)	0.0% (0)	68
I feel supported in my role by BCITO	34.8% (24)	**58.0% (40)**	5.8% (4)	1.4% (1)	69
I feel supported in my role by my trainees' employers (they understand my role and how to contribute to the assessment process)	44.1% (30)	**55.9% (38)**	0.0% (0)	0.0% (0)	68
I feel part of an "assessment team" centred on each apprentice (the team = assessor, moderator, apprentice and employer)	**60.9% (42)**	37.7% (26)	1.4% (1)	0.0% (0)	69
BCITO workshops provide me with the professional development I need to extend and/or update my skills	26.1% (18)	**52.2% (36)**	21.7% (15)	0.0% (0)	69
My moderator has helped me develop consistency in my assessment practice (across my apprentices)	27.5% (19)	**62.3% (43)**	10.1% (7)	0.0% (0)	69
The Qualifications and Quality Assurance Teams have had a positive impact on the quality of BCITO resources	22.7% (15)	**60.6% (40)**	15.2% (10)	1.5% (1)	66
The Training and Development team has had a positive impact on the BCITO professional development programme	24.6% (16)	**46.2% (30)**	23.1% (15)	6.2% (4)	65
				answered question	69
				skipped question	0

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8. Please rate your level of agreement with the statements about the new system

	Strongly agree	Agree	Disagree	Strongly disagree	Response Count
I understand the rationale for the assessment system change	63.8% (44)	36.2% (25)	0.0% (0)	0.0% (0)	69
I have a clear understanding of what is expected of me in the new system	65.2% (45)	30.4% (21)	2.9% (2)	1.4% (1)	69
I feel confident about my ability in the new system	71.0% (49)	27.5% (19)	1.4% (1)	0.0% (0)	69
I feel positive about outcomes for learners (apprentices) under the new system	72.5% (50)	24.6% (17)	2.9% (2)	0.0% (0)	69
I feel feel positive about outcomes for employers under the new system	69.6% (48)	29.0% (20)	1.4% (1)	0.0% (0)	69
The new system is assisting in better recruitment and retention of trainees	33.8% (23)	58.8% (40)	7.4% (5)	0.0% (0)	68
There is greater clarity in the new system around an apprentice's knowledge and skills if/when they move between employers	34.8% (24)	56.5% (39)	7.2% (5)	1.4% (1)	69
I believe the system will result in more apprentices completing their qualifications	49.3% (34)	49.3% (34)	1.4% (1)	0.0% (0)	69
The new system better enables the BCITO to meet industry and employer needs	55.9% (38)	42.6% (29)	1.5% (1)	0.0% (0)	68
I understand how moderation contributes to nationwide consistency of assessment across all TAs	57.4% (39)	39.7% (27)	2.9% (2)	0.0% (0)	68
				answered question	69
				skipped question	0

9. What formal qualifications do you have?

		Response Percent	Response Count
Secondary school level only		27.5%	19
Building or related industry-based qualifications at Level 4 or equivalent		**88.4%**	**61**
Building or related industry-based qualifications at Level 5 or equivalent		30.4%	21
Building or related industry-based qualifications at Level 6		2.9%	2
University degree		1.4%	1
Teaching diploma		2.9%	2
Certificate in Adult Education		58.0%	40
	Other (please specify)		18
	answered question		69
	skipped question		0

10. Please indicate the number of years of experience you have had in the following roles:

	None	Up to 1 year	2-5 years	6-10 years	More than 10 years	Response Count
Self employed carpenter	11.1% (7)	4.8% (3)	25.4% (16)	6.3% (4)	52.4% (33)	63
Employed carpenter	0.0% (0)	3.1% (2)	27.7% (18)	20.0% (13)	49.2% (32)	65
Site Foreman	3.8% (2)	9.4% (5)	50.9% (27)	15.1% (8)	20.8% (11)	53
BCITO Assessor	0.0% (0)	4.3% (3)	72.5% (50)	23.2% (16)	0.0% (0)	69
BCITO Training Advisor	0.0% (0)	1.5% (1)	36.8% (25)	61.8% (42)	0.0% (0)	68
Building Apprentice	0.0% (0)	0.0% (0)	100.0% (66)	0.0% (0)	0.0% (0)	66
Training Advisor for another ITO	92.5% (49)	3.8% (2)	1.9% (1)	0.0% (0)	1.9% (1)	53
Assessor in another industry or context (*please specify in the box below*)	68.6% (35)	5.9% (3)	15.7% (8)	0.0% (0)	9.8% (5)	51
Moderator in another industry or context (*please specify in the box below*)	83.3% (40)	4.2% (2)	4.2% (2)	6.3% (3)	2.1% (1)	48
					answered question	69
					skipped question	0

11. *Assessor in another industry or context*

	Response Count
	20
answered question	20
skipped question	49