Section 1: Background information

The Federal Government is committed to the development of a training market to raise the quality, diversity and efficiency of the Australian Vocational Education and Training System (VET). Underpinning this training market is the quality of the assessments conducted for recognition purposes.

Since the introduction of the Australian Recognition Framework (ARF), the ways in which competency-based assessments are conducted in vocational education and workplace settings have become increasingly important. The conversion to Training Packages has meant that competency-based assessment is now a major quality assurance mechanism within the VET sector. As such, it is the assessment and assessment outcomes, as opposed to curriculum, which is directly linked to credentials under the Australian Qualifications Framework (AQF).

Despite the recent influx of documentation regarding training packages, competency standards and assessment guidelines, as well as increased participation in assessor training programs, the design, establishment and management of an assessment system has attracted limited interest. Given the diverse contexts and purposes with which competency-based assessments can now be conducted, managers of assessment systems (both within enterprises and Registered Training Organisations [RTOs]) and assessors require additional guidance to ensure that their assessment system and hence the assessments conducted are valid and reliable.

In recent years, the quality assurance of assessment has focussed on the conduct of the assessments. However, the quality of the assessment outcomes lies not so much in the quality of the assessments conducted but rather in the effective and on-going quality management of the assessment system in which these assessments take place. This paper explores the issues surrounding current changes and innovations in the VET sector and the design, establishment and management of an assessment system.

The aims of this paper it to review national and state policy implications for designing, establishing and managing an assessment system within the ARF. It will review key developments, reports and case studies to then identify and explore key principles that need to be applied when establishing an effective quality improving assessment system.

Section 2: Developments at national level

The ARF has significantly changed the focus of registration of training providers away from recognition related to the provision of accredited courses, to recognition for the provision of particular products and services primarily related to Training Packages. Under the structure of the ARF organisations or enterprises can register to provide training delivery and assessment services, or, skill recognition services (assessment only). In both instances, the RTO can issue nationally recognised qualifications and Statements of Attainment. RTOs may register to offer a range of training and assessment services. This structure aims to promote diversification and increased participation in the training market.

Training Packages are a major change in vocational education and training in Australia and is progressively replacing the mix of curriculum and competency standards as the basis for delivery of vocational training. There are two components to these: endorsed and non-endorsed. The endorsed components comprise competency standards, assessment guidelines and qualifications framework. They clearly identify the competency outcomes, provide guidelines on how the competencies are to be assessed and provide advice on packaging units to align with a qualification within the AQF. The non-endorsed components include a range of integrated resources related to professional development, learning strategies and assessment materials. With the introduction of Training Packages far greater emphasis will be placed on flexible programs designed to meet the needs of the clients. In addition, greater emphasis will be placed on assessment, and the demonstration of competence, before, during and after training, as well as independent of training—a product in its own right (OTFE 1997a).
An assessment system that provides formal recognition and certification of competencies must be established within the regulatory framework of both the National Training Framework (NTF) and State Training Board (STB). The state, territory and commonwealth ministers responsible for vocational education and training, have endorsed a set of National Assessment Principles. These principles provide the basis for on-going development of assessment systems and practices in the VET sector (see Best practice guide: Registrations offering skills recognition services, WA Department of Training 1998, for a summary of these principles).

Although the principles have been recognised, the penetration of these principles and their application can be brought to question. In the recent study of all providers of assessment and workplace training, Gillis, Griffin, Falks & Catts (1997) found that at most one-quarter of these RTOs could be classified as an informed group. Informed in the sense that they had a thorough understanding of both components of competency and the original NFROT principles of Assessment (see NTB 1992 for these principles). If the introduction of the ARF National Assessment Principles are to have any impact on assessment practices then professional development of those responsible for assessment systems need to be targeted first.

Section 3: Developments at state training level

Within the State Training System (STS) of Victoria the number of providers of Training and Further Education (TAFE) programs has been significantly expanded to approximately 920 RTOs. This poses challenges for the Office of Training and Further Education (OTFE) regarding the quality assurance of all providers, especially their assessment systems and the reliability, quality and integrity of their assessments. Consequently the level of monitoring in the form of auditing procedures and re-evaluating non-compliance requires extensive resource input.

Registration of RTOs in the Victorian STS requires a series of key conditions that must be met. The registration of new providers of training and assessment is facilitated by Training Recognition Consultants (TRCs) who recommend to the OTFE when a potential provider complies with all the ‘Conditions of Registration’ (OTFE July 1997). These key conditions are essential for registration but also form the basis for compliance audits. A significant proportion of the conditions are system related features and as such the quality assurance of assessment outcomes is heavily reliant at the registration stage and at the monitoring and auditing stages on the compliance of an assessment system rather than the assessor skills.

At this stage new RTOs are given minimal guidance on designing, establishing and managing an assessment system. However, The OTFE has in press a kit for ‘Effective Assessment Systems’ providing guidance to systems managers. In addition the WA Department of Training has recently published for assessment only providers a Best practice Guide: Registrations offering skills recognition services (WA Department of Training 1998). This kit focuses on relevant procedures and documentation (especially a Business Plan) for establishing an assessment service.

Section 4: Limitations of current practice

4.1 - Practitioner level

Competency-based assessment is considered to be the process of gathering evidence relevant to the unit(s) of competency and making a judgement about whether or not competence has been achieved (ANTA 1995). That is, whether a person's ability enables them to perform workplace tasks to a standard specified in a unit of competency. Competency-based assessments within the Australian context occur in many different contexts, for many different purposes and utilising many different procedures.
Assessments in the VET sector are conducted for a range of purposes such as needs analysis, personal career planning, hiring, formal recognition or certification, remuneration, promotional opportunities, professional development needs and gap training (Gillis, Keating & Griffin 1998, Gillis et al 1997). Assessment regardless of its context encompasses the same principles and rules, the only variation is the emphasis on the timing of the assessment, the purpose of the assessment and the nature and mix of the evidence. All forms of competency-based assessment require adherence to the principles of assessment; that is:

- that the assessments conducted should be valid, reliable, flexible and fair; and
- that the evidence collected should be valid, sufficient, current and authentic.

Recent researchers have established that assessors in the VET sector utilise two major forms of assessment methods to gather evidence: objective and performance to gather evidence of competence (Hayton & Wagner 1998). The former tends to describe assessment methods that require the candidate to actively generate or create a response/product that demonstrates their knowledge or skill (Elliot 1994). Examples include: portfolio, simulations, role plays, practical demonstrations, workplace observations, open-ended questions, peer/self/supervisor assessments and oral presentations. The latter refers to paper-based objective testing techniques, where the candidate selects a response from a range of alternatives established by the task developers (eg multiple choice, true/false questions) (Gillis & Bateman 1999). However, the flexibility inherent in competency-based assessments does not ensure the validity and reliability of assessments.

How assessors select evidence gathering methods for subsequent assessment task development is critical to the success of competency based training and assessment in the VET system. However, Griffin et al (1998) believes that a recent study (Gillis et al 1998) highlighted the lack of training against the unit of competency ‘Develop assessment tools’ and as such it raises the question of the degree of skill of assessment tools and procedures developers.

4.2 - System level

Griffin & Nix (1991) defined assessment as the purposeful process of gathering appropriate and sufficient evidence of competence, and the interpretation of that evidence to enable a judgment. Included in this model is the recording of the evidence and the decision, as well as the communication of the outcomes to key stakeholders. This more complex definition of assessment has repercussions for the effective design, establishment and management of an assessment system.

The purpose of an assessment system can be and should be established to support:

- Training programs so as to confirm intended outcomes;
- Recognition of skills for RTO or enterprise purposes; and
- Recognition and certification of the competencies of individuals.

A recent Victorian benchmarking project, Best practice in assessment systems and processes (Email 1997), defines an assessment system as:

‘All of the essential processes that support and maintain the integrity, relevance and efficiency of assessment for an organisation or enterprise.’
This definition applies to the diverse contexts and purposes under which competency-based assessments are conducted within Australia. As such an assessment system can be developed at various levels:

- Nationally within an industry
- Nationally within an occupation
- Enterprise (single and/or multiple sites)
- Registered Training Organisation.

However, very few Australian publications are available for assessment systems managers to access. In addition to the now superseded *Competency Standards for Assessment* (ANTA 1995) the two most frequently cited resources are *A Guide to the Competency Standards for Assessment* (ANTA 1997) and *Assessment System Design* (Toop, Gibb and Worsnop 1994). Toop et al (1994) provides systems managers with findings of research, case studies as well as purposes and priorities of systems and outlines system features and options. A more recent Victorian publication *Best practice in assessment systems and processes* (Email 1997) provides current profiles of effective assessment systems and provides key success factors as guidance to managers.

The assessment standards were first developed by the National Assessors and Workplace Trainers Body in 1993. These were superseded in the revised and expanded version in 1995. The *Competency Standards for Assessment* (ANTA 1995) provided assessors with two competencies ‘Conduct assessment in accordance with an established assessment procedure’ and ‘Plan and review assessment’. Docking (1997) in a recent review of assessor training programs argues that these assessment units assume that the assessor is working within a well-defined and well-managed assessment system. The system ‘would include model assessment tools and guidelines for assessors to follow. Without such infrastructure, assessors trained to the basic units will not be able to assess with the precision expected’ (Docking 1997, p.18).

In addition, the *Competency Standards for Assessment* (ANTA 1995) provided four specialist units to those responsible for the establishment, implementation and management of assessment systems: ‘Develop assessment tools’, ‘Design the assessment system’, ‘Establish the assessment system’ and ‘Manage the assessment system’. It could be assumed that although training programs for systems managers were limited (a few locally accredited programs existed) that the three specialist competencies provided clear and effective guidance for designing, establishing and managing the system. Unfortunately they did not articulate into a qualification.

However, in 1997 a review of the adequacy of the competency standards which focussed on how they were being used and by whom revealed some disturbing findings (Gillis, Griffin, Falk, Catts and Bowles 1997). The research findings indicated that that there were few aspects of ‘assessment competencies, national frameworks, standards or assessment practices that have achieved significant market penetration, in terms of understanding and application’ (Griffin et al 1998, p. 11). Only one in four of the providers surveyed were well informed about the existence and use of the *Competency Standards for Assessment* (ANTA 1995). This raises serious concerns regarding the quality, validity and rigour of the training and its effectiveness when preparing assessors to recognise competence and future performance in a training system dependent on the assessments.

A recent report analysing relevant Australian and international literature related to assessment identified key steps in the pursuit of validity and reliability of assessments (Gillis & Bateman 1999). Although the paper outlines key strategies for assessors a significant number of these strategies relate to quality assurance measures of the assessment system. Strategies relevant to managers are:
• include the stakeholders involvement in the selection of appropriate methods
• establish clear documentation and communication for all stages of the assessment and reporting process including:
  – purpose of the assessment;
  – evidence to be collected;
  – the way in which the evidence will be interpreted; and
  – how and what information will be reported to and used by stakeholders.

Strategies to promote reliability relevant to managers included:

• Consensus moderation and verification processes.
• Maintain representative sample of assessment tasks to compare from context to context/year to year and use a panel of independent assessors to evaluate this sample.
• Establish and document clear assessment procedures/instructions for collecting, analysing and recording outcomes so to evaluate the evidence collected, the circumstances under which it was collected and the extent to which the procedures were followed.
• Develop exemplar assessment tools and procedures.
• Document the required qualifications and experience of the assessors and describe any training in conducting and reviewing the assessment tasks that needs to be undertaken prior to any assessments.

Finally, *Best practice assessment systems and processes* (Email 1998) identified six critical success factors for the operation of an assessment system. Although the focus of these factors tends to be more relevant to enterprise assessment systems they can be applied to assessment systems of training providers. They are:

1. Senior management support.
2. Assessment system administered effectively by a system manager/co-ordinator.
3. Assessment system supported by employees.
4. Quality documentation is provided at all stages of assessment system.
5. Assessors must be suitably qualified for any particular assessments (within their field of expertise).
6. Assessment system must adhere to policy of continuous improvement.

### 4.3 - Professional development level of both practitioners and system managers

Assessor training courses have typically followed the national assessors standards in form and content (Docking 1997). That is, training directly relates to the planning, conducting and reviewing of assessments. Common training materials involve the use of resources developed for the Certificate IV in Workplace Training by The National Staff Development Committee of ACTRAC (NSDC 1995). Research conducted by Gillis et al (1997) expressed concern at the research findings which indicated a lack of quality assurance and rigour in the training of assessors, especially when providers lacked sufficient knowledge of the standards. Trainees were not explicitly assessed against the national competency standards and were not made aware of the existence of the national competency standards. These researchers argued that unless the commitment, interest and expertise of assessors can be improved, competency-based training as first envisaged by the National Training Board in 1992 (which is now dependent on assessment) is in jeopardy (Griffin et al 1998).
Very few training programs have been available for systems managers and assessment tool developers that address the four specialist units from the *Competency Standards for Assessment* (ANTA 1995). Gillis et al (1997) found in their research that very few providers conducted assessments against these specialist units. Indeed, a recent NCVER stocktake report reviewing research conducted in Australia since 1990 relating to assessor training programs recommended that these specialist units should be marketed more aggressively (Docking 1997).

The recently developed *Training Package for Assessment and Workplace Training* (ANTA 1999) and the draft *Standards and Qualifications for TAFE Practitioners – A Proposed Framework* (Victorian Association of Directors of TAFE, November 1998) has given due recognition to competencies relevant to assessment tool developers and systems managers. The *Training Package for Assessment and Workplace Training* (ANTA 1999) has made available a ‘Diploma of Assessment and Training Systems’ which identifies the competencies relevant to the various job roles. Within the *Training Package*, additional units of competencies relevant to assessment include:

- Analyse Competency Requirements
- Design and Establish the Assessment System
- Manage the Training and Assessment System
- Evaluate the Training and Assessment System
- Develop Assessment Procedures
- Develop Assessment Tools.

Lessons need to be learnt from the problems associated with only having competency standards/materials available without massive marketing exercises to ensure market penetration and use of the new Training Package. Past experience suggests that availability and access to these materials will not change current practice alone. The implications of this is to assist practitioners by ensuring the system managers are fully equipped and competent to ensure a quality assessing system.

Unfortunately, there are no requirements at a national or state training system level that gives guidance to RTOs regarding the competencies required to design, establish, manage and evaluate an assessment system. Hence, at this stage there is no imperative for managers to demonstrate these competencies within the state training systems. Yet with the introduction of the new Diploma of Training and Assessment Systems, current practices and requirements may change.

**Section 5: Implications for the design and development of an assessment only service**

**5.1 - Background to the assessment centre pilot**

In 1997 the OTFE commissioned The Moreland Group to undertake a review of the applications of Recognition of Prior Learning (RPL) policy in the Victorian State Training System. They were asked to provide a picture of what was happening in Victoria with respect to RPL some five years after the State Training Board policy. More specifically they were to investigate the extent of RPL use, the extent of adherence to the model, the issues arising from the incorporation of RPL and future implications.

The review found that RPL was broadly available across providers but that it was used only marginally. The RPL policy had not led to the development of a widely accepted, credible and cost effective pathway. The study
suggested that the low level impact may be due to a number of factors, but the single greatest factor identified was that the STS had a strong training delivery culture. That is, there appeared to be a preoccupation with the traditional training pathway to recognition and a qualification.

One recommendation from the report was that the State Training Board consider the establishment and funding of a number of assessment centres to help establish an assessment culture and to inform the development of a new assessment policy for the STS.

Although the trial of the assessment centres was established prior to the Australian Recognition Framework being established, the findings or outcomes of the project provided valuable information for Victorian policy developers and RTOs. These findings were especially relevant to the effective conduct of assessments, the effective operation of an assessment only RTO and clearly identified key principles and processes that need to apply to the design, establishment and management of an assessment system.

The model of an assessment system can vary widely and each system is highly context bound. The OTFE Assessment Centre Pilot Project identified and explored four models of an assessment system. The table below provides a brief summary of each of the models.

Table 1: Models of Assessment Systems

<table>
<thead>
<tr>
<th>Lead Agent/Consortium</th>
<th>Industry Sectors</th>
<th>Project Model</th>
</tr>
</thead>
</table>
| **Business Skills Victoria**  
(Metropolitan and Melbourne Country Regions, particularly those in the Wodonga area) | Those who are served by the Business Skills Framework and Module Bank – Managers, Accountants, Cleaners, Security Guards, Marketers, etc. | Features include:  
- Industry led utilising provider networks  
- Focus on small and micro businesses  
- Cross industry accreditation, Establishment of an Industry Accreditation Board to endorse assessors  
- Validating assessment instruments developed under the Business Skills Framework. |
| Business Skills Victoria  
(Metropolitan and Melbourne Country Regions, particularly those in the Wodonga area) | Those who are served by the Business Skills Framework and Module Bank – Managers, Accountants, Cleaners, Security Guards, Marketers, etc. | Features include:  
- Industry led utilising provider networks  
- Focus on small and micro businesses  
- Cross industry accreditation, Establishment of an Industry Accreditation Board to endorse assessors  
- Validating assessment instruments developed under the Business Skills Framework. |
| **The School of Mines and Industries Ballarat Ltd**  
(Central Highlands Wimmera) | Engineering Panel Products  
Office Skills  
Forestry  
Woolclassing  
Farm Management  
Theatre Technicians | Features include:  
- Provider led utilising local agencies and networks  
- Four industry/enterprise committees reporting to a management committee  
- Costing and variety of assessment types  
- Scope and variety of assessment instruments to be used  
- Quality assurance processes. |
5.2 - A case study – Ballarat Assessment Centre

The following case study of the Ballarat Assessment Centre provides an overview how each of the six critical success factors (as previously discussed) can be built into the design and development of an assessment system.

5.2.1 - Anti-competitive practices

The consortium model created a number of competitive issues that needed to be resolved and it was important to create an environment that supported and encouraged cooperation. A Statement of Principle was agreed to early in the trial and covered five major areas: guidelines for directing inquiries, confidentiality, ethics and equity, copyright of developed materials and certification procedures. All policy decisions were made in consultation with and agreed to by all consortium members. The Ballarat Assessment Centre appointed a manager that was both familiar with the Competency Standards for Assessment (ANTA 1995) but had significant experience in professional of training/assessment staff and project management.

5.2.2 - Assessment policy and procedures

The Ballarat Assessment Centre required an assessment policy and procedures and needed to identify the most effective assessment process best suits the needs of all stakeholders and promotes the efficient and effective collection of evidence. The assessment process which an applicant would undertake was based very closely on the generic model outlined in ‘Identifying best practice in workplace assessment processes’ (OTFE 1997). Procedures and forms were developed around this model. Supporting documentation was developed and promoted to all stakeholders, such as an administrative manual, assessor kit, candidate guide

The Assessment Policy was developed and covered the following components: appeals mechanism, review mechanism, moderation processes, validation processes, assessor requirements and currency, assessment practices, audit requirements and recording mechanisms.
At a systems level, assessment instruments can promote reliability and validity of assessments. Both the Ballarat Assessment Centre and other pilots proposed and supported the development of an assessment instrument bank as a mechanism to standardise assessment procedures and outcomes.

5.2.3 - Assessor competencies

The minimum assessor requirements established at the Ballarat Assessment Centre were based on *The Competency Standards for Assessment* (ANTA 1995). Assessors were required to be competent in the ‘Assessment Competency Standard: Conduct Assessment in Accordance with an Established Assessment Procedure’, the ‘Extension Unit: Plan and Review Assessment’ and the ‘Specialist Unit: Develop Assessment Tools’. Additional assessor requirements were also clearly identified: assessors must have the recognition of the specific competencies that they will assess and also meet any additional requirements from the relevant ITAB. However, it was found that, assessors, who may be suitably qualified, did not necessarily have the communication and interpersonal skills, or the ability to design assessment tools and collect evidence efficiently to deal with assessment only activity.

5.2.4 - Record keeping mechanisms

The amount of information to be stored by the Centre fell into two broad categories: that which was required to record assessment outcomes and that which related to assessor details and the requirements and information of the industry/ITAB. The database chosen needs to meet the challenges of such issues as quantity of data, meeting AVETMISS requirements, meeting ANTA competency structures as well as access and security.

5.2.5 – Communication strategies and marketing

Another crucial aspect to the success of the assessment system and acceptance by all stakeholders is the communication strategies and promotion of the system. The Ballarat Assessment Centre developed information guide/kit for assessors to ensure that the assessors understand the expectations and procedures of the organisation’s assessment process. Marketing information was developed for clients regarding the assessment process and their rights within this process.

5.2.6 - Quality assurance mechanisms

The cost of establishing and maintaining quality assurance mechanisms cannot be underestimated. Quality assurance mechanisms take time to develop, implement and to maintain. Balance needs to be achieved between ensuring quality assessments and delivering cost effective assessments. In general, quality assurance measures can be identified as:

- Quality assuring the assessment process and the assessor.
- Quality assuring the assessment judgements.
- Quality assuring the procedures.
- Professional development of assessors.

At the Ballarat Assessment Centre quality assurance mechanisms included: professional development, audit requirements, moderation processes, validation processes, assessor qualifications and assessment process requirements. They should be clearly established and regularly reviewed. They should be embedded in the policy and procedure documentation of the centre and distributed via assessor guides/kits.
5.2.7 - Continuous improvement mechanisms

The Ballarat Assessment Centre within the pilot period provided within their assessment policy the commitment to continuous improvement mechanisms. Only with planning and a systematic and on-going approach to continuous improvement can an RTO or enterprise demonstrate its commitment to quality assessments. Three common review strategies that could be used are an evaluation process, a self-assessment process and a benchmarking exercise.

Section 6: Implications

6.1 - Key principles

In light of the issues raised in this paper, as well as experiences gained within the VET sector it is proposed that the six critical success factors outlined by Best practice assessment systems and processes (Email 1998) be expanded to:

1. **Senior management support** should be expanded to indicate that the support includes stakeholders at all levels, both for acceptance and credibility of the system.

2. **Assessment system administered effectively by a system manager/co-ordinator** needs to clearly identify the competencies of the assessment system managers. Hence assessment system managers should be competent in the following units of competencies of the Training Package for Assessment and Workplace Training:
   - Design and establish the assessment system
   - Manage a training and assessment system
   - Evaluate a training and assessment system.

3. **Assessment system supported by employees** doesn’t cater for VET only contexts and should be expanded to so that the assessment system is supported by all stakeholders within the organisation.

4. **Quality documentation is provided at all stages of assessment system** should be explained more fully and include:
   - Business Strategy Plan to outline a clear rationale and goals.
   - Assessment Policy.
   - Assessment processes, procedures and forms.
   - Record keeping.
   - Assessor Guides/Kits.
   - Marketing information and fliers.

5. **Assessors must be suitably qualified for any particular assessments (within their field of expertise)** should be expanded to clearly specify the relevant competencies, degree of technical competence, additional characteristics and the additional requirements of Training Packages, such as industrial experience and the use of assessment panels.
6. **Assessment system must adhere to policy of continuous improvement** should be expanded to include one or more of the following options:

- Evaluation process (as outlined in the *Training Package for Assessment and Workplace Training* unit of competency, ‘Evaluate a training and assessment system’);
- Self-assessment processes;
- Benchmarking.

Additional success factors should include:

1. Extensive consultations in selecting system design features by all key stakeholders or representative groups.

2. Commitment to promoting the validity and reliability of assessments and standardising assessment outcomes by developing assessment instruments (and banks) that provide an integrated approach to assessment, that measure all components of competency and that clearly outlines the assessment tools and procedures.

3. Commitment to quality assurance processes including:

   - Quality assuring the assessment process and the assessor.
   - Quality assuring the assessment judgements.
   - Quality assuring the procedures.
   - Professional development of assessors.

**Section 7: Conclusion**

In recent years the focus of the quality assurance of assessments has been on the conduct of assessments. The quality of assessments has said to be reliant on the quality and skill of the competency-based assessors. Regardless of the skill of the assessor, it is the assessment system and its quality assurance and continuous improvement processes which support and ensure the rigour and integrity of the assessments. In addition, it is the framework within which these assessments are conducted that ensures the pursuit of validity and reliability. Therefore it is crucial that both national and state level training authorities take responsibility for ensuring that key stakeholders of competency based assessments systems functioning within the framework of the ARF are fully aware and suitably equipped to undertake effective, valid and reliable assessments.
References


Bateman, A 1998a, *Design, establish and manage an assessment system*, University of Melbourne, Melbourne.


Bateman, A and Parry, P 1997b (unpublished), *Assessment system design*, Ballarat Assessment Centre, School of Mines and Industries Ballarat, Ballarat.


Western Australian Department of Training, Quality assurance and Recognition 1998, *Best practice Guide: Registrations offering skills recognition services*, Western Australian Department of Training, Quality Assurance and Recognition and VETASSESS.