

Competency Based Assessment — One minute wonder or here to stay? Practitioners' attitudes to competency based assessment and the complexities of implementation.

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Competency based training and assessment was introduced to Australia in the early 1990s through the push to restructure Australian industry and the National Training Reform Agenda. Industry determined competency standards became a central feature of the National Framework for the Recognition of Training and the competency based education juggernaut was launched.

Vocational education providers developed competency based curriculum and teachers were trained in the concepts of the collection of evidence to make this assessment. With the introduction of Training Packages, the emphasis on the collection of evidence to assess a candidate's capacity to meet industry standards has taken even more prominence. But how successful has the movement to implement this form of assessment been in industry and among what are now known as Registered Training Organisations?

There have been various stocktakes and surveys of the progress of the implementation of competency based training (CBT) since its inception. Some have looked broadly at the contribution competency based training is making to the development of an adaptable and flexible workforce (Billet et al, 1999) and the quality and flexibility of vocational learning and working life (Mulcahy and James, 1999).

Misko (1999, 59) concludes that training providers are trying hard to implement CBT in their learning environments and using innovative ways for dealing with problems that were not envisioned by the developers of CBT policy and adapting it to suit their local conditions. Teachers are taking the new requirements seriously. They are reviewing the ways in which they have always delivered training and have made alterations to their practices. However Misko also concludes that teachers are still experiencing problems with implementing the major features of CBT and that the introduction of Training Packages may have added another element of confusion in the process of implementation.

This paper draws on the results of two recent projects conducted by the Vocational Education and Assessment Centre (VEAC) which examined current attitudes and practices of industry representatives and practitioners both nationally and in NSW, specifically about assessment.

In both of these projects respondents were particularly concerned about quality of assessment and the issue of consistency in assessment judgements. Both projects also reported great concern over the issue of grading and the desire for a return of educational policies which support grading of assessment decisions. The experience of VEAC has been that there is still confusion amongst practitioners about the key features of the implementation of competency based assessment and that further action to support the implementation of competency based assessment needs to be considered.

NOT JUST FALLING OVER THE LINE...

A NATIONAL SNAPSHOT OF COMPETENCY BASED ASSESSMENT

In 1998 VEAC was commissioned by NCVER to conduct an evaluation of the effectiveness of competency based assessment for a range of users (Dickson & Bloch, 1999). A full report of the research is available.

Three hundred industry representatives, employers, trade unions, educational managers, trainers, teachers, trainees and students and other users of competency based assessment (CBA) were surveyed from all states and territories. Respondents were generally satisfied with CBA but considered certain aspects required improvement.

Four issues emerged consistently for practitioners. These were a desire for grading of results, the need to assess knowledge as well as skills, concern about quality of assessment systems and competency standards, and the need to review resources.

A major challenge facing respondents was the need for strategies to bridge the gap between competence and excellence. Many learners, industry training advisory bodies (ITABs) and teachers, trainers and assessors considered graded assessment as a way to motivate employees/learners.

Respondents feared they were losing the teaching and learning of knowledge through competency based training and assessment. The solution identified by practitioners was that competency standards should adequately reflect the need for assessment of underpinning knowledge, skills, attitudes and ethics.

Participants in the evaluation considered that significant improvements could be made to their own practice and improve the quality of CBA. Factors identified as contributing to quality were ensuring the CBA system meets the users' needs, using the right assessors, getting the paperwork right and the quality of the competency standards.

Teachers, trainers and assessors indicated that they were aware of the large number of resources available to them but felt that very few were appropriate and usable. Employers and ITABs suggested that careful consideration of how people and paper resources were being used would add value to existing CBA practice.

This research concluded that respondents have acquired a high level of understanding and more sophisticated uses of CBA which has enabled them to articulate their concerns and suggest strategies for improvements. However the challenge remains for educational policy makers to deal with the issues raised.

MAINTAINING THE QUALITY — AN INVESTIGATION INTO SUMMATIVE ASSESSMENT PRACTICES

An investigation into summative assessment in TAFE NSW was conducted in 1999 by VEAC in conjunction with the TAFE NSW Educational Services Divisions (ESDs). (Tower, Bloch & Harvey, (to be published 2000).

The project aimed to investigate and evaluate the educational, social, cultural, political and economic influences on design, development and implementation of summative assessment in TAFE NSW.

TAFE NSW enrolls 440,000 students each year across NSW in over 1,100 major courses and qualifications in all major vocational industries and occupations. While TAFE NSW operates as 12 semi-autonomous Institutes, TAFE assessment policy and practices apply statewide. TAFE NSW qualifications are seen as having high status and are respected in industry and the community.

These qualifications range from short course programs recognised as a TAFE or Institute statement through to Certificate and Diploma level courses which lead to the award of a nationally recognised qualification issued under the Australian Qualifications Framework (AQF). All modules fall into one of four assessment categories.

These categories range from Category A where modules include a centrally set and centrally marked final examination through to Category D which are assessed by locally set and marked assessment. Where centrally set exams were previously the most common form of assessment in TAFE NSW they now account for approximately 8% of total assessment events.

Since the establishment of the four categories of assessment over 20 years ago as part of the maintenance of quality across the system, the political climate in Australia has shifted. Increased levels of industry based training as well as public education operating within a competitive environment form part of this shift.

Like other aspects of TAFE curriculum and delivery, assessment is subject to the influence of government policy, industry needs, occupational health and safety requirements (including legislation), educational best practice, economic and organisational constraints, as well as social and cultural influences.

CONTEXTUAL FACTORS BEARING ON THE ASSESSMENT SYSTEM, PROCESSES AND PRACTICES FOR A REGISTERED TRAINING ORGANISATION

Training Packages and Implications for Assessment

The introduction of the National Training Reform Agenda and its successor, the National Training Framework, (NTF) and the implementation of competency based training and assessment have been among a number of influences that has seen assessment in vocational education and training (VET) shift away from centrally set exams towards locally set activities.

Training Packages are now the cornerstone of the National Training Framework. They include sets of national industry determined competencies, qualifications and assessment guidelines as the endorsed component. They do not include curriculum or specified approaches to assessment as endorsed components required to achieve a qualification.

Current vocational education and training policy increasingly seeks to have more training conducted and assessed in the workplace with the goal of having workers trained under Training Packages to be workplace competent rather than just workplace ready. Most Training Packages assume learners will have access to a workplace in order to acquire and demonstrate some units of competency on the job. Training Packages may stipulate a requirement for assessment to be conducted in a "real life" work environment, or at the least in a simulated work environment such as off the job at TAFE or another registered training organisation (RTO).

In many areas assessment schemes or plans have had to involve more practical and simulated assessment as part of collecting evidence, with cost implications for the organisation as a whole, and for individual assessors. Vocational educational institutions are having to develop strategies to manage and provide guidance on these changes, including options for on the job assessment by qualified workplace assessors, reviewing of evidence gathered in the workplace and workplace performance modules to allow such evidence to be recorded.

Principles of Assessment

TAFE NSW assessment is governed by four key national principles. It must be fair, valid, reliable and flexible. There is a public perception that reliability can only be achieved through the use of common assessment events - such as through Category A exams. The introduction of CBT may be slowly bringing about a shift in this perception. When assessment is conducted against learning outcomes (linked to industry competency standards), these outcomes should be achievable via different mechanisms, yet still be reliable.

This coupled with the cost factor of setting Category A and B exams led to the accreditation of many TAFE NSW modules as Category C or D. It has been suggested that the increased use of Category D assessment has led to poor assessment practices by some teachers, with decreased validity, reliability and fairness of assessment outcomes. This could be partly due to a lack of understanding of CBA principles, as well as poor understanding of test construction, appropriate use of test items etc.

Some curriculum designers have suggested differing local approaches to assessment should be counteracted by state or institute wide controls to prevent students from "shopping around" for the "easiest" college, which is alleged to be common practice in some areas.

Validity and reliability also impacts on TAFE's approach to assessment. In Category A and B exams the use of an appropriately qualified setter and reviewer should ensure that valid assessment events are developed. There is evidence however, to suggest that the cost of this "content validity" is high and logistically difficult to manage. Category A exams nevertheless, do allow an analysis of state-wide activity and provide an opportunity to evaluate results across the state.

Some curriculum resources include sample or actual assessment events (even for Category D assessments). Validated item banks for assessment can provide a range of events for assessors. The initial costs for such banks (especially if computerised) can be high, but where acceptable to industry and teaching staff the use of these item banks fosters both validity and flexibility. With validated item banks the need to use a setter every time an exam is required is reduced. As flexible entry and exit into courses increases, the need for assessment to be conducted flexibly will also increase (i.e. outside exam periods). Item banks may provide a cost-effective solution in the longer term.

The issue of construct validity (how well the evidence supports the claims about the competency being measured) has also influenced shifts away from Category A and B exams in some areas. In the Retail Trades area for example, there has been a move away from Category A and B exams because of the higher level of literacy demands these place on candidates during assessment. In competencies where literacy itself is not a requirement, an assessment method that depends upon it is unfair as well as being less valid.

Industrial and legislative influences

RTOs needs to be responsive not just to government policy changes, but also to the changing needs of industry. Industry standards, codes of practice, regulations and legislation have all impacted on TAFE NSW assessment practice in most sectors.

A number of industries serviced by TAFE NSW have licensing requirements. These include the Aviation, Legal, Real Estate, Hairdressing, Electrical Contracting and Building Industries. In these fields, conditions of licensing may include the completion of a TAFE qualification with assessment activities approved by the licensing body to ensure candidates are adequately tested on knowledge and skills to meet the standard required for the license. The NSW Department of Fair Trading, responsible for the issue of licenses in the home building sector, including plumbing and construction, has outsourced the assessment component of licensing available to non-TAFE graduates to TAFE NSW via its Building Industry Skills Centre. The Joint Coal Board also conducts assessment for licensing in conjunction with TAFE NSW.

With the introduction of CBT, TAFE NSW moved to ungraded assessment in a large number of Electrical Trades modules, however because of concern about standards in the industry, modules whose content was directly linked to licensing requirements retained Category B status with centrally set assessment events conducted across the State. In Hairdressing, the industry perception of Category A and B assessments having greater reliability and validity has ensured their retention.

Some modules which have a critical component, such as some of the safety related content of electrical trades, or quality assurance aspects of book-keeping, are pass/fail - and may require a 100% pass mark. There are no degrees of competence in meeting critical industry standards.

MAINTAINING THE QUALITY — METHODOLOGY

The project was undertaken in three stages. A literature review was conducted and the project's scope determined. Surveys were conducted with teachers, educational managers curriculum developers, industry organisations, professional associations, licensing bodies and regulatory authorities. Additionally, focus group discussions with TAFE staff and students were conducted to explore a range of issues arising from the surveys. Implications of the research for TAFE NSW were drawn from the analysis of the data.

The initial scoping process involved two focus groups (one of TAFE staff, the other of industry representatives) to determine the range of issues impacting on, and relevant to, the TAFE examination system - and so enable the design of the research project brief. Both groups were asked the 'focus' question: *What do/does stakeholders/your industry want from the TAFE assessment system?*

It is interesting to note the different emphases of these groups. Below is a comparison of the six most significant issues for each group, in each group's order of priority:

TAFE Group	Industry Group
1. Consistency in high standards –rigour	1. Currency of technical knowledge and skills maintained by assessor
2. Assessment relevant to curriculum and workplace practice	2. Achieving standardisation of assessment across the state
3. Objectivity – for students and teachers	3. Results are meaningful – industry wants an indication of level of achievement, more information on what student/employee can actually DO
4. Evidence – record needs to have high level of integrity and objectivity that outsiders recognise.	4. Accessibility to assessments – alone and in Training Packages
5. Appropriate QA/QI measures in place	5. Assessment tasks relate to practical work skills – need range of sources of evidence

6. Appropriate sampling and range of evidence. Summative assessment needs to cover the range of the course. Assessment needs to reflect reality of workplace.	6. Qualifications are theoretically or practically based.
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MAINTAINING THE QUALITY — RESEARCH FINDINGS

The project had as its focus the identification and analysis of a range of influences upon summative assessment practices. The research findings clearly demonstrate the complexity and interconnectedness of many of these issues for the TAFE NSW system.

Surveys and focus group members elicited general agreement by respondents on many issues. They supported the need for assessment occurring in a combination of TAFE classrooms and the workplace, the importance of assessing underpinning knowledge and skills and the need for a variety of assessment approaches.

The following broad issues were considered to be of the most fundamental significance to the stakeholders:

- quality assurance of TAFE summative assessment (including assessment categories, consistency in assessment, workplace assessment and Training Packages)
- reporting of results and achievement (grading or competent/not competent)

Quality Assurance - Assessment Categories

Data analysis revealed that:

- Category C emerged as the most favoured by practitioners and curriculum designers (84% and 80% respectively).
- Category D was considered highly suitable or suitable by practitioners (74%) and curriculum designers (76%). At the same time significant quality assurance concerns regarding local assessment were expressed by both survey groups and the focus groups.

Quality Assurance - Consistency in Assessment

While a large proportion of survey respondents indicated that Category D was a more suitable assessment mechanism than Category A, many expressed concern about difficulties related to the perceived inconsistent standards within Category D assessments. The industry survey respondents also expressed concern about Category D in terms of its potential lack of consistency across the state.

Some respondents suggested strategies for improving the consistency of assessment based on more teacher professional development and local monitoring and verification processes. Other suggestions emphasised a continuing reliance on centrally set and marked exams or a greater emphasis on verified computer-based item banks and other standardised assessment events. Clearly there are no simple answers to improving consistency. We need to bear in mind however, the question of how much of the assurance of quality in assessment can be based on regulation and standardised procedures, as opposed to developing teachers as skilled, confident assessors.

Quality Assurance - Workplace Assessment and Training Packages

Although a high percentage of responses from all surveys indicated that TAFE NSW assessment should be carried out in both the workplace and a TAFE environment, other evidence from the research suggests that, in reality this is still not occurring to a great extent.

There are many reasons for this including accessibility of workplaces for institutional based students and the prohibitive cost of conducting assessment in the workplace in some industries.

Respondents to the survey and focus groups showed there remains an undercurrent of confusion, lack of familiarity and discomfort about the basic concepts of evidence-based assessment incorporating assessment in the workplace. As reported in research from other sectors of VET (for example Smith et al, 1998), teachers are still expressing confusion about the concept of competence.

The paradigm shift from 'precision-marking' to ascertaining competence was problematic for some teachers.

Reporting of Results and Achievement

The research indicated that despite the move towards industry competency standards over the past decade, there is still a strong desire among VET practitioners to recognise students' achievements by some form of graded result.

Industry (ITABs, unions and professional organisation) responses to this research are not conclusive. However, in contrast to the TAFE respondents, they indicated a preference for reporting TAFE results with the terms 'competent/not yet competent', with some support also for grading and marks. Previous research reported here showed support for grading by industry groups. (Dickson & Bloch).

CONCLUSION

While there has clearly been major acceptance and adoption of the concepts of competency based training and assessment in Australia, some issues remain to be resolved by RTOs, industry and governments.

Concern about assuring the quality of assessment and the uneasiness expressed about consistency in assessment have featured in both the research projects outlined here. Assuring the quality of assessment in a large RTO such as TAFE NSW is a complex process. Consistency of quality between RTOs has also gained recent prominence with the need for mutual recognition of providers. Schofield (1999, 46) in her review of the Tasmanian Traineeship System suggests that the issue of consistency in assessment may be illusory - a feature of a competency based system where those assessed as competent may display varying degrees of capability. However practitioners, education managers, industry and students have wide ranging views. There is obviously room for further exploration of this matter.

Similarly, practitioners and industry representatives continue to raise the reporting of results and the recognition of student achievement when surveyed about the progress of CBA. These two areas need further examination and consideration in the next phase of the implementation of competency based assessment in Australia.

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