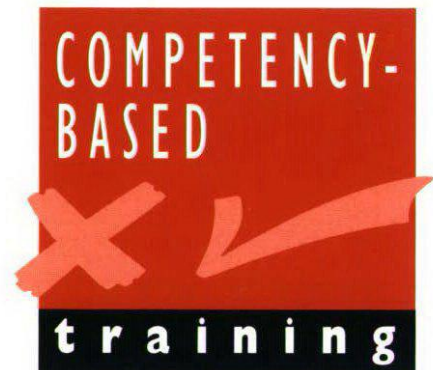


COMPETENCY-BASED TRAINING

A staff development perspective



Tom Lowrie
Erica Smith
Doug Hill



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TRAINING

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TOM LOWRIE
ERICA SMITH
DOUG HILL

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Acronyms

| | |
|---------|--|
| ACE | adult and community education |
| ANOVA | analysis of variance |
| ANTA | Australian National Training Authority |
| ANTARAC | Australian National Training Authority Research Advisory Council |
| APS | Australian Public Service |
| AQF | Australian Qualifications Framework |
| BATS | Canberra Institute of Technology, Faculty of Management and Business which has a number of departments: management and accounting, office administration (known as BATS) |
| CBT | competency-based training |
| CIT | Canberra Institute of Technology |
| HR | human resources |
| IT | information technology |
| ITAB | industry training authority board/body |
| NHR | national human resources |
| NOS | national office skills |
| NSDC | National Staff Development Committee |
| OTFE | Office of Training and Further Education |
| RCC | recognition of current competencies |
| RPL | recognition of prior learning |
| RTO | registered training organisations |
| SD | standard deviations |
| TAFE | technical and further education |
| VET | vocational education and training |
| WTC | Willson Training Centre |

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Executive summary

The rationale

Competency-based training (CBT) has had a major impact on the way in which vocational education and training (VET) has evolved in Australia in recent years. Decisions concerning methods of delivery, teaching and learning, assessment, and transferability of qualifications have been strongly influenced by a CBT environment. The VET sector accommodates a diverse range of individuals in many fields of study across thousands of technical and further education (TAFE) and non-TAFE providers. As a result, CBT means different things to different people. In general terms, however, CBT can be explained as having a focus on the outcome of training. These outcomes are measured against specific standards and not against other students and the standards are directly related to industry.

It is reasonable to assume that competency-based approaches have affected individuals in different ways considering the diverse nature of the sector. It can be argued that the greatest effects on people involved with VET have been upon instructors,¹ since they have had to change their everyday practice to accommodate CBT. Moreover, they hold the ultimate responsibility for ensuring that CBT makes a difference to VET outcomes.

The focus

The investigation examined the impact CBT has had on the role and responsibilities of instructors across the VET sector. The following five research questions were investigated in the study.

- ❖ What is the quality and nature of CBT instruction in a range of providers across Australian Qualifications Framework (AQF) levels, industry areas and geographical locations?
- ❖ To what extent are levels of understanding of CBT by instructors in the VET sector common across a range of locations?
- ❖ How have instructors adapted their practice to accommodate CBT, and how have new practices evolved?
- ❖ What are some of the staff development issues present in CBT?
- ❖ What type of staff development model can be applied to instructors in the VET sector when introducing an innovation like CBT?

A range of techniques was used to evaluate the extent to which competency-based approaches had influenced, or changed, the role of instructors across the sector. These techniques included:

- ❖ a nation-wide survey of instructors
- ❖ a detailed investigation of six VET providers who utilise CBT
- ❖ two focus groups with staff development personnel and new instructors

The *survey* was designed to assess instructors' level of understanding of CBT and provide information which can be used to interpret individuals' knowledge, beliefs, attitudes and practices related to CBT. The survey can be seen as a way of assessing the extent to which CBT has been accepted by instructors in the VET sector and the extent to which they understand the principles underpinning CBT and how satisfied they are with their progress in establishing CBT practice. Furthermore, the survey permitted the identification of a range of factors that influenced the way instructors have responded to CBT. These factors included:

- ❖ the field of study in which the instructor taught
- ❖ whether the site was a TAFE or non-TAFE provider
- ❖ the AQF level of most of the students an instructor taught
- ❖ the nature of the students

It is important to note that most of the instructors who responded to the survey were from the TAFE sector.

Case study sites were predominantly from the non-TAFE sector and included a range of different providers in different States and Territories. In most instances, data from case studies were collected over a two-day period, with the researcher interviewing several instructors at each site in both individual and group sessions. The views and perceptions of senior management and educational staff were also sought, and were taken into consideration when analysing data from each site.

Focus groups were formed to monitor and analyse staff development programs that have been run for instructors in CBT. The members of the groups included:

- ❖ State and TAFE institute staff development personnel
- ❖ managers from non-TAFE providers
- ❖ relatively inexperienced instructors from TAFE and non-TAFE providers

The results

From an analysis of this survey data it appears that:

- ❖ CBT is perceived to be well understood by instructors across the VET sector
- ❖ the degree of acceptance of CBT is moderately high in most cases, but is dependent on the field of study and the extent to which CBT was seen as appropriate to that field
- ❖ practitioners were more satisfied with their level of understanding of CBT than with aspects of their practice in CBT (for example, assessment on demand and recognition of prior learning [RPL])

- ❖ the introduction of training packages has caused instructors to revert to the kind of concerns initially encountered when faced with CBT. They consider that they need to know more about training packages and have yet to gain experience in using them in practice
- ❖ there are some statistically significant differences in the survey responses of instructors when variables including type of provider, location of provider, AQF level of courses, and nature of students involved, are taken into account
- ❖ differences between TAFE and non-TAFE instructors were common in a number of areas

Data from the *case studies* revealed that there was still a variety of understandings about the nature and practice of CBT among individuals and groups in the VET sector. At some of the sites CBT was considered to be problematic, whereas at other sites it was uncontroversial. Individual instructors' understanding of CBT was influenced by a range of factors including:

- ❖ whether they were in a TAFE or non-TAFE setting
- ❖ the extent to which they perceived CBT to be suited to their industry area
- ❖ the way in which CBT had been introduced
- ❖ the level and the nature of staff development support they had received

Focus group discussions indicated that staff development needs relating to CBT were not consistent across provider type or industry area. Teachers confirmed that their introduction to CBT was questionable and often inconsistent. In some cases (such as in Certificate IV in Workplace Training) CBT was presented as being unproblematic. In both the case study and focus groups it was apparent that the way in which new teachers first learn about CBT contributed significantly to their understanding of CBT and shaped their attitude towards it. These initial experiences did not always provide new instructors with a solid understanding of CBT. Consequently, it appears that initial staff development is one of the most critical phases in an instructor's understanding of competency-based approaches, and that strategies need to be provided for new instructors in order for them to cope with the challenges posed by CBT.

Conclusion and implications

Findings from the three levels of inquiry showed that the level of understanding of CBT is consistent across the VET sector. However, CBT is practised in a variety of forms that reflect the industry and organisational context of the staff and students involved. In general terms, instructors from non-TAFE providers have a more positive view of competency-based approaches than that of instructors in the TAFE sector. It could be argued that many non-TAFE providers have been able to shape CBT practices to a teaching-learning environment that suit their 'competitive' needs more easily than that of TAFE providers. TAFE teachers, for example, appear to be experiencing more difficulty introducing competency standards into their courses than instructors in the non-TAFE sector are. On the other hand, many non-TAFE providers

have indicated that a CBT framework is conducive to the training approaches they use.

Instructors who indicated that a CBT framework suited their particular field of study were more likely to have a positive attitude toward CBT in general. An implication of this is that any new innovations in the sector need to address educational and philosophical ideas associated with specific fields of study in order to gain acceptance in the future.

Modifications and adaptations to practice were more likely to occur across provider type (in this case, TAFE versus non-TAFE sectors) and course level (differences across AQF levels). Instructors in the TAFE sector were more likely to modify competency standards and assessment criteria in courses which they taught than non-TAFE instructors. In other words, TAFE providers, who found it more difficult to have their courses based on competency standards and linked to assessment standards, modified their practice more frequently.

It was apparent that instructors appreciated having a variety of avenues for staff development. Moreover, there was a diverse range of preferred staff development options among instructors in the sector. With respect to developing an understanding of CBT, informal *on-the-job experiences* and *collegial support* were considered to be most influential in shaping many instructors' attitudes and understandings. Generally, other factors, including *initial staff development* and *initial teacher preparation*, made a strong contribution to the way in which teachers/trainers attempted to implement CBT. The way in which new teachers first learnt about CBT tended to shape their attitude toward it.

Staff development that met the immediate needs and concerns of instructors was seen as valuable in the early stages of the implementation of CBT. Furthermore, staff development in a teachers' industry area may be just as important as staff development in teaching. It also appeared that action-learning methods for staff development are as yet unproven in their efficacy.

The study proposes two models depicting staff development relating to externally driven innovations in the VET sector. One model relates to the different levels of responsibility for implementation of the innovation and different phases of implementation and interaction with external stakeholders. The second model describes factors which affect individual instructors' engagement with staff development activities.

1 Introduction and literature review

In this study we examine the impact competency-based training (CBT) has had on the role and responsibilities of instructors across the vocational education and training (VET) sector. The research methodology included a nation-wide survey, a detailed investigation of six providers, and round-table conversations between staff development personnel and new instructors.

The implementation of the CBT model of teaching and training in the VET sector has been a difficult one. It has involved changes in the relationship between VET and industry, particularly in the introduction of industry competency standards as the basis for VET curriculum, in the way in which curriculum is developed, and in the way in which curriculum is delivered and assessed. Although the definition of CBT is contested and its practice varies from provider to provider, and from teacher to teacher (Smith et al. 1997), there are enough common elements to enable CBT to be studied as a single phenomenon.

Although there is no agreed definition of CBT, the research team used a set of 14 criteria identified by Smith et al. (1997, p.3) in a previous study of CBT. The following set of key points was common in most definitions of CBT. These points included the:

- ❖ focus of training is on the outcome of the training
- ❖ outcome is measured against specific standards, not against other students
- ❖ the standards relate to industry

This study was commissioned by the National Centre for Vocational Education Research (NCVER), through the Australian National Training Authority (ANTA), and was carried out by Charles Sturt University's Group for Research in Employment and Training. It was designed to evaluate the effects that CBT has had on the role of instructors in the VET sector. The changes brought about during the 1990s by the adoption of CBT have impacted upon everyone working in the VET sector. It can be argued, however, that the greatest effects have been upon VET teachers and trainers, since they have had to change their everyday practice to accommodate CBT. Moreover, they hold the ultimate responsibility for ensuring that CBT makes a difference to VET outcomes. For the purposes of this study we will use the term instructor to cover teachers and trainers in the VET sector.

There is an extensive body of literature on CBT. In this literature review we have not focussed on issues that have already been investigated in the recent past. Smith et al. (1997), for example, provided a comprehensive review of a number of areas specifically related to CBT. These issues included:

- ❖ definitions and CBT
- ❖ the effects of CBT on curriculum, teaching, learning and assessment
- ❖ the effects of CBT on teachers' and learners' roles
- ❖ the effects of innovation upon organisations and groups of practitioners

For the purposes of this study we have focussed on staff development issues as staff development is a means of addressing the way in which an instructor's role has changed in the VET sector since the introduction of CBT. Although CBT was the catalyst for change in the sector, we have gone beyond this framework and examined the entire change implementation process. In other words, we have used CBT as an example to examine the process of innovation in the VET sector. The literature review helps to inform the model developed in the study and examines:

- ❖ the effects of CBT upon the role of VET teachers and trainers
- ❖ teachers' staff development
- ❖ models of staff development
- ❖ the professional development of professional workers
- ❖ recent research into staff development in VET
- ❖ the utility of existing models of staff development for VET practitioners

The effects of CBT upon the role of VET teachers and trainers

It is generally accepted that the role of the teacher has changed quite markedly with the large-scale introduction of CBT. The change has been described generally as moving from an 'up-front teaching' model to a 'facilitator' model (e.g. Harris et al. 1995, pp.270–271). The assumption behind this description is that, under CBT, students are more likely to be using self-paced learning materials which they will work through on their own with assistance from the teacher and also that, under CBT, students have clear knowledge of the required learning outcomes and hence power is shared more equally between student and teacher. While these assumptions are highly debatable, research has shown (e.g. Smith et al. 1997) that some such shifts have taken place. It would be expected that those teachers accustomed to the 'up-front teaching' model would experience some discomfort, and indeed it was pointed out even before the 1990s 'version' of CBT (Hobart & Harris 1980) that teachers might not welcome the prospect of becoming, in effect, a 'resource person'.

It is comparatively easy—and common—to dismiss teachers' discomfort as representing merely an unwillingness to adapt to change. Such responses have been analysed with reference to various models of organisational and individual change (e.g. Klein & Sorra 1996; Stenhouse

1975; Hord & Huling-Austin 1986, in Smith et al. 1997). Teachers' discomfort has often been associated with other radical changes in teachers' and trainers' working conditions, such as other features of training reform like the opening of the training market, and re-organisations of State and Territory technical and further education (TAFE) systems.

However, instead of viewing teachers' problems with adopting CBT as resulting merely from inflexibility and fear of change, it is possible to discern more concrete reasons why the change to CBT proved difficult for teachers. In some cases the practices they were asked to carry out were in fact educationally unsound. This was often a result of early interpretations of CBT which had not yet utilised holistic assessment practices. For example, Robinson (1993) documents the case of a TAFE cookery teacher who was required to assess students who were making a béchamel sauce by means of a checklist, instead of assessing the final product and the whole process. When faced with such demands, teachers' confidence was undermined and some teachers withdrew from certain aspects of CBT (Smith et al. 1997).

Lack of preparation and staff development was another common cause of teachers' difficulty with CBT. Thomson et al. (1990) pointed out, early on, the need for effective staff development in CBT; yet Smith and Nangle (1995) and Choy (1997), amongst others, have documented evidence of teachers having received inadequate training in how to use CBT. CBT staff development has seemed to concentrate upon 'big picture' information on training reform rather than upon teaching strategies. There have been some successful staff development strategies such as the CBT in Action scheme (Kelleher & Murray 1996), based on action-learning principles, but these initiatives have reached only a small proportion of VET practitioners.

The Australian National Training Authority Research Advisory Council (ANTARAC) project *Making a difference? How competency-based training has changed teaching and learning* (Smith et al. 1997), which Charles Sturt University's Group for Research in Employment and Training carried out, investigated how CBT has changed teaching and learning. It was discovered that CBT practice varied widely and that instructors' attitudes and behaviours were heavily influenced by the context within which they were teaching.

In particular it found that selection of CBT features for a course depended upon industry area, Australian Qualifications Framework (AQF) level and type of provider. In addition, within TAFE systems, different States and Territories had different policies with relation to some matters such as the use of non-graded assessment. Beyond these differences, however, the way teachers used CBT varied even where the 'mix' of CBT features was the same. Teachers' attitudes towards CBT, their sensitivity to the needs of their students and the resources available all affected the way in which CBT was used.

The project report (Smith et al. 1997) and various articles by the project team released since the report's publication (Smith & Lowrie 1997; Smith

1997b) made many comments about the role of teachers working with CBT and the extent to which this role differed from conceptions about the 'normal' role of teachers. The report also revealed that many teachers were diffident about their ability to work effectively with CBT, but that this was at odds with the many success stories of working with CBT. The project implications included that:

- ❖ there was still a great need for staff development in CBT, which needs to be targetted to certain specific issues
- ❖ staff development should address explicitly the changing role of the teacher
- ❖ good practice in CBT should be shared within and between providers
- ❖ providers should recognise the increased need for time spent on team meetings as a result of CBT
- ❖ self-pacing creates an enormous number of challenges for teachers
- ❖ some issues, like assessment, still need more policy work
- ❖ training packages may create many new staff development needs
- ❖ teachers need to learn how to teach students how to learn
- ❖ sometimes teachers were using CBT effectively but their college administrative systems were unable to cope with CBT requirements
- ❖ there were difficulties where one section of a college was using CBT and other sections were not (Smith et al. 1997, pp.87-94)

Finally, it is important when documenting changes to teachers' roles to understand that our understanding (and teachers' understanding) of the changes are affected by beliefs about what it is 'normal' for teachers to do, and also by what individual teacher's practices were before they began to change. The changes for some teachers to CBT practice may not have been as great as for others. Several teachers in the *Making a difference?* study maintained that their teaching had not changed much because their previous practice contained many elements of CBT (Smith et al. 1997). This may, of course, have represented 'true' or 'false' beliefs about both their previous practice and about what CBT consisted of. There is similar confusion about what is 'normal' for teachers to do. Smith (1997a), in a paper based on the *Making a difference?* study, examined changes to teachers' practice under CBT, using models proposed by Fenstermacher (1986) and Millar and Sellar (1985).

Teachers' staff development

In order to develop a deeper understanding of the implications of changes in teachers' roles, and of the links between these changes and staff development, it is necessary to examine the literature on professional development and staff development in training.

One problem with the professional development literature is that it is voluminous (Barton 1992) but that it lacks a theoretical framework (Rosenholtz 1989). A first difficulty is the definition of terms. Professional development and staff development are often used interchangeably as terms (Fullan 1992). Fullan defines professional development as:

the sum total of formal and informal learning experiences throughout one's career from pre-service teacher education to retirement.

In this definition the viewpoint is clearly that of the individual: generally, by contrast, staff development is used to describe activities which regard individuals in terms of their utility to the organisation in which they work.

Individual or collective?

Thus one point of contention in the professional development/staff development literature is whether the purpose of staff development and professional development is to serve the individual or the institution (Guskey & Huberman, 1995). Some writers (e.g. Stevenson 1987; Turbill 1993) maintain that 'staff development' as a term relates more to collective development of a group of (school) staff. Its focus is more on the needs and interests of the school than the needs and interests of the individual. It is suggested, however, that staff development can relate to the interests of the individual, of interest groups, and of the whole school. Clearly if different perceptions are held about who is supposed to be served by staff development, conflicts can arise.

A common purpose of staff development is to introduce changed curriculum, often because of political agendas (Little 1989). This is generally perceived as relating to the needs of the institution rather than the individual. Staff development related to CBT sits comfortably within this context. In school education, the focus is held to have shifted from this to one of 'improved' teaching practice, often with an emphasis on equity and on school improvement. Sykes (1996) suggests that the focus on improved teaching practice has two strands: one to do with the nature of teacher learning and the other to do with change in the whole school environment, where professional development is seen as a reform process. In the latter dialogue, concepts of systems theory (Senge 1990) and of organisational learning (Field & Ford 1995) become relevant. In reality, of course, these different foci—external stimuli, teacher learning, whole school development—are all present at the same time, although one or another may be emphasised at different times.

Deficit or growth?

Another theme in the literature is the tension between 'deficit' and 'growth' models of learning (Guskey & Huberman 1995). Is there an assumption that the teachers 'lack' something which can be 'fixed' by development, or is there an assumption that the purpose of development is to improve on teachers' already expert practice? In this context, status and power and questions relating to the ownership of knowledge are raised (Barton 1992). In growth models there is an assumption of partnership between those who provide the staff development and those who undertake it. It could be argued that the staff development associated with CBT was based strongly on a deficit model. This arose from two factors. Firstly, because teachers possessed almost no knowledge about CBT it all had to be given to them. Secondly, because the way in which CBT was presented to the VET sector was that the 'old'

way of teaching in VET was deficient and that the 'new' way was totally different and much better. No acknowledgment was made in official literature of the excellent work already being done by many VET teachers. The use of the deficit model may partly explain teachers' resistance to CBT.

Models of staff development

Different educational orientations inform a number of different conceptions of staff development. Models can be broadly classified into four groups:

- 1 those which are primarily concerned with the transmission of an agreed body of factual knowledge, skills and attitudes
- 2 those whose main focus is on the construction of meaning and competence by the individual as a result of active involvement in a range of transactions
- 3 those which focus on the transformation of individuals and increasing their ability to critique and take control of their situation
- 4 those which are eclectic and embrace aspects of 1-3 above

This classification is based on the writings of Zais (1976); O'Neill (1981); Kemmis et al. (1983); Millar and Sellar (1985) and Candy (1989).

Sometimes different approaches might be needed for different purposes. To use an example from the VET sector, in the NSW TAFE 'Emerging Practices in a Flexible Learning Organisation' project, which examined flexible staff development for flexible delivery (ANTA 1997a, pp.28-31), a primary focus was on individual teachers' preferred learning styles, which sits within the second model described above. There is an argument that the nature of staff development activities should be varied: not only to ensure that all participants receive some inputs that accord with their preferred learning style, but also to ensure that all participants are exposed to a range of styles in order to widen their effective access to new learning.

Forms of staff development for teachers

Staff development can involve many forms (Retallick 1993). These include:

- 1 education and training using structured learning activities in group situations
- 2 peer-supported collaborative sharing, e.g. action-learning sets
- 3 coaching, consultancy, mentoring and advising
- 4 formal self-development of the individual e.g. shadowing, self-paced instruction or study for a university qualification
- 5 informal learning in the workplace

Retallick (1993, p.40) reported that teachers differed in their preferences for sources of help in meeting their staff development needs, finding that on-the-job experience and reflection were most highly rated and study

for a formal award least desired. These findings related to schoolteachers only, but may have relevance for the VET sector.

There is much discussion in the literature about the relative merits of the different forms of staff development. The 'one-shot' course or workshop, often referred to in teaching as an 'in-service', is commonly associated with a 'deficit' model of learning: there is something that teachers do not know, and the short course will give it to them. Fullan (1991) suggests that this type of staff development is generally unsatisfactory, although Maxwell (1993), in a New South Wales study, found that the method does have value in certain circumstances. A 'support' or 'training' model (Barton 1992) involves support for teachers in their workplaces as they try to implement what they have learned on the 'one-shot' training course (Invargson 1987).

Action learning is becoming increasingly common as a means of staff development for teachers, commonly linked with action research (Kemmis & McTaggart 1982). This type of learning has been linked with increasing collegiality amongst school staff (Little 1982). Learning from colleagues, which may or may not be linked with action-learning 'programs', is a common method of teacher learning for certain teachers (Rosenholtz 1989). In general there is a move to accord workplace learning of various types a high status. This status is bound up with notions of time on task, authenticity and the recognition of the profession. In addition it may be related to the shortage of funds to provide more traditional forms of staff development using experts.

Communication of knowledge about practice

Tillema and Imants (1995, pp.136–137) consider that one function of staff development must be the construction and communication of validated knowledge. They contend that this can be done in two ways: The utilisation of research-based information or the production of information through active inquiry. This is of particular interest for professional development in CBT, given the lack of published information about how CBT is practised, mentioned earlier. If staff development in CBT is not based on validated knowledge about the practice of CBT, then teachers are unlikely to regard the development program as being of much use.

There are two ways in which this 'knowledge' can be gathered. Teachers can be informed about relevant research (Huberman 1991) which can be used as arguments for reconsidering the way they teach (Fenstermacher 1986). Alternatively they can carry out research themselves, which may lead to a narrower focus but has the advantage of involving the teachers themselves in knowledge construction (Cochran-Smith & Lyttle 1990). The wide variation of CBT practices (Smith et al. 1997) presents arguments for both forms of knowledge gathering. Informing the teachers about research enables them to see the different possibilities of CBT teaching; but carrying out research themselves in their own environment enables them to understand better the way in which they and their colleagues utilise CBT, and therefore enables deeper learning from development activities. Sharing of information about practice is one

of the major features of 'the learning organisation' (Kim 1993). In a learning organisation, knowledge acquired by individuals is shared with colleagues and also committed to organisational 'memory' via procedures, manuals etc.

The importance of seeing results in students' learning

A special feature of staff development for teachers that does not apply in quite the same way to other workers is that teachers are concerned about not only changes in their own performance but also in their own students' performance. Guskey (1986) suggests that teachers' beliefs and attitudes only change after they have received evidence of changes in student-learning outcomes. This has particular implications for CBT as, for a combination of reasons, very little evidence can be gathered as to whether CBT has improved student outcomes (Smith et al. 1997). There is, on the contrary, some anecdotal evidence that CBT has depressed students' learning, or at least that teachers believe it has (e.g. Cornford 1996). Given this situation, Guskey's model would suggest that it would be difficult to change teachers' practice to incorporate acceptance of CBT.

Teachers' learning and development

Another strand of staff development literature examines the way in which teachers as individuals learn and develop. This strand uses different learning theories; for instance, adult-learning theory such as Knowles (1984) and McCombs (1991) and applies them specifically to teachers.

Cognitive theories

Over the last two decades cognitive accounts of the way people learn have become widely accepted; they highlight the importance of prior knowledge and experience in the process of interpreting and organising new information (Driscoll 1994; Woolfolk 1990). These insights are important when considering the task of learning to think and act in new ways in response to changed demands in the workplace. From this perspective learners are seen as active processors of information.

Smyth et al. (1987) have described the way in which prior knowledge has a top-down influence in terms of what we select to attend and how we interpret new information gathered as a result of such attention. New information is organised and classified; relevant old information must be retrieved to aid interpretation, the elements of the old and the new must be held in temporary store while the new construction is assembled and decisions made, and a record of what has occurred becomes part of the store of information that is held for future use (Smyth et al. 1987, p.7). Individuals integrate knowledge into schema which are heavily influenced by the culture in which they live and work (Leahy & Harris 1997). In the case of teaching, teachers' schema may include teachers' ideas about curriculum, the aims of education, effective practices and assessment. This has implications for staff development since new ideas

and practices will inevitably be filtered through the lenses of past practices and experience.

Life-cycle theories

Another way at looking at teachers' individuality in their professional development is the utilisation of life-cycle theory, examining teachers' learning and teachers' own lives (e.g. Huberman 1988). Nias (1986) gives an account of teacher development in terms of phases—from survival, to consolidation and then extension of teaching. Fessler (1995, pp.185–186) summarises a number of such models and proposes a new eight-stage 'career cycle':

- ❖ pre-service
- ❖ induction
- ❖ competency-building
- ❖ enthusiastic and growing
- ❖ career frustration
- ❖ career stability
- ❖ career wind-down
- ❖ career exit

He suggests that the cycle is affected by two sets of factors: personal environment and organisational environment.

The general argument of life-cycle theories is that staff development will have different effects upon teachers at different life-cycle stages. For example, new curriculum methods might be expected to be embraced more enthusiastically or, conversely, opposed more vigorously, by teachers in the 'enthusiastic and growing' stage, while teachers at a wind-down stage might be expected to have a more neutral attitude to new methods and the associated staff development activities.

Teachers' workplace learning

Hargreaves (1988) argues that teaching quality is heavily dependent on the context within which teachers operate. He states (1988, p.211):

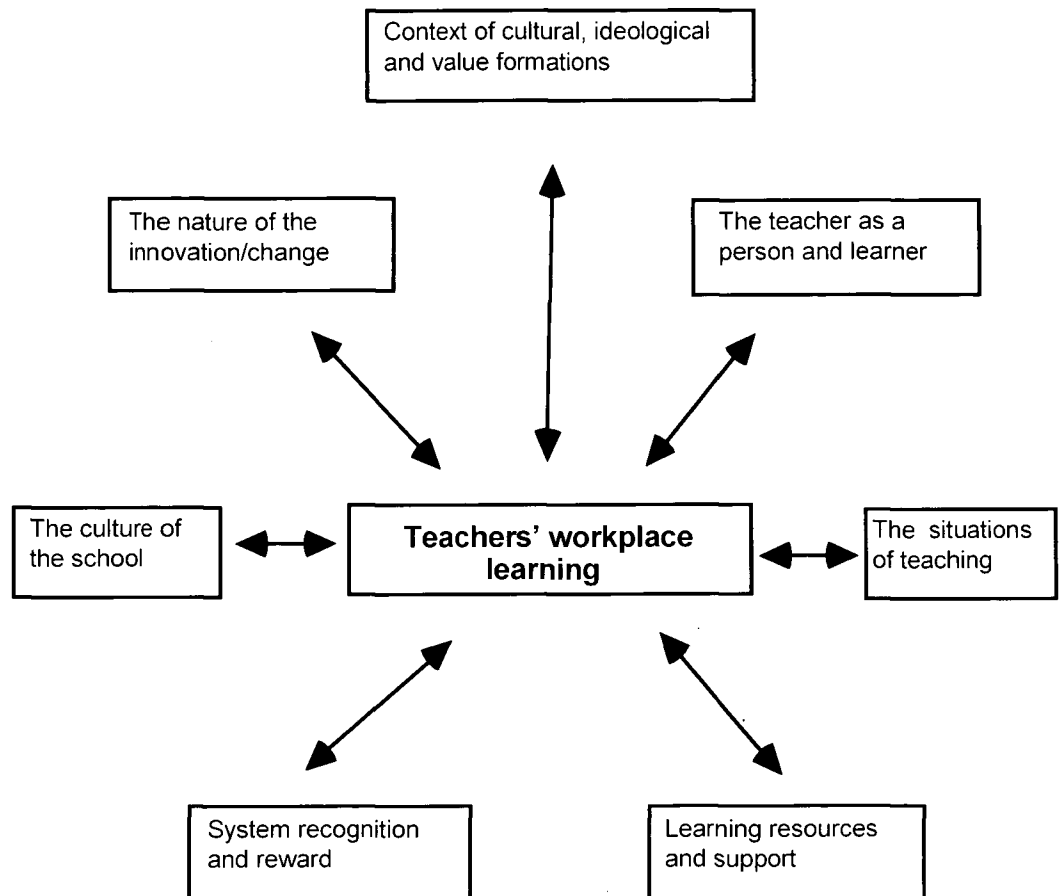
I want to argue that much of what we call teaching quality (or its absence) actually results from processes of a social nature, from teachers actively interpreting, making sense of, and adjusting to, the demands and requirements their conditions of work place upon them.

In other words, the effectiveness of the individual teacher may be constrained by organisational imperatives and the teachers' interaction with these imperatives. Some organisations are thus more likely to produce high-quality teaching than others are.

The culture of an organisation is of great importance in the effective implementation of teacher staff development (Campbell 1997; Hopkins 1994). It therefore becomes of especial significance where learning in the workplace is emphasised, where teachers are expected not only to practice what they have learned, but also to receive their staff

development, within their own workplace. Where the culture of the workplace is not conducive to learning, programs such as action learning are unlikely to work, and teachers whose employers have opted for internal rather than external staff development programs are likely to be severely disadvantaged.

Retallick (1993) proposed a model of teachers' workplace learning (figure 1.1) which depicts the many factors which impact upon the effectiveness of teachers' workplace learning.



Source: Retallick 1993

Figure 1.1: Contextual model of teachers' workplace learning

Although this relates to school education, it has relevance for the VET sector as well. Workplace learning has a number of advantages, such as the ability to work on particular problems in particular workplaces, the ability to contextualise learning, and the lack of problems associated with transfer of learning. However, there are disadvantages too. Apart from the difficulty of ensuring favourable conditions in each of the factors in this diagram, workplace learning has a further disadvantage. Where the majority of learning takes place within one context, teachers can lose not only the broader picture of practice in the profession but also the ability effectively to critique practice within their own workplace (Brennan & Smith 1997, p.179).

The special nature of staff development for VET teachers

Much of the discussion so far in this literature review has been taken from school education literature. Although much is to be learned from this literature, it cannot be transposed unaltered directly to the VET situation. Staff development practices for VET teachers and trainers differ from those for schoolteachers in many ways because of the differences between schoolteachers and VET teachers and trainers.

Firstly, there is a much greater diversity of teachers in the VET sector. Teachers and trainers work for a variety of providers, who have different cultures, aims and customs. Many instructors work entirely within enterprises (i.e. organisations which produce goods or services), which are very different from education providers. Increasingly, individual teachers are being required for various reasons to cross the boundaries between different types of provider, so that staff development programs need to prepare teachers explicitly for this movement (Smith & Keating 1997). In contrast, in school education, Freeman Butts (1955) described Australian school education in terms of efficiency and uniformity. Teachers moved around between schools in the State systems on a regular basis and schools thus shared a common culture which was reinforced by the inspectorial system. Maclaine (1974) echoed this view, as have more recent writers. For example Beare (1987) argued that organisational practices with an emphasis on uniform standards and efficiency are a powerful influence on teachers' thinking about their work. Although schools in Australia are beginning to gain more autonomy in some areas of operation, they are still controlled in the main by national and State policies and procedures.

Secondly, the VET sector, more so than the school education sector, relies to a great extent on part-time and casual teachers (Smith & Keating 1997, p.191). It is commonly stated, for instance, that around half of the NSW TAFE provision is delivered by part-time staff. Part-time teachers in TAFE and many teachers working for other providers have not been required, in the past, to have teacher-training qualifications, so that many people undertaking 'initial' teacher training may in fact be experienced practitioners. There is not such a clear boundary between initial teacher training and 'staff development' as there is in school education (Smith 1997c). The VET labour market differs in another way. In some States, even full-time TAFE teachers are increasingly being employed on limited-term contracts. For instance, 35 per cent of Victoria's TAFE teachers (full-time equivalent) are on contract, with one college having as many as 80 per cent of its teachers on fixed-term contracts (*Campus Review Weekly*, March 11-17, 1998). To describe staff development in terms of career cycles is not, therefore, always appropriate in the VET sector.

Thirdly, VET teachers and trainers do not come to education as their first job (Chappell & Melville 1995). They always have experience and training in another job first; in the case of TAFE teachers this is normally a trade or profession of some sort. This has several effects. They generally

have a strong commitment to a field of occupational practice (e.g. carpentry or social work), as well as to their teaching. In addition, they are generally older than new schoolteachers, familiar with the concept of career change, and may have a wide variety of life experiences² (Chappell & Melville 1995, p.10).

Fourthly, VET teachers need to monitor closely developments in the industry area in which they teach. Thus a small but important area of VET teacher development is the 'return to industry' concept (Smith 1997c), where teachers work for periods of time in the industry area in which they teach in order to familiarise themselves with recent developments. While this issue has not been a focus of much interest in the literature, some research has recently been done in this area (Holland & Holland 1998).

Fifthly, it has been argued, in addition, that VET favours a particular type of teaching style. Maglen (1997, p.ix) argues that VET 'involves a combination of learning from experts and learning by doing'. He maintains that the 'learning from experts' is related to VET's roots in the apprenticeship system, which involved transmission of knowledge and skills from an 'expert' master to a 'novice' apprentice. The implication here is that VET fits most naturally under the 'transmission' model of teaching (Millar & Sellar, 1985). Chappell and Melville (1995, p.10) also argue, in a similar vein, that TAFE teachers have a 'utilitarian view of education'. While these are controversial contentions, they are supported, at least for 'trade' areas, by research by Mulcahy (1994), who found a difference between trade teachers (steeped in the apprenticeship tradition) and child-care teachers in their acceptance of the more equal power relations which, it has been argued, are conferred by CBT. If it is true that some VET teachers have strong personal beliefs in 'transmission teaching', then staff development of these groups of teachers may face particular challenges—both in persuading them to change their way of teaching, if necessary, and in encouraging them to learn themselves in non-transmission ways. This is not to deny that transmission teaching has a useful role both in VET teaching and in staff development of VET teachers. It does, however, suggest that action learning and similar staff development activities may not be appropriate for some teachers, such as trade teachers.

The 'world' of VET has changed remarkably since many VET teachers had their initial teacher training (Smith & Keating 1997). Full-time TAFE teachers trained more than ten years ago were likely to:

- ❖ have had only diploma-level teacher training rather than a degree
- ❖ have received training appropriate for a non-commercial rather than commercial environment
- ❖ have been trained to use a syllabus rather than to be involved in developing a curriculum
- ❖ expect to teach students face-to-face in groups rather than to employ different methods of delivery

Although it is commonplace to state that initial teacher education, in education in general, is often inadequate (e.g. Wood et al. 1981), it is

probably fair to say that the changes in VET have exceeded any found in school education, and therefore that TAFE teachers who received their initial teacher education before the 1990s are especially disadvantaged. This is not the fault of earlier teacher education programs but the result of rapid change.

In addition to the changes in their own sector, VET teachers need to keep up to date with changes in the industry sector for which they prepare or upskill workers, and in some industries the rate of change is very rapid. In some cases, industries have all but disappeared and new ones have emerged (Dunphy & Stace 1992). Finally, the entry of competition into the VET system has meant that TAFE colleges are increasingly unlikely to recruit new full-time staff, meaning that colleges need to concentrate on developing existing staff, and on developing part-time staff who have not in the past been required to undertake 'initial' teacher training. This increased emphasis on staff development of existing staff rather than on initial teacher training has also been noted in the school education sector (McLaughlin & Marsh 1990).

The professional development of professional workers

It is of some relevance to examine briefly the professional development of groups of professionals within society and the economy since teachers are commonly viewed as a group of workers with much in common with professionals. Such groups include lawyers, doctors and accountants. These groups of workers are normally trained initially by the government at the public expense, but once qualified their development is seen to be their individual responsibility. The professional associations which are responsible for licensing these workers to practice normally provide or broker professional development opportunities. They also lay down rules for the amount of professional development which is required for the individual to continue to practice. For example, pharmacists are required to acquire 20 continuing professional education points each year. A weekend seminar, for instance, would earn 15 points (Smith 1996, p.213).

If VET teachers are becoming less likely to have a lifetime job with one TAFE system and more likely to move between a variety of providers, then they may begin to view themselves as having more in common with professionals. They may begin to take more responsibility for their own development (whether by choice or by necessity), but without the regulation imposed by professional associations other means may emerge to ensure that teachers are appropriately qualified and update their knowledge.

The use of enterprise-training perspectives

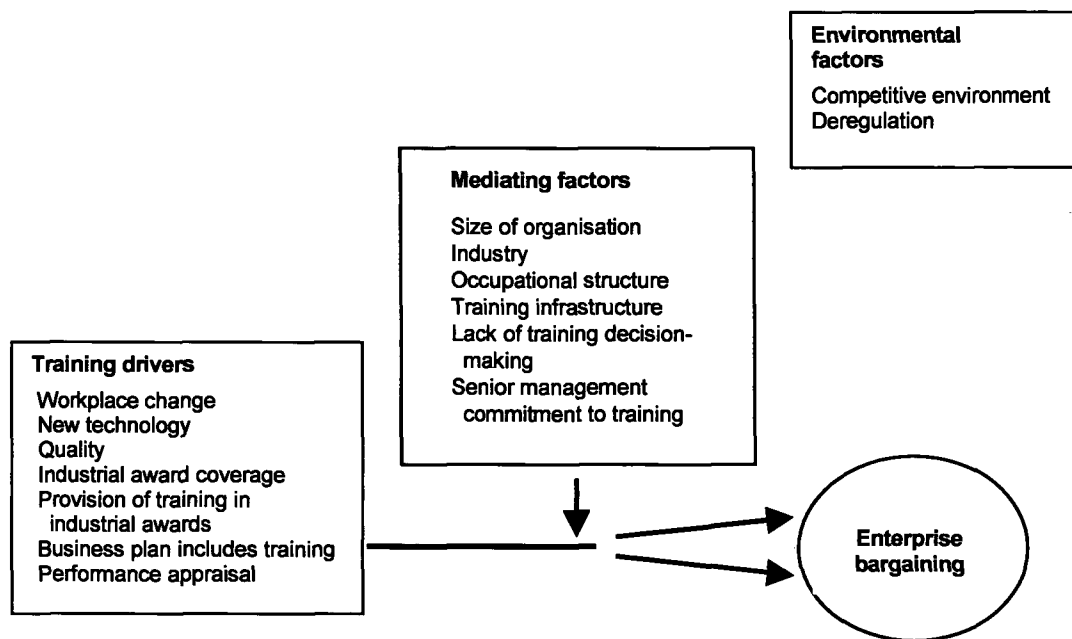
A further perspective which can be brought to bear on the professional development of VET teachers and trainers is that of recent research into enterprise training. Most literature on development of teachers ignores this important body of work. Tillema and Imants (1995) suggest that in

literature on professional development of teachers there is a trend to separate 'training' from 'professional development' and that the term 'training' has even acquired a negative connotation with regard to teachers' professional growth (Sparks & Loucks-Horsley 1990). Tillema and Imants suggest that this dichotomy is more marked for teaching than for other professions. There is a suggestion in the literature that 'training' is used only for the development of specific skills, and that it is rarely useful in teacher development because it does not take account of teachers' existing skills and experience and their perception of the usefulness of the skills to be developed (Griffin 1990). These arguments seem to represent a view of 'teaching' as a craft which is somehow different from other crafts (such as nursing, carpentry or retailing). They both overestimate the 'differentness' of teachers and underestimate the complexity of other jobs and of the learning experiences of those who learn jobs for which 'training' is the term used for development.

It could be argued that literature on 'training' has less relevance for schoolteachers because training literature tends to see training as closely linked with management and human resource (HR) management in particular enterprises (e.g. Smith 1998). Schoolteachers are commonly employed not by individual schools but, in Australia, by State education systems. However, for VET teachers and trainers the picture is very different. VET professionals working for non-TAFE providers—community, commercial, industry and enterprise—are generally employed by the individual providers; and even in State TAFE systems there is an increasing tendency for colleges or institutes to be regarded as independent entities. This is exemplified in the Victorian situation where TAFE colleges are to all intents and purposes independent, commercially focussed enterprises. In this context the literature on enterprise training becomes of much relevance for examining the development of teachers.

Hayton et al. (1996) and Smith et al. (1995) in a series of case studies of enterprise training in Australia suggested a number of factors which affect enterprise training. The following diagram (figure 1.2) summarises the findings from both phases of the study.

The figure illustrates only those factors which were tested in the research, and Hayton et al. (1996, p.68) emphasise that other factors could be included, such as organisational culture. Many of the factors in the model have ready application to the VET sector. For example, in some States the TAFE teaching award or enterprise agreement relates teachers' pay to the achievement of particular staff development milestones. Workplace change, new technology and quality systems have all had a huge impact on most, if not all, VET providers, and have led to extensive staff development activities.



Source: Hayton et al. 1996

Figure 1.2 Enterprise-training model

The use of such a model of enterprise training is instructive when applied to VET staff development. When compared to the Retallick (1993) model it is evident that the Hayton et al. (1996) model places much more emphasis upon business, industrial relations and work organisation factors, as well as the effects of introduction of new technology. These factors are all important in training of VET staff but are often unacknowledged in traditional 'professional development' literature, although Smyth (1995) has discussed the labour process of teaching and its connections with professional development. Of particular note are the environmental factors of competition and deregulation, again of vital importance in the VET sector. The added depth given to issues of teacher development by the addition of this enterprise-training focus is a powerful argument for greater consideration of enterprise-training literature when discussing staff development in the VET sector.

The history of staff development in VET

Staff development initiatives in VET in the 1990s have followed a particular path. Before the 1990s the VET sector was not seen as a coherent entity, and national attention was concentrated on TAFE alone. TAFE full-time teachers generally received VET teacher training after starting work with TAFE, and part-time teachers were offered a variety of short 'instructional techniques' courses on a voluntary basis (Smith & Keating 1997, p.193). Each TAFE system had a central staff development unit which offered a variety of courses, generally with first preference for access given to full-time teachers.

The restructuring of the VET sector and the entry of new providers has caused a change in staff development provision. State and Territory systems have become much less likely to support their full-time teachers through full degree programs in VET teaching. Part-time teachers have become more likely to undertake degrees in teaching at their own expense. Teachers and trainers from different types of providers have joined TAFE teachers in these programs. Some large organisations and groups operating in the VET market have developed staff development programs: examples are the adult and community education (ACE) sector and the former SkillShare association. State and Territory TAFE systems decentralised many of their staff development responsibilities to institute or college level (Smith & Keating 1997; Mathers 1997) in line with general decentralisation processes, although there is some evidence of a reversal of this trend.

The National Staff Development Committee (NSDC), a committee of ANTA, initially responsible only for overseeing TAFE staff development, took on the role of encouraging staff development in the whole VET sector. However, in 1996 the NSDC was disbanded, and its activities were subsumed under ANTA's project funding. It was decided that only a limited number of national staff development projects would be funded (Smith & Keating 1997).

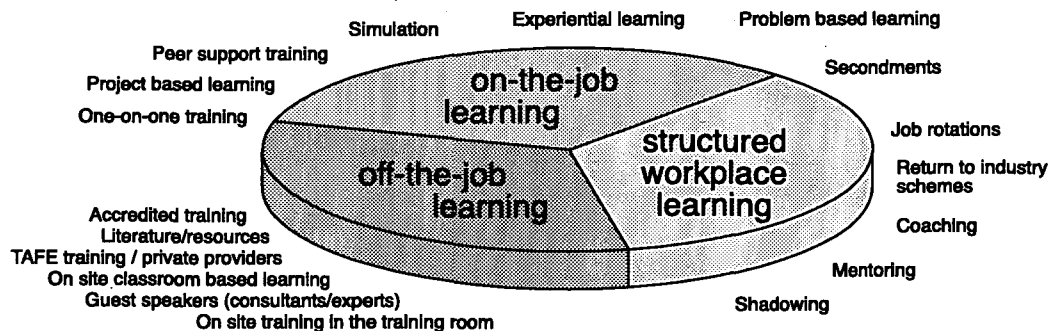
A further development in the staff development scene for VET practitioners was the introduction of workplace trainer competencies. These competency standards initially covered levels I and II, with a third introduced in 1999. Workplace Trainer level 2 is attained through completion of a Certificate IV in Workplace Training, offered by a variety of providers, and has fast become the standard minimum qualification for workplace trainers and also for some TAFE systems (Mathers 1997). A criticism of these standards is that their narrow focus on instruction means that they are appropriate neither for the full range of the workplace trainer's job (Smith 1998) nor for the VET teacher operating in an institutional environment (Mathers 1997). Moreover, a research project (Griffin et al. 1998) into users of the Workplace Trainer Competency Standards indicated that many providers delivering the Certificate IV were unfamiliar with the competency standards and inexperienced in assessing against the standards. Many VET practitioners also have a workplace assessor qualification, either as part of a workplace trainer certificate or attained separately. Griffin et al. (1998) found a similar lack of knowledge and understanding amongst providers of this qualification.

The current ethos of staff development in VET

In the VET sector at present a particular view of staff development is favoured by ANTA and by State and Territory TAFE systems. This view is based on what is described as 'work-based learning' and favours action-learning programs by groups of practitioners. The progression of this concept through the 1990s can be traced with the major funded staff development initiatives (figure 1.3).

other forms of work-based learning. The paper borrowed a number of concepts from the educational literature on workplace learning (e.g. Marsick & Watkins 1990; Carnevale et al. 1990) without, however, adopting an enterprise-training perspective. The focus therefore was on the learning of individuals rather than on staff development within an organisational context. The paper endorsed and extended a work-based learning model proposed by Carter and Gribble (1991), and suggested this as being appropriate for VET staff development (figure 1.4).

This model suggests a range of staff development options under three main headings, most of which relate to experiences which practitioners are meant to have within their own workplaces. In adopting for the VET sector a model of staff development developed by Carter and Gribble (1991) for the complete range of organisations, without considering the enterprise-training literature which stresses the importance of the nature of the organisation, the paper ignored the special nature of VET providers. It also implicitly downgraded the value of off-the-job learning for VET practitioners. This is something of an anomaly since the VET sector depends for its living upon other organisations choosing off-the-job training for their employees' development. The paper also displays an element of confusion between work-based learning as a general model for workers' training and as a model for the staff development of VET teachers and trainers. Despite these drawbacks the work-based learning model has been favoured in the development of national staff-development policy initiatives.



Source: ANTA, 1995

Figure 1.4: Learning options under the work-based learning model

The most significant current initiative is the 'Framing the Future' ANTA-funded staff development aimed at understanding of, and promoting participation in, the national training framework, and particularly the introduction of training packages. It involves a series of work-based learning projects and the formation and maintenance of a national adviser network. The project's web site maintains 'experience has shown that staff development using work-based learning principles is the most effective way of providing relevant, timely, and efficient skills acquisition for participants'; 'It is just-in-time and just-for-me staff development'. The 40 projects during 1997 involved 600 participants, with 50 projects planned for 1998 (Framing the Future website, 9.3.98). By February 1999 the website reported that there had been 140 projects during 1997 and

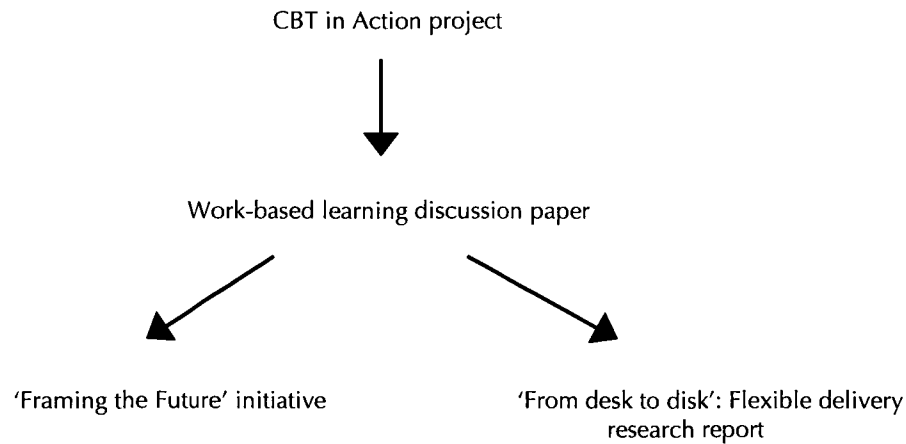


Figure 1.3: Evolution of ANTA's preferred model for staff development

The NSDC introduced CBT in Action as part of a push to encourage action learning for VET teachers and trainers. Groups of teachers and trainers could apply for co-funding to implement projects to do with the introduction of CBT. The aim was that as well as successfully completing the chosen projects, the teachers would learn more about CBT and, in addition, learn how to use action learning as a tool (Smith & Keating 1997). CBT in Action was considered a success in that participants developed additional skills, their attitude towards CBT generally became more positive and there was 'a catalytic effect on the use of action learning' (NSDC 1996). However, there were a number of criticisms and suggestions from participants which implied shortcomings in the scheme. These comments were recorded in an evaluation of 21 of the funded projects (three in enterprises and the balance mainly in TAFE) and included the following:

- ❖ More support and publicity was needed at (TAFE) institute and State level.
- ❖ Participants needed training in action learning.
- ❖ There needed to be more emphasis on professional development not just implementation of the project.
- ❖ A good facilitator was vital to the success of the project.
- ❖ Good communication channels with the organisation within which the project took place were vital.
- ❖ More recognition/credit was needed for participants.

While most participants were satisfied with their involvement, the above comments point to some of the drawbacks of action-learning sets:

- ❖ the learning is often confined to the participants alone, who may, in addition, have to struggle for recognition of the validity of their project by their employers
- ❖ learning may be subsumed to action
- ❖ the process of action learning can be bewildering
- ❖ no formal qualifications ensue from the process

In 1995 the NSDC produced the 'Work-based learning' discussion paper (ANTA 1995) which extended the notion of action learning to include

1998 with 6700 participants. The project differs from CBT in Action in that provision is made (via the Internet) for participants to contact each other, and that the whole process, through technology, is made more public and transparent.

National policy on VET staff development has a strong focus also on flexible delivery, currently identified in ANTA documents as a priority area for VET. The 'From desk to disk' report again advocates work-based learning and downgrades the role of off-the-job learning (ANTA 1997b, p.41). The report identifies a number of barriers to staff development in flexible delivery, and suggests a number of methods of staff development delivery, some incorporating flexible delivery principles (ANTA 1997b, pp.46-47). The report again endorses the work-based learning model (figure 1.3) but does recognise some of the difficulties associated with the lack of formal qualifications arising from work-based learning (ANTA 1997b, pp.55-56).

Recent research into staff development in VET

It is clear that there are a number of issues to be considered when examining staff development of VET practitioners. It is also clear that current policies, for a variety of reasons, favour a particular type of staff development. A small number of recent research projects have examined staff development in VET and particularly that relating to the changing roles of VET teachers.

Choy et al. (1996) surveyed a sample of TAFE teachers in Queensland concerning their staff development needs in relation to the national training system. The questionnaire identified a number of things which were components of working with CBT and under new VET arrangements, asked teachers what their levels of knowledge and understanding of these tasks were, and about their level of skills in each component. The survey also asked about their preferred method of staff development. The report identified a number of areas of CBT practice in which staff identified themselves as being underskilled, and also made three main recommendations that:

- ❖ staff development programs in curriculum and in teaching practices were needed
- ❖ networks of support for teachers were needed
- ❖ there should be a system of recognition and reward for teachers to upskill

Interestingly, and at odds with Retallick's (1993) study of schoolteachers, the most popular methods of staff development amongst these TAFE teachers were workshops, conferences and visits to other sites.³

ANTA has recently published an overview of research into staff development in the VET sector (ANTA 1997c). A number of case studies were undertaken in staff development in a range of VET providers (all institution-based). The case studies were all associated with some change in the activity of the particular VET provider. The overview also summarised recent reviews and reports on staff development. It was suggested that staff development is not yet seen as a strategic activity

within the VET sector. In addition, a number of concerns about training reform and CBT were still current amongst teachers and trainers, which needed to be addressed by staff development programs. In general, recent VET events have led to a huge change in the role of VET teachers, which may be outside the capabilities of some existing staff (ANTA 1997c). Finally, the overview suggested that although there had been a fair amount of published research and comment on TAFE staff development, there is less about non-TAFE providers. Mathers (1997) provides some information about the full range of providers and their staff development, identifying some common features and maintaining that there has been a general shift in the responsibility for development from the employer to the employee.

The 1997 *Making a difference?* project (Smith et al. 1997), as discussed earlier, suggested a great need still remained for staff development about CBT. Particularly important areas were identified as:

- ❖ assessment
- ❖ the changing role of the teacher
- ❖ the use of training packages
- ❖ sharing good ideas

Smith et al. (1997) also queried the advisability of the current emphasis on action learning in CBT staff development, suggesting that many teachers were currently being by-passed, and that a broader responsibility needed to be assumed by TAFE systems and VET providers for staff development.

Herbert (1998), in a study of action learning in the VET sector, provides an effective critique of action learning as currently favoured and funded by ANTA and other VET bodies. Using Edwards' (1997) notion of the use of action learning and other employee involvement processes as exploitation rather than empowerment, she questions both the rationale of action learning as a staff development tool, and also the practicalities of action learning in the VET sector. In an in-depth study of a small number of action-learning sets she found two major problems: firstly that ANTA or State-funded action-learning programs, because of the way in which funding was allocated, did not allow participants to define their own problems to work on; and also that the time available to VET teachers to work on the problem was often limited to the group meeting times. The problem was not addressed in their everyday work. Although the participants claimed they had learned (in this case, about training packages), Herbert maintains that the process is not action learning as originally conceived by Revens (1991), and the issue remains whether the same outcomes might not have been achieved through conventional staff development means, which would have had the advantage of reaching a larger number of participants.

A study of staff development in the commercial VET sector in Victoria was carried out recently by Fawcett et al. (1998). This study found that 61 per cent of providers had a staff development plan, that it was usually the general manager within the providers who was responsible for overseeing staff development, and that there was a wide range in the

proportion of turnover spent on staff development. New technology, quality improvement, winning new business, and government regulations were identified as the main factors creating staff development needs in the sector.

The utility of existing models of staff development for VET practitioners

This literature review suggests that there are several models of staff development, developed for particular contexts, which are helpful in considering the most suitable way of looking at the development of VET practitioners. The application without alteration of the schoolteacher model is inappropriate for a variety of reasons, which have been discussed above. These are mainly to do with the different nature of VET practitioners, the employment of VET practitioners by a large number of independent or semi-independent organisations, and also a greater willingness of VET practitioners as compared to schoolteachers to take personal and financial responsibility for their own development.

Enterprise-training models have some relevance for VET practitioners, but again cannot be utilised unchanged. The nature of the VET 'product' is very different from the products and services produced by most enterprises, and the relationship of the VET provider to its 'customers' is different. Governments have a legitimate interest in the standard of VET practice, and are able to influence directly both the practices of VET and the rules about VET teacher/trainer qualifications. Action-learning models, originally developed for enterprises, have some relevance, but depend heavily upon group processes, whereas ultimately most VET practitioners work alone with their students or trainees.

Professional development models taken from the professions can also be of some assistance, but once again there are differences. Whilst most professionals are self-employed, most VET practitioners are employed by an organisation and their development must be undertaken at least partly within the context of that organisation.

2 Methodology

Introduction

In order to monitor the effect competency-based approaches have on the role of instructors in the vocational education sector it was essential to examine 'constancy and change' (Keeves 1997, p.97) within individuals and groups. A diverse and rich methodological base was used to capture data throughout the project. A large-scale study was required to seek the opinions of instructors in all types of training environments across Australia, whereas a rich source of data was required to examine the way individuals adapted to CBT within particular settings. Thus, the use of both qualitative and quantitative methods was necessary in the present study. Cohen and Manion (1989) claimed that there is a danger that an over-reliance on one research method has the potential to distort the researcher's view and interpretation of the reality being explored. They argued that 'the use of contrasting methods considerably reduces the chances that any consistent findings are attributable to similarities in methods' (p.270). Accordingly, in the current study the investigators employed:

- ❖ case study
- ❖ focus group
- ❖ survey techniques to answer the research questions

In some instances, the respective techniques were used to seek information about particular questions or themes associated with competency-based approaches, whereas on other occasions the research techniques were used to develop richer levels of data. They were also carefully spaced during the project. The case studies, for example, were purposely placed at different intervals along the life of the project so that analysed data could inform and shape other components of the study. Two case studies were undertaken before the final development of the survey, while an additional two sites were investigated before the protocol for the focus groups was established. The following diagram, figure 2.1, indicates the placement of the data collecting techniques across the 12 months of the study.

| | | | | |
|--|--------------------|----------------|----------------|----------------|
| March → Dec | | | | |
| 2 case studies | | 2 case studies | | 2 case studies |
| | | | 2 focus groups | |
| | survey development | | | |

Figure 2.1: Timeframe of the research components during 1998

The research questions

The following five research questions were investigated in the study:

- ❖ *What is the quality and nature of CBT instruction in a range of providers across AQF levels, industry areas and geographical locations?*
- ❖ *To what extent are levels of understanding of CBT by instructors in the VET sector common across a range of locations?*
- ❖ *How have instructors adapted their practice to accommodate CBT, and how have new practices evolved?*
- ❖ *What are some of the staff development issues present in CBT?*
- ❖ *What type of staff development model can be applied to instructors in the VET sector when introducing an innovation like CBT?*

The research techniques

The survey

A survey (reproduced in appendix 2) was developed to assess instructors' level of understanding of CBT and provide information that can be used to interpret individuals' knowledge, beliefs and attitudes toward CBT. Importantly, the survey linked these factors to the particular training environment in which the instructor is involved. In addition, the survey monitored important issues raised in the case studies and attempted to explore these issues across industry area and AQF levels.

The development of the survey was both systematic and thorough, with several drafts being produced before the final version was sent to a random selection of providers across Australia. The three members of the reference group played an important role in the construction of the survey, providing extensive feedback about the type of questions and the way in which the questions were both worded and formatted. In addition, a pilot study was conducted with approximately 30 participants from a local TAFE college. In its final form, the survey instrument comprised the following sections:

- 1 about you
- 2 about your organisation
- 3 your view of CBT

- 4 experience of CBT
- 5 learning about CBT
- 6 a particular experience in CBT
- 7 training packages

The sample

In order to ensure that the sample was representative of the VET sector it was necessary to make a distinction between TAFE and non-TAFE providers. Two sampling methods were used to distribute the survey material. Every TAFE provider was surveyed; but it was not possible to use this method for non-TAFE providers, with over 1000 non-TAFE providers across the country. Hence a stratified sampling technique (de Vaus 1985) was used for the non-TAFE sample. The non-TAFE sample was stratified according to the proportion of providers in each State and Territory. After calculating the number of non-TAFE providers in each State, the required number of sites was randomly selected from the total number of providers in that State. In both TAFE and non-TAFE cases, two forms were sent to the manager or the principal of each provider, seeking responses from two instructors.

Altogether, the survey was sent to 368 sites; accompanied by letters to the principal of 168 TAFE providers and the managers of 200 non-TAFE providers. The principal/manager was asked to administer the survey to two instructors at the site. In total, 736 surveys were administered to instructors across Australia. The response rate for the survey was 23 per cent (170 responses). Although this response rate appears to be low, it is in accord with the return rates of similar National Research and Evaluation Committee projects and was close to the projected return rate of 25 per cent identified in the research proposal. It should be noted that the response rates were quite different for TAFE and non-TAFE providers (that is, 40% for TAFE providers and 9% for non-TAFE providers). Although the low return rates from non-TAFE providers might imply a lack of generalisability, the returns were, for the most part, in accord with the proportion of providers across States and are therefore representative. The main exception to this statement involved a high return rate from Northern Territory (14% instead of an expected 2.3%) which is not unexpected in the Northern Territory where there are relatively few providers.

To establish whether data could be generalised across both TAFE and non-TAFE providers correlations between expected returns and actual returns were conducted. Expected returns were based on the proportion of TAFE or non-TAFE providers in each State. Thus, all stratified proportions were compared with actual returns. There were very strong relationships between actual provider proportions and survey return percentages for both TAFE and non-TAFE providers (with correlations of $r = 0.9$, $p \leq 0.001$ and $r = 0.7$, $p \leq 0.02$ respectively). Importantly, therefore, the survey data could be generalised across all sites.

Table 2.1: Proportion of actual returns by type of provider

| Provider | Total | % |
|-----------------|--------------|--------------|
| Commercial | 5 | 2.9 |
| Community | 11 | 6.4 |
| Industry | 6 | 3.5 |
| Enterprise | 2 | 1.2 |
| Schools | 7 | 4.1 |
| TAFE | 128 | 74.3 |
| Other | 1 | 0.3 |
| Missing | 10 | 7.3 |
| Total | 170 | 100.0 |

As already mentioned, a majority of the returns were received from TAFE instructors. All other providers accounted for approximately 18 per cent of the returns with over seven per cent of respondents failing to indicate the type of provider for which they worked. Most of the respondents answered all 44 questions, although, not surprisingly, some of the longer response questions were not attempted by some of the respondents. The survey investigation, presented in chapter 3, provides information about response rates for all questions analysed. The data from the survey is analysed in chapter 3.

The case studies

A case study methodology (Yin 1994) was used to investigate the manner in which CBT and its associated staff development activities were undertaken in the VET sector. Yin (1994, p.13) defined a case study as an inquiry that 'investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and content are not clearly evident'. Six sites, diverse in nature, were selected for study in order to monitor possible differences and commonalities among individuals, groups and organisations with respect to the way professional CBT was practised, and staff development experiences identified in terms of need, the sources of those needs and the form of training utilised. The sites for the case studies were selected from different locations (States), settings (city, rural and provincial), size of organisation, and type of provider in order to ensure diversity. In this way, the researchers were able to examine the extent to which the dynamics or culture of an organisation influenced the type of staff development experiences made available to individuals and organisations. Specifically, the case studies attempted to:

- ❖ evaluate the effects competency-based approaches have had on the role of VET instructors
- ❖ describe the range and type of staff development experiences available to individuals at particular sites
- ❖ encourage instructors to reflect upon the type of staff and professional development experiences they have encountered recently and evaluate the extent to which these experiences have enhanced their teaching and learning

- ❖ monitor commonalities and differences in these perceptions and understanding with respect to an individual's management level at a site (from instructors through to managers)

A case study protocol was established to ensure the reliability of the data as interviews were conducted by different researchers (Burns 1997). Interviews were conducted on both an individual and group basis, focussing on several individuals at each site. The interviews could be described as semistructured. As Merriam (1988) indicated, such interviews:

are guided by a list of questions or issues to be explored, but neither the exact wording nor the order of the questions is determined ahead of time. This format allows the researcher to respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic. (p.74)

Individual interviews lasted approximately 40 minutes, while focus groups tended to be an hour or more in duration. Although all interviews were open-ended, researchers incorporated a range of key focus questions for discussion. Contextually, issues involving staff development needed to be directed toward recent innovations in the VET sector, thus specific questions were related to CBT. These questions included the following:

- ❖ How were you taught, or how did you learn, to develop, implement and construct teaching and learning through a CBT environment?
- ❖ Which particular CBT understandings and practices have been adopted at your site?
- ❖ What techniques and strategies were used to help construct appropriate skills and understandings in order to enhance your teaching/training?
- ❖ What type of staff development experiences have been worthwhile in helping you come to terms with new innovations?
- ❖ How can new instructors be more adequately prepared to teach through a CBT framework?

Each researcher spent at least one-and-a-half days at the site in an attempt to become familiar with the respective organisation through informal observation and questioning. A range of observational indicators, formulated by Merriam (1988), was used during the site visits. The checklist of elements included:

- ❖ *the setting*—including the physical environment of the organisation, the sites context, and the types of behaviour the setting encourages and discourages
- ❖ *the participants*—including the roles and responsibilities of individuals at the site
- ❖ *activities and interactions*—including how the people interact with competency-based approaches and how professional development activities are fostered among and between individuals
- ❖ *frequency and duration*—including how long competency-based approaches have been used and the type of approaches being utilised on a regular basis

- ❖ *subtle factors*—including observations about informal and unplanned activities and the extent to which trainer’s perceptions of CBT influence their role in the organisation

Case study selection and description of the sites

The case studies were carefully selected to provide a clear contextual picture of the effects competency-based approaches were having on the VET sector in diverse settings. Although only six case studies were undertaken, the generalisations and relationships observed in the cases could be transferred to other students. This is certainly true if you take Walton’s (1992) notion of a case being an ‘example’ rather than an ‘instance’ of the population under study. Case study data from a previous project undertaken in the area of CBT (see Smith et al. 1997) was used to help select appropriate sites that could be termed ‘strong examples’ of the sector. The project team were able to draw upon the expertise of ‘key informants’ across Australia when endeavouring to locate sites that would be suitable for investigation. Table 2.2 provides a list of the sites investigated through the six case studies.

Table 2.2: A description of the sites used in the case studies

| Type of provider | Location | Setting | Size |
|-----------------------|---|-----------------|------------------|
| Community provider | Tasmania | City | small |
| Community provider | NSW | Rural | small |
| TAFE | Canberra | City | large |
| Secondary schools | Queensland | Provincial | large and medium |
| Industry provider | Western Australia, Victoria and New South Wales | City | medium |
| Multi-sector provider | Northern Territory | Regional centre | medium |

Yin (1994) argued that evidence from multiple-case studies provided opportunities for a robust analysis of data. Moreover, he maintained that such a framework could either a) predict similar results or b) produce contrasting results for similar reasons:

Each individual case consists of a ‘whole’ study, in which convergent evidence is sought regarding the facts and conclusions for the case; each case’s conclusions are then considered to be the information needing replication by other individual cases. Both the individual cases and the multiple-case results should be the focus of a summary report. For each individual case, the report should indicate how and why a particular proposition was demonstrated (or not demonstrated). Across cases, the report should indicate the extent of the replication logic and why certain cases were predicted to have certain results, whereas other cases—if any—were predicted to have contrasting results. (pp.49–50)

Thus, each of the six case studies was extensively analysed as a single case (see appendix 1), in addition to each site being analysed holistically from a multiple-case perspective (see chapter 4). From a multiple-case perspective data from the six case studies was analysed under the following headings, including:

- ❖ how CBT was introduced
- ❖ what staff think of CBT
- ❖ CBT issues and concerns
- ❖ staff development
- ❖ future staff development needs

In the CBT issues and concerns section, the research team used a set of categories identified in a previous project (see Smith et al. 1997) to ascertain the way in which the providers attempted to cope with CBT implementation. These categories were associated with:

- ❖ assessment
- ❖ teaching-learning situations
- ❖ CBT environment
- ❖ course documentation/content

The focus groups

In an endeavour to highlight issues concerning staff development in CBT, two focus groups were formed to monitor and analyse staff development programs that have been run for instructors new to CBT. The focus group technique was used to:

- ❖ seek to discover in-depth information about a small number of issues
- ❖ encourage a group of key informants to elicit specific information about staff and professional development issues

As Gredler (1996) indicated, focus groups are 'information-gathering processes that seek to discover the perceptions and feelings of participants about a particular topic or experience' (p.86). Gredler (1996) identified essential components of a successful focus group which include:

- ❖ a carefully selected group of 7–12 participants
- ❖ a skilled moderator and an assistant
- ❖ the development of six to ten open-ended questions
- ❖ concrete questions about a particular topic or experience

Two members of the research team were involved in the facilitation of each focus group, with each team audiotaping their session. These recordings were transcribed and data analysed independently by the two researchers concerned to enhance the analysis. The focus groups consisted of:

- ❖ new instructors from a range of VET providers
- ❖ providers of staff development
- ❖ managers from non-TAFE providers

The focus groups, conducted in Victoria and New South Wales, raised issues concerning the:

- ❖ type of staff development strategies that were most worthwhile for individuals and/or their organisation
- ❖ structure of the professional development activities

- ❖ way they made sense of the different sources of information regarding teaching with CBT

There were additional benefits in having a specific group of individuals together to discuss issues concerning staff development in the sector. Before conducting the interactive roundtable sessions—where individuals were asked to respond to a series of questions and react to other peoples' comments and opinions—each participant was given an outline of the type of issues and questions that were to be discussed in the focus group. These questions included:

- ❖ How were you introduced to CBT?
- ❖ How have you found the implementation of CBT?
- ❖ If someone landed on earth tomorrow what three things about CBT do they need to know?
- ❖ What are your attitudes to CBT?
- ❖ What are the most useful ways in which you learnt about CBT?
- ❖ How did you make sense of the different sources of information about CBT?
- ❖ What do you still need to know about CBT? And how would you like to learn it?
- ❖ What has your experience of professional development been like in your organisation?

As the focus groups contained new teachers and staff development personnel, some of the questions were discussed from an instructor's viewpoint and some from an organisational viewpoint.

Stewart and Shamdasani (1990) maintained that the primary purpose of focus groups is to determine the ways that respondents structure their world and how individuals react to the facilitator's view of the way a phenomenon is structured. Thus, the focus questions were not a verbal version of the survey developed for this project. The questions encouraged respondents to describe their feelings about issues and articulate why they felt the way they did about such issues.

Because of the very nature of focus groups, each individual's feelings, attitudes and opinions were diverse in nature. In order to provide a verifiable analysis of the data (Kruger 1993) some issues needed to be discussed in the initial stages of the project. Some of these themes included:

- ❖ the role of the individual versus the role of the organisation
- ❖ present and future directions in professional/staff development

Description of the sites

Gredler (1996, pp.72–73) argued that focus groups are associated with the illuminative evaluation model which has as its central concern 'sensitivity to the needs, interests and questions of different audiences'. Such evaluation is holistic, with the intention to map or illuminate a situation and its themes. At both sites, conditions necessary for a successful focus group were put in place, namely:

- ❖ the participants were carefully selected by a range of stakeholders in the project
- ❖ the small number of concrete open-ended questions were circulated prior to the meeting
- ❖ the moderator and assistant were both experienced in conducting focus groups
- ❖ there were no obvious constraints to free discussion
- ❖ the atmosphere was conducive to a relaxed exchange of ideas

The transcripts were listened to several times and the voices of the participants were analysed through each focus group. The moderator and assistant took field notes to assist in the interpretation of the tape-recorded material. In most cases, participants expressed their pleasure at being involved in the focus groups and were pleased with the outcomes. It provided an opportunity to talk about, question and share experiences on a topic in which time normally prevented in-depth discussions. On both occasions, the group appeared to develop a cohesive and supportive attitude towards each other and the topic.

Summary of the methodological framework

This study was designed to examine the effect of competency-based approaches on the role of instructors across the VET sector. Three different research techniques were used to investigate the five research questions formulated for this study.

A large-scale survey examined the impact competency-based approaches were having on the role of the instructors throughout Australia. This survey can be seen as a way of assessing the extent to which instructors in the VET sector have accepted CBT, the extent to which they understand the principles underpinning CBT and how comfortable they are with their progress in establishing CBT practice. Furthermore, the survey permitted the identification of a range of factors that influenced the way instructors have responded to CBT. These factors included: the field of study in which the teacher/trainer taught; whether the site was a TAFE or non-TAFE provider; the AQF level of most of the students an instructor taught; and the nature of the students. It is important to note that most of the instructors who responded to the survey were from the TAFE sector.

Case study sites were predominantly from the non-TAFE sector and included a range of different providers. In most instances, data from case studies were collected over a two-day period, with the researcher interviewing several instructors at each site in both individual and group sessions. Importantly, the views and perceptions of senior management and trainers were both taken into consideration when analysing data from each site.

The focus groups were designed to uncover the relative utility of current staff development programs in the sector and the way in which different staff development methods impacted upon teachers' understanding and effective use of CBT. Two focus groups were held, in Sydney and in

Melbourne, consisting of a range of stakeholders in VET staff development. The stakeholders included:

- ❖ State and TAFE institute staff development personnel
- ❖ managers from non-TAFE providers
- ❖ relatively inexperienced teachers from TAFE and non-TAFE providers

The survey data are analysed in chapter 3, while data generated from case study visits and focus group discussions are examined in chapter 4.

3 A survey of current CBT practice in the VET sector

Comparisons across a range of variables

A major focus of the study was to examine commonalities and differences among the opinions and type of instruction conducted by instructors across specific categories, including type of provider and State or Territory in which an individual works. A descriptive analysis of some of these categories is presented in the following section.

Type of provider

Almost 90 per cent of the instructors who completed the survey were employed on a full-time basis. Although this proportion does not reflect the current profile in the VET sector, it is understandable that full-time instructors would be more likely to be given the survey by their principal or manager and to complete such a survey. Over 80 per cent of the instructors who responded to the survey were from the TAFE sector. This skewed proportion, displayed in table 3.1, must be considered when attempting to interpret the results of the survey. It could be argued that the high return rate from the TAFE sector (almost 50%) may have indicated the extent to which instructors were prepared to voice their opinion about issues associated with CBT. The same cannot be said for instructors in non-TAFE providers.

Table 3.1: Return rates from instructors in TAFE and non-TAFE settings

| Field of study | Freq. | % |
|----------------|------------|------|
| TAFE | 128 | 75.0 |
| Non-TAFE | 31 | 18.5 |
| No response | 11 | 6.5 |
| Total | 170 | |

Field of study

Individuals were asked to indicate the main discipline area in which they presently taught. Thirteen different fields of study were identified in the survey with approximately five per cent of respondents specifying a different field of study than the options presented in the question. Table 3.2 displays the frequencies and percentages of responses by field of study. The greatest number of respondents was from the engineering

field (24%), followed by the hospitality and administration/business fields.

Table 3.2: Discipline area of respondents surveyed

| Field of study | Freq. | % |
|--------------------|------------|------|
| Engineering | 41 | 24.1 |
| Admin/Business | 23 | 13.5 |
| Hospitality | 15 | 8.8 |
| Education | 12 | 7.1 |
| Other | 9 | 5.3 |
| Humanities | 9 | 5.3 |
| Social Skills | 7 | 4.1 |
| Maths/Computing | 7 | 4.1 |
| Agriculture | 6 | 3.5 |
| Built Environments | 6 | 3.5 |
| Agriculture | 6 | 3.5 |
| Health | 4 | 2.4 |
| Visual Arts | 2 | 1.2 |
| Social Studies | 1 | 0.7 |
| Did not respond | 22 | 15.8 |
| Total | 170 | |

State

The expected (proportional) return rates of providers by State was very close to actual return rates (see chapter 2).

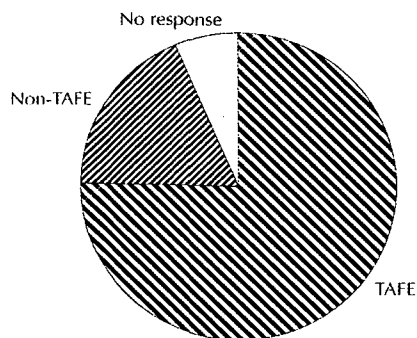


Figure 3.1: Number of responses by State

The two representations present in figure 3.1 indicate similar patterns between anticipated responses, on the basis of proportional counts, and actual responses for the survey returns. The only two States/Territories that had quite different frequencies between expected and actual rates were Western Australia and the Northern Territory—both having higher return rates than would normally be expected from a stratified sample. Generally, however, it was evident that the sample distribution across States was very close to the anticipated count. Consequently, generalisations across States could be made with confidence.

AQF level of most students

A majority of the survey respondents taught students at an AQF 3 level (see table 3.3). The graph in figure 3.3 represents the distribution across the five AQF levels.

Table 3.3: AQF level of most students taught by respondents

| Field of study | Freq. | % |
|----------------|------------|------|
| Level 1 | 23 | 14.4 |
| Level 2 | 24 | 15.0 |
| Level 3 | 59 | 34.7 |
| Level 4 | 27 | 15.9 |
| Level 5 | 27 | 15.9 |
| No response | 10 | |
| Total | 170 | |

Nature of students

Table 3.4: Employment status of most students taught by respondents

| Nature of students | Freq. | % |
|--------------------|------------|------|
| Employed | 89 | 56.0 |
| Unemployed | 23 | 13.5 |
| Yet to be employed | 47 | 27.6 |
| No response | 11 | |
| Total | 170 | |

A majority of the instructors who responded to the survey indicated that their students were already employed (56%) as indicated in table 3.4. Over 27 per cent of the respondents were yet to be employed while 13.5 per cent were unemployed.

General information from the survey

The survey comprised 44 questions under seven headings, which included topics under the categories of:

- ❖ about you
- ❖ about your organisation
- ❖ your view of CBT
- ❖ experience in CBT
- ❖ learning about CBT
- ❖ a particular experience in CBT
- ❖ training packages

Some of the questions required the instructors to provide descriptive information about themselves and their workplace, whereas other questions were presented on Lickert-scale⁴ baselines that required participants to express their opinion about a range of issues. Other questions were more open-ended in nature. Not all the responses to open-ended questions could be aggregated and tabulated (and be

analysed against other questions or categories) because of the diverse nature of responses. Some of these questions, however, were categorised under relevant key words with data compared to a range of other questions and categories. Specifically, questions 25, 31 and 34 were categorised in that manner (see appendix 2).

A range of quantitative procedures was used to analyse data. These techniques included the reporting of data through frequency tables and the descriptive presentation of means and standard deviations (SDs). Crosstab and Chi Square procedures were used to analyse nominal data (where numbers and symbols are used simply to classify an object, person or category). Analysis of variance (ANOVA) and *t*-tests were used to compare differences between the means of particular groups. In such instances, a dependent variable (e.g. provider type) may be compared to a range of other variables (e.g. questions that determine the extent to which certain CBT features are present in courses conducted by instructors). Thus, possible differences between the mean scores of TAFE and non-TAFE providers can be examined across the 14 competency-based features that were identified in the survey.

Table 3.5: Respondents' opinion and perception of their understanding of CBT

| Question | Mean | SD |
|---|------|------|
| What is your opinion of CBT? | 2.27 | 0.87 |
| How appropriate is CBT to your field of study? | 2.22 | 0.95 |
| How would you describe your understanding of CBT? | 1.88 | 0.82 |

Table 3.5 provides some information concerning general responses calculated in the survey. Instructors responded that they had a relatively thorough understanding of CBT (with [1] meaning a thorough understanding and [5] no understanding). Generally, their opinion of CBT was moderately approving (with [1] meaning strongly for and [5] strongly against). It needs to be recognised, however, that over 20 per cent of the instructors interviewed were 'undecided' in their opinion of CBT and the extent to which CBT was appropriate to their field of study (these people selected a [3] on the continuum of a Lickert scale). Furthermore, more than ten per cent of those interviewed indicated that they were opposed or strongly opposed to CBT. In contrast, more than 15 per cent of respondents were 'strongly for' CBT. The SD⁵ figures presented in table 3.5, and tables that are presented in following sections, should be interpreted in conjunction with the means.

Table 3.6 indicates that there are statistically significant relationships between:

- ❖ an instructor's opinion of CBT
- ❖ the extent to which the instructor thinks that CBT is appropriate to their field of study
- ❖ the degree to which instructors feels that they understand CBT
- ❖ their perceived knowledge of training packages

Importantly, there is a very strong relationship between an individual's opinion of CBT and the extent to which the person perceives such

training to be appropriate to a given field of study. Thus, the worthiness of CBT appears to be centred on its utility in a given area of study.

Table 3.6:⁶ Relationships (correlations) between responses to questions related to CBT and training packages

| | Opinion | Field | Understand | Training |
|--------------------------------|---------|--------------------------------|--------------------------------|--------------------------------|
| Opinion of CBT | xxx | 0.68 (167) p=.000 | 0.25 (168) p=.001 | 0.16 (161) p=.037 |
| Appropriate to field | | xxx | 0.21 (167) p=.006 | 0.21 (161) p=.006 |
| Understanding of CBT | | | xxx | 0.31 (161) p=.000 |
| Knowledge of training packages | | | | xxx |

Analysis of survey data

Of the 44 questions presented in the survey 39 formed part of the analysis in this section of the report. The other five questions, while providing a rich source of data, could not be analysed in a quantitative form. As mentioned earlier, some questions were used to compare a range of variables or factors present in the VET sector, whereas other questions allowed the research team to trace the type of experiences encountered by a diverse group of instructors in many settings across Australia. The findings and conclusions presented in the following sections may be applied with reasonable confidence to experiences of instructors across Australia—based on the reliability and transferability of data presented in the report.

Four of the project's research questions were addressed by the survey and analysed in this section of the report. These questions were not intended to be fully answered in the survey but do provide a focus for analysis. Similarly, this chapter presents important findings that could only be obtained through this type of data collection and analysis; however, the data from the survey also informed data collected from the case studies and focus groups. There are, however, important findings that can be linked with each of the four questions. The research questions analysed with the survey data included:

- ❖ *What is the quality and nature of CBT instruction in a range of providers across AQF levels, industry areas and geographical locations?*
- ❖ *To what extent are levels of understanding of CBT by instructors in the VET sector common across a range of locations?*
- ❖ *How have instructors adapted their practice to accommodate CBT, and how have new practices evolved?*
- ❖ *What are some of the staff development issues present in CBT?*

The analysis of data and the subsequent findings are based on the impressions and interpretations of individual instructors. As a result, findings about what has occurred in particular States or across certain fields of study are based on the varying opinions, attitudes and experiences of the instructors who responded to the survey.

What is the quality and nature of CBT instruction in a range of providers across AQF levels, industry areas and geographical locations?

Crosstab techniques⁷ were used to explore relationships between a range of variables and questions from survey data. The variables included:

- ❖ the *State* in which the trainer was employed
- ❖ the type of *provider*
- ❖ the *AQF level* of most of the students the trainer taught
- ❖ the particular *field of study* in which the trainer worked
- ❖ the *nature* of the students (whether they were employed or not)

These variables were crosstabbed against questions that related to an individual instructor's:

- ❖ level of understanding of CBT
- ❖ quality of CBT instruction
- ❖ nature of the CBT training being undertaken

The specific questions used for cross-analysis included:

- ❖ What is your opinion of CBT in general? (q.20)
- ❖ How appropriate is a CBT format to your field of study? (q.21)
- ❖ How would you describe your understanding of CBT? (q.22)
- ❖ To what extent are you currently learning about CBT? (q.30)
- ❖ How much do you know about training packages? (q.37)
- ❖ Where did you gain your knowledge (of training packages)? (q.38)
- ❖ Please indicate the status of training packages in the industry area (field of study) in which you mostly teach. (q.39)
- ❖ What is your attitude to training packages at the moment? (q.42)

Table 3.7 provides a summary of the data that were crosstabbed. In total, the five variables were crosstabbed with the eight questions presented above. Five observations were significant at a $p \leq 0.05$ level.

Table 3.7 should be considered with a degree of caution because there were missing cells in many of the tables. This was not owing to the sample size of the survey but because of the number of fields in each variable. There were, for example, 14 fields of study which, when analysed by State, provided 112 cells. Consequently, it is difficult to interpret some of the statistically significant findings.

Two of these minor differences related to more recent changes (associated with training packages), changes which are not yet fully in place and are possibly not completely understood at this time. It is important to state

that the analysis of these questions indicates that the national training agenda has had a fairly uniform influence on practitioners across Australia.

Table 3.7: Crosstab analysis of five dependent variables

| | State | Provider | AQF | Field | Nature |
|-------|---------------------------|----------|---------------------------|---------------------------|---------------------------|
| Q. 20 | n.s | n.s | n.s | n.s | n.s |
| Q. 21 | n.s | n.s | n.s | n.s | n.s |
| Q. 22 | n.s | n.s | n.s | n.s | $\chi^2=19.5,$ $p=.02$ |
| Q. 30 | n.s | n.s | n.s | n.s | n.s |
| Q. 37 | n.s | n.s | n.s | n.s | n.s |
| Q. 38 | n.s | n.s | n.s | n.s | n.s |
| Q. 39 | $\chi^2=34.3,$ $p=.03$ | n.s | $\chi^2=24.5,$ $p=.02$ | $\chi^2=58.3,$ $p=.02$ | n.s |
| Q. 42 | n.s | n.s | n.s | n.s | $\chi^2=92.8,$ $p=.01$ |

n.s – not significant

Of the eight questions analysed, there were statistically significant differences between expected and observed frequencies for three of the questions. In question three there was a significant difference in the response according to the nature of the students with which the instructors worked. For question 39, State, AQF level of students with which they worked, and the field of study had a statistically significant influence on responses. In question 42, the variables field of study and nature of students influenced the responses of the instructors. The following commentary examines where differences were among these three questions.

Q. 22—How would you describe your understanding of CBT?

- ❖ Instructors working with employed students were more likely to maintain that they had a thorough understanding of competency-based approaches than instructors who mostly worked with students who were not employed did.

Q. 39—Please indicate the status of training packages in the industry area (field of study) in which you mostly teach.

- ❖ An unusually high proportion of Victorian instructors (25%) did not know the status of training packages in their field of study.
- ❖ A high proportion of instructors in Queensland indicated that training packages were now in a draft form.
- ❖ A high proportion of instructors teaching students at an AQF level 1 did not know about the status of training packages. The 15 per cent of respondents who predominantly taught students at an AQF 1 level accounted for over 40 per cent of the respondents who did not know if training packages were in existence.
- ❖ A very high proportion of instructors in the administration, business and law field of study (72%) indicated that training packages already existed. In contrast, 20 per cent of instructors in the engineering field of study indicated that they did not know if training packages existed in their discipline.

Q. 42—*What is your attitude to training packages at the moment?*

- ❖ Instructors who predominantly taught unemployed people were more likely to suggest that they disapproved of training packages.

Instructors' views of CBT

Instructors were asked to indicate (q.19), in order of importance, three features that most distinguished CBT from other forms of training. In table 3.8 the 'total' column has been generated by a weighted process. The two factors associated with competency standards—that is, *course based on industry competency standards* (19%) and *assessment is based on competency standards* (18%)—accounted for almost 40 per cent of the respondents' choices. Table 3.8 provides breakdowns for first, second, third and generated total percentages for 14 CBT features identified in the survey. Importantly, many instructors also highlighted other assessment issues.

Almost all of respondents nominated three features (98%), with a small portion of the sample identifying only one or two of the features presented in the list. 164 instructors responded to this question with a total of 483 features being recorded. Table 3.8 provides information about the number of times a feature was listed as either a first, second or third preference. Thus, *course based on industry competency standards* was identified by 56 per cent of the respondents as either the first, second or third most distinguishing feature. In contrast, *assessment on demand* was considered the least recognisable feature of CBT, accounting for only 4.5 per cent of the features listed.

Although we would anticipate that many experts in the area would predict that the two features associated with competency standards would score highly, the fact that the *students are assessed against set criteria and not ranked against each other* feature was selected by 35 per cent of respondents should be noted. Interestingly, few instructors saw modularisation, ungraded assessment and self-paced learning (assessment on demand) as the most important features of CBT, representing, perhaps, a shift in instructors' understanding of CBT since the early 1990s.

Table 3.9 presents means and SDs for utilisation of specific competency-based features. Participants were also asked to indicate which particular competency-based features were present in the courses they taught (q.27). A Lickert scale was used to determine the frequency from always present [1] through to never present [4]. Thus, instructors indicated that recognition of prior learning *RPL* ($\bar{x}=1.28$) and *assessment is criterion referenced* ($\bar{x}=1.28$) were more likely to be present in teaching courses than *assessment on demand* ($\bar{x}=2.15$) and *assessment at least partly in the workplace whilst working* ($\bar{x}=2.58$).

It was important to determine whether these differences in implementation were uniform across:

- ❖ States
- ❖ providers
- ❖ AQF levels

Table 3.8:^a Respondents' views of the features that distinguish CBT from other forms of training

| CBT feature | 1st pref. % | 2nd pref. % | 3rd pref. % | Weighted total % | Feature selected as either 1st, 2nd or 3rd preference % |
|--|-------------|-------------|-------------|------------------|---|
| Course based on industry competency standards | 39.5 | 7.0 | 7.6 | 19.0 | 56.0 |
| Assessment is based on competency standards | 11.1 | 19.3 | 20.5 | 18.0 | 53.0 |
| Students are assessed against set criteria and not ranked against each other | 9.4 | 18.1 | 5.8 | 12.0 | 35.0 |
| Assessment is based on demonstration of skills | 7.6 | 8.2 | 11.7 | 10.0 | 29.0 |
| RPL is available | 7.0 | 11.1 | 8.8 | 10.0 | 28.0 |
| Flexible entry and exit to courses | 2.3 | 5.3 | 14.0 | 8.0 | 23.0 |
| Assessment at least partly in the workplace whilst working | 1.2 | 5.3 | 5.3 | 4.0 | 12.0 |
| Non-graded assessment | 4.1 | 2.3 | 4.7 | 4.0 | 11.5 |
| Course documentation in CBT format | 5.3 | 3.8 | 0.6 | 3.0 | 10.0 |
| Modular format with separate learning outcomes for each module | 1.2 | 3.5 | 4.7 | 3.0 | 10.0 |
| Assessment criteria are made public—to students | 2.9 | 1.2 | 3.5 | 3.0 | 5.0 |
| Training involves doing as well as watching | .3 | 2.9 | 3.5 | 2.0 | 9.0 |
| Industry involved in course monitoring | 2.3 | 1.8 | 1.5 | 2.0 | 5.0 |
| Assessment on demand | 1.2 | 3.5 | 1.2 | 2.0 | 4.5 |

Table 3.9: Features that are present in competency-based courses taught by respondents

| CBT feature | Mean | SD |
|--|------|------|
| RPL is available | 1.28 | 0.61 |
| Assessment is criterion referenced | 1.28 | 0.68 |
| Industry involved in course monitoring | 1.29 | 0.55 |
| Assessment criteria are made public—to students | 1.30 | 0.65 |
| Training involves doing as well as watching | 1.37 | 0.57 |
| Course based on industry competency standards | 1.47 | 0.68 |
| Assessment based on competency standards | 1.51 | 0.79 |
| Course documentation in CBT format | 1.60 | 0.83 |
| Assessment is based on demonstration of skills | 1.64 | 0.74 |
| Non-graded assessment | 1.91 | 1.01 |
| Flexible entry and exit | 1.93 | 0.97 |
| Industry involved in course monitoring | 2.05 | 1.17 |
| Assessment on demand | 2.15 | 1.01 |
| Assessment at least partly in the workplace whilst working | 2.58 | 1.07 |

In order to highlight possible differences, an ANOVA procedure was used to investigate whether there were differences in mean scores between these variables and each particular CBT feature.

Differences by State

ANOVAs were used to determine if there were differences between the means of each CBT feature by State. Table 3.10 provides means and SDs of specific CBT features that varied across State. Again, it needs to be emphasised that there was strong uniformity across the States with respect to the type of features present in CBT courses. Asterisks (*) are used to highlight high and low means within each feature. If a particular State has a one (1) as its calculated mean it would indicate that all respondents maintained that the particular feature is *always* present in courses they conduct.⁹

Table 3.10: Means and SDs (in brackets) of the five CBT features that displayed statistical differences across States

| | ACT | NSW | Vic. | Qld | SA | NT | WA | Tas. |
|--|-------------|---------------|----------------|---------------|---------------|---------------|----------------|---------------|
| RPL is available | 1 | 1.5 (.77) | 1.13 (.47) | 1.2 (.5) | 1.13 (.35) | 1.12 (.35) | 1 | 1 |
| Assessment at least partly in the workplace whilst working | 1 | 2.9 (.98) | 2.45 (1.1) | 2.12 (1.0) | 2.84 (1.0) | 2.5 (.75) | 2.27 (1.1) | 2 (1) |
| Assessment criteria are made public—to students | 1 | 1.2 (.58) | 1.55 (.67) | 1.04* (.2) | 1.15 (.37) | 1.25 (.47) | 1.87* (1.2) | 1.29 (.76) |
| Course based on industry competency standards | 2.5 (.7) | 1.52 (.67) | 1.75 (.73) | 1.38 (.62) | 1.55 (1.0) | 1.25 (.75) | 1.07 (.27) | 1.42 (.53) |
| Course documentation in CBT format | 2 (1.4) | 1.65 (.81) | 2.25* (.84) | 1.3* (.6) | 1.64 (1.2) | 1.25 (.88) | 1.3 (.75) | 1.29 (.49) |

As is indicated in table 3.11, there were statistically significant differences between features present in courses when the geographic location (State) of the instructor is used as a dependent variable. Five features including:

- ❖ course based on industry competency standards
- ❖ course documentation in CBT format
- ❖ RPL is available
- ❖ assessment criteria are made public to students
- ❖ assessment at least partly in the workplace whilst working

were statistically significant (at a $p \leq 0.05$ level). In three instances, there were significant differences between particular features used by instructors across different States. The means and SDs for these groups are also presented in table 3.11.

Table 3.11: CBT features that are statistically different by State (including means and SDs of univariate differences)

| CBT feature | ANOVA | Mean | SD |
|--|------------------------------------|-----------------------------|------------------------------|
| Course based on industry competency standards | F(7,136 = 2.1) p = ≤ 0.05 | | |
| Course documentation in CBT format | F(7,136 = 3.49) p = ≤ 0.01 | Vic. 2.2 (.84) | Qld 1.3 (.6) |
| RPL is available | F(7,136 = 2.14) p = ≤ 0.05 | | |
| Assessment criteria are made public to students | F(7,136 = 2.95) p = ≤ 0.01 | WA 1.88 (1.2) | Qld 1.04 (.2) |
| Assessment at least partly in the workplace whilst working | F(7,136 = 2.88) p = ≤ 0.01 | NSW 2.94 (.98) | Qld 2.11 (1.01) |

From these data it can be concluded that instructors in Queensland were more likely to have three of these five competency-based features present in their courses than that of other States. Thus, there were statistically significant differences between courses in Victoria ($\bar{x} = 2.2$) and Queensland ($\bar{x} = 1.3$) when considering if course documentation was in CBT format. Similar conclusions may be drawn from Western Australia and Queensland relating to assessment criteria being made public to students and with New South Wales and Queensland with assessment being at least partly in the workplace whilst working. Thus, instructors in Queensland were more likely to have more features present in their courses.¹⁰

Differences by provider

ANOVAs were used to determine if there were differences between the means of each CBT feature by provider type. As is indicated in table 3.12, there was a statistically significant differences between the *assessment at least partly in the workplace whilst working* feature when the type of provider (TAFE or non-TAFE) variable was used to analyse instructors' responses. The means and SDs for these data are also presented in table 3.12.

Table 3.12: Differences in CBT features by provider type

| CBT feature | ANOVA | TAFE | Non-TAFE |
|--|-------------------------------|----------------|----------------|
| Assessment at least partly in the workplace whilst working | F(7,136 = 8.03) p = ≤ 0.01 | 2.68 (1.06) | 2.06 (1.03) |

It can be concluded, therefore, that the only difference between TAFE and non-TAFE providers, with respect to the CBT features they use in their courses, is the extent to which they have assessment at least partly in the workforce whilst working. Non-TAFE providers were more likely to have this feature than TAFE providers. It should be noted that both categories of provider had this feature present in their courses less frequently than any other feature identified in the survey.

Differences by AQF level

ANOVAs were used to determine if there were differences between the means of each CBT feature when considering the AQF level of the students individual instructors most often taught. There were statistically significant differences between features present in courses when AQF level is used as a dependent variable (see table 3.13). Two features including:

- ❖ course documentation in CBT format
- ❖ assessment at least partly in the workplace whilst working

were statistically significant at a $p \leq 0.05$ level.

Table 3.13: Differences in CBT features by AQF level most often taught by instructors

| CBT feature | ANOVA | AQF 1 | AQF 5 |
|--|--------------------------------|----------------|----------------|
| Course documentation in CBT format | F(7,150 = 3.14) p = ≤ 0.05 | 1.09 (0.53) | 1.85 (0.95) |
| Assessment at least partly in the workplace whilst working | F(7,151 = 5.07) p = ≤ 0.001 | 1.09 (0.53) | 1.85 (0.98) |

In both cases, the higher the AQF level of the students taught the less likely these competency-based features were present. Thus, instructors who taught students in lower AQF level courses were more likely to have these two CBT features present in their courses.

How have instructors adapted their practice to accommodate CBT, and how have new practices evolved?

Table 3.14 presents means and SDs for the extent of difficulty caused to instructors by specific competency-based features (q.36). In the survey, participants were asked to indicate the extent to which they had difficulty using these features in their teaching/training. A Lickert scale was used to determine the difficulty factor, with no difficulties [1] through to major difficulties [4]. Thus, instructors had less difficulty *assessment criteria are made public to students* ($\bar{x}=1.15$) and *assessment is based on demonstration of*

skills ($\bar{x}=1.28$) than they did with features related to *flexible entry and exit* ($\bar{x}=1.98$) and *assessment on demand* ($\bar{x}=2.03$).

Table 3.14: CBT features that created difficulty with respect to teaching/training

| CBT feature | Mean | SD |
|--|------|------|
| Assessment criteria are made public—to students | 1.15 | 0.50 |
| Assessment is based on demonstration of skills | 1.38 | 0.63 |
| Assessment is criterion referenced | 1.39 | 0.71 |
| Industry involved in course monitoring | 1.49 | 1.19 |
| Non-graded assessment | 1.56 | 1.06 |
| Course based on industry competency standards | 1.59 | 0.91 |
| Assessment based on competency standards | 1.64 | 0.92 |
| RPL is available | 1.76 | 0.96 |
| Assessment at least partly in the workplace whilst working | 1.81 | 1.23 |
| Flexible entry and exit | 1.98 | 1.11 |
| Assessment on demand | 2.03 | 1.20 |

As in previous studies on CBT, teachers reported most difficulty with self-paced learning (flexible entry and exit, and assessment on demand). It was important to determine whether these differences in implementation were uniform across

- ❖ States
- ❖ providers
- ❖ AQF levels

In order to highlight possible differences, ANOVA was used to investigate whether there were differences in means scores between these variables and each particular CBT feature.

Differences across States

There were no statistically differences between the mean scores of respondents when analysed across States. Thus, instructors across Australia have similar difficulties and similar concerns.

Differences across providers

In order to determine if there were differences between the type of provider and the difficulties encountered by individuals when implementing particular CBT features, all non-TAFE providers were combined into the one category. Thus, comparisons were made between TAFE and non-TAFE providers for this analysis. There were statistically significant differences between the two types of providers with *courses based on competency standards* $F(1, 141) = 6.06, p=0.015$, *assessment based on competency standards* $F(1, 141) = 6.5, p=0.011$, and *assessment criterion are made public to students* $F(1, 143) = 4.76, p=0.03$. In each of the three categories, the mean scores of the TAFE providers were higher than that of the non-TAFE provides (see table 3.15). The TAFE providers, therefore, were more likely to have difficulty with these three CBT features than non-TAFE providers. This finding is consistent with the results of Smith

et al.'s (1996) study that found that non-TAFE providers introduced CBT more quickly than TAFE providers.

Table 3.15: Means and SDs of features that caused difficulty by provider type and AQF level

| CBT feature | TAFE | Non-TAFE |
|---|----------------|-----------------|
| Courses based on competency standards | 1.71 (0.92) | 1.25 (0.75) |
| Assessment based on competency standards | 1.77 (0.97) | 1.28 (0.53) |
| Assessment criteria are made public to students | 1.19 (0.51) | 0.96 (0.43) |
| CBT feature | AQF 1 | AQF 3 |
| Recognition of RPL is available | 1.09 (0.59) | 1.92 (1.00) |
| Assessment is based on demonstration of skills | 1.09 (0.53) | 1.54 (0.69) |

Differences across AQF levels

ANOVAs were conducted using AQF levels as a dependent variable to explore whether there were differences between difficulties in implementing particular CBT features and the type of students/instructors taught. There were statistically significant differences between *recognition of RPL* $F(4, 142) = 2.66, p = 0.04$, and *assessment being based on demonstration of skills* $F(4, 138) = 1.54, p = 0.05$. In both instances, see table 3.17, the main differences were between instructors who taught AQF 1 and AQF 3 courses. Instructors who taught in AQF 1 courses were less inclined to have difficulty implementing these two features than those in the AQF 3 courses. This is to be expected given the differences in the nature of the courses at the two levels.

Training packages: A new form of CBT?

ANOVAs were conducted to determine whether there were differences between particular groups of instructors when responding to a range of questions associated with training packages. These questions were designed to gather data on how instructors were attempting to come to terms with a new type of practice within the VET sector. These questions included:

- ❖ How much do you know about training packages?
- ❖ What is your attitude toward training packages at the moment?
- ❖ Do you think that training packages will change your everyday work as a teacher or trainer?

For purposes of data analysis the three questions were coded in the following manner.

- ❖ How much do you know about training packages?—a lot [1] through to [5] very little.

- ❖ What is your attitude toward training packages at the moment?—strongly approve [1] through to strongly disapprove [5].
- ❖ Do you think that training packages will change your everyday work as a teacher or trainer?—a lot [1] through to a bit [3].

Table 3.16 provides a descriptive summary of the responses for these questions. In order to maintain a consistent baseline of comparison, means and SDs for the third question were scaled on a [1] to [5] continuum.

Table 3.16: Means and SDs for training package questions

| Training package questions | Mean | SD |
|---|------|------|
| How much do you know about training packages? | 2.77 | 1.18 |
| What is your attitude toward training packages at the moment? | 3.09 | 1.00 |
| Do you think that training packages will change your everyday work as a teacher or trainer? | 2.91 | 1.77 |

From these data it can be argued that instructors do not consider themselves well informed about training packages. The mean ($\bar{x}=2.77$) is much higher than the mean for the corresponding question of knowledge of CBT ($\bar{x}=1.88$). There was, in fact, a statistically significant difference between the two means $t(1, 156 = 30.4, p \leq 0.001)$. Not surprisingly, instructors felt that they knew a great deal more about CBT than they did about training packages. With respect to the question concerning the extent to which training packages would change their everyday work, responses were quite diverse. Although a mean of ($\bar{x}=2.91$) would suggest that instructors were indecisive about training packages making a substantial difference to their everyday work, the large $SD = 1.77$ would indicate that responses were either associated with a belief that there would be a great deal of change or a small amount of change. Thus, respondents tended to feel either that they would make a great deal of difference or not much difference at all.

Differences across States

There were no statistically significant differences across States when the three questions associated with training packages were analysed.

Differences across providers

There were statistically significant differences between the responses to the questions *What is your attitude toward training packages at the moment?* $F(1,144 = 10.7) p = \leq 0.01$; and *Do you think that training packages will change your everyday work as a teacher or trainer?* $F(1,147 = 12.9) p = \leq 0.01$; when comparing mean responses across TAFE and non-TAFE providers.

The means from table 3.17 indicate that:

- ❖ Non-TAFE providers approve of training packages ($\bar{x} = 3.69$) more than those in TAFE providers ($\bar{x} = 2.98$). This may be in line with TAFE teachers' concerns about CBT in general and may suggest that TAFE teachers are also more concerned with the possible problems associated

with training packages. Non-TAFE providers have traditionally displayed a more pragmatic approach to curriculum change.

- ❖ TAFE providers thought training packages will change their work ($\bar{x} = 1.98$) to a more significant degree than that of non-TAFE providers ($\bar{x} = 1.14$).

Table 3.17: Comparisons between providers and the three training package questions

| CBT feature | ANOVA | TAFE | Non-TAFE | Scale |
|---|-------------------------------|---------------|----------------|-------|
| How much do you know about training packages? | not significant | | | |
| What is your attitude toward training packages at the moment? | F(1,144 = 10.7) p = ≤ 0.01 | 2.98 (.99) | 3.69 (0.97) | 1-5 |
| Do you think that training packages will change your everyday work as a teacher or trainer? | F(1,147 = 12.9) p = ≤ 0.01 | 1.98 (.98) | 1.14 (1.02) | 1-3 |

Differences across AQF levels

There was a statistically significant difference between the responses to the question *How much do you know about training packages?* When AQF levels were considered $F(4,148 = 2.52)$ $p = \leq 0.05$ (see table 3.18).

Table 3.18: Comparisons between AQF levels and the three training package questions

| CBT feature | ANOVA | AQF 1 | AQF 5 |
|---|-------------------------------|--------------|--------------|
| How much do you know about training packages?'' | F(4,148 = 2.52) p = ≤ 0.05 | 3.4 (0.9) | 2.4 (0.7) |
| What is your attitude toward training packages at the moment? | not significant | | |
| Do you think that training packages will change your everyday work as a teacher or trainer? | not significant | | |

The means and SDs from table 3.18 show that the greatest difference between responses from the *How much do you know about training packages?* question was from those instructors who taught students at an AQF 1 level ($\bar{x} = 3.4$) and those who mostly taught students at an AQF 5 level ($\bar{x} = 2.4$). This trend suggested that instructors who regularly taught at the higher AQF levels felt that they know more about training packages than those people who taught students at lower levels. There were no other statistically significant differences for other features.

What are some of the staff development issues present in CBT?

A number of questions presented in the survey provided opportunities for individuals to respond to issues associated with their personal staff and professional development experiences and to express their views

about experiences that were most beneficial to their ongoing understanding of CBT. Moreover, it provided respondents with opportunities to highlight the kind of professional and staff development experiences they would like made available when they encountered new practices and issues in the future.

In order to determine if certain groups of people required, felt that they needed or preferred, particular types of staff development, comparisons were made across a number of fields including:

- ❖ the type of provider
- ❖ the teaching qualifications of instructors
- ❖ whether the teacher/trainer was employed on a full-time or part-time basis
- ❖ the State in which the teacher/trainer worked
- ❖ types of staff development

Type of provider

An ANOVA was used to determine if there were any differences between the mean scores of instructors in TAFE and non-TAFE providers concerning their *personal view of learning* using a question where teachers selected one of three descriptors to describe an excellent teacher. Instructors were asked to select either a content, process or transformation approach based on a short description of each teaching orientation. A description of each approach can be found in Question 13 of the survey (see appendix 2). Statistically significant differences between TAFE and non-TAFE providers $F(1, 152, =6.72, p=0.01)$ were found with the TAFE mean ($\bar{x}=2.25, SD=0.62$) much closer to the transformation orientation than the non-TAFE mean ($\bar{x}=1.93, SD=0.58$). Thus, it could be argued that non-TAFE providers were more inclined to think that excellent teachers employed content-process approaches, whereas TAFE providers considered excellent teachers to have a more process-transformation orientation. It may also reflect differences in the kind of courses offered.

There were also statistically significant differences between TAFE and non-TAFE provider's views of CBT. Instructors were asked to indicate/express their opinions about CBT on a Likert scale that ranged from one to five (strongly for [1] to strongly against [5]). There were statistically significant differences between TAFE and non-TAFE providers on *their opinions of CBT*, $F(1, 157, =6.0, p=0.015)$, *the appropriateness of CBT to their field of study* $F(1, 157, =5.66, p=0.018)$, but not their *understanding of CBT*, $F(1, 157, =0.07, p\geq 0.05)$.

The means and SDs for these three questions, presented in table 3.19, reveal some important findings. With respect to their opinion of CBT, non-TAFE instructors were more supportive of competency-based approaches than TAFE instructors. This trend continued with the respective trainer's opinion of the appropriateness of such approaches to their field of study. Interestingly, on average, both types of providers considered that they had a reasonably good understanding of CBT.

Table 3.19:¹² Means and SDs of CBT approaches by provider type

| | \bar{x} | SD |
|--|-----------|------|
| <i>Opinion of CBT in general</i> | | |
| TAFE | 2.35 | 0.90 |
| non-TAFE | 1.94 | 0.57 |
| <i>Appropriateness of CBT to field</i> | | |
| TAFE | 2.27 | 0.96 |
| non-TAFE | 1.83 | 0.64 |
| <i>Understanding of CBT</i> | | |
| TAFE | 1.85 | 0.82 |
| non-TAFE | 1.90 | 0.74 |

Qualifications

There were no statistically significant differences between the mean scores of instructors who had obtained teaching qualifications above a Certificate IV in workplace training level when compared to those individuals who had a Certificate IV qualification when analysing responses associated with CBT. Interestingly, however, instructors with higher teaching qualifications were more likely to disapprove of competency-based practices than individuals who held a Certificate IV qualification (see table 3.20). The greatest difference between means occurred with the *appropriateness of CBT to their field of study* question ($\bar{x} = 2.7$ for instructors with a teaching qualification greater than a Certificate IV as opposed to $\bar{x} = 2.1$ for those instructors with a qualification of level IV only).

Table 3.20: Opinions of CBT based on teaching qualifications

| | \bar{x} | SD | ANOVA |
|--|-----------|------|-----------------|
| <i>Opinion of CBT in general</i> | | | |
| Above Certificate IV | 2.3 | 0.86 | not significant |
| Certificate IV | 2.1 | 0.97 | |
| <i>Appropriateness of CBT to field</i> | | | |
| Above Certificate IV | 2.7 | 0.96 | not significant |
| Certificate IV | 2.1 | 0.90 | |
| <i>Understanding of CBT</i> | | | |
| Above Certificate IV | 1.9 | 0.84 | not significant |
| Certificate IV | 1.8 | 0.61 | |

Type of employment

There were differences between the opinions of full-time and part-time instructors when comparing their views of CBT. There were statistically significant differences between full-time and part-time instructors when comparing their *opinions of CBT*, $F(1, 166, =3.09, p \leq 0.05)$, the *appropriateness of CBT to their field of study* $F(1, 165, =5.6, p \leq 0.05)$, but not their *understanding of CBT*, $F(1, 157, =0.07, p \geq 0.05)$.

Table 3.21: Opinions of CBT with respect to employment status of instructors

| | \bar{x} | SD | ANOVA |
|--|-----------|------|-----------------|
| <i>Opinion of CBT in general</i> | | | |
| Full-time | 2.3 | 0.89 | F(1,166) = 3.9 |
| Part-time/casual | 1.9 | 0.46 | p = ≤ 0.05 |
| <i>Appropriateness of CBT to field</i> | | | |
| Full-time | 2.3 | 0.96 | F(1,165) = 5.6 |
| part-time/casual | 1.8 | 0.65 | p = ≤ 0.05 |
| <i>Understanding of CBT</i> | | | |
| Full-time | | | not significant |
| Part-time/casual | | | |

Staff/professional development experiences

The 'factor' scale, see table 3.22, was generated by multiplying first preference frequencies by three, second preference frequencies by two and third preference frequencies by one. Thus, the most useful way that instructors considered they had learned about CBT was undertaken through 'learning on the job' experiences (24.5%). The next most popular form of professional/staff development was talking to colleagues (16.2%). Both types of learning could be classified as informal training, and, when combined, account for over 40 per cent of the factored responses.

There was a contrast between the types of staff/professional development instructors found most useful and those methods being presently undertaken by individuals attempting to learn about CBT (see table 3.23). Over 27 per cent of respondents, for example, indicated that they were presently reading professional journals in order to keep abreast of current trends in CBT (compared to approximately nine per cent of instructors who thought it provided them with significant development in the past). Moreover, 12.5 per cent of instructors were presently learning about CBT through university, whereas only about five per cent of instructors indicated that this form of development was particularly useful. Perhaps the most interesting comparison between the type of professional development instructors felt was most significant to their development and the type of experience presently engaged in was 'learning on the job.' Although this type of staff development had the highest frequency in both previous and current learning, 47 per cent of instructors were currently undertaking this type of experience to learn about competency-based approaches.

There were, however, some consistencies among the type of learning that was most useful and the type of learning presently being undertaken. Over 55 per cent of respondents, for example, maintained that on-the-job training or talking to colleagues was being utilised to learn about CBT.

Table 3.22: Most useful ways in which instructors learnt about CBT

| Professional/staff development | 1st | 2nd | 3rd | Factor |
|---------------------------------------|--------------|--------------|--------------|---------------|
| Learning on the job | 38 (22.2) | 22 (12.9) | 20 (11.7) | 178 (24.5) |
| Talking to colleagues | 11 (6.4) | 26 (15.8) | 33 (19.3) | 120 (16.2) |
| Workshops—internal | 18 (11) | 11 (6.4) | 16 (9.4) | 92 (10.4) |
| Conferences/seminars | 20 (11.7) | 10 (5.8) | 10 (5.8) | 90 (12.4) |
| Workshops—external | 12 (7) | 15 (8.8) | 6 (3.5) | 72 (10) |
| Professional reading | 7 (4.1) | 16 (9.4) | 10 (5.8) | 69 (8.6) |
| University courses | 7 (4.1) | 8 (4.7) | 4 (2.3) | 41 (5.6) |
| Action learning | 9 (5.3) | 2 (1.2) | 6 (3.5) | 37 (5) |
| Interaction with professional bodies | 3 (1.8) | 5 (2.9) | 9 (5.3) | 28 (3.9) |
| Visits to other organisation | 1 (0.6) | 7 (4.1) | 10 (2.9) | 27 (3.2) |

Table 3.23: Current learning and previous learning situations used by instructors to learn about CBT

| The main way in which instructors learn about CBT | Current learning % | Significant previous learning % |
|--|---------------------------|--|
| Learning on the job | 47.0 | 24.0 |
| Professional reading | 27.4 | 8.6 |
| Talking to colleagues | 8.5 | 16.2 |
| Conferences/seminars | 5.7 | 12.4 |
| Interaction with professional bodies | 3.7 | 3.9 |
| Workshops—internal | 2.8 | 10.4 |
| Workshops—external | 2.8 | 10.0 |
| University courses | 1.2 | 5.6 |
| Action learning | 0.9 | 5.0 |
| Visits to other organisation | 0 | 3.2 |

There was a noticeable decline in the place of seminars or conferences for professional development. This statistic suggests that there are now fewer opportunities for instructors to update their knowledge of CBT from informed individuals outside their immediate working environment. Moreover, it may reflect the course of the innovation process which commonly starts with lectures and seminars and then responsibility is passed on to instructors to develop their own practice from this knowledge base.

Interpretation of survey data

The survey was designed to assess the effects of competency-based approaches on the role of instructors across a range of providers in the VET sector. Data from the survey were analysed across a number of categories—including *type of provider, location of provider, AQF level of students, and nature of student*—in order to access information about the instructor's *view of teaching, their organisation, their opinions of CBT, their experience in CBT, ways in which they learnt about CBT, and their understanding of training packages*.

Generally, instructors had a positive opinion of CBT. Over two-thirds (67%) of those surveyed indicated that they were on the 'strongly for' side of the spectrum (i.e. selected either one or two on the Lickert scale). Similarly, 70 per cent of the instructors selected these categories for the question related to the appropriateness of a CBT format to their field of study. When asked to describe their understanding of CBT, over 80 per cent of the instructors considered that they had a thorough, or quite strong, understanding of CBT. This suggests that CBT has now been in place for long enough for most practitioners to have developed a satisfactory understanding of its process and structure.

Figure 3.2: Opinion of CBT

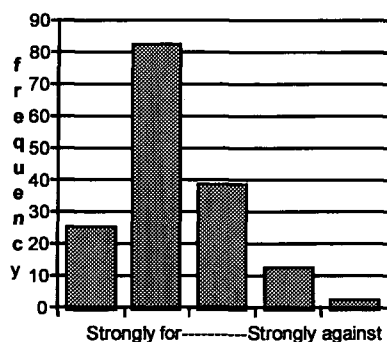
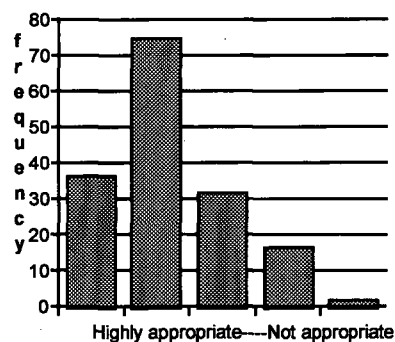


Figure 3.3: Appropriateness to field of study



Despite the fact that most instructors had a fairly positive opinion of CBT, instructors were finding some features more difficult to implement than others. Although this is understandable, two of the features appeared to be creating many more difficulties than the others identified in the survey. These features—*flexible entry and exit* and *assessment of demand*—were creating moderate or major difficulties for approximately one-third of the survey respondents. Consequently, instructors had argued that the need to implement these two features into courses had a negative effect on the way they would like to develop teaching/training experiences. In an earlier study (see Smith et al. 1997) the research team found that a lack of resources at sites was a major cause of such difficulties. For TAFE teachers *assessment at least partly in the workplace while working* was also

causing considerable difficulties. Again, a lack of available resources could account for the difficulties associated with the implementation of this feature.

A comparison between personal perceptions and actual practice in CBT

It was evident that instructors' understanding or perceptions of what distinguished CBT from other forms of practice were not always transferred to the courses these people taught. There were discrepancies between the type of features highlighted by instructors as necessary components of CBT when compared to features that would most likely be taught in courses at a given site. Instructors, for example, indicated that *industry was involved in course monitoring* (third highest response) in their course but did not consider such a feature to distinguish CBT from other forms of training (second lowest response). Similarly, the feature *assessment criteria are made public to students* was frequently present in courses taught by the instructors (fourth highest response) but was not considered to be a distinguishing feature of CBT (fourth lowest). In several other instances features that were most frequently present in courses were not the features the instructors felt distinguished competency-based approaches from other forms of training.

A closer analysis of the type of features identified by instructors as being most recognisable as features of CBT revealed other dichotomies. Table 3.24 presents some of the highest and lowest ranked competency-based features identified by instructors. The table has been divided into two columns—one with CBT features that were related to curriculum and accreditation, the other with features that were associated with teaching-learning interactions. Although it could be argued that there is a degree of overlap between all the CBT features presented in the survey, this table does reveal quite different patterns in the way instructors ranked the features.

Table 3.24: CBT features ranked, categorised in terms of curriculum/accreditation or teaching-learning interactions

| Features associated with curriculum/accreditation | | Features associated with teaching-learning interactions | |
|---|-------------|---|------------|
| Course based on industry competency standards | highest | Training involves doing as well as watching | 3rd lowest |
| Assessment based on competency standards | 2nd highest | Assessment criteria are made public to students | 4th lowest |

This ranking allocation tends to suggest that the instructor's view of CBT is linked to nationally accredited competencies and not issues that impact on themselves, and their students, more directly. In other words, features usually associated with the interaction between instructors and their students are not yet given the same attention as standards-based requirements that they have no control over. CBT is seen as something that is imposed from outside and not necessarily related to what they do in the classroom.

It also needs to be recognised that the competency-based environment is still relatively new for many instructors in the VET sector. Most instructors have probably focussed on the administrative components of CBT when adapting to new practices before focussing on the type of features more directly associated with students. As instructors become more competent in dealing with the CBT environment themselves some of the features presently given a low priority may be valued more highly by instructors across the sector.

Differences in the way CBT has been implemented and adapted across sites

Previous studies have shown that CBT has been implemented in a variety of ways (Smith et al. 1997) and as a result has impacted differently upon the type of teaching and learning situations adapted across sites. Moreover, instructors vary in the degree with which they have understood, implemented and developed expertise in the delivery and assessment of competency-based approaches (Smith et al. 1997). A major focus of the present study was to examine differences and commonalities in the quality and nature of CBT instruction in a range of providers when considering several situational variables. These variables included: the field of study in which the teacher/trainer taught; whether the site was a TAFE or non-TAFE provider; the AQF level of most of the students an instructor taught; and the nature of the students.

Field of study

Generally, most instructors considered that they had a good understanding of CBT. There was a moderate correlation between *instructors' understanding of CBT and their opinion of CBT* ($r = 0.25$). Importantly, there was a very strong correlation between the relationship between an individual's opinion of CBT and the degree to which he or she regarded CBT to be appropriate to their field of study ($r = 0.68$). This very strong relationship suggested that instructors' field of study influenced the extent to which they approved of CBT. Consequently, any new innovations in the sector need to address educational paradigms associated with specific fields of study in order to gain acceptance in the future.

Type of provider

Several differences between the opinions and understandings of TAFE and non-TAFE providers emerged from the study. The very fact that 80 per cent of the survey returns were from the TAFE sector suggested that differences between the two providers were apparent (with TAFE teachers more inclined to want to express their views on issues associated with CBT). In the first instance, there were obvious differences between the personal view of learning of instructors from different types of providers. TAFE teachers were more inclined to conclude that learning is enhanced in environments that promote process or transformation approaches to teaching and learning. In contrast, non-TAFE providers stated that content or process orientations were the most beneficial for

learning. On a learning continuum, it seemed that non-TAFE instructors valued an emphasis on delivering information in a straightforward manner, whereas TAFE instructors were more inclined to identify critical thinking and the ability to challenge learner perspectives as goals for teaching.

There were also differences in the two groups of instructors' views of CBT. Although there were no differences between individuals' perceived understandings of CBT among the two groups, there were differences between their views of CBT and the extent to which they felt CBT was appropriate to their particular field of study (see table 3.25). In both instances, non-TAFE providers were more positive about the implementation of CBT than TAFE instructors. These results supported the findings of another study undertaken by the group (see Smith et al. 1997), where extensive case study analysis found that non-TAFE providers had adapted CBT approaches to their teaching/training practices more readily than that of TAFE teachers. This issue is a complex one and these findings do not suggest that one type of provider is actually implementing competency-based approaches in a more efficient or professional manner than the other group. The results do indicate, however, that instructors in the non-TAFE sector are still more 'comfortable' with CBT than individuals in the TAFE sector.

Table 3.25: TAFE and non-TAFE instructors' opinions of CBT

| Question | TAFE | | Non-TAFE | |
|--|-----------|------|-----------|------|
| | \bar{x} | SD | \bar{x} | SD |
| What is your opinion of CBT? | 2.35 | 0.90 | 1.94 | 0.57 |
| How appropriate is CBT to your field of study? | 2.27 | 0.96 | 1.83 | 0.65 |
| How would you describe your understanding of CBT | 1.86 | 0.83 | 1.90 | 0.75 |

Apart from *the assessment at least partly in the workplace while working* feature, which was utilised more frequently in non-TAFE settings, there were no statistical differences between the frequency in which specific CBT features were employed in TAFE and non-TAFE providers across the VET sector. This important finding indicated that there was a degree of consistency among providers with respect to competency-based features used in courses, and the extent to which specific features were employed in courses. When asked to nominate whether any of the features had created difficulties in terms of limiting teaching/training experiences there were, however, several differences between the two sectors. Specifically, three features—including *assessment based on competency standards*, *courses based on competency standards*, and *assessment criteria are made public to students*—were highlighted. In each case, TAFE teachers indicated that they were experiencing more difficulty using these features in learning environments than instructors in non-TAFE sectors. It is not surprising that the two 'competency standards' features are present in the results of this particular question as other research findings have supported the notion that instructors in the TAFE sector have found documentation in a CBT format to be fragmented and limiting for holistic learning experiences (see Smith et al. 1997). On the

other hand, many non-TAFE providers have indicated that a CBT framework is congruent with their teaching/training methods.

The fact that TAFE providers found it more difficult to implement the *assessment criteria are made public to students* feature was more difficult to interpret. It may be the case that the TAFE instructors are spending most of their time on issues associated with accreditation requirements and are still in a transition period with some of the student-based components of CBT in their practice.

Location of provider

It was evident that CBT was being implemented, and had a similar impact on the role of instructors, in a relatively consistent manner across States and Territories in Australia. There were no major differences between the type of features that caused difficulty to instructors, nor was there any indication that instructors in particular States had a better understanding on new developments than others. There were differences, however, between the extent to which some of the CBT features were being used in courses. Instructors in Queensland reported more features of CBT being used in courses undertaken in their State than instructors elsewhere in Australia. Again it needs to be emphasised that such comments are made on the impressions of instructors across Australia—the research team cannot substantiate these claims in any way. Nevertheless, it is interesting that Queensland instructors consistently felt that most of the features identified in the survey were ‘always’ present in the courses they taught.

Three features—including course documentation in a CBT format, assessment criteria made public to students, and assessment at least partly in the workplace whilst working—were more likely to be present in courses undertaken in Queensland than any other State. Interestingly, these implementation differences were not consistent across State or a generalised approach to CBT. In other words, there were differences when specific features were compared across State; however, we could not conclude that one State was adapting a competency-based framework more extensively than other States.

AQF level of students

As well as monitoring differences in the way CBT had affected instructors across provider and location categories, the survey investigated whether competency-based approaches were undertaken differently depending on the students who were being taught. In other words, to what extent was the effect of CBT influenced by the students being taught?

Generally, instructors who predominantly taught lower level courses (e.g. AQF 1 courses) were more likely to have CBT features in their courses than those instructors who were usually involved in diploma courses. Specifically, the features *course documentation in a CBT format* and *assessment at least partly in the workplace while working* were present more frequently in entry-level courses. The very nature of the content of these

courses, being more skill-based in nature, would work most effectively under a CBT philosophy. In contrast, higher level courses that tend to require a range of problem-solving skills may not lend themselves to a CBT approach as easily. Similarly, instructors involved in lower level AQF courses indicated that they were having less trouble implementing some of the features identified in the survey. The *recognition of RPL and assessment is based on demonstration of skills* features were more easily implemented into courses when instructors were working with students in AQF 1 courses.

VET teachers' attitudes towards, and expectations of, training packages

Experience with other innovations, such as CBT, has shown that teachers' attitudes towards the innovation affects, very strongly, the extent to which they implement it (so the survey asked teachers what their attitude was towards training packages). Generally, instructors' attitudes toward training packages were quite 'reserved' at this point in time. It was apparent, however, that non-TAFE teachers generally felt happier about training packages than TAFE teachers. This is consistent with findings about CBT in earlier research (e.g. Smith et al. 1997) and is usually taken to mean that TAFE teachers are more concerned about educational issues than non-TAFE teachers and therefore are suspicious of innovations which seem to be inconsistent with sound educational practice.

Teachers were also asked whether they thought training packages would change their everyday work. Here again there was a difference between TAFE and non-TAFE teachers, with TAFE teachers expecting more change than the others, and also more willing to offer an opinion on the subject.

Table 3.26: Instructors' impressions of how training packages will impact on their work environment

| Will training packages change your work as a teacher? | TAFE teachers % | Non-TAFE teachers % |
|---|-----------------|---------------------|
| A lot | 30 | 7 |
| Somewhat | 38 | 32 |
| A bit | 16 | 16 |
| Don't know | 12 | 32 |
| No response | 4 | 13 |

Importantly, 16 per cent of TAFE providers and 45 per cent of non-TAFE providers either did not know or were not prepared to respond to the question. It could be argued that some of the inconsistencies associated with CBT over the past five years are re-emerging in the form of training packages.

Conclusion

CBT was introduced in response to the government's training reform agenda and the VET sector has now almost completed its implementation. It is now timely to evaluate progress in this area. This survey can be seen as a way of assessing the extent to which instructors in the VET sector have accepted CBT, the extent to which they understand the principles underpinning CBT and how comfortable they are with their progress in establishing CBT practice. Furthermore, the survey permitted the identification of a range of factors that influenced the way instructors have responded to CBT.

From an analysis of this survey data it appears that:

- ❖ CBT is perceived to be well understood by instructors across the VET sector
- ❖ the degree of acceptance of CBT is moderately high in most cases but is dependent on the field of study and the extent to which CBT was seen as appropriate to that field
- ❖ practitioners were more satisfied with their level of understanding of CBT than with aspects of their practice (for example, assessment on demand and RPL)
- ❖ the introduction of training packages has caused instructors to revert to the kind of concerns initially encountered when faced with CBT. They consider that they need to know more about training packages and have yet to gain experience in using them in practice
- ❖ instructors' concerns have moved away from their understandings of principles that underpin CBT to a focus on issues related to teaching/training and the administration of this form of training
- ❖ there are some statistically significant differences in the survey responses of instructors when variables including type of provider, location of provider, AQF level of courses, and nature of students involved are taken into account
- ❖ differences between TAFE and non-TAFE instructors were common in a number of areas

4 An analysis of the case studies and focus groups

Section 1: The case studies

A series of six case studies was undertaken as part of this project. Specifically, the case studies attempted to:

- 1 monitor the effects competency-based approaches have had on the role of instructors across the sector
- 2 describe the range and type of professional development experiences available to individuals at particular sites
- 3 encourage instructors to reflect upon the type of professional development experiences they have encountered recently and evaluate the extent to which these experiences have enhanced their teaching and learning
- 4 monitor commonalities and differences in these perceptions and understanding with respect to an individual's management level at a site (from instructors through to managers)

The six case studies are listed below and followed by a brief abstract of each. The full case studies are included in appendix 1. The case studies included:

- ❖ Willson Training Centre, a private provider in Tas.
- ❖ Mission Employment, a community provider in NSW
- ❖ Canberra Institute of Technology, a TAFE provider in ACT
- ❖ 'C' College, a regional multi-sector provider in NT
- ❖ Townsville schools, school providers in Qld
- ❖ All Seasons, an enterprise provider in WA, NSW and Vic.

Willson Training Centre

Willson Training Centre is a private provider of training programs in Hobart, Tasmania. It was established in 1981 under the auspices of Centacare, the social welfare arm of the Catholic Church, to provide training for young unemployed people. In mid-1998 CBT was in operation in all facets of training. Around 100 trainees were undertaking courses in commercial cookery, food and beverage services, commercial cleaning, retail operations, and office and computer skills. The CBT approach was strongly featured in course brochures and Willson Training Centre advertising material. It was clearly a significant feature of the Willson Training Centre approach to training, and, when meshed

with other features such as self-paced learning, individualised treatment of trainees and negotiated arrangements with employers, they have produced a unique and seemingly very effective training format.

Mission Employment

This study was undertaken at a community-training provider in a large rural city in New South Wales. Most courses were designed for people seeking employment. There was 22 staff members employed at the centre; however, funding cuts to SkillShare courses were about to result in the reduction of six positions within the next month.

CBT has been an integral part of teaching and learning approaches at this site for over six years. Mission Employment ran three courses in CBT at this site, including a corporate, welding and retail course. Although there was quite a diverse range of opinions about what constituted CBT practice, there was a general consensus that CBT approaches had improved the quality of teaching and learning experiences at the site. Most instructors believed that CBT had made them more reflective teachers and kept them abreast of industry standards.

It was evident that the instructors' previous background and experience were influential in coming to terms with CBT practices. Furthermore, the adoption of CBT practices was linked to personal views about the teaching-learning process. Generally, this case study showed that individuals' beliefs about the teaching-learning process were central to both (1) concerns about CBT and (2) ways of implementing CBT practices.

Canberra Institute of Technology

The case study was carried out within the Faculty of Management and Business in March 1998, and concentrated on two teaching sections: management and office administration (BATS). Canberra Institute of Technology has a well developed and resourced staff development function; however, it was found that many individual teachers did not access the staff development activities, for a variety of reasons. Teachers' views about CBT were affected by their prior employment experiences, the ways in which they first learned about CBT, their career stage, and by the culture of their teaching section. Many teachers were still unhappy with CBT, particularly with modularisation. They did not feel that staff development could solve their problems. Although some staff had found ways of working more comfortably with CBT, knowledge about effective ways of using CBT did not appear always to be shared within or across teaching sections. Knowledge about training packages appeared to be confined to senior management at this stage. Perceptions of future staff development needs varied with level in the organisation: teachers were more inclined to mention technology as a major training need, while managers were more inclined to mention factors connected with competition and the training market.

'C' College

'C' College is located in Alice Springs and is the only post-compulsory education institution in Central Australia. It was a fully autonomous trisector institution responsible directly to the Minister for Education and provides courses at the senior secondary level, TAFE and higher education. This case study was conducted over a period of three days and focussed on VET. Data were gathered by individual interview, informal discussions, observations and a focus group.

The teaching staff at 'C' College was relatively stable with many staff having spent a considerable time in the institution. Staff had mostly been using CBT for more than four years and had time to consider its strengths and weaknesses. The teachers differed considerably in their conceptions of CBT. These differences arise, in part, from the way in which CBT has been developed and implemented in the various fields of study.

Staff at the college developed their understanding of CBT in a variety of ways but their practice was mainly developed on the job and involved discussions with other staff in their teaching area. CBT was perceived in a positive light by most staff. Teachers identified that for them CBT had progressed through initial stages of uncertainty and loss of satisfaction on to a period of active experimentation, and was now at a stage which mainly involved finetuning. Almost all of the staff interviewed agreed that if they had their time over again they would implement CBT. However, the form of CBT to be introduced would now be different from the one they first used.

It was found that managers did not always consider CBT-related issues from the same perspective as practitioners. However, both groups tended to believe that staff development was critical in such isolated situations and that it could significantly improve the provision of VET. It was anticipated that appropriate staff development could also lead to the successful transition to the use of training packages, which is scheduled to begin in 1999. A key feature of this institution was open communication that allowed problems to be addressed in a timely and professional manner.

Townsville schools

This case study of three high schools focussed on the outcomes the introduction of CBT has had on the roles of senior secondary schoolteachers of vocational education. The case study was carried out in Townsville, a large provincial city in Northern Queensland. The three schools have had a vocational education focus for between four and seven years. The high schools involved were Thuringowa High School, Kirwin High School and William Ross High School. In these three schools one experienced teacher responsible for the co-ordination and teaching of vocational education subjects and either the principal or deputy principal of the school participated in the discussions.

CBT had made its presence felt in these three secondary schools with the introduction of vocational education subjects in the senior secondary

years. However, the extent to which the curriculum, pedagogical and assessment implications of CBT are endemic to the school-based delivery of these subjects is a matter for debate. CBT in a school environment appears to be very different from CBT in a VET environment such as TAFE. CBT is theoretically expected to be the underpinning of the vocational education subjects that are on offer but the reality of the discussions did not reflect this. The lack of consistent contact between TAFE and the school sector restricts the exchange of ideas about CBT, and teachers have relied on board-run courses and workshops to inform their professional practice.

Vocational education in schools is discussed as being both a means and an end: a means to keep students at school and an end in the award of credentials which articulate with further education and training. These subjects have to sit beside the more traditional subject offerings within a framework that is circumscribed by history and past practice. Timetables, class arrangements, teaching loads and classroom facilities are all still tied back to a senior secondary system designed primarily for those young people going to university. Teachers face immense challenges in trying to rationalise and work within two paradigms in coming to terms with CBT approaches.

All Seasons

All Seasons is a nationally based hotel management group with establishments in all States and Territories (with the exception of Tasmania). The organisation presently has 27 hotels with over 2000 people employed in the organisation. All staff were encouraged to gain a hospitality-based qualification. The organisation is a nationally accredited training provider.

Courses undertaken through the organisation include Certificate I in Front Office/Reception, Certificate in Food and Beverage, and Traineeship in Hospitality. All operations staff at the hotels, including front line personnel, supervisors, and some senior managers, undertake training courses. The training section of the organisation includes a national HR manager, six regional HR managers and regional instructors. All HR managers have, as a minimum, a Category II training qualification. In addition, these individuals have had at least three years supervisory or management experience in the organisation. The training manager commented that these people had a substantial amount of supervisory experience and could be considered as 'allrounders'.

The CBT philosophy was very positive in the organisation. The strong operations focus of the hospitality industry seems to be aligned with such training approaches. RPL was used extensively across all forms of training and was considered, by those interviewed, to be paramount to a CBT framework. Despite the fact that the training programs were spread across the entire country it seemed that a consistent approach to CBT was being implemented throughout all courses.

Summary of the case studies as a group

The case studies were chosen on the basis of provider type, location, type of training and size of organisation in order to embrace, as fully as possible in six sites, the range of variables which might influence staff development and the role of competency-based approaches on individuals in the sector. The case studies are reproduced in full in appendix 1.

How CBT was introduced

The way in which CBT was introduced to providers differed considerably. In smaller organisations such as Willson Training Centre and Mission Employment and the enterprise-based All Seasons Hotel chain CBT was introduced within the organisation with minimum disruption. In the case of Willson Training Centre, the introduction began with a staff development exercise in 1993 that equipped instructors to initiate CBT. In the case of Mission Employment, Willson Training Centre and All Seasons Hotel, staff were accustomed to skills-based training and had a strong industry orientation, which made for an easier transition to CBT. For Mission Employment and Willson Training Centre, staff saw that this approach had value for their trainees in terms of employability. For All Seasons Hotel the value of CBT was directly related to its own need for capable staff who can perform at levels beyond the minimum industry standards. This is not surprising since training and HR management are closely linked in this organisation. The relatively small 'C' College was similar in many respects in its acceptance of CBT since in an isolated community the links between industry tend to be more direct than in metropolitan areas and students have ready access to staff. However, isolation reduced the opportunity for cross-fertilisation through sharing ideas with colleagues in other organisations.

This is in contrast with the experience of staff at Canberra Institute of Technology where many staff had experience with such training before it was introduced. Canberra Institute of Technology has well resourced and structured arrangements for staff development and strong links with bodies concerned with the development and introduction of CBT. It was also involved with major national VET staff development initiatives associated with CBT. The Townsville schools' case study highlighted the difficulty of putting in place new practice in a cultural environment that has little in common with the VET sector. 'Townsville schools' is relatively isolated and has few VET links and even fewer opportunities for participation in wider staff development activities relating to CBT.

The above discussion highlights the importance of context in relation to change and development. At Mission Employment, 'C' College, Townsville schools and Canberra Institute of Technology some staff appeared quite critical of the way in which CBT had been introduced in their organisation. It appears that these staff would have preferred a longer lead-time and greater opportunities for discussion, negotiation and appropriate training. Some staff criticised the top-down nature of the change. There was support for industry input in the competency movement.

What staff think about CBT

Personal views of staff concerning issues associated with CBT differ greatly. In some cases the differences between individuals within organisations are relatively small, as was the case in All Seasons Hotel, Willson Training Centre and Mission Employment. In these three cases there was a high degree of shared understanding and acceptance of CBT. In the other organisations, including 'C' College, Townsville schools and Canberra Institute of Technology, the differences in understanding and acceptance of CBT are more varied. These differences are associated with age, industry area, prior experience, educational philosophy, level of course, the way CBT was introduced and the level and nature of support for staff development. In general instructors in skills-oriented areas with close industry ties were favourably disposed towards CBT. A significant number of practitioners saw the challenge and additional work involved in introducing CBT as an unnecessary imposition. Some instructors felt that they were doing a good job and that little of what they heard about CBT initially persuaded them to think otherwise. For these people the issue was the way in which change was introduced and managed rather than CBT *per se*.

CBT issues and concerns

Generally, instructors viewed CBT in a positive light. This was particularly evident in the relatively small non-TAFE providers. In contrast, the instructors at 'C' College and Canberra Institute of Technology identified a number of issues and concerns with which they had to grapple in the initial stages of implementation. These issues and concerns were associated with assessment, teaching-learning situations, the CBT philosophy and documentation or content development. Table 4.1 provides a list of some of the dialogue captured at these sites.

A consistent theme across many of the sites was the lack of time instructors had to adopt CBT practices in the initial stages of implementation. This can be explained, in part, by the need for teachers to spend more time planning a range of teaching and learning experiences. For some instructors, this phase passed as teachers gained new expertise and regained control of the changed training environment. This period was followed by a stage of finetuning in many of the full-time instructors. As expected, part-time instructors found it more difficult to move through this 'finetuning' stage. Moreover, it needs to be recognised that some teachers were still opposed to the ideas of CBT and felt strongly about the burden a CBT approach had placed on the teaching-learning situation.

Table 4.1: Main issues associated with assessment, teaching-learning situations, CBT philosophy, and documentation/content

| |
|---|
| <p>Assessment</p> <ul style="list-style-type: none"> ❖ How do you know they are really competent? ❖ How can you make assessment transparent without giving the answers? ❖ How do you cater for better students if the assessment is ungraded? ❖ How do you get appropriate criteria for graded assessment? ❖ How can you assess whether a student is flexible or adaptable? ❖ Should trainees who are not competent at the completion of the nominal duration of a module fail? |
| <p>Teaching-learning situations</p> <ul style="list-style-type: none"> ❖ Getting students to take responsibility for managing their own learning ❖ Resisting student pressure to revert to the more comfortable role of upfront teacher ❖ Getting used to having students at different levels at the same time ❖ How to reward good students ❖ Balancing skills and the more general competencies required in the workplace ❖ Helping students who were uncomfortable with the learning approach used |
| <p>CBT philosophy</p> <ul style="list-style-type: none"> ❖ How can you make sure that incompetent students can't just pass by having lots of goes? ❖ Key competencies and what to do with them ❖ Weighing up evidence and knowing that it was adequate to indicate competence ❖ Working within the organisational constraints such as block release ❖ Getting used to a new role ❖ Implementing RPL |
| <p>Documentation/content</p> <ul style="list-style-type: none"> ❖ Developing learning guides/workbooks ❖ Integrating early modules into a meaningful introduction ❖ Reducing overlap between modules |

Almost all staff interviewed in the case studies acknowledged the importance of coming to grips with the concept of CBT and the changed nature of assessment for a teacher or trainer new to CBT. However, members of staff varied in their understanding and practice of CBT. There was some obvious confusion between the concept of CBT and the methods by which CBT might be delivered. However, most seemed to agree that CBT had changed the way in which they taught and assessed. Staff at Townsville schools highlighted the difficulty they had in coming to understand the notion of competency, having to assess demonstrated skills and not to grade students mainly on their underpinning knowledge which run contrary to current practice in Queensland high schools. Practical issues related to assessment caused concern to many of these teachers. These practical issues included decisions about the number of attempts a trainee may have to complete an assessment task and developing criteria for the number of contexts in which a trainee should perform such tasks in order to be deemed competent. Several instructors commented that such issues (related to assessment) directly impact on decisions made about the teaching-learning process.

Staff at Canberra Institute of Technology, for example, recognised that the structure of CBT modules and syllabus documents had influenced the way in which they organised their teaching. Such changes were sometimes perceived as breaking up a course into smaller less integrated parts—resulting in a loss of course cohesion. At most sites, the greatest challenge for the provider was the way in which flexible delivery was

organised and structured. In most instances, a lack of resources (associated with the need to have resources available for extended periods of time) hindered 'true' flexible delivery. Flexible delivery was more frequently associated with self-paced learning within one pathway than with the provision of alternative learning pathways using a variety of media or approaches.

Staff development

At all sites staff were asked how they attempted to develop themselves in relation to CBT. Issues associated with staff development could be considered at a personal level and as a result of opportunities made available to an individual at the site. Thus, some of the responses could be considered as 'professional' or personal development activities that may be initiated by the individual. Other responses would be associated with opportunities provided by management. The staff development opportunities made available to individuals were available to a number of staff members, as opposed to individuals being catered for on a one-to-one basis. Instructors' responses could be categorised under the headings of:

Personal initiatives

- ❖ reflecting upon my own experience
- ❖ discussion with colleagues
- ❖ own reading
- ❖ Internet searches

On-the-job training

- ❖ developing and revising teaching resources
- ❖ working in teams
- ❖ just doing new things
- ❖ qualifying as a workplace assessor

Formal courses

- ❖ completing a teaching degree
- ❖ undertaking post-graduate study

Management-initiated development

- ❖ attending in-service courses
- ❖ workplace visits

Specific industry focus

- ❖ period of return to industry
- ❖ keeping up with developments in industry
- ❖ having my own business
- ❖ establish own network of people in my area
- ❖ industry advisory groups
- ❖ working across the school-TAFE boundary
- ❖ contact with industry training authority boards (ITAB)

People gave somewhat different responses when asked how they preferred to learn about teaching/training. These responses included:

- ❖ seminar-workshops in my area
- ❖ visiting other colleges and talking to people in the same area
- ❖ shadowing an excellent instructor
- ❖ cross-faculty discussions to get different perspectives
- ❖ on-the-job support and mentoring
- ❖ formal study
- ❖ experiment and reflect on the outcomes
- ❖ finding good resources to use
- ❖ on-line conferences
- ❖ return to industry

Some early staff development activities dealt with understanding the federal and State governments' reform agenda and the place of CBT in that process, and there was little else available to facilitate other aspects of professional development at that time. Thus, methods used to facilitate staff development usually depended on what was available at the time. The researchers noted that there were many reasons for engaging in staff development activities. These included the need to be comfortable in the new workplace environment, the desire to be professional and the need to keep up to date when on contract. The preferred ways of learning differed from the ways in which staff had developed at the case study sites. The preferred forms of staff development depended on a range of factors, including the particular issue or concern to be addressed, the degree to which the person had come to grips with CBT, preferred learning style and convenience. The staff development needs of instructors and those with a significant administrative role differed. This was particularly noted at 'C' College and All Seasons Hotel. The researchers were left with an impression of a growing professionalism among staff at most sites.

Future staff development needs

The case studies revealed that staff were aware of their current and future professional development needs. In some cases the needs were relatively narrow and clearly articulated but in other cases the needs were both broad and unclear. As an example, three clear themes emerged from the Mission Employment case study. These involved:

- 1 the availability of staff training and development courses
- 2 the increasingly competitive nature of training
- 3 the need for cost-effective use of time and other resources

At 'C' College and Canberra Institute of Technology staff had firm ideas about the content for future staff development programs. Future development needs of staff arise from diverse sources. Sources mentioned by staff at Canberra Institute of Technology, Townsville schools and 'C' College included:

- ❖ the introduction of training packages
- ❖ user choice and deregulation of the training market

- ❖ workplace assessment
- ❖ catering for a diverse population of learners
- ❖ keeping up with technology
- ❖ improving professional practice
- ❖ reinventing TAFE
- ❖ the need to manage change
- ❖ how to manage one's own professional development
- ❖ developing a more entrepreneurial focus
- ❖ facilitating the development of part-time staff
- ❖ linking secondary schools into the VET sector

Even though some of the future development needs of vocational education teachers in the Townsville schools case study have been included in the above list, it should be noted that these teachers faced issues that were quite different from those in the other five case studies.

An overview of the case studies

Comparisons between the case study sites were analysed in two main ways. First, two members of the research team examined the reports in detail to identify common themes. These themes were then circulated to those who conducted the case studies for comment and elaboration. As a result of this process the following generalisations across the case studies were drawn.

- 1 There is a variety of understandings about the nature and practice of CBT among individuals and groups and these have changed over time.
- 2 The understanding of CBT is influenced by a range of factors including whether one is in a TAFE or non-TAFE setting, industry area, the way in which it was introduced, the level and kind of staff development support, initial teacher/trainer preparation and key players.
- 3 The way in which instructors learnt about CBT was not always in accord with the way in which they claimed to prefer to learn.
- 4 The main contribution to the development of staff in terms of their understanding and practice of CBT involved learning on the job. Other forms of learning probably became more important later when instructors began to feel more competent. There is strong evidence that the introduction of CBT has stimulated new learning.
- 5 CBT is in reality practised in a variety of forms that reflect the industry and organisational context and the staff and students involved.
- 6 CBT is seen as problematic in some situations and institutions and is uncontroversial in others.
- 7 The introduction of CBT was seen to be marked by a limited series of events rather than a coherently organised process of change and development at most sites. Many teachers are critical of the way in which CBT was introduced and the level of support they received in terms of staff development.
- 8 Staff development that met the immediate needs and concerns was seen as valuable in the early stages of the implementation of CBT.

- 9 There is often limited communication between individuals and groups about CBT practice within larger institutions.
- 10 There is some evidence that CBT has had a positive response from industry.
- 11 Teachers and trainers appreciate having a variety of avenues for professional development.

Second, those who conducted the six case studies were asked to complete the matrix set out below (see table 4.2). The matrix represented an attempt to identify the relative importance of factors identified across the case studies in the first stage of the analysis in influencing:

- ❖ understanding of CBT
- ❖ the nature and quality of CBT instruction
- ❖ adaptation of practice

The researchers considered this procedure not only preserves the rich detail of the case studies at the various sites but enables legitimate generalisations to be made which can inform the development of a model of professional development that takes into account significant environmental variables. Members of the research team were asked to indicate the extent to which forms of staff development had impacted on individual's understanding of CBT at the respective sites.

Table 4.2: The extent to which staff development impacted individuals' understanding of CBT across the case study sites

| Forms of staff development | Initial staff dev. in CBT | Initial teacher prep. | On-the-job (informal) | Collegial support |
|----------------------------|---------------------------|-----------------------|-----------------------|-------------------|
| <i>Aspect of CBT</i> | | | | |
| Understanding of CBT | moderate | moderate | extreme | very high |
| CBT instruction | high | high | high | very high |
| Adoption of practice | moderate | low | high | moderate |

The four factors—including initial staff development in CBT, initial teacher preparation, on-the-job learning, and collegial support—differed in the extent to which they were perceived to influence the three key aspects of the study. *Initial staff development in CBT* refers to courses that were used to inform instructors about the competency-based philosophy. This form of staff development may include a one-day in-service course or a training video. *Initial teacher preparation* would include, for example, an individual undertaking a Certificate IV in workplace training or a university subject. *On-the-job learning* would include informal experiences that an individual is engaged in as part of his/her 'usual' practice. *Collegial support* would include informal interactions with colleagues that shape individuals' personal practice. The first two factors could be classified as external influences, whereas the latter two would be more personal developments.

Each researcher ranked the four factors on a three-point scale (from a major influence [3] to a minor influence [1]). The totals in each column were then categorised for each factor across the three 'aspects of CBT' (see table 4.2). It needs to be recognised that these rankings are a personal

viewpoint of the researcher after a two-day visit at the site. The main purpose of this analysis was to monitor the extent to which the four staff development factors affected important factors of CBT.

Although each of the six sites was compared on an individual basis, it was not our intention to report these results in isolation. It was more beneficial, and educationally sound, to monitor trends across the six sites. By analysing the data in this way we were able to monitor the extent to which a range of staff development initiatives impacted on competency-based approaches across a diverse range of providers. Although data from the survey (see chapter 3) was analysed in a similar manner, these data were generated from the observations and perceptions of the respective researchers, as opposed to the personal views of instructors.

Analysis of the matrix

With respect to understanding of CBT, informal *on-the-job experiences* were considered to be most influential in shaping instructors' understanding of CBT (a score of three indicates that this form of learning was 'high' at each of the six sites). At most sites, instructors maintained that their knowledge of CBT increased as they engaged in teaching-learning situations that were directly applicable to their students and industry area. Similarly, *collegial support* was very strong at most sites. This is not surprising, when you consider that several of the sites were relatively small providers. Importantly, these two 'work-related' factors were more influential in shaping instructors' understanding of CBT than the more structured, or generalised, staff development options.

In contrast, the nature and quality of CBT instruction was not weighted toward the more informal, personalised factors. Generally, each of the four factors made a strong contribution to the way in which CBT was implemented at the case study sites. The four staff development factors highlighted in this analysis made an important contribution to the quality and nature of CBT instruction at the respective sites. *Initial staff development* and *initial teacher preparation* were at their most influential within this aspect of CBT.

Not surprisingly, the relationship between theory and practice was most influentially shaped through *on-the-job learning* experiences. In an increasingly competitive working environment, providers were required to adapt CBT practices to successful business principles. Thus, decisions about the way CBT was delivered were framed around current trends in industry. Moreover, decisions about the way resources would be used were influenced by specific circumstances at the site and not always based on CBT principles. Perhaps, as a result, the influence of *initial teacher preparation* was at its lowest rank in this aspect of CBT.

Section 2: Focus groups

Focus groups were convened to inform the project's findings about staff development in CBT. Specifically, they raised issues concerning the:

- ❖ type of professional development strategies that were most worthwhile for individuals and/or their organisation
- ❖ structure of the professional development activities
- ❖ way in which instructors made sense of the different sources of information regarding teaching with CBT

Two focus groups were held in the second half of 1998, in Sydney and in Melbourne, consisting of a range of stakeholders in VET staff development. These included:

- ❖ State and TAFE institute staff development personnel
- ❖ managers from non-TAFE providers
- ❖ 'new' (with less than two years' experience) teachers from TAFE and non-TAFE providers

In the Sydney focus group new teachers were under-represented because of last-minute cancellations. In both cases the average age of participants was in the early 40s, and, apart from the new teachers, participants had an average length of around 15 years teaching experience.

In each case, discussions were recorded, with permission, and transcribed, with a full description and analysis being returned to participants at the Melbourne forum. In the Melbourne group, as well as two plenary sessions, separate discussion groups took place with staff development personnel and with new teachers.

Summary of Sydney focus group

Participants

| Status | Institution | Type of VET provider |
|---|--------------------------------------|--------------------------|
| Manager, staff learning and development | Sydney Institute of TAFE | TAFE |
| Co-ordinator, teacher education | Southern Sydney Institute of TAFE | TAFE |
| Manager, VET learning initiatives | Department of Education and Training | State training authority |
| New teacher | Bridge Business College | Commercial |
| Manager | Bridge Business College | Commercial |
| New trainer | Carlton United Breweries | Enterprise |

Several major themes emerged from the Sydney discussions. There is an important and contested division between individual and organisational responsibility for the development of VET staff. It was generally agreed that staff should be expected to manage much of their own professional development, but with providers taking responsibility for staff development needs arising from national and provider initiatives. Much staff development activity results from innovation and change in the VET sector, which tends to be implemented in a top-down manner. Any staff development needs analysis involves a variety of assumptions about staff understanding of such new developments; for example, the introduction of CBT or of training packages. Significant barriers occur when introducing any innovation or change, but there are several recognised strategies for altering the organisational climate to support and manage

change. These include creating an organisational climate in which open discussion and consultation about the changes and the support needed to implement the changes take place between stakeholders. Finally, there was a general agreement that changes are needed to the present approaches to staff development. Changes in the planning process, involvement of stakeholders, resourcing, delivery and follow-up are all needed. More recognition should also be given to the diversity of the backgrounds of teachers and trainers.

Summary of Melbourne focus group

This focus group concentrated largely upon staff development in CBT. It was clear that most of the participants found CBT problematic and wished this to be emphasised in staff development activities. There were differences in the use of CBT by different types of providers, and a general agreement that the wide variety of VET teachers and teaching situations led to different staff development needs. Current training reforms and ANTA and State training publications, with a focus on the one hand upon assessment and outcomes, and on the other hand about a dichotomy between former 'bad' practice and new 'good' reformed VET practice, tended to downgrade the role, and previous good work, of teachers. There was some resentment about this and a feeling that the broad community of VET teachers shared the resentment. Many suggestions were made about how teachers new to CBT should be introduced to CBT, and also some suggestions about how staff development of teachers for training packages should be carried out.

Participants

| Status | Institution | Type of VET provider |
|---------------------------|---|--------------------------|
| HR manager | Siemens | Enterprise |
| Staff development/HR | Chisholm TAFE | TAFE |
| Staff development/HR | Swinburne Institute | TAFE |
| Staff development/HR | Holmesglen Institute | TAFE |
| Managing Director | Photographic Studies College | Commercial |
| Managing Director | Computer Power | Commercial |
| Teacher | STEP Group Training | Teacher |
| Teacher/Staff development | William Angliss TAFE | TAFE |
| Teacher | Swinburne TAFE | TAFE |
| Teacher | Box Hill TAFE | TAFE |
| Teacher | Adult Community & Further Education | Community |
| Teacher | Photographic Studies College | Commercial |
| Teacher | Chisholm | TAFE |
| HR management consultant | Office of Training and Further Education (OTFE) | State training authority |

General themes from the focus groups

The issue of who should be responsible for staff development was discussed. Some distinction was made between professional development (seen as an individual responsibility) and staff development (to support organisational imperatives, and therefore an organisational responsibility). Non-TAFE providers tended to use the external labour market where possible:

Where you are able to recruit the best available, then the problem of staff development is not a problem (for the organisation).

This diminished acceptance of responsibility for staff development on the part of non-TAFE providers, including enterprise providers, did not necessarily mean that instructors were less qualified.

TAFE providers, in the Sydney group, saw that there was a need to move towards the individuals' acceptance of responsibility for professional development. It was felt that this would lessen teachers' fear of change and their tendency to blame 'the system' when change arrived which they disagreed with. Such a changed climate of staff development would assist the implementation of change.

The broad nature of VET teachers and trainers was discussed and the fact that teachers could be employed in a range of contract situations, not all of which were conducive to effective staff development practices. Teachers who taught a few hours a week as an adjunct to a job in a trade or profession had their own particular needs. Private providers had different emphases and staff development needs from TAFE institutes, tending to be more tightly focussed on one industry area and, perhaps, one delivery method. For instance, Computer Power used self-paced learning and the focus was on the production of learning materials not on the teaching-learning interaction. Siemens, because of its multi-national nature, needed its instructors to undergo cross-cultural training.

The provenance of teachers was important as they brought with them the culture and values of their differing industry area. Trade teachers, for instance, might differ significantly from welfare teachers. Welfare teachers would be more likely to criticise CBT and to focus on the needs of students rather than the outcome desired by 'industry' (as expressed through competency standards).

The understanding of existing teachers about any new innovation would be varied, and no assumptions could be made about prior knowledge. Therefore it was not possible to plan 'one size fits all' staff developments for innovations such as CBT. An added complication was that managers and staff development staff themselves would have limited and varying understanding of innovations and would not always be able to plan effective staff development for teachers. This was certainly the case for CBT and the pattern appeared to be repeating itself with training packages.

There was general agreement that the introduction of CBT to new teachers was problematic. It was agreed that CBT had certain educational

pitfalls and that it was difficult for new teachers to appreciate all these pitfalls:

It's easier for less experienced teachers to fall into traps.

Acts of judgment are sophisticated.

Members of the Melbourne group were asked the question, also used in the national survey of practitioners (see chapter 3), 'If a new teacher arrived in your organisation who was teacher-trained but did not know anything about CBT, what would be the three most important things he or she would need to know about CBT?'

The members of the group listed the following items as their first 'important thing':

- ❖ that there are three elements: standards, assessment and qualifications
- ❖ the need to align the new teachers' occupational knowledge with the CBT curriculum
- ❖ the need to identify skills used by students in producing a product
- ❖ the need to identify skills and underpinning knowledge
- ❖ the need to stick to the competencies or capabilities set by the standards
- ❖ that CBT makes implicit things explicit
- ❖ that assessment must accommodate diversity
- ❖ that CBT is outcome driven
- ❖ that CBT needs to be used sensitively with certain groups of students
- ❖ the need to distil professional knowledge into limited outcomes
- ❖ that competencies can be difficult to interpret
- ❖ that students are either competent or they are not
- ❖ the need to understand what competencies are
- ❖ the need to be aware of standards

These responses indicate a number of approaches to what a new VET teacher needs to be told about CBT, and revealed much about the participants' understanding, and opinion, of CBT. The responses could be divided into four basic approaches:

- 1 simple descriptive statements about CBT
- 2 signposts about challenges CBT might present to the teacher
- 3 warnings about the 'bad' things about CBT
- 4 advice about how to overcome the 'bad' things

This variety of responses indicates that the VET profession, after nearly a decade of implementation of CBT, has a great deal of expertise to hand on to new teachers. The implication for staff development of new and more experienced teachers alike is that staff should not be taught about teaching-with-CBT in a simplistic manner but in a critical manner.

It was also agreed that CBT was less helpful for some students than for others. For instance, disadvantaged students may need to be helped through assessment tasks in order to proceed to the next phase of study or they would drop out completely. The teacher made a judgment that they would eventually reach competency in a particular skill if they

continued in the course. One teacher from a community provider had coped with his problems with using CBT by:

separating the competencies from the student.

In this way he could recognise the need for the student to meet competency standards, but could still retain an interest in the development of the student and particularly development of self-esteem in disadvantaged students.

The way in which new teachers were socialised into CBT was important. For instance, a new teacher may arrive in a department which was strongly pro- or anti-CBT; a new teacher may have no university teacher training but may have learned about CBT through a Certificate IV in workplace training which typically presents CBT as unproblematic. For instance, one new teacher who had a Certificate IV as his only teaching qualification was very happy with CBT and his only quibble was that his new work mates at TAFE were not doing CBT properly (they were working with learning outcomes not competency standards).

There was a general feeling that the quality of VET in general was being downgraded. CBT was generally seen to lead to a lowering of student outcomes. Learning materials derived from industry (via competency standards and training packages) were of a lower standard than educational professionals liked to work with:

It is hard to maintain commitment when the whole quality of education is being diminished in such a huge way. Industry driven materials that don't quite match up with what we would see ourselves as professionals delivering . . . a sad system.

In parallel to this, there was a feeling that the role of teachers as experts and the part which teaching played in students' learning were being (perhaps deliberately) downgraded under CBT and particularly with training packages:

There is no mention of teaching in ANTA documents; they need discourse analysis. The discourse puts people offside.

Teaching with CBT leaves teachers with unmet needs as educators.

Although this debate was quite controversial, and while staff development cannot fix what were perceived to be deep faults in the VET system, there were certainly clear indications that staff development needs to recognise and try to work with teachers' views about the problems of CBT for students and teachers alike.

It was agreed that VET teachers and trainers needed two types of staff development: in their industry area, and in teaching. Somewhat surprisingly both groups suggested that teachers were more interested in, and more likely to partake in staff development activities relating to, technical updating rather than teaching. If this suggestion is correct, it is perhaps at odds with the current focus of VET staff development activities, and requires some thought to be given to the delivery of staff development.

Staff development activities that included the sharing of experiences and effective teaching-learning practices were suggested as a useful model. For instance, this had proved very effective for a group of Victorian teachers working on assessment moderation in the Certificate in General Education.

On the other hand, it was suggested that the success of action-learning methods such as 'Framing the Future' for VET staff development had yet to be proved. Although the Sydney group believed strongly in staff taking responsibility for their own professional development, action learning is only one way of doing this. The Melbourne group appeared to be more strongly in favour of organisational responsibility for staff development, and was divided as to whether action learning and other 'just-in-time' developments for innovations were helpful.

Some suggestions were made by the Melbourne group about how staff development in teachers' use of training packages might most effectively be carried out. These generally focussed on longer-term not one-off staff development activities, which incorporated a variety of experiences such as awareness workshops, learning with people from the same industry area, learning by doing, and reflection upon experiences. One concern of the Sydney group was that training packages assumed an acceptance of CBT as given and that important underlying concepts might not be revisited in staff development activities.

It should be noted that throughout the Melbourne discussion there was general (but not 100%) agreement between staff in TAFE and community providers; that commercial and enterprise providers did not disagree with TAFE staff but emphasised that their experiences and needs were different; and that the representative from the State training authority had views often sharply opposed to those of TAFE providers.

Summary

- ❖ There appears to be some evidence of a belief that there should be a shift of onus for staff development from the provider or State training system to the individual.
- ❖ TAFE providers expect their employer to provide sufficient staff development activities to keep them abreast of changes which affect their teaching.
- ❖ Non-TAFE providers tend to expect staff to shoulder most of the responsibility themselves.
- ❖ Staff development needs vary between full- and part-time teachers, between types of provider, and between permanent and contract staff.
- ❖ The provenance of teachers affects their attitude to teaching and to students.
- ❖ Staff who teach a few hours as an adjunct to another job present particular staff development challenges.
- ❖ No assumptions can be made about teachers' understanding of innovations.
- ❖ The introduction of CBT to new teachers is problematic.

- ❖ The use of CBT with different groups of students and in different types of providers needs to vary and this has staff development implications.
- ❖ The way in which new teachers first learn about CBT is important and shapes their attitude towards it.
- ❖ There is a strong belief that the quality of VET teaching is being downgraded with CBT; and that the role of teachers is being denigrated.
- ❖ Staff development in teachers' industry area is as important as staff development in teaching.
- ❖ Action-learning methods for staff development have had limited participation and as yet unproven worth.
- ❖ Training package staff development needs careful planning.
- ❖ Views of staff development personnel at provider level and at State level may differ markedly.

Summary of the analyses of case study and focus group sites

An investigation of the six case study and two focus group sites allowed the research team to monitor and evaluate the views, experiences and understandings of a diverse range of stakeholders in the VET sector. The focus groups represented new instructors and individuals responsible for staff development. The case studies targetted instructors across a range of VET providers. The case study sites were analysed individually and collectively. With respect to the focus groups, the two sites were analysed individually, with general themes articulated from the viewpoint of individuals within these groups. The following section addresses some of the similarities and differences that emerged from the qualitative data presented in this chapter.

Learning about CBT

Data from the case studies revealed that there was still a variety of understandings about the nature and practice of CBT among individuals and groups in the VET sector. At some of the sites CBT was considered to be problematic, whereas at other sites it was uncontroversial. Individual instructors' understanding of CBT was influenced by a range of factors, including whether they were in a TAFE or non-TAFE setting, the extent to which they perceived CBT to be suited to their industry area, the way in which it was introduced, and the level and the kind of staff development support they had received.

New teachers interviewed in the focus groups indicated that initial staff development training was not consistent across provider type or industry area. These people's experiences confirmed that instructors' introduction to CBT was questionable and quite inconsistent. In both the case study and focus groups it was apparent that the way in which new teachers first learned about CBT contributed significantly to their understanding of CBT and shaped their attitude towards it. These initial experiences did not always provide new instructors with either a solid or a critical understanding of CBT. Consequently, we would argue that initial staff

development in CBT would be one of the most critical phases in an instructor's understanding of competency-based approaches.

Staff development

The main contribution to the development of staff in terms of their understanding and practice of CBT involved learning on the job. The way in which many of the instructors learnt about CBT was not always in accord with the way in which they claimed to prefer to learn. Importantly, these two statements are confirmed in the nation-wide survey findings presented in chapter 3. Generally, instructors appreciated having a variety of avenues for professional development. Presently, there were not many opportunities for instructors to learn about CBT approaches despite the fact that there was strong evidence to suggest that the introduction of CBT had stimulated new learning in the VET sector.

It was evident that staff development needs varied between full- and part-time teachers, between types of provider, and between permanent and contract staff. Similarly, staff who teach a few hours as an adjunct to another job present particular staff development challenges. There was not evidence to suggest that many of these factors were being taken into consideration when staff development activities were being planned.

There is a need to develop a new staff development model that takes into account the various provider organisational structures and type of instructors in the VET sector. Through the focus group discussions we found that the views of staff development personnel at provider level and at State level appeared to differ markedly. These issues need to be explored further. The advent of training packages appears to be, to some extent, mirroring the introduction of CBT, and it is important that the same mistakes are not made. In the next chapter the case for a new staff development model in the VET sector is presented.

5 A new staff development model for the VET sector

This chapter summarises the research questions formulated at the beginning of the study. In addition, a new staff development model for the VET sector is presented. This model is based on the findings of the present study with relation to CBT. The model is intended to also serve as an exemplar for any staff development practices relating to externally driven innovation in teaching and learning, curriculum or organisational practice.

Summary of the research findings

These findings are taken from several sources and include data analysed from:

- ❖ a survey of instructors in the VET sector across Australia
- ❖ case studies of six providers throughout Australia
- ❖ two focus groups consisting of curriculum developers and new instructors

What is the quality and nature of CBT instruction in a range of providers across AQF levels, industry areas and geographical locations?

There is a variety of understandings about the nature and practice of CBT among individuals and groups in the VET sector. CBT is practised in a variety of forms that reflect the industry and organisational context of the staff and students involved. In general terms, instructors from non-TAFE providers have a more positive view of competency-based approaches than that of instructors in the TAFE sector. It could be argued that many non-TAFE providers have been able to shape CBT practices to a teaching-learning environment that suits their 'competitive' needs more easily than that of TAFE providers. TAFE teachers, for example, appear to be experiencing more difficulty introducing competency standards into their courses than instructors in the non-TAFE sector. On the other hand, many non-TAFE providers have indicated that a CBT framework is conducive to the training approaches they use.

The survey indicated that instructors who predominantly taught lower level courses (e.g. AQF 1 courses) were more likely to have CBT features in their courses than those instructors who were usually involved in

teaching diploma courses. Similarly, instructors involved in lower level AQF courses indicated that they were having less trouble implementing some of the CBT features identified in the study than those instructors who were predominantly teaching higher level courses.

Instructors who indicated that a CBT framework suited their particular field of study were more likely to have a positive attitude toward CBT in general. An implication of this is that any new innovations in the sector need to address educational and philosophical ideas associated with specific fields of study in order to gain acceptance in the future.

To what extent are levels of understanding of CBT by instructors in the VET sector common across a range of locations?

In most instances, the survey revealed that the level of understanding of CBT is consistent across the VET sector. From a personal viewpoint, most instructors across the country considered that they had a good understanding of CBT. The case study methodology, which provided opportunities for the research team to probe more deeply into issues associated with instructors' understanding of CBT, revealed that there was still a range of competency-based approaches being used across the sector. *RPL* and *assessment on demand* were two features that were interpreted quite differently throughout the sector.

Overall, practitioners were more satisfied with their level of understanding of CBT than with aspects of their practice (for example, assessment on demand and RPL). In relation to other, earlier, research, instructors' concerns seemed to have moved away from their understandings of principles that underpin CBT to a focus on issues related to teaching/training and the administration of this form of training. However, the introduction of training packages seems to have caused instructors to revert to the kind of concerns initially encountered when faced with CBT. They considered that they need to know more about training packages and had yet to gain experience in using them in practice

How have instructors adapted their practice to accommodate CBT, and how have new practices evolved?

Modifications and adaptations to practice were more likely to differ across provider type (in this case, TAFE versus non-TAFE sectors) and course level (differences across AQF levels). Teachers in the TAFE sector were more likely to modify competency standards and assessment criteria in courses that they taught than non-TAFE instructors. In other words, TAFE providers, who found it more difficult to have their courses based on competency standards and linked to assessment standards, modified their practice more frequently. Similarly, instructors who taught lower AQF courses did not modify courses to the same extent as

instructors who taught at higher level courses. This is not surprising since lower level courses tend to involve more practical and less theoretical content and can be measured more easily with a set of competencies. Thus, modifications and adaptations to practice were more likely to occur in fields that were not directly linked to industry through courses at or above the trade level.

What are some of the staff development issues present in CBT?

It was apparent that instructors appreciated having a variety of avenues for staff development. Moreover, there was a diverse range of preferred staff development options among instructors in the sector. With respect to developing an understanding of CBT, informal *on-the-job experiences* and *collegial support* were considered to be most influential in shaping many instructors' attitudes and understandings. In contrast, the nature and quality of CBT instruction was not as strongly influenced by the more informal, personalised factors. Generally, other factors, including *initial staff development* and *initial teacher preparation*, made a strong contribution to the way in which instructors attempted to implement CBT. As a result, the way in which new teachers first learnt about CBT tended to shape their attitude toward it.

Staff development that met the immediate needs and concerns of instructors was seen as valuable in the early stages of the implementation of CBT. Furthermore, staff development in teachers' industry area may be just as important as staff development in teaching. It also appears that there is, as yet, insufficient evidence to suggest that action-learning methods for staff development have the influence or impact of other methods.

What type of staff development model could be applied to instructors in the VET sector?

Any model for staff development should not only help us to understand the significant factors involved in this process but also provide a guide for effective practice in a variety of circumstances. These circumstances should include providing information on new developments, developing greater expertise in one's specialist field of training and developing skill in employing new approaches to teaching and learning.

In developing such a model for the VET sector it is essential to take into consideration the following:

- ❖ the provider context
- ❖ the institutional context
- ❖ the needs of individuals

Any issue, innovation, change, concern, policy or practice should be set in an appropriate context within the VET sector. The provider context includes the size of the organisation, its training focus and the students they train. The institutional context includes the relevant industrial

relations matters, policies and practices. The needs of the individuals includes things such as preferred learning style, perceived relevance, stage of concern, duration, motivation, level of participation required and incentive for engagement.

Many adult educators (e.g. Tillema & Imants, 1995) have stressed the need to engage people in a process of critical reflection if they are to make significant changes in what they think or what they do. Without such an opportunity staff development activities may not be as effective as expected. Staff development activities may also need ongoing support in the workplace. If changes expected from staff development do not lead to high internal work motivation, high quality work performance and high levels of job satisfaction, they may well be short lived.

The staff development model

The case studies and focus group deliberations suggest that there are significant site-related variables that influence not only the course of staff development but also its effectiveness. It is important to consider such staff development over time and to ascertain the critical elements to success. Success can be considered at a number of levels, including national, industry, system, institution, group and individual, and from a variety of standpoints.

The collective experience of those who participated in this study can provide a useful starting point for developing a model for staff development associated with externally driven innovation. The development of a generalised model implies a degree of flexibility that can accommodate the kinds of variability that existed in the case studies and was revealed in other components of this study.

The data on which this model has been developed relates to a specific initiative: the introduction of CBT in the VET sector. Thus, the issues, themes and concerns identified and analysed in this research may not necessarily be transferable to other situations that are not comparable. We would argue, however, that the model could be applied to similar top-down approaches. Thus, the model may be useful for future initiatives or directional changes.

The model described in the project emerged from a careful examination of the divergence of what informants thought should happen and what in fact did happen and how they thought things could be improved. Informants at various levels provided complementary information about the complexities of changing the VET system. For this reason it was seen as important to clearly differentiate between these levels and embody the appropriate management responsibilities at each level to ensure a consistent approach to the change envisaged, but with sufficient latitude to enable those concerned to work towards a satisfying outcome which takes into account the local context and which both encourages and rewards initiative. Such an approach provides for ownership of decisions and empowers those who make the decisions at all levels. This may include the particular roles of the VET system, the organisation and the

individual instructors in the process. This is in sharp contrast to the way in which staff development for CBT was carried out which had the difficulties which are clearly reflected in some of the case studies that appear in appendix 1.

The model for staff development also takes into account the course of the innovation. The course of innovation for CBT began at the national level and was based on a political platform of reform of the VET system as one means of ensuring that the Australian economy is internationally competitive. Reform that has a political origin may have a difficult period at the outset if either the need for reform or the means by which that reform is to be achieved is not widely accepted. Acceptance is influenced by the clarity with which the need for reform and the means being put forward to achieve those ends are expressed and the opportunity for consultation, informed discussion and debate made available. If an innovation is still being widely contested then this phase of the change process may need to be extended. Throughout this research the need for time emerged as an important consideration in the process of change and innovation. The model being put forward requires that each phase of the change process be managed in a way which prepares for the next.

Although the initial phase of the introduction of CBT was political and conducted at the national and State levels, the second phase involved providers of VET. Such providers have a responsibility for managing the translation of policy in practice. The task is somewhat different for non-TAFE and TAFE providers with significant differences between small non-TAFE providers and large TAFE organisations. The training providers are reliant on the industry/curriculum level deliberations. Here the general policy and guidelines are translated into working documents for practitioners. The instructors use such documents as the starting point for the development of new practice and have much to offer in terms of the revision of such materials.

At every stage there are particular needs to be addressed by staff development. Those who manage the provision of training need to understand the new policy, how the policy is to be achieved and the desired outcomes. They also need to see clearly the implications for the way in which they manage and support the learning needs of all those involved in the change. For this reason those responsible for training and development should be represented at the management level. Those involved at the industry/curriculum area cannot work in isolation from either the instructors or the managers at the provider level. In this research it was found that there were many cases where those responsible for one aspect of the implementation of CBT were not fully informed of the needs or constraints of others affected by their decisions. The staff development model being put forward is recursive and provides for appropriate communication and feedback from and to all parties. The case studies, in particular, support the view that trust is built through adequate consultation and negotiation and opportunity to consider emerging issues as they arise. This then seems to be a key feature of successful change and must be incorporated into the management of an innovation.

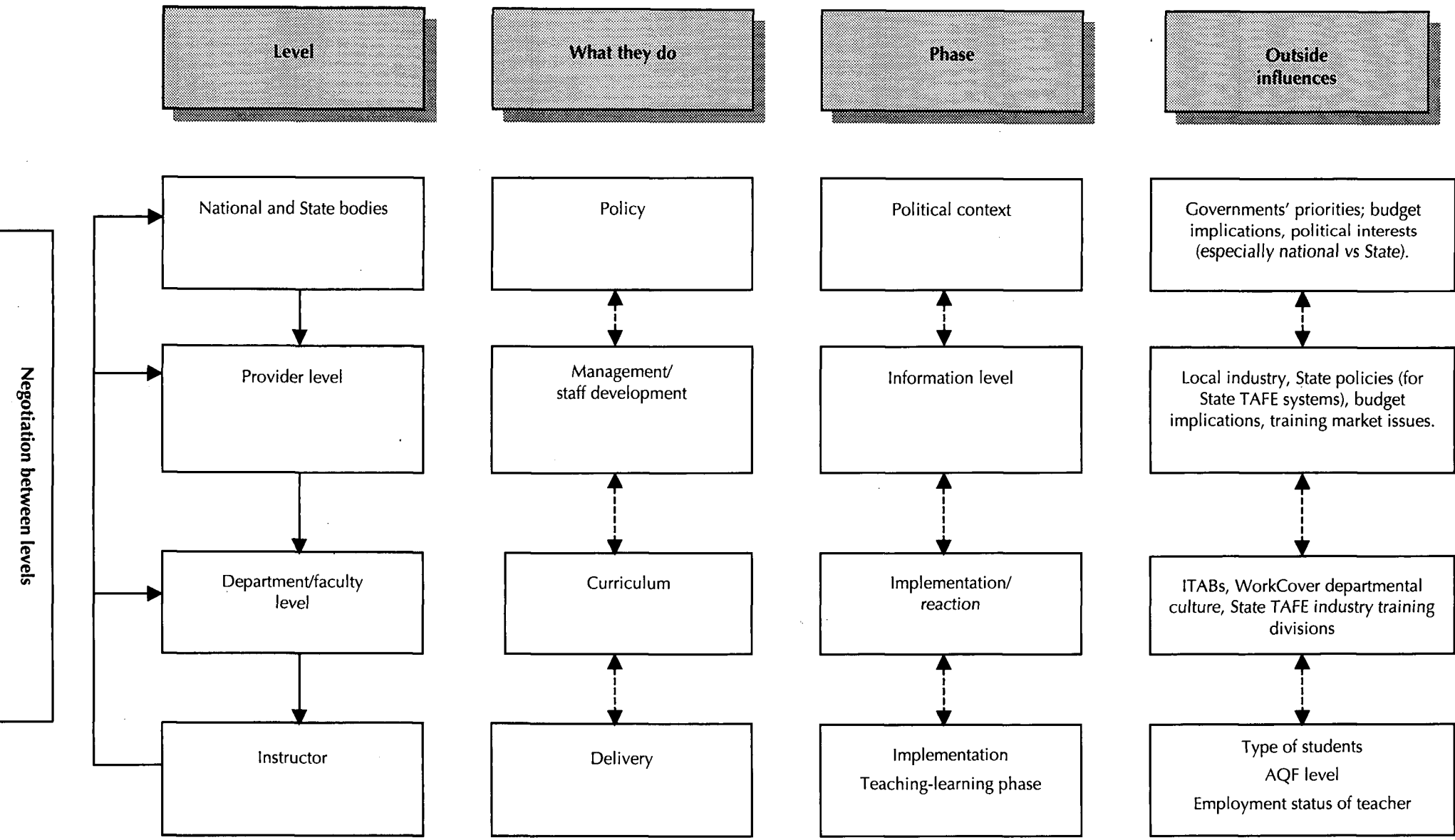


Figure 5.1: A model for initiation and implementation of policy-driven change in the VET sector

Practitioners need to be supported in a variety of ways whilst they are making changes to their daily workplace practice. This support should be provided in a range of ways that match the learning needs and styles of those involved. Seminars, discussion groups, action-learning sets, on-line support, visits to other institutions and mentoring were all valued by instructors involved in the case studies and survey respondents. The key issue here is choice in the way in which learning in the workplace is supported.

The structure of the model

The model has four components or phases including:

- ❖ a national and State bodies level
- ❖ a provider/management level
- ❖ a department/faculty level within providers
- ❖ a practitioner/instructor level

As previously mentioned, these levels should not be viewed in a hierarchical sense but do have different functions in the overall process. The model examines the way change affects the provider, the teaching area of instructors at the site and the actual teaching-learning approaches of instructors at a classroom level. The model also describes the main components of each level, what actually needs to occur at each phase and a range of outside influences that should be considered at each level. For the model to work effectively there should be high levels of negotiation between stakeholders at every level or phase. A diagrammatical representation of the model is presented in figure 5.1.

National and State bodies

This stage of the process focusses on changes that occur in the context of educational policy platforms across the country. National and State bodies would be typically represented at this level of development. The decisions and activities in this component of the model relate to policy development and implementation. There are a number of different stakeholders in this group. Policies are facilitated through ANTA and mediated through State training bodies. ITABs are also influential in this level of negotiation.

Provider/management level

The nature and structure of this level of professional support will vary dramatically depending on the type and size of the provider. In small non-TAFE providers, the HR manager or person in charge of the organisation may be the person who will be most effective in this role. In a large TAFE, on the other hand, there will be specialised people at the head office (State) and institute level. These people organise staff development programs that would attempt to inform instructors about new policy directions that would generally have an impact on entire organisations. The introduction of training packages would be an example of the type of initiative that would not only have an impact on

the instructor's role in the organisation but also influences decisions made at a managerial level.

Ideally, the person at this provider/management level would attempt to provide information about particular issues in the context of the organisation. It is anticipated that this person would have direct access to information disseminated at the national/State body level and would also consider local industry opinions and needs when relating information to the instructors at this provider level. The phase of the process generally consists of giving information about the new initiative or policy and explaining the framework within which the initiative is to be implemented within the organisation.

Industry/curriculum level

At this stage of the process new initiatives and developments would be considered in light of the specific fields of study. While the previous level of dissemination was directed toward general principles that affected the whole organisation, this level would focus on issues that applied to the change of the particular teaching-learning context associated with the industry area. All teachers who taught in a specific area (e.g. carpentry and joinery) would consider the extent to which the innovation in question impacted on the content of the curriculum, assessment requirements, the ability to provide RPL etc. Outside influences such as ITABs, TAFE industry training divisions, particular local industry needs and WorkCover may also have an input in this stage of the process. For the most part, this level of the process would consider matters that affect the particular curriculum taught in that individual area in that provider. Issues such as resourcing, local industry needs, and the culture of the department are very important here. Recent staff development activities associated with training packages in State systems have often been at this level. This level may not exist in most non-TAFE providers as most of these providers deliver courses within only one, or a very limited range of, industry areas (Smith et al. 1996).

Practitioner/instructor level

This level of staff development relates to the way in which the curriculum is delivered. This level would be the most personalised form of staff development in the entire process. Individual instructors ideally would have the opportunity to reflect upon the teaching-learning experiences that occur in their classes and the way in which change would affect their teaching. Importantly, the needs of particular groups of students would need to be considered at this level.

New practices, staff development and the individual VET teacher

The following section of this chapter looks in more detail at the factors which generally affect the individual practitioner's engagement with staff development. The model, figure 5.1, provides a representation of the

delivery of staff development associated with new externally driven policy practices. As chapter 1 has shown, however, individual instructors can vary greatly in their involvement in staff development activities and the extent to which they change their practice.

CBT as a new practice in VET

The practitioner level of the model is concerned with the role of individual instructors in the staff development process. The focus of the current study was to evaluate the impact competency-based approaches have had on the role of instructors in the sector. The research findings from the *Making a difference?* study (Smith et al. 1997) indicated that the way in which CBT was implemented varied somewhat, although not dramatically, with factors such as:

- ❖ type of provider
- ❖ AQF level of course delivered
- ❖ industry area (field of study)
- ❖ type of student

The current study has found that the degree of acceptance of CBT is moderately high in most cases but is dependent on the instructor's field of study and the extent to which CBT was viewed as appropriate to that field. Similarly, there were relationships between the AQF level of course and/or the type of students instructors actually taught. Moreover, differences between the understandings, perceptions and practice of TAFE and non-TAFE instructors were common in a number of areas. Thus, a range of variables tends to influence an individual practitioner's acceptance and implementation of any externally driven innovation.

The practice of the individual instructor could be seen as the result of a number of intersecting variables that impact on a person's view of CBT and other innovations. Figure 5.2 shows the variables discussed above (type of provider, AQF level of course, industry area and type of student) and how they intersect. For instance:

- ❖ teachers working in commercial providers
- ❖ teachers delivering Certificate II courses
- ❖ teachers in business studies courses
- ❖ teachers teaching students not yet in the full-time workforce

This type of model, however, implies that all teachers in the middle of the intersecting circles would have the same response to CBT. There appear also to be further variables relating to the nature of the individual teacher. For instance, in the Canberra Institute of Technology (CIT) case study, one teacher at the end of his teaching career, although he did not like CBT, showed little interest either in resisting its implementation or in staff development activities associated with CBT. Another teacher, a part-timer who also worked as a consultant, embraced CBT more enthusiastically than any of his colleagues, and was happy to attend any staff development activities available.

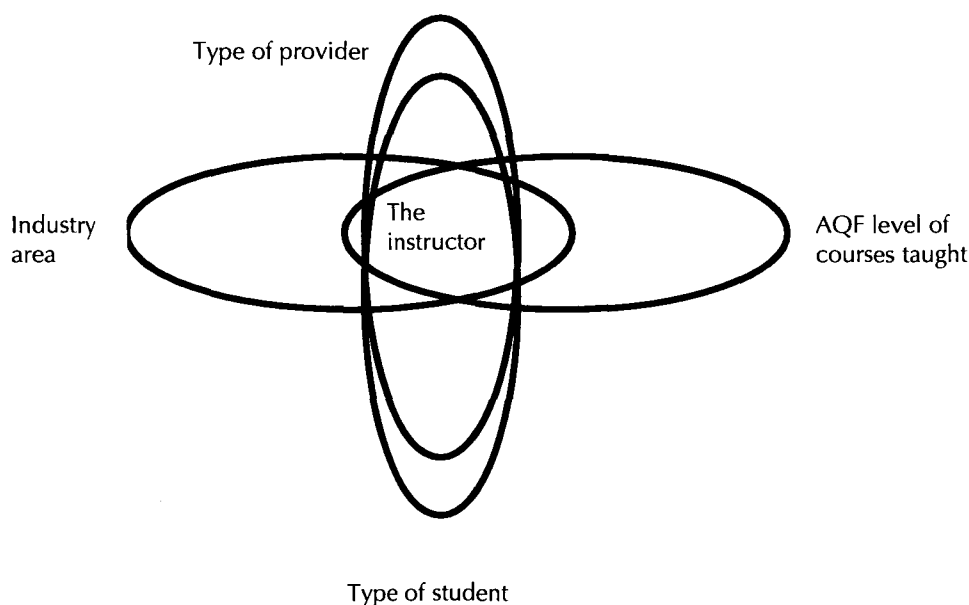


Figure 5.2: A range of variables that impact on an instructor's practice of CBT

At Mission Employment, an instructor who had been engaged in a CBT framework as a student was eager to provide his students with the same experiences he found useful in this training environment. Clearly other, individual factors, impinge both upon teachers' views of, and use of, CBT and upon their propensity to engage in staff development.

Staff development and CBT

The response of individual teachers to a new practice such as CBT, and the staff members' engagement in staff development associated with that new practice, are intimately related. If a teacher is strongly in favour of CBT, he or she is likely to wish to attend staff development activities associated with it. If he or she is indifferent or opposed, attendance is likely to occur only if the activity is compulsory. The nature of engagement with the activity will also vary. For example, someone opposed to CBT but attending a staff development activity will be likely to spend a good deal of time trying to have CBT as a concept debated. (In a similar vein, the researchers in this project found that many teachers wished to spend time debating CBT rather than dealing with the questions as raised by the researcher.) A person opposed to CBT is also fairly unlikely to implement any learning gained during the staff development activity.

Staff development associated with top-down change: Towards a general model of individuals' engagement

We can use the findings of this project to propose a model of the individual VET teacher's engagement with staff development associated

with any top-down change. Staff development is seen here as being focussed on relating to the needs of the institution (see chapter 1), which may of course be influenced by the needs of the State training system or associated with ANTA initiatives. Currently, such needs might include:

- ❖ training packages
- ❖ the open-training market
- ❖ flexible delivery
- ❖ quality issues

This definition excludes professional development (i.e. that relating to the ends of the individual and/or his or her career), and also development activities that might be initiated by a group of teachers relating to change which they themselves wish to implement (unrelated to provider needs as articulated by the provider).

As discussed, there are considerable differences between individuals even in the same teaching section in their response to top-down change and in their engagement in associated staff development. Such differences can be explained fully neither by the Hayton et al. (1996) model of enterprise training, nor by the Retallick (1993) model of workplace learning for teachers (see chapter 1 for a more comprehensive analysis of these two models).

If we look at some of the other theories of staff development discussed in chapter 1 there are some concepts that can help to understand these differences. The lifecycle theory (e.g. Fessler 1995) might help to understand why the teacher at CIT nearing retirement had a comparatively low level of interest in innovation and development. This teacher could be regarded as being in the 'wind-down' stage of his career. Similarly, the 'schema' (Leahy & Harris 1997) theory might explain the fact that some teachers' perceptions of CBT and their receptiveness to learning about it might be influenced heavily by their former teaching experiences (e.g. in the armed services or, conversely, in schools) and their previous learning experiences (perhaps in a Master of Education program or, conversely, in a Certificate IV in workplace training). In these examples, those teachers with previous experience in the armed services, or with 'teacher training' consisting of a Certificate IV in workplace training, are likely to accept CBT; those with schoolteaching backgrounds or with higher educational qualifications are likely to resist CBT.

It is likely, however, that no one theory can explain the individual's propensity to engage constructively with top-down change (which might include opposing it as well as accepting it) or to engage in staff development activities associated with it. Each individual VET teacher is also part of a peer group that influences his or her attitudes and practices. This could be a departmental culture, which again influences their implementation of CBT and their engagement with staff development activities. It could be a professional culture; for instance, the teachers at Mission Employment, primarily from a welfare background, had a particular view of learning, both for their students and for themselves. Another peer group might be a group of teachers from a variety of

providers who are undertaking an externally provided course such as a university VET degree.

By engagement with staff development activities we mean:

- ❖ seeking out opportunities for staff development (either those provided by the institution or others)
- ❖ attending activities provided by the institution
- ❖ participating constructively in such activities
- ❖ implementing lessons learned during the staff development activity

Figure 5.3 shows the factors affecting the individual VET teacher.

It is not possible to provide a general indication of the relative amount of importance of the different factors. For each teacher, each factor will be weighted differently. For example, for a woman with young children 'availability and timing of staff development activities' will be all important, as it will for people who combine several part-time jobs.

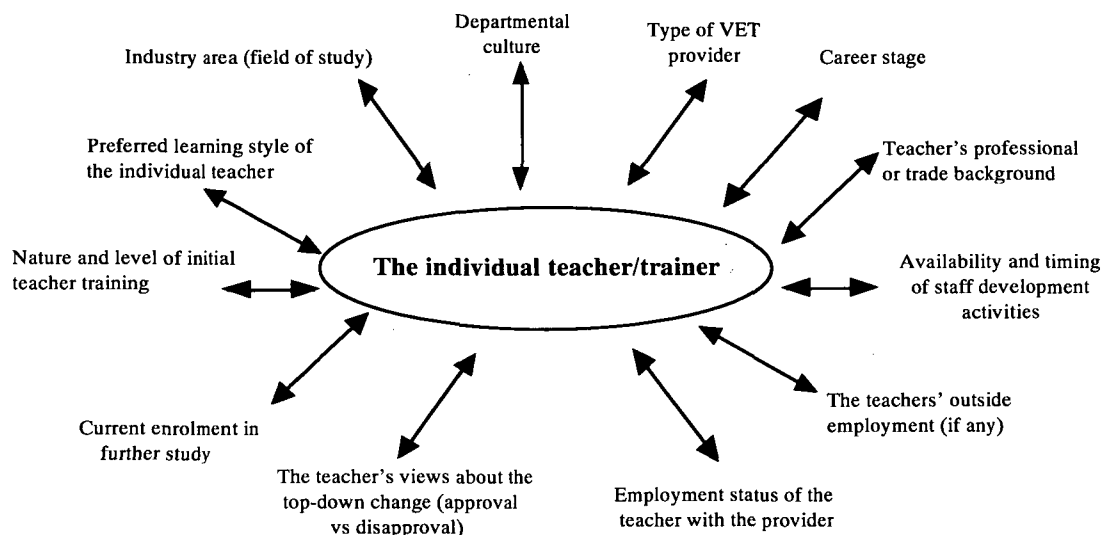


Figure 5.3: Factors affecting engagement of individual VET teacher with staff development associated with top-down change

Implications of this model

If such a variety exists in individuals' engagement with staff development, it is clear that a 'one size fits all' approach is unlikely to be effective. This applies equally to traditional workshops and to non-traditional staff development activities such as those associated with 'Framing the Future'.

Conclusion

This study has shown that the diverse nature of the VET sector has ensured that initiatives and developments such as CBT have impacted on the role of instructors in different ways. In the future, it may be beneficial to consider the two staff development models presented in this chapter when attempting to introduce new ideas, policies or approaches to the

sector. The first model (figure 5.1) considers four levels of organisational structure in the sector and is based on the need for negotiation and reflection within the national/State, provider, department/faculty, and instructor sections of the sector. The second model (figure 5.3) considers a range of factors that need to be identified at an individual teacher/trainer level in order to ensure that individuals are able to engage in decision-making processes. Importantly, both models consider the role of the instructor in the VET sector and are generated from the VET context in Australia.

- 1 For the purposes of this study we will use the term instructor to cover teachers and trainers in the VET sector.
- 2 This is not to deny that schoolteachers, too, may have diverse backgrounds.
- 3 This could, of course, reflect what they were familiar with.
- 4 The Lickert scale was a five-point rating system that encouraged the respondent to provide a response along a scale that, for example, ranged from strongly agreed to strongly disagreed (see appendix 2).
- 5 The SD provides information about the distribution of a sample. In table 3.5 the highest distribution (SD = 0.95) occurs in the 'how appropriate is CBT to your field of study' question. In a normal distribution one-third of the averaged responses would have been between 3.22 (2.27 + 0.95) and 1.32 (2.27 - 0.95).
- 6 In table 3.6 the first correlation (of .68) is associated with the relationship between 'opinion of CBT' and 'appropriateness of CBT to field of study'. The 167 in this cell refers to the number of respondents who answered both questions. The $p = .000$ relates to the probability of this relationship being statistically significant. Because the probability is less than .05 it is considered statistically significant. Thus, the correlation of .68 is very strong. There was, therefore, a strong relationship between the type of response an instructor selected (between 1 and 5) for the 'opinion of CBT' question and the 'appropriateness of CBT to field of study' question.
- 7 Chi square (χ^2) tests were used to find out whether the frequencies observed in the sample differed significantly from hypothesised frequencies. Thus, the Chi square tests were used to determine whether a difference between observed and expected proportions from each variable and question were statistically different from one another.
- 8 The 'total' column was calculated by multiplying first preference frequencies by three, second preference frequencies by two and third preference frequencies by one.
- 9 This may not be unusual for a State like ACT where only two people responded to this question ($n = 2$). It is quite remarkable, however, with a State like Western Australia, which had sixteen respondents ($n = 16$).
- 10 It needs to be recognised that these results are based on teachers' reporting of CBT features and that teachers' perceptions and practice may vary from official State policy.
- 11 The Lickert scale ranged from a lot [1] through to very little [5] as displayed in Question 37 of the survey.
- 12 The Lickert scale ranged from strongly for [1] through to strongly against [5] for opinion of CBT. Other questions followed the same trend (that is, the lower the average the more appropriate to field or higher understanding of CBT).

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Appendix 1: The case studies

All Seasons Hotel Chain

Tom Lowrie

CBT in practice

Introduction of CBT to this provider

This case study does not contain the detail of the other five case studies. This study, and only this study, was conducted by telephone interview and not through a site-based analysis.

All Seasons is a nationally based hotel management group with establishments in all States and Territories (with the exception of Tasmania). The organisation presently has 27 hotels that include a Premier series, with hotels of a four-star rating, and an All Seasons series. Over 2000 people are employed in the organisation, with all staff encouraged to obtain a hospitality-based qualification. The organisation is a nationally accredited training provider.

Courses undertaken through the organisation include Certificate I in Front Office/Reception, Certificate in Food and Beverage, and Traineeship in Hospitality. All operations staff at the hotels, including front-line personnel, supervisors, and some senior managers, undertake training courses. The training section of the organisation includes a national human resources (NHR) manager, six regional HR managers and regional instructors. All HR managers have, as a minimum, a Category 11 training qualification. In addition, these individuals have had at least three years supervisory or management experience in the organisation. The training manager commented that these people had a substantial amount of supervisory experience and could be considered as 'allrounders'.

The CBT philosophy is very strong in the organisation. The strong operations focus of the hospitality industry seems to be aligned with such a philosophy. The company is quite progressive in its desire to provide opportunities for all staff to gain formal qualification in the area of hospitality. A hospitality practices traineeship (AQF 3) has recently been added to the course structure of the organisation. It was hoped that employees would want to remain with the establishment and consider

hospitality as a 'lifetime' profession as more formal training opportunities were made available. Although such developments will place enormous pressures on training—with training to be undertaken through every department with every worker—the incentives for staff would be quite rewarding. Not only would staff obtain greater career path opportunities, but also qualifications would be portable across the industry. Experience from case studies with other industry providers (see Smith et al. 1997) would suggest that nationally recognised courses were becoming increasingly popular training options in industry.

What teachers think of CBT

Generally, the individuals interviewed from this organisation had a positive attitude toward CBT. The competitive nature of the hospitality industry supported the CBT environment. It was argued that this form of training was based on a range of standards that were assessed and evaluated under workplace conditions. CBT was seen as a realistic indicator of employees' ability to work under realistic training conditions. The NHR manager of the organisation had a quite sophisticated understanding of CBT:

competency involves four interrelated components. Firstly, there is the demonstration of a particular skill. You then need to assess the underpinning knowledge a person has and their problem-solving ability. Finally, you have to assess their professional work ethic associated with the competency.

The view of CBT is quite different to some of the fragmented views commonly expressed by industry providers. Typically, such providers arrange CBT around specific output (i.e. developing skills for a particular purpose in the workplace). The view presented above, at least on the surface, appears to be more holistic in nature.

Those interviewed on several occasions expressed the notion that industry competencies were seen as a 'minimum standard'. It was argued that instructors were attempting to provide opportunities for individuals to go over and above the national competencies. The competitive nature of the industry may have been influential in the training approaches undertaken at this organisation.

One of the most outstanding features of this case study was the fact that training was totally integrated with on-the-job experiences. This may not seem unusual for a provider who actually conducted training on site (i.e. in the hotels). As one manager commented:

well-structured, on-the-job training is very important and more effective in our industry than classroom-style instruction.

In an earlier case study undertaken with a private provider—for example, at a BHP site—on-the-job experiences were totally embedded into all teaching/training experiences. At All Seasons, however, the monitoring of whether a person had achieved a particular competency or not was assessed over a relatively long period of time. A person undertaking a course may need to demonstrate that they understand and can implement a range of competencies six months after undertaking the

course. This ongoing form of assessment, it was argued, provided a true indication of competency. As one person interviewed commented:

after a comprehensive induction program we need to ask what training needs a person has. In nine of every ten instances this is skill-based needs. It is so important to assess correctly. It is important that these skills are continually monitored. You cannot say that you got 50 per cent so you have passed forever. It needs to be ongoing.

The manner in which competencies needed to be demonstrated was viewed in a relatively holistic manner. It was recognised that true competency involved having:

- ❖ the knowledge
- ❖ the skills
- ❖ the attitude to perform a particular task effectively

It was evident that this definition of being competent was particularly important in an industry that was not only competitive but also constantly dealt with people at a personal level.

How has CBT changed teaching?

At this site CBT approaches have been employed for a number of years. On occasions it was difficult to ascertain the extent to which individuals had changed their teaching approaches since the implementation of CBT practices. The NHR manager, for example, indicated that regional instructors had been working in CBT for quite some time. Furthermore, one of the instructors had only worked in such an environment.

The following question was proposed as a useful stimulus for discussion—‘If a new teacher started work here tomorrow, who was an experienced teacher but did not know anything about CBT, what would you need to tell him or her?’ The results have been classified into first, second and third issues raised by each trainer.

Table A1.1: The All Seasons instructors’ perceptions of what CBT involved, based on a question about what a new instructor would need to know

| Instructor position | 1 | 2 | 3 |
|---------------------|---|--|---|
| Manager | Eliminate the practice of ‘training for training’s sake’ | The need to assess first | The importance of assessing all abilities |
| HR manager | Ensure that they, themselves, have superior knowledge and skills that can be taught effectively | The notion that training should be geared toward success | Standards and baselines are constantly changing |

There was a strong focus on the need to assess what a trainer actually ‘knew’ and ‘could do’ so that training could be as efficient, worthwhile and practical as possible. The view was taken that the training and development of personnel was a valuable resource for the company, and as a result should be treated very seriously. The HR manager commented that:

CBT was completely different from learning situations that took place in school . . . It was important for trainers to find out what a person knew and then give them every opportunity to succeed, to learn.

It was also recognised that instructors working in a competency-based environment needed to ensure that they were not simply highlighting what an individual did not know. In contrast, it was argued that training needed to be looked at in a more flexible manner with the overall performance of an individual considered in terms of an ongoing learning framework.

Professional development of instructors

General

Staff development programs were organised on an ongoing basis and focussed on operations and supervising knowledge and the role of instructors. It seemed to be the case that most staff development was related to the infrastructure at the provider. In other words, the HR manager was conscious of the importance of staff being able to apply their skills and knowledge to other related work environments outside All Seasons. All instructors are members of tourism-training associations that provide some form of support on new initiatives and developments across the industry and VET sector.

CBT staff development

A range of professional experiences is provided for HR instructors to keep abreast with current developments in the area. The isolation associated with being solely responsible for a large region, with physical contact with other instructors often limited, has required the organisation to monitor staff development quite closely. All HR staff comes together for one week per year to undertake courses related to staff and professional development. Guest speakers are organised to present seminars on current practices around Australia. HR instructors provide information to colleagues about regional activities and specific training issues that may be State or regionally based.

Instructors are encouraged to develop curriculum documents for themselves. Recently, for example, five of the HR instructors developed a *customer service* training program. Each trainer developed one module of the curriculum from a framework presented in the appropriate national training package. This type of course development would serve as another form of staff/professional development with HR instructors encouraged to discuss a range of teaching-learning issues with one another as they designed content and assessment procedures for respective modules.

The HR manager maintained that competency-based approaches could only work effectively if people 'at the top' were convinced that CBT was worthwhile and valuable. In other words, support at the management level was essential if positive attitudes and perceptions were to be filtered toward an instructional level.

Implications of case study findings

- ❖ CBT was considered in a positive light at this provider.
- ❖ CBT needed to be viewed at a multi-dimensional level and that the notion of competency needed to be considered over extended periods of time.
- ❖ Industry providers tend to regard on-the-job training and assessment in the workplace as vital components of CBT.
- ❖ Carefully targetted assessment was regarded as one of the most important components of CBT. Moreover, recognition of current competencies (RCC) was essential if training was to be efficient and cost-effective.
- ❖ The notion that instructors should be assessed on their abilities (what they can do as opposed to what they can not do) fostered a very strong, and carefully monitored, RCC framework at the provider.
- ❖ A well-organised management structure provided meaningful opportunities for staff development despite the fact that the resources and personnel were spread across Australia.

Canberra Institute of Technology

Erica Smith

Introduction

The Canberra Institute of Technology is the only TAFE college in the Australian Capital Territory. As yet it has no major private competitors, although there is a number of small colleges, but senior staff believe that competition may soon increase. The college has close links with the Australian Public Service (APS) and undertakes many short courses for the APS as well as training its staff in standard government-funded courses.

There is a complete range of courses at CIT, and it is a large college with around 200 full-time teachers. There are about 60 'Band 2' teachers—heads of department and similar—who generally also perform a small amount of teaching. In addition there is a large and constantly changing casual teaching workforce of around 800. The college ranges across a number of sites in central and suburban Canberra.

The case study was carried out in the Faculty of Management and Business which has a number of departments: management and accounting, office administration (known as BATS), and information technology. Each department operates across more than one campus. Interviews were carried out with the acting head of the faculty, the head of department for management, with one full-time and one part-time teacher in management, and one full-time and one part-time BATS teacher. The faculty head still teaches part-time, in the information technology area. In addition a focus group was convened, attended by full-time teachers from management and BATS and the acting head of the BATS department. The CBT concerns questionnaire was administered to

this group. Interviews were also carried out with a member of the staff development unit.

Staff development at CIT

Staff development at CIT is well resourced and structured. There is a staff development manager and three officers, as well as an administration manager. The unit has links with CIT's Centre for Training, Assessment and Development, which is a commercial unit. The centre has been successful in gaining ANTA funding for a number of initiatives and staff from staff development have been involved with these. There is a movement of staff between the staff development unit and the centre, and also between the teaching faculties and the unit, as staff are seconded to various development or research projects. CIT has been involved with all major VET staff development initiatives, such as CBT in Action and 'Framing the Future'. The officer interviewed had trained as an adviser for 'Framing the Future':

Each faculty is required to carry out a training needs analysis, which is done through staff preparing a personal (professional) development plan. Some faculties carry out this task in a more structured manner than others do. Staff are offered a range of activities each year which are set out in a well-presented staff development booklet. Staff can have 36 hours a year professional development with replacement teaching provided. Part-time staff can attend activities, although they are not paid to do so, and full-timers generally have precedence if courses are over-subscribed. Many programs are run by CIT staff who have appropriate expertise or experience.

There is also a structured initial teacher-training program. Part-time staff are required to attend a CIT-developed course based on Workplace Trainer Category 1 standards. About six of the courses are run each year. New full-time teachers undertake CIT's Certificate IV in Tertiary Teaching, based on Workplace Trainer Category 2 standards. They then continue to study either a graduate diploma at the University of Canberra or a degree in adult education at the University of Tasmania by distance education. Other staff are free to attend modules of the Certificate IV if there are sufficient places. CIT are just introducing a Graduate Certificate in Education Managers for all CIT managers based on competencies defined within the institute. In addition there is a Graduate Certificate in Advanced Professional Practice which is an action-research-based higher qualification for teachers.

The teachers

There was a great diversity amongst the teachers interviewed. In general those in the BATS area were longer serving, having taught for between two and forty years. The teachers in the management department had all been teaching at CIT for around six years, although they had all had previous teaching or training experience. This previous experience covered a range of settings: universities, public service, the Church and schools. BATS teachers' previous teaching experience was in schools or in

business colleges. Management teachers, along with most of the BATS teachers, had also had experience, some very extensive, in industry in their teaching areas. All of the teachers interviewed in the management area were male, while there was a mix of male and female in the BATS area. The faculty head was also male. The part-time management teacher had previously been a spray painter who had moved into teaching at a college. He now had a part-time consulting and training business as well as teaching at CIT. This appeared to be fairly typical of management part-time teachers, although some still worked in industry or the public service full time. The BATS part-timer, on the other hand, did not have other employment, and again this seemed to be representative of part-time teachers in the office administration area. Most management teachers had post-graduate qualifications, whilst the BATS teachers were also qualified at degree level or higher. There appeared to be a culture, at least in this faculty, of further study for teachers.

Many of the teachers seemed to have similar sorts of views about CBT. They tended to believe that it encouraged fragmented learning and prevented deep understanding. However, the part-time management teacher believed very strongly that CBT both aided student learning and gave teachers greater scope in their teaching. The head of faculty and the head of the management department were more reticent about their opinions of CBT, but were determined to 'make it work'.

CBT in practice

Introduction of CBT to this provider

CBT had come relatively late to the faculty of business and management. The BATS section did not use CBT until the National Office Skills (NOS) modules became available, which appeared to be about four years ago at CIT, and in one case a teacher had only been using CBT for one full year. The management teachers had 'gone CBT' with the introduction of the National Generic Management Skills' modules which had been developed as part of an Australian Committee on Training and Curriculum-funded project, in which the head of management was team member. These were in their third year of use.

A commonality amongst almost every teacher and manager interviewed was that they were involved in CBT activities outside teaching in their own area. This involvement ranged from being part of national or State activities such as revision of competency standards or curriculum development, to partaking in ANTA initiatives, to developing student learning guides. This wider involvement in CBT had in all cases helped to 'soften the blow' of the introduction of CBT as the staff were already familiar with the concept, and in some cases the curriculum, before it was introduced.

Several staff had used CBT outside CIT previously, one at a business college and one (under a different name—systems approach) in the armed forces in the 1970s. It also appeared that CBT was commonly used in training in the public service meaning that very few new teachers came

to CIT unaware of CBT. Most teachers claimed that they had been using CBT to some extent before the new modules arrived, these claims varied from previous use of CBT 'proper', to 'test runs' of national modules with which they had been involved, to statements such as:

Some people would say we didn't really change. We were always skills-based anyway.

What teachers think about CBT

In all cases it was difficult to move the conversation away from teachers' views about CBT and their opinions of its effects on students, towards looking at their own role in the CBT process and how they might better 'do' CBT. This indicated that teachers were still deeply engaged in debates about CBT and, in some cases, deeply resentful of what it had done to their teaching:

We have salami courses—take a body of knowledge and slice it up fine.

It's not exciting for me any more; I don't feel autonomous any more.

It can mean that we're moving the level at which we teach down.

You're testing at the level that most students can pass.

CBT is fine if you're teaching a physical skill but not for high-level subjects.

It was more complicated before (before CBT), but students still passed. Now they don't put the effort in.

Two teachers who were both near retirement stated that they had not changed the way they taught much:

I'm not going to be around much longer so I don't take it all that seriously.

These teachers both refused to use the textbook set by the modules and worked with textbooks that they felt more suitable; it seemed that they invited students to share in their view of the new-style textbooks which were designed for self-pacing.

One teacher made a telling comment, seemingly without irony:

I can't teach the CBT way because I need to teach my students the skills they need to be able to work in industry.

The managers interviewed were aware that many staff were not altogether happy with CBT. One manager mentioned that several of his staff had taken redundancies since CBT had been introduced, and he felt this was partly because they did not like CBT. Their leaving had made it easier to implement CBT. Another manager said that there had been a policy to change subject co-ordinators, presumably to those more sympathetic to CBT. The staff development officer identified two major complaints about CBT from teaching staff. Firstly, staff claimed that CBT did not sufficiently recognise teachers' expertise; secondly that CBT required too much time to be spent on assessment. In many cases interviewees appeared to project their own discomforts about CBT on to

other staff, whereas, in fact, although most staff had misgivings about CBT, these misgivings often varied widely.

How has CBT changed teaching?

To gain an understanding of what teachers think CBT consists of, they were asked the question, 'If a new teacher started work here tomorrow, who was an experienced teacher but didn't know anything about CBT, what would you need to tell him or her?'

The results have been classified into first, second and third issues raised by each teacher.

The acting head of faculty mentioned that he had needed to undertake just this process with a program they ran in Singapore where the teachers were used to traditional, up-front teaching. He emphasised the importance of explaining what CBT was about, that it related to the workplace. He felt that the main thing was to get new teachers to understand assessment, and only then could you begin to look at delivery methods. He also emphasised the importance of giving them concrete examples, for instance, of assessment tasks. In the BATS area, too, assessment was identified as being the most vital learning component for new teachers.

Table A1.2: The CIT instructors' perceptions of what CBT involved, based on a question about what a new instructor would need to know

| | | | |
|--------------|--|---|---|
| Case 1 | Assessment—what you're allowed to do | | |
| Case 2 | Identify behavioural characteristics | Take them through the curriculum document | How to assess |
| Case 3 (p/t) | The difference between aims and objectives and learning outcomes | Assessment to learning outcomes | Change in style to facilitator |
| Case 4 | Importance of the curriculum—learning outcomes | Emphasise industry basis | Lack of grading |
| Case 5 | You have to teach to the learning outcomes | Assessment is different | |
| Case 6 | Teach practical hands-on management | Learning outcomes in each module | |
| Case 7 | Relate it to competence in the workplace | How to assess to workplace competence | How to deliver |
| Case 8 | Competency standards | The curriculum | The boundaries within which they have to operate—lack of autonomy |
| Case 9 (p/t) | What CBT is | Assessment involves students showing their competence | Assessment is ungraded |

From table A1.2 it is clear that there is general agreement on most of the important components of CBT teaching, but disagreement about the priority given to each component in terms of staff development needs. The nexus between learning outcomes and assessment appears to be

identified as the major element of CBT. This firm link might prove difficult when training packages, with their emphasis not on learning outcomes but on the underlying competency standards, are introduced. In very few cases did delivery issues rate a mention.

Asking the question about a new teacher allowed a picture to emerge of what these teachers imagined CBT to be and how it differed from traditional teaching. Teachers were also asked how their own teaching had changed with the advent of CBT. The major issue here appeared to be modularisation. Some teachers saw this as a feature of CBT, and others as a separate issue, but in almost every case modularisation was seen as a bad thing, although, evidently, not something they immediately would feel the need to discuss with teachers new to CBT. A number of problems were identified with modularisation. Firstly, there was the general issue of slicing up knowledge into 'salami' slices. This was felt to be, variously, unauthentic, dangerous in some trade situations, likely to lead to duplication of material, leading to surface and not deep learning, and cumbersome to assess. It was felt that students only learned what they needed to know to pass and there was no place where overall understanding of a subject or course was assessed. Teachers appeared to be familiar with the concept of assessing a number of learning outcomes with one assessment, but appeared to feel that it wasn't possible to have an integrated assessment for a number of modules. However, the head of faculty said that on one campus it was common practice for information technology (IT) teachers to assess two or three modules together and, in fact, they were delivered in groups of three. Teachers on another campus taught the same modules in a separate manner.

The other major issue for teachers in their own practice appeared to be assessment. They generally felt that they were assessing more, even when (in one case) they were teaching modules in groups of three. Previously they would have had assessment events at mid-year and at the end of the year, but now they might be assessing every few weeks or even after ten hours for some modules. There were a number of concerns about assessment:

- ❖ How do you assess underlying knowledge?
- ❖ How do you know they are 'really' competent?
- ❖ How do you treat re-sits?
- ❖ How do you cater for better students if the assessment is ungraded (some modules were graded and others ungraded)?
- ❖ How do you get appropriate criteria for graded assessment?
- ❖ How do you cut down on the assessment workload, both for yourself and for your students?
- ❖ For higher level skills how can you translate them into behavioural terms so that you can observe them?
- ❖ How can you assess whether a student is flexible or adaptable?
- ❖ How can you make the assessment transparent without giving the students the answers?
- ❖ How can you make sure that incompetent students can't just pass by having lots of goes?

Some of these issues were debating points. For instance, the concern about whether you could teach students to adapt to different situations if the assessment was over-circumscribed was put in the following colourful manner:

There's a lot of ways to skin a cat, we know that; but you can be assessed as a competent cat-skinner if you only know one of them. What if you get a weird cat and you can't use that particular method?

Some of these issues, however, are clearly ones that could be addressed by teachers. However, there appeared to be a tendency to feel that the answers couldn't be found; that CBT 'rules' prevented sensible answers.

Delivery appeared to be less of an issue for these teachers. Several of them stated that their teaching had not changed much with the advent of CBT, although there was a tendency to teach more to the assessment than there had been. One management teacher said that he had changed the content of his teaching on the introduction of CBT—he had removed the critical content, but was now bringing it back in as he found the students preferred it and so did he. A few teachers were more positive about CBT, and it was in the delivery area that the positive points appeared. These teachers felt that CBT enabled them to draw upon the previous experience of their students, who were mainly mature employed people, and that this not only increased students' interest and motivation but also gave the teacher more flexibility in delivery. So long as the learning outcomes were met, the content was up to the teacher. One teacher in particular felt that under CBT his style could be 'more of a participating and consultative style than a teaching style. More of a facilitator'.

Clearly there are a number of discrepancies between how teachers perceive CBT and how they practice it. The issues that they cite as important are not necessarily those that are concerning them most in their own practice. Also the big changes which they claim CBT brought were not necessarily translated into big changes in their everyday teaching. It should be emphasised, however, that flexible delivery was only just beginning in this faculty, and the changes in teaching style associated with this mode of delivery were yet to have an impact.

Professional development of teachers

General

All of the teachers except the part-timer had undergone formal teacher training through CIT and many had undertaken Masters qualifications in education or training and development as well. When asked whether it was their own responsibility or their employer's to develop them as teachers, most felt the responsibility was shared but with the onus more upon the individual teacher. There was a variety of preferred learning methods. For example:

- ❖ getting information about changes
- ❖ working with an experienced mentor
- ❖ watching an experienced teacher

- ❖ attending a formal staff development
- ❖ having a go
- ❖ reading
- ❖ reflecting on practice

Compared with the ways in which they had developed themselves there were some discrepancies. The actual methods employed were more likely to be:

- ❖ working through manuals (in the case of computer programs)
- ❖ talking to colleagues
- ❖ departmental meetings
- ❖ keeping up to date in industry area
- ❖ working with other people on projects
- ❖ attending conferences and workshops (external)

Although several of the methods in the first list were also employed (particularly 'having a go'), one reason often cited for lack of attendance at formal courses was that it was difficult to attend courses because courses always seemed to coincide with scheduled teaching hours. Both part-time teachers attended staff development activities, although they differed in the extent to which they felt involved in collegiate discussion about teaching.

CBT staff development

Teachers were also asked how they got their staff development in CBT in particular. The staff development officer said that CIT had employed, and was still employing, a variety of strategies in CBT staff development. Firstly, CBT was included in all initial teacher-training programs, for part-timers as well as full-timers. In the early days of CBT there were a number of forums, breakfast meetings, workshops and seminars. Teachers or curriculum staff experienced in CBT were encouraged to share their knowledge with other staff. Development activities were in both the 'big picture' of CBT and in the 'nitty gritty' of CBT teaching.

The head of faculty mentioned that a particular form of development was to get teachers to look at their assessment tasks in terms of inclusiveness. They utilised the English as a Second Language section to look at assessment tasks. He had also used 'good' CBT modules as exemplars for his staff, using the national communication modules rather than the NOS modules because the learning outcomes were less fragmented. Their end-of-course reviews were also used as staff development activities, focussing generally on competency-based assessment issues.

The teachers themselves appeared to have somewhat different notions of the staff development they had received. Although several had had prior involvement with CBT through working on national modules and so on, few remembered attending formal activities. They said that most of their learning had come from informal discussions with colleagues and from staff meetings, and primarily from doing CBT. Some staff were more willing to admit to mistakes they had made in the early days of CBT than others. For instance, one teacher said it was three semesters before he got

it anywhere near right. A willingness to admit to mistakes could be related to the degree of satisfaction felt with the current situation. Many teachers felt they still had not 'got it right', although they generally felt this was due to 'CBT rules' rather than anything they themselves could solve, even with help.

It seemed that when CBT was introduced teachers had related it back to what they previously knew. For instance, the ex-armed services teacher had related it back to the instructional systems approach with which he had worked before. Two teachers mentioned that they related it to 'mastery learning', a concept they had come across in their Masters in Education courses. Another, who had come from the school education sector, related it to outcomes-based education in schools. Armed with these understandings they appeared to have worked out for themselves, or in conjunction with colleagues, what to do, once they were presented with the new curriculum. The staff development officer felt that teachers from the trade areas had found the transition to CBT easier because they had always taught in a skills-based manner and that these areas were still 'more CBT' than the non-trade areas.

Future staff development needs

Staff were asked about the staff development needs they foresaw for themselves and their colleagues in the near future. There were divergences here between the different groups of staff. The management staff saw their biggest issue as the 'pressure on the dollars': how to balance increasing class sizes and decreasing student contact hours with teaching quality. They clearly perceived national pressures here, one suggesting that all States were now being compared with Victoria that had the lowest delivery costs. This was not an issue for teachers themselves except insofar as they saw the introduction of flexible delivery as a cost-cutting measure, making them hostile to its implementation. Flexible delivery was, however, mentioned in terms other than cost cutting, with several teachers seeing the need for training in on-line delivery. The head of faculty saw staff development in competency-based assessment as a big need, although curiously none of the teachers mentioned this.

Training packages were mentioned by the more senior staff as having staff development implications, but several teachers had not heard of them or had a vague idea only of what they were. There was a perception amongst those aware of training packages that there might not be extensive staff development needs, that perhaps only curriculum staff might need help especially in the early stages. One reason for this was that the NOS modules were being updated at a national level to align with competency standards, and so BATS teachers could continue to use NOS modules, although they would of course be different from the previous modules. In the management teaching area it was unclear whether there would be a training package (CIT did not use the Frontline Management Initiative package except in commercial courses), and the IT package was some way off completion. The head of faculty expected that when training packages 'arrived' in the different areas, staff would be

involved in implementation plans through meetings. There might be more pressure to assess in the workplace and this would create staff development needs.

Several teachers mentioned other staff development needs, and these related mainly to technology. Training needs related to tools of their work, such as email and HTML (Hyper Text Markup Language), in the delivery of training and in the constant stream of new computer programs that they needed to teach to students. There did not seem to be any call for staff development in writing learning guides. There was a belief that teachers who were subject experts could adapt quite easily to this activity; in fact several teachers had already written learning guides without any particular training. Another teacher felt that there was a need for staff development in how to relate teaching to the workplace in courses where students were not employed, and particularly where they had never been employed. He felt this was a problem associated with CBT. Only one teacher, a part-timer, mentioned that she would like staff development in CBT as such; her wish was to learn about the 'theory behind it'.

Other concerns were raised. Some were specific to individuals; for instance, one teacher felt that he needed to expand his repertoire from a participative style to include being able to 'lecture'. Another teacher was concerned that teachers were not being prepared for the huge changes he foresaw in the VET environment; he felt that staff development reacted to changes but did not awaken staff to future developments in the way that, he felt, he awakened his students.

Implications of case study findings

There was a range of opinions about CBT varying from one teacher only who was enthusiastic about CBT through those who saw advantages and disadvantages, to those who saw it mainly as a bad thing. Despite professed opinions that they had been doing CBT for a long time and had talked through all the issues, in fact the period of implementation in this faculty was relatively short and teachers still wished to debate the issues at length. When questioned closely about the actual effects of CBT they seemed to cluster around two issues: modularisation and assessment (which were in fact linked). These issues which were bothering them were not those which they identified as being important for new teachers, and it is not clear why there was a discrepancy here. It could be that this discrepancy reflects an awareness of the difference between novice and expert practice.

Teachers tended to believe that they had done all they could to teach effectively with CBT and that the problems that remained could not be solved because of 'the rules'. This was despite the fact that within the same faculty teachers were integrating assessment across modules, for example.

With regard to professional development there appeared to be several issues for exploration:

- ❖ Teachers' professed preferred methods of learning were not those which they had in fact utilised.
 - ❖ Neither their preferred methods of learning nor those they said they had utilised appeared to have been used to any great extent in their training in CBT implementation.
 - ❖ The institute's perception of the amount of staff development in CBT was at odds with teachers' perceptions.
 - ❖ Teachers did not believe that staff development could help them solve their CBT problems.
 - ❖ While there were a number of future issues identified as having staff development implications, there was discrepancy between those identified as important by managers and those identified as important by teachers.
 - ❖ The likely effects of training packages were assessed as being of fairly minor importance and some staff were as yet unaware of their advent.
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'C' College

Doug Hill

Introduction

'C' College is a unique, fully autonomous trisector institution responsible directly to the Minister for Education in the Northern Territory. It is located in Alice Springs and is the only post-compulsory education institution in Central Australia. 'C' College provides courses at the secondary level (Years 11 and 12), TAFE and also higher education in collaboration with the Northern Territory University. The latter division incorporates the External Studies Centre, which provides information about external university and TAFE programs and provides facilities and support for distance education students. There is also a centre which runs courses for Aboriginal people and to support Aboriginal students enrolled in mainstream courses at 'C' College. 'C' College was, in former times, an Adult and Community College and still maintains some programs in this field.

The TAFE operation had 209 full-time students, 1983 part-time students and 16 external students in 1997, and is atypical in so far as each of the industry areas has its own industry advisory group which provides information and advice on local training needs and employment opportunities. Many courses are thus customised to service local and Territory needs. In some cases the extent of customising courses is similar to that in courses run by an enterprise-training provider. In addition, the TAFE staff also teach vocational education electives in the secondary school section. This means that articulation with TAFE courses is seamless.

The courses offered in the TAFE area are mostly at Certificate I and II level at present. Some Certificate III and diploma courses are beginning to become available. The main areas in which courses are available are

automotive, business and management, building and construction, child care, hairdressing, hospitality and tourism, and information technology.

Staff development at 'C' College

Staff at this college are relatively isolated professionally and not a lot of formal staff development activities are available locally. These staff, in common with all Northern Territory government employees, are subject to an annual performance review at which they consider their professional goals and make plans for professional development in concert with their supervisor. Individuals submit proposals consistent with their plan to the college for funding. Limited funds are currently available for staff development activities.

The teachers

The teaching staff at 'C' College is relatively stable, with many staff having spent a considerable time in the institution and its predecessors. There are relatively few new young staff. I estimate that the median age of staff is close to 45. New staff are given a one-day induction, which is mainly oriented towards administrative matters. With few exceptions, full-time staff have initial teaching qualifications such as a degree or graduate diploma. Some have undertaken, or are currently undertaking, studies in education in the external mode. Such study may be supported, in part, by the employer. Teachers saw this as appropriate as specific staff development is an employer responsibility but broad professional development is mainly an employee concern. Teachers have a wide range of responsibility and teach a large number of modules in common with staff in most smaller institutions. There are lots of informal interactions between staff and students and this increases the workload.

What teachers think of CBT

Staff had mostly been using CBT for more than four years and had time to consider its strengths and weaknesses. The teachers differed considerably in their conceptions of CBT. These differences arise, in part, from the way in which CBT has been developed and implemented in the various fields of study. In the case of automotive studies, CBT has been interpreted as self-paced instruction with assessment of the prescribed skills on demand. In this case the instructor responsible initially had spent time in 1990 at the National Centre for CBT at Richmond TAFE, which pioneered this approach in the automotive field. The introduction of CBT resulted in considerable changes in teaching methods. In butchery CBT was seen as developing the skills and knowledge needed in the industry and the certification that those skills have been acquired. The instructor concerned saw this as a continuation and refinement of previous practice. He claimed that 'CBT fits butchery perfectly'. In contrast, a lecturer in child studies felt the CBT was not really suited to this area as breaking down what is involved in caring for children into 'discrete little bits which are either achieved or not' is inappropriate. She went on to say that in 'some grey areas there are simply no right or wrong responses', only more or less adequate or better informed ones.

Additionally, she stated that the national competency standards are in fact contested for a variety of reasons and are not a suitable prescription for education.

A lecturer in tourism considered CBT as providing for industry needs for competent people. He claimed that competency standards are well accepted by the tourism industry and that local employers now advertise positions in accord with those standards. Students now get the positions they are trained for as their qualifications match the descriptions of jobs available. This teacher moved from teaching in the secondary area and was very pleased with the nature of assessment in CBT. He found the idea of being reassessed on some task 'better than having to repeat a whole subject'.

Several staff argued strongly that students, parents and employers did not accept that being competent is enough. They expected some further indication of just how well students performed. Some staff argued that arranging CBT courses into levels II and III meant that the lower level courses did not challenge students and get them to use initiative or 'think for themselves'. One instructor in business studies claimed that whilst self-paced CBT worked well for many students some needed the kind of interaction found in groups. It would appear that the learning styles of many Aboriginal and female students, which involve a preference for verbal sharing in small groups, are not being met.

Almost half of those interviewed remarked on the value of CBT in recognising that people take different times to reach competence. For some competence is recognised through the formal RPL process. Others are assessed soon after they begin a module. Students thus do not have to 'waste their time treading water' and are not held back by 'the practices of the past'.

One member of staff suggested that students might be signed off on all the competencies but still might not be fully competent as they did not see the bigger picture and might not be able to transfer their knowledge to new situations. Others disagreed, as they believed that the currently accepted definitions of competency covered both these aspects. However, it was agreed that it was not easy to gather the appropriate assessment evidence to attest to this.

The managers

The managers agreed that the introduction of CBT was 'a rough road . . . we were a bit rushed . . . and there was a lot of uncertainty at that time'. CBT was variously and vaguely described in terms of actual practice. Managers considered that insufficient thought had been given to the practical implications in terms of physical resources. One view which was strongly expressed was that the implementation of CBT had been held back by the inflexible mind-set of some staff. This mind-set was developed as a consequence of their own education and training. They simply continued teaching in the same way 'not because they did not want to change but simply because it had always been done that way'. Some saw administrative arrangements, such as block release, as a barrier

to the successful implementation of CBT. Other staff used the excuse that students were not prepared to become responsible for their own learning but preferred the teacher to take on that role.

When CBT was introduced 'here in Alice Springs there was no significant staff development of any kind available to guide practice'. At this time everyone was 'bombarded with new jargon such as flexible delivery and early exiting' and it was no wonder that there was confusion abroad. CBT became confused with flexible delivery. This sort of confusion continues 'only now it is in relation to training packages'.

By and large managers thought that staff had 'got on with CBT' and that staff had evolved ways of 'making it work'. However, it appears that there is still room for improvement. For example, the automotive area requires more resources before CBT practice in those courses can be improved to the desired level.

Managers in general appeared more concerned with the future than what had happened in the past. They perceived that the role of TAFE was under threat and possibly shrinking.

Has CBT changed teaching?

Table A1.3: The 'C' College instructors' perceptions of what CBT involved, based on a question about what a new instructor would need to know

| Person | 1 | 2 | 3 |
|--|---|---|---|
| An ex-secondary teacher—tourism | Change in thinking about the nature and purpose of CBT | Need only do the bits where not competent then reassess | Sharper focus on short-term outcomes |
| Administrator | Competency non-graded assessment | Can be reassessed | Flexible exit, self-paced |
| Case, experienced CBT teacher—automotive | Guide students to learn not instruct | Managing | How CBT works in terms of assessment |
| 6 years with CBT—electrical | Concept of CBT—just like working with an apprentice in the real world | Assessment of outcomes critical | Deliver option—lock step for background knowledge and self-paced skills |
| New—automotive | What is meant by CBT | Relevant resources to enable self-paced learning | Assessment |
| —business | Concept of CBT | Assessment needs to consider the whole | Delivery issues |
| —manager | Clarify the notion of competency | Non-graded assessment | Delivery—flexible in due course but not immediate |
| —butchery | Focus on skills of students | Assess all skills | Record assessment carefully—legal aspects |
| —part-time | The changes needed in teaching | Organising resources for self-pacing | Assessing competencies |

This issue was canvassed initially by asking the following hypothetical question: 'If a new person started work here tomorrow who was an experienced teacher, but did not know anything about CBT, what would you need to explain to him or her?' The first three responses of the ten instructors interviewed are summarised in table A1.3.

While the responses are generally similar in that they tend to deal with the issue of competency, the assessment of competency and the management of a competency-based course, there are significant differences. These differences suggest that there is confusion between the concept of CBT and the way in which CBT courses are delivered. The responses also reflect differences in the experience of staff and the areas in which they teach as indicated earlier.

Professional development

Eight of the ten people interviewed were asked how they attempted to develop as a professional teacher. Their responses included:

- ❖ attending in-service courses
- ❖ reflecting upon my own experience
- ❖ period of return to industry
- ❖ working in the College for Seniors program
- ❖ discussion with colleagues
- ❖ completing a teaching degree
- ❖ undertaking post-graduate study
- ❖ developing and revising teaching resources
- ❖ keeping up with developments in industry
- ❖ own reading
- ❖ Internet searches
- ❖ working in teams
- ❖ just doing new things
- ❖ having my own business
- ❖ working across the school-TAFE boundary
- ❖ establish own network of people in my area
- ❖ industry advisory groups
- ❖ contact with ITABs
- ❖ conferences
- ❖ workplace visits
- ❖ qualifying as a workplace assessor
- ❖ further study

The same people gave somewhat different responses when asked how they preferred to learn as a teacher/trainer. These responses included:

- ❖ seminar-workshops in my area
- ❖ visiting other colleges and talking to people in the same area
- ❖ shadowing an excellent instructor
- ❖ cross-faculty discussions to get different perspectives

- ❖ on-the-job support and mentoring
- ❖ formal study
- ❖ experiment and reflect on the outcomes
- ❖ finding good resources to use
- ❖ on-line conferences
- ❖ return to industry

Many of these preferred methods involve the cost of travel and accommodation. In the present climate it is not always possible to meet these costs. Preferred ways of staff development tend to relate more strongly to the teacher's area of specialisation than to the ways in which he or she does actually learn. This is understandable as there are now more formal opportunities for general development than for specific programs in one's own teaching area. Instructors seem to have a preference for less formal modes of learning and for ways which meet their particular concerns.

Staff development and CBT

Staff learned about CBT in a variety of ways. One person claimed that she was fortunate in completing a teaching degree that dealt with CBT prior to CBT being introduced at 'C' College. Two people had been involved in the CBT in Action project. One person had spent five days at the national centre for CBT and another attended a one-day workshop that introduced industry standards in tourism. The head teacher in hairdressing indicated that she gained her early ideas about CBT as a result of the purchase of the Adelaide Institute of TAFE curriculum. A one-day workshop and a subsequent visit to that institute where she observed and talked to staff supported this. Other staff were less fortunate as they had to rely solely on an initial in-house training program. Those who started later missed out on this introduction and had to learn on the job with the help of colleagues.

It appears that informal sharing in the workplace and individual reflection have been the major sources of staff development. Teachers identified a number of issues and concerns with which they had to grapple at first. These included the following comments:

- ❖ how to deal with re-sits
- ❖ developing learning guides/workbooks
- ❖ integrating early modules into a meaningful introduction
- ❖ getting students to take responsibility for managing their own learning
- ❖ resisting student pressure to revert to the more comfortable role of upfront teacher
- ❖ getting used to having students at different levels at the same time
- ❖ key competencies and what to do with them
- ❖ balancing skills and the more general competencies required in the workplace
- ❖ how to reward good students
- ❖ working within the organisational constraints such as block release

- ❖ helping students who were uncomfortable with the learning approach used
- ❖ getting used to a new role
- ❖ should trainees who are not competent at the completion of the nominal duration of a module fail?
- ❖ coming to grips with RPL
- ❖ not having someone in my area with whom I could talk things over
- ❖ reducing overlap between modules
- ❖ weighing up evidence and knowing that it was adequate to indicate competence

A consistent theme was the shortage of time and experience of stress when CBT was first implemented. This can be explained, in part, by the need by teachers for more time to plan, more effort required in doing things in new ways, suffering a reduction in the level of performance as an instructor, questioning the need to change and spending more time in analysing their performance. This phase passed as teachers gained new expertise and regained control of the changed training environment. This period was followed by a stage of finetuning in many cases. The issue of time is especially critical for part-time teachers. The casual teacher, who had taken over some of the duties of an absent lecturer, found she had little contact with other staff.

Future staff development needs

The future development needs of staff arise from diverse sources. Sources mentioned by staff included:

- ❖ the introduction of training packages
- ❖ user choice and deregulation of the training market
- ❖ workplace assessment
- ❖ catering for a diverse population of learners
- ❖ keeping up with technology
- ❖ improving professional practice

In some cases the needs were relatively narrow and clearly articulated but in other cases the needs were both broad and fuzzy. The challenge of a deregulated training market would seem to require greater emphasis on entrepreneurial activity 'to create the future', as one person said. Two staff in the business area felt that this meant acquiring better consulting, management and marketing skills. Other staff indicated that more of their time is likely to be spent assessing in the workplace, and that they would need to complete the RPL and workplace assessor courses offered by 'C' College. One lecturer who had made good use of the Internet said she thought that more staff would need the skills to offer on-line support. This is an important issue in some areas where the difference between country/external and internal courses is lessening and on-line support is relevant to both cohorts of students.

One trainer thought that all staff would be challenged to rethink the ideas about CBT and try to institute aspects of best practice in that industry area. Some informants stated that there are signs of this starting to take

place as a result of informal evaluation and feedback. There were also comments which suggested that both the quality of published resources and local learning guides had taken on some of these ideas and that these created new professional development needs.

Staff development was seen to be a means of improving the way in which teachers handled the diversity of learners and that now that CBT was in place it was time for this kind of activity. One person thought that staff with a TAFE background needed skills in teaching adolescents in the secondary sector of the college. Staff seemed to spend a large amount of time advising students about course-related organisational matters. Some commented that this kind of activity is increasing but is not recognised. One manager considered there was a need for staff to learn to manage their time more effectively and establish priorities, rather than increase hours of work. This could improve their level of wellbeing.

A lecturer in the business area thought that a virtual campus was needed and had spent considerable time researching this area. Such developments bring with them new needs for staff development. Some managers considered that the TAFE sector was under threat, and that it was time for it to rethink its role and develop the expertise required to fill this new role. On the other hand, practitioners seemed more certain of the future in their own areas. They seemed to have a clear understanding of their industry area and the direction in which developments were taking place. The lecturer in butchery explained that most operators in the retail trade were small and training was not considered a core activity. Even if it was 'I would still have to assess their trainees—I'm the only person in the Northern Territory who meets the [necessary] criteria', he said.

Implications and conclusions

- ❖ Changes, such as the introduction of CBT, need to be managed well with appropriate support in terms of time, physical resources, clear general guidelines and specific preparatory staff development and training.
- ❖ Staff involved in changing their professional practice need ongoing mentoring and other opportunities for sharing concerns, ideas and solving problems.
- ❖ It is difficult to obtain a general consensus among staff relating to new developments such as CBT as the industry context, the training traditions in that field and individual/group in a specific institution generate particular inter-relations and practices. There is a diversity of views and very different levels of satisfaction across an institution.
- ❖ The kind of ongoing staff development and support needed depends on the history of the staff and the course and industry area it serves.
- ❖ The introduction of CBT was made more difficult by a lack of clarity in definition.
- ❖ Physical resources; time; appropriate staff development; and satisfactory explanation to all stakeholders.
- ❖ Where stakeholders, such as students and employers, have become well informed about CBT they can make use of this knowledge—for example, by fast tracking and seeking RPL.

- ❖ Instructors have gradually changed their focus from transmission to facilitation but sometimes find their new role less rewarding professionally.
- ❖ The experience in the changed role of instructors has generated a revised and more inclusive view of the nature of competency that is consistent with the changes in the literature. It is the case that experience and with reflection on new and evolving practices has resulted in new understanding and re-conceptualisation. This, in turn, is translated into further revisions of practice.
- ❖ The focus on industry standards, which will gain even greater prominence with the use of training packages, has created a renewed interest in return to industry staff development programs in a few cases.
- ❖ The notion that one approach fits all industries, which CBT represents, is contested.
- ❖ New teachers and instructors need to develop the competencies required to work flexibly and responsively in a deregulated CBT market. This would include the ability to help students learn to manage their own learning, skills in on-line support, expertise in consultancy, marketing and managing training.
- ❖ It is important to recognise and share new practices and insights as a means of improving the quality of VET provision. There is a perceived shortage of opportunities for such staff development activities.
- ❖ Involvement in national, State, Territory or local innovative projects provide opportunity for significant professional development of staff.
- ❖ Managers do not always consider CBT-related issues from the same perspective as practitioners.
- ❖ There are many visions for the future of TAFE which would result in different kinds of staff development needs for managers and practitioners.
- ❖ The way in which instructors actually learnt about CBT and improving their own practice in this area were not always congruent with their stated preferences for learning. This relates to both cost and opportunity.
- ❖ Practitioners and managers tended to believe that staff development could improve the provision of VET and anticipated that it could also lead to the successful transition to the use of training packages which is scheduled to begin in 1999.
- ❖ The views of those interviewed and those involved in the focus group appeared to reflect an organisational culture of co-operation and support. All seemed to share an obligation to serve the local region and to reduce the negative effects of isolation.
- ❖ A small college can provide a very supportive environment for change. As one teacher put it 'while distance makes it difficult for us to keep up (with new ideas) . . . once on board we can implement fairly quickly and often we are (soon) in front'.
- ❖ CBT was perceived in a positive light. Almost all of the staff interviewed agreed that if they had their time over again they would implement CBT. However, the form of CBT to be introduced would be different from the one they first used!
- ❖ CBT as an innovation seems to have progressed through initial stages of uncertainty and loss of satisfaction on to a period of active experimentation and modification and now to a stage where most

practitioners are basically satisfied with their approach and are in a stage of finetuning. The initial stage was variously described as 'a rough road' and 'Like we had to run with this horse without a saddle and bridle'.

- ❖ While there are still concerns and issues relating to CBT which are seen to be important, they do not seem to be pressing nor are they of the kind which can be addressed, in the main, by staff development. For example, staff development cannot address the issue of funds for the purchase of resources or funds for staff development of the kind which allows staff to visit and consult their peers in their field in other institutions.
- ❖ Staff concerns have generally moved from a focus on getting CBT up and running to concerns with improving student learning and the longer term outcomes of CBT. For example, a number of instructors mentioned that some students were not fully engaged and that this was related to aspects of the way in which learning was organised and delivered. In a few cases learning guides were not seen as a satisfactory substitute for group interaction. The latter was perceived as a valuable source of support, feedback and elaboration. Minimalist guides which mainly provide directions do little to contextualise learning and relate it to the experience of the learner, which can be a significant source of motivation.
- ❖ Whilst there was much evidence that the implementation of CBT had brought about changes to the role and practice of instructors, this was by no means universal. In some of the instructional sessions observed the traditional division of theory and practice was evident. One manager commented that a few staff had never really changed their practice much with the advent of CBT, while a few others, who had changed initially, had now begun to pull back to more traditional ways of training.
- ❖ With CBT in place and new challenges emerging it is not surprising that instructors have changed their focus. For many it is now time to focus again on developments in their specialist field. People in industry frequently have briefings on new products and techniques and attend workshops run by suppliers and manufacturers. Staff at 'C' College do not have equivalent access.

Mission Employment

Tom Lowrie

CBT in practice

Introduction of CBT to this provider

CBT has been an integral part of teaching and learning approaches at this site for over six years. Mission Employment presently runs three courses in CBT at this site including a corporate, welding and retail course. Presently there were 22 people employed at the centre; however, funding cuts to SkillShare courses have resulted in the reduction of six positions within the next month. Almost all instructors interviewed agreed that CBT approaches were an effective way of presenting information for the courses currently offered. Every instructor had completed the Workplace Training Category 1 course—including administrative and casual staff.

The manager of the site had been accustomed to CBT practices for some time, based on his experience with the Royal Australian Air Force. He felt that this experience made the transition to CBT relatively easily. CBT approaches had been used at the site for at least the last five years.

Another trainer was first exposed to CBT methods when personally undertaking a course at the centre. He compared this initial exposure to CBT with his previous experiences at university:

I learnt more in the six-week course here than I did in three years at university. The course was an extensive hands-on course that was very well structured and organised. You knew exactly what was expected of you, and you had little milestones you had to reach along the way. Assessment criteria were well set out and were directly related to course outcomes. At university you had to teach yourself. You did not really know what was expected of you and could only judge your effectiveness on marks in assignments.

Generally, most instructors had positive impressions of the way CBT approaches were being undertaken at the site. All instructors interviewed were at ease when discussing the effects CBT had on their teaching and were quite reflective in their responses. Everyone interviewed was able to identify weaknesses in the dynamics of CBT but did not see these obstacles as a barrier to developing successful teaching and learning experiences. This positive attitude toward CBT may have been generated from a sense of their own professional responsibilities to their students and the wider community or, alternatively, it may have been the fact that such approaches could be easily undertaken within the present structure.

What teachers think of CBT

Although there was a quite diverse range of opinions about what constituted CBT practice, there was a general consensus that CBT approaches had improved the quality of teaching and learning experiences at the site. Most instructors believed that CBT had made them more reflective teachers and kept them abreast of industry standards. One trainer maintained that:

although we only have students for a short time in a rather stop-start affair a majority of people achieve their goals.

It may be the case that the actual framework associated with CBT ensured that students knew exactly what was expected of them. Several of the instructors maintained that they were able to monitor student performance easily and provide feedback in an informative manner in a CBT environment.

On the other hand, all teachers commented that there were weaknesses in CBT which appeared to undermine effective teaching-learning practices. Interestingly, every teacher mentioned that time factors were among the most frustrating aspects of implementing CBT:

CBT presupposed unlimited time availability.

CBT is a process that gets people to a required outcome—but I am yet to see a system that gives unlimited time.

The manager of the centre conceded that under a CBT umbrella the centre should be made available to students and the wider community for longer periods of time but it was 'locked up at five o'clock' because of funding limitations. Issues of flexibility were raised in other instances:

When working through a module you have to cope with a range of group dynamics due to the diversity of any particular group. You may have mature-age people who are serious and want to learn and they are held back by the restrictive nature of the module. All competencies need to be achieved and on occasions they are held up waiting for others to finish.

It could be argued that such situations occur in any teaching-learning situation; however, the point was made that funding issues limited flexibility, when, in an ideal CBT environment, the more capable or motivated students should be able to move through modules more quickly than they were at present:

When I first read about CBT I thought it was a great idea . . . content that was based on industry standards, relevant and up-to-date. But then it hit me—who is going to assess it?

The previous comment was an isolated case at this site—most of the instructors interviewed did not identify assessment as an issue or concern. Even when pushed to comment on the way assessment techniques were developed under a CBT format the following response was typical:

Assessment criteria are in the modules. There are different ways of getting to an assessment point so they are not restrictive—however, these processes must be well documented. We must have assessment that is accurate and justifiable. We need to be a reliable provider for other organisations.

Perhaps assessment issues were not a major concern because students were only at the centre for a short period of time, with instructors not generally required to administer a series of modules from a course. Alternatively, the small class sizes may have allowed instructors to organise assessment practices in an effective manner in ways that were not too time consuming or laborious.

How has CBT changed teaching?

At this site CBT approaches have been employed for a number of years. On occasions it was difficult to ascertain the extent to which individuals had changed their teaching approaches since the implementation of CBT practices. The following question was proposed as a useful stimulus for discussion—'If a new teacher started work here tomorrow, who was an experienced teacher but did not know anything about CBT, what would you need to tell him or her?' The results have been classified into first, second and third issues raised by each trainer.

From table A1.4 it is evident that five issues associated with CBT are identified. These components, in order of importance, could be classified as:

- 1 an understanding of the CBT approaches

- 2 curriculum content
- 3 teaching-learning methods
- 4 site-based contextual issues
- 5 student-teacher interactions

These issues were then explored in more detail, with the instructors encouraged to evaluate the effects CBT approaches have had on their role as instructors.

Table A1.4: The Mission Employment instructors' perceptions of what CBT involved, based on a question about what a new instructor would need to know

| Instructor position | 1 | 2 | 3 |
|---------------------|---|---|--|
| Manager | Have time to look at, and become familiar with, the syllabus | Ensure that they understood each student's entry level | Begin to develop an understanding of the culture of the organisation |
| Assistant manager | Find out industry requirements—what is to be taught | Develop appropriate resources | Ascertain students situation/learning skills |
| Full-time trainer | Appreciate that CBT is about teaching small bits of knowledge not assuming overall knowledge | Understand that to reach a level of competency a student has several attempts before they are out | Be prepared to listen to students and learn from them so that you constantly revise the way you assess and train |
| Full-time trainer | Awareness of curriculum content under the CBT umbrella | Appreciate that a diverse range of teaching methods can still be developed under CBT | Establish networks with other instructors as a support mechanism |
| Part-time trainer | Appreciate the notion that students are able to keep doing a task until they competently get it | The fact that record keeping is so important | Interpretation of the modules |

An understanding of the CBT philosophy: The most dramatic move toward competency-based approaches was the need to come to terms with what CBT actually involved. Most instructors recognised that the most significant changes to their training were associated with coming to terms with this 'new' environment. Several themes emerged from conversations associated with a CBT philosophy, and included:

- ❖ concerns about the number of attempts students were allowed to have in order to demonstrate a competency
- ❖ separating necessary skills and understandings into small components
- ❖ the modularisation of content

It was conceded that developing an understanding of what CBT actually involved influenced teaching and learning experiences more than any other area.

Curriculum content: From a practicality perspective, instructors identified changes in the way content modules and syllabus documents were organised as having an effect on teaching. Although most instructors

recognised that CBT was suitable to the delivery of content in their respective teaching areas, most argued that new curricula had changed the way in which they taught. The increased emphasis on occupational health and safety issues was a prime example.

Teaching-learning methods: One of the major issues associated with teaching-learning methods was the ability to cope with a diverse range of student needs. Under a CBT format instructors felt that they were required to look at the knowledge the student possessed and build on that knowledge more accurately and flexibly than in the past. Issues associated with the RCC and the way assessment needed to be documented were also highlighted. The fragmented nature of assessment under CBT has also resulted in a change of practice with instructors being required to 'go over and over and over again' the same competencies until certain students achieved the desired outcome. In a similar vein, it was recognised that 'Student A could do this, this, and this but could not put it all together'. Most of the instructors felt that this type of assessment did not provide the scope for holistic assessment practices.

Site-based contextual issues: The manager of the site believed that maintaining strong links with industry were important. Important understandings about the philosophy of CBT need to be shared with industry providers so that these links could be maintained in a competency-based environment. Another trainer believed that this type of analogy was also important in establishing networks with other instructors. Approaches to teaching and learning were now being raised in the culture context of CBT.

Professional development of instructors

General

All of the instructors had undertaken in-service training through Mission Employment and several had completed or were presently undertaking degree qualifications at a university level. Most instructors believed that professional development responsibilities should be shared between themselves and the employer. The manger at this site, for example, felt that it was important to take advantage of a number of relatively cheap training courses that were offered from time to time. Moreover, he encouraged staff to share ideas and initiatives with one another. In the time that I was at the site there was a strong sense of collegiality among instructors that seemed to promote a positive learning environment.

Each trainer was asked how he or she attempted to develop professionally and personally as a teacher/trainer. Their responses included:

- ❖ an extensive amount of reading
- ❖ being acutely aware of what is going on in the 'real world'
- ❖ professional membership of a range of relevant organisations
- ❖ subscribing to journals
- ❖ membership of business enterprise centres

- ❖ continually updating and modifying resources used for teaching purposes

Some of these initiatives were undertaken on a personal level, whereas others involved the entire training team. In other instances there were similar activities being promoted on both a group and individual level. Several of the instructors, for example, individually subscribed to journals, while the manager had subscriptions sent directly to the workplace. On a group level resource-sharing days were introduced to create opportunities for instructors to provide support for one another through discussion and modelling sessions.

Questions about what constituted a 'good' trainer and what was needed to promote quality teaching and learning experiences were also explored in both group and individual sessions during the case study. These questions challenged the trainer to consider the ways in which they would like to develop professionally. On some occasions these processes were actually occurring at the sight, whereas others were hypothetical 'what if' situations and included:

- ❖ talking to other colleagues
- ❖ sharing best practice techniques with others
- ❖ relating theoretical aspects of training courses to the learning needs of individuals
- ❖ developing multi-sensory learning experiences
- ❖ analysing why a particular colleague was a good teacher
- ❖ watching other instructors teach
- ❖ attempting to teach the way I would like to learn

It was conceded by most of the instructors that these principles were not conducted on a regular basis. Some of the issues raised in the next section show how difficult it has been to implement these approaches on a regular basis.

CBT staff development

Whereas most of those interviewed at the site maintained that some of the professional development responsibilities associated with teaching and learning should be self-initiated—in the sense that personal growth and development was an important part of teaching—it was apparent that views regarding professional development in CBT were distinct. There were several reasons for this change in ideology.

The manager said that all instructors had successfully taken up the challenge of CBT, but all eluded to the fact that industry had been slow to take up this approach in the surrounding areas of the region. It seemed to be the case that many employers in industry were not interested in CBT. As one trainer commented:

Industry thinks it is a nightmare, as employers generally do not care about the outcomes the student has achieved. The manager of Fosseys, for example, wants a person with a good attitude who is willing to learn and is reliable. He feels that he can teach them all the necessary skills himself.

As a result, instructors did not really get to see how the skills and understandings introduced in modules or courses were being applied to 'real-life' situations in the workforce. Employers would comment on how well a person was dressed, or on the person's motivational levels or enthusiasm but not on skill development or knowledge. It was therefore difficult for instructors to gauge whether students could apply competencies to other learning situations because quality feedback was not forthcoming.

Personal development opportunities in CBT were also becoming more difficult because it was becoming less likely for instructors to be able to talk to other colleagues in their field about issues pertaining to teaching and learning. One trainer commented that since SkillShare had been disbanded she was not able to meet personally with other instructors to find out what they were doing to improve their teaching. This isolation was magnified because:

TAFE teachers now see us as competitors and would never talk to us about the development and implementation of training modules.

Without the opportunity to discuss CBT issues with colleagues in their field, instructors became increasingly reliant on people in their own work environment. It was apparent that these issues were particularly significant for part-time instructors and instructors who did not live in large cities.

Several instructors argued that the evaluation process often gets left behind in a CBT environment. The very nature of the organisation ensured that instructors needed to be multiskilled, with individuals teaching across a number of specialisations. The manager indicated that modules had to be delivered over a specified time frame, and that it was not always possible for instructors to reflect upon important elements of the teaching-learning process because another course could be commencing the following day. It would not be uncommon for a trainer to complete one course on Friday and start a different course, with a new group of students, on Monday. Another trainer commented that students were only with them for short periods of time and that this made the training process somewhat artificial:

It's hard to get to know the students really well because they are only here for short periods of time. Teaching strategies cannot be individualised because you haven't got time to find out how they best learn. You need to use a range of general strategies that cater for the entire group.

One of the instructors commented that by the time he had understood 'how best each student learns' the module was finished.

There were a number of reasons why instructors did not feel that CBT staff development could be adequately fostered through personal experiences. These experiences included:

- ❖ lack of quality industry feedback
- ❖ less opportunities to talk to colleagues and peers outside their immediate work environment
- ❖ lack of time to reflect upon the teaching-learning process

Future staff development needs

Staff were asked about the staff development needs they foreshadowed for instructors in their field in the foreseeable future. Three themes emerged from these discussions and involved the:

- ❖ availability of in-service and training courses
- ❖ increasingly competitive nature of training
- ❖ cost-effectiveness of resources and time

As expected, there were differences between the views of management staff and other instructors with respect to these issues, with management staff being more inclined to want staff development to involve marketing strategies that would allow Mission Employment to be more competitive in the marketplace. Having said this, it was evident that all staff were able to look at 'big picture' issues that not only affected themselves but the industry as a whole.

Several staff mentioned that under Mission Australia there were no in-service courses for instructors. Instructors felt that it was important to have staff development courses that provided them with opportunities to keep abreast with general issues concerning CBT and specific issues related to their field of expertise. Furthermore, issues that were particularly relevant to Mission Australia could be targeted at such courses. It was pointed out that concerns about working in isolation could also be overcome if such initiatives were undertaken. Another trainer mentioned that there was no support for staff to go to in-service courses. This trainer commented that she asked regularly to go on training courses but was continually told by management that there was not enough money to support such ventures. Importantly, the most recent request was to attend a course on the use of training packages. Here was an enthusiastic trainer who would be able to support other staff with the implementation of training packages in the future but, alas, no money was available for the provision of such ventures.

Implications of case study findings

It was evident that the instructor's previous background and experience were influential in coming to terms with CBT practices. Furthermore, the adoption of CBT practices was linked to personal views about the teaching-learning process. Generally, this case study showed that an individual's beliefs about the teaching-learning process were central to concerns about CBT and ways of implementing CBT practices.

All practitioners interviewed in the case study were asked to consider the type of questions they would formulate if required to develop a nationwide survey that attempted to evaluate the effects that competency-based approaches have had on the role of instructors. This type of 'what-if' scenario was designed to evoke, in a metacognitive manner, a deep level of analyses. These scenarios encouraged the instructors to map their understandings of what is involved in the delivery of CBT with respect to teaching and learning—based on the flexibility and sensibility of their own workplace. Initially, most instructors responded with 'the same type

of questions you have asked me'. When challenged, a number of perceptive questions were phrased. It could be argued that these responses provided further insights into the way the instructors operated and taught in their own workplace.

Instructors at the site proposed the following questions:

- ❖ If a new trainer were to be employed at your site, what attributes would you be looking for?
- ❖ How can you ensure that this person would be the right person for the job?
- ❖ How would you describe the culture of your organisation?
- ❖ Where do you think your organisation will be in two years? What are some of the 'big picture' issues associated with CBT in your organisation?
- ❖ Whom do you seek advice from when faced with a problem associated with CBT?
- ❖ What are some of the attributes a good teacher has in your organisation? What have you learnt from them?
- ❖ How do you change your teaching practice to cater for the needs of diverse groups of individuals?

Almost all of the questions composed require contextually based responses. This shows that the instructors at this site placed a great deal of importance on the culture of the organisation. Furthermore, it reveals that the instructors believe that teaching-learning approaches need to reflect students' needs and the philosophy of the organisation. As one person commented:

our organisation goes out of its way to help people. We not only respond to each individual student's needs—we need to spend time ensuring that we are servicing the community. We need to foster teaching and learning experiences in ways that help a diverse range of individuals to reach personal goals that fit into the broader picture of the community.

Some of the questions were centred around issues involved with site-based learning or professional development. These questions suggest that co-operative learning situations and peer support help shape approaches and ideas involved with CBT. This is particularly pertinent in rural or country areas where provisions for professional support, and opportunities for interaction with other instructors, are often limited.

The case study has demonstrated that effects of CBT approaches on the role of the trainer can only be authenticated if an instructor's beliefs and understandings of CBT approaches are considered in conjunction with an individual's work environment or culture.

Townsville schools

Roslin Brennan

Introduction

This case study of three high schools focusses on the outcomes of the introduction of CBT have had on the roles of senior secondary schoolteachers of vocational education. The case study captures teachers' and administrators' reflections on their past experiences with CBT and associated professional development. It also looks forward as the participants predict how this professional relationship could be better facilitated and cemented.

The case study was carried out in Townsville, a large provincial city in northern Queensland. Townsville has a population of approximately 150 000 people, with the expectation that this number will rise by 180 000 people over the next five to ten years. The area has a diverse industrial and agricultural base, and relies for part of its economic health on very large army and air force bases. James Cook University, 'Australia's first tropical university', has its main campus in Townsville, with adjuncts located in Cairns and Mackay and contact with specialist learning centres in more remote parts of northern Queensland.

Townsville is a city undergoing economic growth, with the signs of development everywhere. New housing estates are being built and planned for, and the schooling system is characterised by increasing numbers and a general movement towards higher retention rates in Years 11 and 12. This trend is likely to accelerate as the low participation rates in Northern Queensland in any form of tertiary education become a target of educational activity. Only 48 per cent of young people move onto tertiary study or training, compared with a national average of close to 60 per cent and 70 per cent. Townsville has the biggest secondary school in Queensland, with 2200 students enrolled at Kirwan High School.

The training environment

The Wiltshire Review (Lingard & Rizvi 1995) identified Queensland as having the lowest skill profile of all Australian States and Territories. Queensland also has the most highly deregulated training market in Australia, with 1500 separate registered training organisations (RTO) operating under a policy of full implementation of user choice from the 1st of January this year. Regional Queensland is characterised by a 'significant shortage of VET trained staff' which results in the 'fly in and fly out' model of training, with large metropolitan providers successfully tendering for the provision of training in remote or decentralised areas of the State.

Some of the consequences of deregulation include:

- ❖ the supremacy of the purchaser/provider view of training
- ❖ casualisation of staff
- ❖ resistance to change
- ❖ resentment amongst local providers and customers
- ❖ financial unpredictability within the training market
- ❖ an absence of strategic alliances between training providers, including TAFE and schools
- ❖ political commitment to the ethos of 'let the market decide'

The participants

The three schools have had a vocational education focus for between four and seven years. The high schools involved were Thuringowa High School, Kirwin High School and William Ross High School. Kirwin is the largest secondary school in Queensland with approximately 2200 students. The school is organised into 13 departments and people are working in vocational education in all of these. The size of the school and its staff mean that there is a flexibility that means that those teachers who choose to work in vocational education come with enthusiasm. The principal said:

The school is big enough for people to choose to take up vocational education teaching and this is a great advantage. (Principal/Manager)

William Ross High School is a new school built in response to the huge growth in population associated with the building of new housing estates and the creation of new suburbs.

The three schools are all experienced in the delivery of vocational education in schools.

The major areas of vocational education being offered are:

- ❖ engineering
- ❖ metals
- ❖ hospitality and tourism
- ❖ business
- ❖ information technology
- ❖ mathematics and English also include CBT modules

Each school in Queensland is responsible for its own staffing within the framework set down by the Teacher Registration Board. Teachers in vocational education must have an industry background, be registered as a teacher in Queensland, and must maintain a professional development log to establish currency. The principals/managers were in senior administrative and leadership positions within the three high schools, and their jobs were to introduce and support vocational education in their schools whilst keeping all the other facets of the school ticking along.

The other contributor to this case study was the person responsible for initiating and co-ordinating the credit transfer arrangements between TAFE and James Cook University in 1997. Her role is described as academic support co-ordinator. She has a three-year appointment with these two institutions and her brief is to develop relationships between them which bring them into closer contact with each other. She has also been responsible for providing professional development for school-based vocational education teachers in implementing the literacy program specified by the Board of Studies for inclusion in the secondary school curriculum. The Certificate I in vocational communications is based on CBT principles and articulates directly into the national communication modules. She is also one of the contracted writers employed by Education Queensland to produce professional development materials for teachers working in vocational education in schools. These materials will focus on the changed context of the post-compulsory years, adult learning, flexible delivery, self-paced learning, the culture and society of young people and other contemporary issues which help to give teachers a fresh appreciation of where their students are and their views of their future. The curriculum change associated with CBT demands a change in teaching styles and assessment and this is taking place within a system of schooling where institutional constraints are a huge and inflexible burden for teachers.

Introduction of CBT into secondary schools

CBT has made its presence felt in these three secondary schools with the introduction of vocational education subjects in the senior secondary years. However, the extent to which the curriculum, pedagogical and assessment implications of CBT are endemic to the school-based delivery of these subjects is a matter for debate. The researcher asked questions using the term 'CBT' frequently during the interviews, and yet the teachers and administrators rarely used this piece of language. This either reflects discomfort with the term or a preference for discussing school-based delivery in the terms in which CBT has been adapted to fit with the school culture. CBT was most frequently linked with teacher and principal/manager discussions about assessment. When the term 'CBT' was used it was as a subset of the vocational education subjects, not as informing a set of principles for curriculum design, development, implementation and assessment.

CBT in a school environment is therefore very different from CBT in a VET environment such as TAFE. CBT is theoretically expected to be the underpinning of the vocational education subjects that are on offer, but the reality of the discussions did not reflect this. The lack of consistent contact between TAFE and the school sector restricts the exchange of ideas about CBT and teachers have relied on board-run courses and workshops to inform their professional practice. This intermittent contact has clear consequences when discussions about assessment using CBT begin. One teacher commented that:

When we first started the business area I had a few lectures at TAFE. I was a bit shocked to think that I had to get everyone up to 100 per cent correct in

everything . . . there was no room for errors . . . either you are there or you are not there and this is a different context for our teachers. We are used to saying well you are nearly there and if you work on this and this, then you will be OK.

Vocational education has been seen as a highly school-specific activity, with business and industry links being left to the individual school to negotiate. The introduction of school-based traineeships has also assured vocational education its place in the sun as students, their parents and the broader community welcome the breaking down of the barriers between school and work in the post-compulsory years.

TAFE plays a relatively minor role in the delivery of vocational education in these schools. The Board of Studies Subject Area Specifications and the endorsement of certain schools as RTOs mean that the relationship between schools and industry is tight, with few opportunities or invitations to TAFE to join the partnership. However, in a number of places this tendency seems to be weakening. With new apprenticeships and traineeships in schools:

TAFE are really making noises that they want a much closer liaison with us. They are becoming much more school friendly and flexible. They are accommodating and introducing self-paced programs with tutorial support available for our kids.
(Principal/Manager)

The tenuous and patchy links between the schooling sector and TAFE have clearly contributed to the slow infiltration of ideas and practices relating to CBT. TAFE has a strong tradition of CBT in Queensland. But the influence of this curriculum, pedagogy and assessment methodology has a limited influence on schools as the contact is restricted:

Schools do not have the cash to fund TAFE in schools, and TAFE has not seen itself as a legitimate partner in schools. Similarly you will rarely see schools well positioned with TAFE. There are few strategic alliances between TAFE and schools.
(Academic support co-ordinator)

The organisational culture of the school sector is significantly different from the organisational culture of TAFE. The schools visited had a clearly and frequently articulated focus on student welfare. The need to cater for a broad range of students was a strong motivating factor in the introduction of vocational education courses as having a significant 'welfare role' in providing for those students who might otherwise be disenfranchised and disengaged within the schooling system. One principal commented that:

The school chose to implement vocational education and CBT because they knew that the school was not catering for a significant number of kids.
(Principal/Manager)

Vocational education in schools is discussed as being both a means and an end: a means to keep students at school, and an end in the award of credentials which articulate with further education and training. These subjects have to sit beside the more traditional subject offerings within a framework which is circumscribed by history and past practice. Timetables, class arrangements, teaching loads, classroom facilities are all

still tied back to a senior secondary system designed primarily for those young people going to university. Teachers face immense challenges in trying to rationalise and work within two paradigms. One of the challenges is the traditional standards referenced teaching and assessment system which results in the award of Certificate of Secondary Education and the newer paradigm of CBT and Assessment. When teachers are asked to move across both subject areas, the challenges for initial preparation and continuing professional development are very complex. The TAFE sector has far fewer complicating factors where the energy is put into training clearly based on the principles of CBT.

All three schools were confident that vocational education was going to increase its share of the school curriculum. The largest high school, Kirwan High, chose to introduce vocational subjects because they realised that they were not catering for the interests and abilities of a significant number of their senior students:

The kids were about as happy as dead dogs, but our student satisfaction surveys show that our students are a lot happier now with their voc ed subjects. (Principal/Manager)

The attitude that vocational education 'is for the kids that can't do anything else' (teacher) is prevalent and acknowledged, and the schools are working hard to educate their teachers to think differently:

It is not a strand for dummies and schools have a responsibility to not just prepare kids in the senior school for university studies. (Principal/Manager)

Both the teachers and the administrators were enthusiastic about the interest generated amongst staff and students focussed on vocational education subjects:

There is enthusiasm on the part of the kids and the teachers are enthused by the interest of the kids. (Teacher)

They began to feel part of a broader educational community that created a more realistic environment for both students and staff.

In spite of this kind of support the participants had reservations about teachers' initial outside impressions of vocational education subjects. They thought that they were wary of this new move:

I don't think you find teachers necessarily willingly trying it. There is a shock barrier and all this extra work. But once they've tried it they begin to adapt and enjoy it. (Principal/Manager)

Views about CBT

The participants reported that initially the reaction to the introduction of vocational education into the schools was confusing. Teachers reacted by saying 'this is a lot of work and I don't know what to do'. (Teacher)

The curriculum development for vocational education subjects is centralised with the Board of Studies:

The board responsibility is explicit. They have the job of incorporating the competencies from the national training packages into school-based curriculum. It is an advantage to have the competencies so broken down into so many basic steps. (Principal/Manager)

The staff development supporting these subject area specifications is provided by the board in workshops where the content relating to particular vocational areas is explained. There seem to be few, if any, opportunities for staff development which contextualise these subjects within the broader training reform agenda generally and the CBT context specifically.

The pedagogy which usually accompanies CBT seems to pose some problems for teachers. Self-paced delivery is something which students have to learn:

Grade II didn't know how to self-pace so we are pacing them. (Teacher)

At the moment teachers are operating with relatively small numbers but the prospect of classes greater than 14 would create huge problems of assessment. The need to create practical contexts for assessment and the assumption that tasks can be redone until competence is achieved both add to the pressures on teacher time. This pressure is exacerbated in vocational education subjects by teacher attitudes:

There is a lot more responsibility on the teacher to get them to that competence rather than to a level of achievement. (Teacher)

Precision demands accountability and this entails new and different pressures for teachers.

There still seems to be a lack of clarity in people's minds about the assessment implications of CBT. This is perhaps because of the existence of two assessment systems in one location, without a clear distinction between competence and achievement in general. The tension is encapsulated by the following comment from one of the experienced teachers interviewed:

Only very high students will be competent, but you can still be a high student and not be competent . . . We do two forms of marking. We mark them for competency and then we mark them for their levels against benchmarks. We are using the one assignment to determine their competency and also their level of achievement. Competency in most things tends to be 100 per cent correct. Very rarely is there any leeway for anything not being correct. You should have a situation of someone being a very bright student but not being competent. (Teacher)

The lack of knowledge about where and why the CBT agenda is moving into the schooling sector contributes to a sometimes suspicious and insecure view about vocational education:

There are a lot of staff out there who would probably like to be involved but who really do not know enough about it. They are not game enough to say that they don't know anything about it. They won't throw their hat in and say that they don't know anything. But if the staff could see the breadth of it . . . it would be good. (Teacher)

CBT and changed practice

The participants mapped some of the possible changes in practice when they were asked to hypothetically explain to a new teacher the three most important things about CBT.

Table A1.5: The secondary school instructors' perceptions of what CBT involved, based on a question about what a new instructor would need to know

| Teacher | 1 | 2 | 3 |
|---------|--|---|---|
| 1 | Align their philosophy with the conceptual framework of CBT | Need to be aware that not all students will be competent at the same time | Management of students becomes a critical issue |
| 2 | Tracking of students is likely to be difficult and time consuming and they need to develop strategies for this | Record keeping becomes very important | Assessment methods are very different from those traditionally used in secondary schools |
| 3 | Classrooms need to be made flexible | Concepts about student progress and achievement need to be modified | Retesting is a legitimate part of the assessment regimen |
| 4 | A different way of approaching the work of teachers in secondary school | A different assessment methodology | Make it work for you as you can use a lot of different strategies and contexts for teaching |
| 5 | You will be dealing a lot more with industry | You will need to be very committed to the process and to the kids | Need to readjust your views about assessment |
| 6 | Industry experience will be important for the teacher | Assessment will be different from your experience | Lot keeping and tracking is a big job |
| 7 | Issues of teacher control and teacher direction | Redefinition of our learners | Reorganisation of the definitions of work |

CBT and teacher development

The Wiltshire Review in Queensland recommended the creation of 'multiple pathways' through secondary school. One of these 'pathways' was related to vocational education in schools. The policy decision to include some vocational education in the general board-developed subjects in the senior secondary years has resulted in the Subject Area Specifications for both English and maths having CBT modules included in them:

CBT is going more into those subjects that we traditionally saw as a pathway to tertiary education with CBT modules embedded in the subjects. (Teacher)

In Queensland the Board of Secondary School Studies has the responsibility for curriculum development in vocational education in schools. The subject modules are board-developed and the schools are accredited providers under the auspices of the board. Accreditation as a

registered training organisation is contingent upon the qualifications of the teachers, their registration as teachers with the Teacher Registration Board, their industry background and their continuing professional development. All qualified vocational education teachers are required to maintain a professional development log. This is part of the requirements for all government school employees in Queensland.

CBT and professional development

The participants were asked to comment on the ways in which they gained access to professional development. Their responses included:

- ❖ professional networks
- ❖ industry contacts
- ❖ industry placements
- ❖ TAFE courses
- ❖ conferences
- ❖ Board of Studies information sessions
- ❖ learning from curriculum documents
- ❖ exchange of information through colleagues and school-based networks
- ❖ peer coaching
- ❖ personal contact with others in the same field
- ❖ fact finding in other schools
- ❖ meetings with TAFE
- ❖ training as a workplace assessor
- ❖ placing students in workplaces and the liaison that occurs
- ❖ industry skills workshops

The staff interviewed divided their teaching colleagues into two categories: the first of which is the group of teachers who have had over five years experience in the vocational education area; and the second is those who have less. The strategies for professional development varied accordingly. It was suggested that staff development officially provided and external to the school should be the diet for the more inexperienced members of staff, whilst professional development which relied on individual initiative and networking was more satisfactory for experienced teachers:

Professional development is something that they do in their own time which is layered on top of a pretty intensive workload. My two and a half years that I have been dabbling in what has been happening in schools, there has been an absolute throwing of these curriculums to the regions with limited information, limited development of school managers in terms of what CBT is about; limited development of classroom teachers and virtually no resourcing and the constant expectation of success. (Academic support co-ordinator)

I am entirely convinced that none of the teachers that I had in that professional development course or who work in these schools have ever had to examine the big agenda. What does the national training agenda mean and how is it to work and what does CBT mean? I wanted to talk to them about

pedagogy and I spent my time fielding basic questions which should have already been answered. (Academic support co-ordinator)

This distinction between staff development (external provision) and professional development (self-selected and self-initiating activities) is exemplified in the comments from an experienced teacher discussing the needs of teachers new to the field:

They need much more than they are getting. If they are coming to work in CBT they need a thorough induction. A number of seminars, workshops, discussions just to get them used to the idea, and to let them cope with the change from levels of achievement to competency-based assessment. Teachers should not have to learn on the run. (Teacher)

However, a large injection of staff development initially was also not seen as ideal:

One big block at the beginning is not always appropriate. You need to have an initial introduction, time to think about it and find out all your problems and worries. Perhaps a series of sessions. (Teacher)

Whilst there was some disagreement about the best way of delivering this initial orientation, there was no dissension about the necessity for it. Other programs of staff development were predicated on teacher understandings about CBT that simply did not exist:

I don't think that there was an introductory course. I made assumptions when I delivered to teachers that they would already know quite a lot about CBT. I thought that they would be able to pick up a module descriptor and be able to scan for the learning outcomes and have that as a starting point for their curriculum . . . But no. (Academic support co-ordinator)

On a practical level the experienced teachers found that networking with peers involved in the same subject areas was a highly supportive activity. Each school participated in active networks in their vocational education subject areas. Most of them met at least four times per year.

The industry skills area workshops which support teachers in their content areas were very few and far between and 'very difficult to get into'. Since a condition of continued accreditation of the school as an RTO is the yearly updating of content area skills, a number of teachers enrol in TAFE courses to satisfy this regulation. This is logistically often quite difficult for teachers and a compromise has been reached:

The Board says that you will do five days industry relevant training per year but the Board does not provide it. But if you can't do this you only need to be seen to be trying to. (Teacher)

According to the staff interviewed, teachers new to the area needed some coping strategies that would let them survive their first encounters with CBT in school context:

They need strategies for coping with the workload and the tracking and being able to talk over what it means to be competent. (Teacher)

A number of teachers suggested that learning the pitfalls early was crucial to the successful implementation of CBT.

Vocational education in schools is a recent innovation and it seems that teachers and administrators are still busy coming to terms with the content and the methodology which this change entails. The tendency to reflect on the 'what' and the 'how' and the 'why' which characterise the changes, the philosophical glue which allows practitioners to respond to their contexts and their students flexibly and creatively, is at a generally unformed stage.

Issues from this case study

Professional development for a rich understanding of the Training Reform Agenda and CBT is frequently overlooked and not provided.

Issues of competency assessment are often unclear.

- ❖ There are tensions in the school system between levels of assessment and reporting for their exit credential and the competent/non-competent dichotomy which exists in their vocational education subjects.
- ❖ Change management for something as radical as the introduction of CBT into schools needs to be more clearly thought through.
- ❖ The change in the culture of schooling that needs to accompany a shift in emphasis to CBT has been scant attention at the policy level.
- ❖ Teachers who work in both curriculum areas of senior secondary school are often caught between two cultures of teaching and assessment. New developments are often seen and described in terms of the old frameworks.
- ❖ Networks of teachers are important in areas of economic and geographical isolation.
- ❖ CBT is a vehicle that is currently being used to express discontent about a whole range of issues. It is a cameo which reflects the generic themes of:
 - the general inadequacy of professional development
 - teacher trainer stress
 - mismanagement of change
 - a crowded curriculum
 - teacher preparation
 - increasingly huge expectations of what the schooling can and should be doing for its students, their parents, the economy and the society
- ❖ Teachers and administrators at the local school levels have put huge amounts of time, energy and resources into making vocational education in these schools work, motivated by an underlying conviction that the curriculum need not be broadened to engage the broadening variety of students who are now in, and will increasingly stay on until the end of, Year 12.

Willson Training Centre

John Retallick

Introduction

Willson Training Centre (WTC) is a private provider of training programs in Hobart, Tasmania. It was established in 1981 under the auspices of Centacare, the social welfare arm of the Catholic Church, to provide training for young unemployed people. To begin, the Commonwealth Government provided some funding for a pilot training project in horticulture and cooking. This was regarded as very successful and resulted in a number of young people obtaining jobs. The centre was then formed with some further government funds for training, which was then conducted as three 13-week courses per year on a 'lock-step' and traditional learning basis without any reference to CBT. As described by one person from WTC this meant that:

everybody in the group was learning at the same rate and dragged along by the fastest learner or held back by the slowest. That was the way we used to do our training.

At this point in mid-1998 the situation is quite different, with CBT in operation in all facets of training. Around 100 trainees are at WTC undertaking courses in commercial cookery, food and beverage services, commercial cleaning, retail operations, and office and computer skills. This number of trainees is much lower than they have had in the past and it is anticipated it will increase when the new Commonwealth Government policies on training for the unemployed are properly implemented or changed. As well as training for the unemployed, WTC now handles a range of traineeships registered with the Tasmanian State Training Authority and fee-for-service industry clients as well. It also provides for literacy improvement and job search skills and, through Centapact Australia, is now involved in the Commonwealth Government's Employment Network scheme providing a statewide employment service throughout Tasmania.

The centre has a management team of three (manager, assistant manager, and marketing co-ordinator) and seven instructors, most of whom work full time at WTC. All of the instructors have substantial industry experience and all are qualified, or are currently undertaking a course, in Certificate IV in Workplace Training Category 2 at TAFE. None of the instructors has a teaching qualification or background as a teacher in school or TAFE.

The researcher spent a whole day at WTC. During the day there were informal discussions with all members of the management team and tape-recorded interviews with the marketing co-ordinator, five of the course co-ordinators (instructors) and the literacy/job skills co-ordinator. All of the staff were very co-operative and helpful in enabling the research to be conducted during a normal working day.

The nature of training at WTC

When CBT came onto the training scene in the early 1990s it was seen by WTC as an opportunity to change their methods away from the 'lock-step' method, particularly for the benefit of trainees. It was recalled that in their discussions at that time they felt very strongly that their future was with CBT, and they now believe that without the change to CBT they probably would not be in business as a provider of training.

In 1993 a consultant was brought in from Melbourne to introduce CBT to all staff. With guidance from the consultant, the WTC course co-ordinators rewrote all their courses in module form with emphasis on self-paced learning. Over the past five years WTC has developed a unique approach to training. The approach incorporates CBT as a central element and also features self-paced learning and individualised treatment of all trainees with an initial interview to assess prior learning and training needs.

The nature of training at WTC was described in these terms:

CBT means that a person must be able to demonstrate the skill that they say they have . . . In any of the areas here there is a combination of recognition of current competencies through the initial interview and then a training plan is drawn up based on learning from modules which are all self-paced . . . A learning agreement is signed to incorporate the training plan and trainees have a nominal idea of how long the training will take and what the expectations will be. Because the learning is self-paced it is the trainee who drives the learning and determines how long it will take . . . it is not the trainer who drives the learning. The trainer is a facilitator and one who looks for any problems in the progress of the learning so that they may assist where possible or call on other assistance when needed.

Trainees are allocated one or more modules in the course as decided at the initial interview, depending on their needs and their prior learning. They have their achievements recognised by a 'statement of attainment' if they do not achieve competencies in all modules, or a 'certificate' if the required competencies are achieved in all modules of a particular course. There are no set commencement dates for courses, which means that trainees can apply for entry at any time during the year.

Courses are taught on a self-paced learning basis, with trainees undertaking learning at a level and pace compatible with their individual needs. Trainees are placed in small groups, though it is usual for each person in the group to be studying a different module and progressing at a different rate from the others. Where there are similar topics for discussion, the trainer will involve the group as a whole and encourage trainees to assist each other with their learning where it is appropriate.

In the case of training programs for industry clients, WTC offers a number of options to enable the employer to continue to utilise their staff effectively on the job as well as maintain a training regime. Before a training plan is written, WTC staff meet with the employer and the potential trainee to determine whether the trainee is able to obtain recognition for previous skills achieved with other training providers

(direct credit), or achieved during previous employment (recognition of current competency). The training plan is written specifically for the employer's work environment and the training goals of both the employer and the trainee.

WTC also negotiates where and when the training will occur. If an employer's staffing situation and work environment lends itself to on-the-job training, WTC instructors are able to provide assessment services to those employers. In other cases where the training is to occur off the job at WTC, a timetable is arranged to suit the employer's staffing needs. For example, in peak trading times employers may decide to keep their staff in the work environment and release them for training when trading is more conducive to their absence from the work environment. When this option is negotiated, employers are reminded of their training obligations under the training agreement to ensure that these are met.

The instructors at WTC

Trainer 1 is in the commercial cookery and food and beverage areas. He began working in the industry while still at school and gained an apprenticeship in cookery after leaving school. He worked in a number of restaurants and catering establishments before joining the staff at WTC around four years ago. He maintains connections with the industry through some occasional part-time work in catering and some consulting to catering firms. Competency standards are well established in the industry area and modules are available for all courses. He is generally supportive of CBT, having done his own apprenticeship under the 'lock-step' method. The major advantage is seen to be the individualised attention he is able to give trainees, though he feels that some trainees are unable to cope with the demands of individual, self-paced learning.

Trainer 2 is in retail operations. He started work with Myer as a retail management cadet and worked with them for 12 years in various retail roles. He then worked with Dunlop Pacific for eight years in a retail business. He has been at WTC for three years. The national retail competency standards have been developed in the past 18 months, and, more recently, the training packages have been produced. In his view these developments have improved training provision in the industry quite considerably. He has a mix of on-the-job and off-the-job trainees at various stages of learning from the modules. He feels that self-paced learning is good for trainees and it requires sound management by the trainer.

Trainer 3 is the office and computer skills co-ordinator. She has worked in the office environment of various industries and has been at WTC for five years. At times she has had additional part-time employment in desktop publishing to keep abreast of changes in the industry. Competency standards have been established for the past two to three years and training packages are currently being developed. At present she has a range of trainees in office skills, information technology, customer support and computer skills. She has had experience of training without CBT and feels that there is a distinct difference, particularly for

the trainee who needs some additional time to reach the required level of competence which is not provided for under traditional instruction. She feels that CBT makes the learning more realistic to what is required in the workforce but it does not necessarily suit all trainees, particularly those who are not well motivated to work by themselves. It also places more pressure on instructors to be well organised and keep up to date with paperwork.

Trainer 4 is in the commercial cleaning and car detailing areas. He has had many years experience of commercial cleaning, including his own cleaning company in Sydney which he sold before moving to Tasmania. Here he established a training program for cleaners at Hobart Hospital using the CBT method prior to working at WTC on a part-time basis for the past three years. He feels that CBT has had a big impact on the industry in terms of making explicit the skills and tasks required, and also changing attitudes in the industry towards making it more cost-effective. He is generally in favour of CBT, though he feels that literacy problems of some trainees make text-based learning from modules very difficult for them. This is an important issue when it involves reading the names of chemicals that are used for cleaning (he gave an example of a cleaner who died from incorrect mixing of chemicals). To ease that problem he has included many diagrams and pictures in the modules. He believes it is very important to treat all trainees as individuals with different needs and skills who require support in a variety of ways.

Trainer 5 is in the commercial cookery area. He has had more than 20 years experience as a chef in Australia and overseas, and has been at WTC for nearly two years. CBT is well established in the industry and there are learning modules for all aspects of the courses he is involved with. He has been in charge of many apprentices in other establishments, and is strongly in support of CBT on the grounds that it provides set levels and standards for national recognition in the industry. On the whole he feels that trainees do well in the CBT mode, though he is aware that some trainees have literacy and numeracy problems that make learning difficult for them. When these problems arise he refers trainees to the literacy/numeracy co-ordinator for assistance.

Staff development

The introduction of CBT in 1993 was a major staff development exercise. The consultant from Melbourne made a number of initial planning visits, and then spent one week on-site with all staff in a training room explaining and demonstrating CBT. Following that she made a number of visits over the period of two to three weeks to advise instructors as they rewrote their curriculum documents in self-paced, module form.

At this point there is little formal, on-site staff development except for those currently undertaking the Certificate IV in Workplace Training Category 2 at TAFE, which has a mix of on-site and off-site training. Other staff development is encouraged through participation in industry association activities and programs which are all off site. Instructors seeking staff development opportunities generally seek them out for

themselves through TAFE or their industry association. They are encouraged to update their skills through attendance at seminars and conferences, some of which are interstate, and WTC provides financial support by paying course fees, travel and accommodation expenses.

Major issues in CBT

During the interviews, each person was asked the question: 'What are the three main points about CBT you would make to a new trainer who was starting work here, if he or she had no experience of CBT?' The purpose of the question was to elicit the major issues in the view of the instructors about CBT in relation to working at WTC. The following list is a summary of responses and provides an overview of the culture of training at WTC.

- ❖ Training offered here is different to what they would have done before.
- ❖ Trainees are treated as individuals and we train to their needs, it is the role of the trainer to ascertain needs of trainees and service those needs.
- ❖ Using CBT is very demanding for instructors.
- ❖ Instructors need to know and understand the competency standards for their industry.
- ❖ Instructors must have a good knowledge of the materials/modules so that they can work on different things at the same time with trainees from a wide range of backgrounds.
- ❖ Instructors must be open to a range of assessment approaches, not just written tests.
- ❖ As a trainer you need a good understanding of competencies, knowing how to perform the task/skill is very important.
- ❖ There is a need to appreciate the required standards and the variables and conditions that effect the standards.
- ❖ The assessment process should be varied and include practical, written and verbal assessments.
- ❖ Need to understand what the competency approach actually means and the packages that support it.
- ❖ CBT provides a benchmark of what the industry expects and it is a good 'leveller' of standards across different situations.
- ❖ In CBT the onus is on the individual to learn with the trainer there to support the learning.

Conclusion

CBT is generally viewed in uncontroversial terms at WTC. It is well accepted by management and instructors as the most appropriate approach for WTC and there is no evident dissent about it. One possible explanation for this is that it has been in operation for about five years and most of the instructors have joined the group during that time. Those that were there before that time had a commitment to CBT built through an effective staff development exercise which involved the rewriting of all courses in CBT mode. It is reasonable to suggest that new instructors have been recruited, at least in part, on their demonstrated commitment

to CBT or their willingness to learn about it and implement it in their courses.

A further possible explanation is in relation to the background of the instructors. They all have a strong industry background of which they are justly proud and they value the Certificate IV in Workplace Training Category 2. This situation has produced cohesion and consistency of views amongst staff at WTC. However, none of the staff has undergone teacher education or tertiary education in VET. It is unlikely, therefore, that they would have been exposed to a critical analysis of CBT or, indeed, to the study of different approaches to education and training.

The CBT approach is strongly featured in course brochures and WTC advertising material. It is clearly a very significant feature of the WTC approach to training, and, when meshed with other features such as self-paced learning, individualised treatment of trainees and negotiated arrangements with employers, they have produced a unique and evidently very effective training format.

Appendix 2: The nation-wide survey

Evaluation of the effects of CBT on the role of instructors: A survey of current practices.

In this questionnaire we are interested in how people have developed an understanding of competency-based training and how they continue to learn as practitioners. Your experience and ideas will help us to appreciate the way in which VET practitioners have gained expertise in competency-based training and their preference for ongoing staff development in this area.

The questionnaire is part of a project funded by the Australian National Training Authority (ANTA) and aims to identify effects of competency-based training on the role of instructors across all types of training providers in Australia. It is being undertaken by the Group for Research, Employment and Training at *Charles Sturt University*.

The questionnaire consists of seven sections: 1) about you; 2) about your organisation; 3) your view of Competency-Based Training; 4) experience of CBT; 5) learning about CBT; 6) a particular experience in CBT; and 7) training packages.

Please attempt to answer all questions. The questionnaire takes approximately 20 minutes to complete. You may be assured of complete anonymity. The name of your organisation or the trainer's name does not appear on the questionnaire.

Please mail the completed survey in the return envelope provided as soon as possible.

THANK YOU FOR YOUR COOPERATION

Return address
Dr Tom Lowrie
School of Education
Charles Sturt University
PO Box 588
Wagga Wagga 2678

Section 1: About You

(please tick the box or write information where appropriate)

| | | | |
|---|-----------|-------------|--------|
| 1. Age: _____ | | years | |
| 2. Years teaching/training in VET sector | | _____ years | |
| 3. Total years teaching/training experience including other sectors | | _____ years | |
| 4. Gender: | male | female | |
| 5. Is teaching/training your main occupation at the moment? | yes | no | |
| 6. At this site you are: | full-time | part-time | casual |
| 7. Main type of previous non-teaching employment _____ | | | |

| | |
|---------------------------------------|-------------------------------------|
| 8. Highest non-teaching qualification | <input checked="" type="checkbox"/> |
| Masters or above | <input type="checkbox"/> |
| Degree | <input type="checkbox"/> |
| Diploma | <input type="checkbox"/> |
| Trade Certificate | <input type="checkbox"/> |
| Other Certificate | <input type="checkbox"/> |

| | |
|--------------------------------------|-------------------------------------|
| 9. Highest teaching qualification | <input checked="" type="checkbox"/> |
| Masters or above | <input type="checkbox"/> |
| Degree | <input type="checkbox"/> |
| Diploma | <input type="checkbox"/> |
| Certificate IV in workplace training | <input type="checkbox"/> |
| Other | <input type="checkbox"/> |

10. In which discipline area of study is your main teaching/training area?

| Field | <input type="checkbox"/> | Field | <input type="checkbox"/> |
|---|--------------------------|---|--------------------------|
| Humanities | <input type="checkbox"/> | Health Sciences | <input type="checkbox"/> |
| Built Environments (Architecture, Building) | <input type="checkbox"/> | | <input type="checkbox"/> |
| Visual/Performing Arts | <input type="checkbox"/> | Sciences | <input type="checkbox"/> |
| Social Studies | <input type="checkbox"/> | Agriculture, Renewable Resources | <input type="checkbox"/> |
| Education | <input type="checkbox"/> | Hospitality, Tourism, Personal Resources | <input type="checkbox"/> |
| Maths, Computing | <input type="checkbox"/> | Admin, Business, Economics Law | <input type="checkbox"/> |
| Engineering, Processing | <input type="checkbox"/> | Social, Educational and Employment Skills | <input type="checkbox"/> |

11. At what Australian Qualifications Framework (AQF) level are most of your students?
(tick only one)

| | | | | |
|---|---|---|---|----|
| 1 | 2 | 3 | 4 | 5+ |
|---|---|---|---|----|

1. Entry level 2. Traineeship 3. Trade certificate
 4. What used to be called advanced certificate 5. Associate diploma or above.

12. Are most of your students . . . ? (please tick one option on each line)

| | | | |
|------------|---|--------------|---|
| | √ | | √ |
| full-time | | part-time | |
| day | | evening | |
| employed | | not employed | |
| government | | fee paying | |
| aged (20+) | | aged (15-19) | |

Your personal view on learning

Teaching and training are complex issues. The way in which we learn varies according to the particular circumstance. However, it is possible to describe teachers according to their general orientation to education. Three such orientations are described below.

- a content orientation in which the emphasis is on delivering essential information in a straightforward manner and demonstrating how things should be done.
- a process orientation in which the way curriculum content is developed is also an important focus. There is emphasis on active learning, problem solving, self direction and application.
- a transformational orientation which, whilst concerned with curriculum content and learning processes, has an important focus on broader issues. There is an emphasis on critical thinking and changing learner perspectives in relation to such issues as equity, technological change and sustainable development.

13. Which of the three orientations described above is closest to your idea of an excellent teacher? *(Please tick the appropriate box)*

| | | | | | |
|---------|---|---------|---|----------------|---|
| | √ | | √ | | √ |
| content | | process | | transformation | |

Section 2: About your organisation

In this survey, 'organisation' refers to the organisation through which you received this questionnaire. For multisite organisations (e.g. TAFE) please respond as per your particular campus.

14. In which city/town/suburb is this organisation located?

| | |
|---|---|
| 15. What type of provider is this organisation? | √ |
| Commercial | |
| Community | |
| Industry | |
| Enterprise | |
| Secondary schools | |
| TAFE | |

- Commercial training provider—delivering training to private individuals on a fee for service basis (e.g. business college)
- Community training provider—funded by government of community-sponsored organisations (e.g. adult education centre)
- Industry training provider—providing training to enterprises across and industry (e.g. a chamber of manufactures skill centre)
- Enterprise training provider—providing training essentially for your own employees (e.g. a car-manufacturing firm)

16. Approximately how many teaching/training staff in this organisation?
(include full-time and part-time)

| | | | | | | | |
|-----|---|------|---|-------|---|-----|---|
| | √ | | √ | | √ | | √ |
| 1-5 | | 6-20 | | 21-50 | | 50+ | |

17. Are most of the students/trainees in your classes . . . ?
(tick the appropriate box)

| | | | | | |
|-----------|---|-------------|---|---------------------|---|
| | √ | | √ | | √ |
| employed? | | unemployed? | | yet to be employed? | |

Section 3: Your view of Competency-Based Training (CBT)

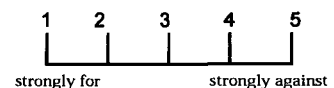
18. For a course to be regarded as competency based it must be:
 (please tick the appropriate boxes below)

| Feature | √ | Feature | √ |
|--|---|--|---|
| Course based on industry competency standards | | Modular format with separate learning outcomes for each module | |
| Course documentation in CBT format | | Assessment is based on competency standards | |
| Industry involved in course monitoring | | Assessment is based on demonstration of skills | |
| Recognition of prior learning (RPL) is available | | Non-graded assessment | |
| Students are assessed against set criteria and not ranked against each other | | Assessment criteria are made public - to students | |
| Assessment on demand | | Flexible entry and exit to courses | |
| Assessment at least partly in the workplace whilst working | | Training involves doing as well as watching | |

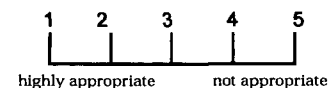
19. Select the three features from the previous table that most distinguish CBT from any other type of training. (write the features below)

1. _____
2. _____
3. _____

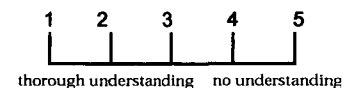
20. What is your opinion of CBT in general
 (circle a number)



21. How appropriate is a CBT format to your field of study?



22. How would you describe your understanding of CBT?



23. What do you particularly **like** about teaching/training using CBT? (list up to three things).

1.

2.

3.

24. What do you particularly **dislike** about teaching/training using CBT?
(list up to three things).

1.

2.

3.

25. If an experienced teacher/trainer, who did not know anything about CBT, arrived in your organisation—what would they need to know about teaching using CBT? (place up to three things in order of importance)

1.

2.

3.

Section 4: Experience of CBT

26. Years of experience teaching/training in CBT _____ (years)

27. In the courses in which I currently teach, the following features are present:

(please tick appropriate boxes below)

| Feature | Always | Usually | Sometimes | Never | Don't Know |
|--|--------|---------|-----------|-------|------------|
| Course based on industry competency standards | | | | | |
| Course documentation in CBT format | | | | | |
| Modular format with separate learning outcomes for each module | | | | | |
| Assessment is based on competency standards | | | | | |
| Industry involved in course monitoring | | | | | |
| Recognition of prior learning (RPL) is available | | | | | |
| Assessment is criterion referenced not norm referenced | | | | | |
| Assessment on demand | | | | | |
| Assessment at least partly in the workplace whilst working | | | | | |
| Assessment is based on demonstration of skills | | | | | |
| Non-graded assessment | | | | | |
| Assessment criteria are made public - to students | | | | | |
| Flexible entry and exit to courses | | | | | |
| Training involves doing as well as watching | | | | | |

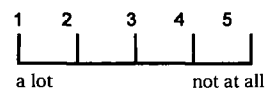
| | |
|--|---|
| 28. What has been your involvement with CBT? | √ |
| teaching/training | |
| writing curriculum | |
| writing student learning guides | |
| as a student in a CBT course | |
| State/national committees | |

Section 5: Learning about CBT

29. Choose the three (3) most useful ways in which you have learnt about CBT and **rank** selections in order of importance from 1-3.

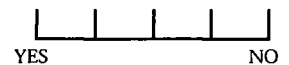
| | | | |
|--------------------------------------|--|--------------------------------------|--|
| Professional reading (e.g. journals) | | Action learning program | |
| Workshop—internal | | University course | |
| Workshop—external | | Visits to other organisations | |
| Conference/seminar | | Learning on the job | |
| Talking to colleagues | | Interaction with professional bodies | |

30. To what extent are you currently learning about CBT?



31. If you are currently learning about CBT, what are the main ways in which you are learning?

32. If you are not currently learning about CBT would you like to learn more about it.



Section 6: A particular experience in CBT

33. Identify a significant feature of CBT that you have implemented.

34. How did you learn about it?

35. How much did it change your teaching?

36. To what extent have these features created difficulty with respect to your teaching/training?

| Feature | No difficulties | minor difficulties | Moderate difficulties | Major difficulties | Not Applicable |
|--|-----------------|--------------------|-----------------------|--------------------|----------------|
| Course based on industry competency standards | | | | | |
| Assessment is based on competency standards | | | | | |
| Industry involved in course monitoring | | | | | |
| Recognition of prior learning (RPL) is available | | | | | |
| Assessment is criterion referenced not norm referenced | | | | | |
| Assessment on demand | | | | | |
| Assessment at least partly in the workplace whilst working | | | | | |
| Assessment is based on demonstration of skills | | | | | |
| Non-graded assessment | | | | | |
| Assessment criteria are made public - to students | | | | | |
| Flexible entry and exit to courses | | | | | |

Section 7: TRAINING PACKAGES

In 1997 ANTA introduced a new National Recognition Framework which removes the need for courses to be accredited. Instead, Training Packages are being developed for all industry sectors. These packages consist of the national industry competency standards, assessment guidelines, and a statement of the qualifications to be provided from the competency standards. Packages can be delivered by any Registered Training Organisation. Training Packages have been gradually released from 1997.

37. How much do you know about training packages?

| | | | | |
|-------|---|---|---|-------------|
| 1 | 2 | 3 | 4 | 5 |
| a lot | | | | very little |

| | | | |
|--|---|--|---|
| 38. Where did you gain this knowledge? <i>(tick where applicable)</i> | √ | 39. Please indicate the status of training packages in the industry area (field of study) in which you mostly teach | √ |
| From my employer via staff development program | | | |
| From my employer via memo, newsletter | | Already existing | |
| Staff meeting | | In the draft stage | |
| From a professional journal | | Not started yet | |
| From ANTA | | Don't know | |
| Other | | | |

| | | | |
|---|---|---|---|
| 40. Will there still be National Modules in your industry area (field of study) as well as the training package? | √ | 41. When will you be starting to use the training package? | √ |
| | | Already started | |
| Yes | | Later in 1998 | |
| No | | 1999 | |
| Don't know | | Don't know | |

| | | | | | | | | | | | |
|--|---|---|---|------------------|---|---|---------------------|--|--|--|------------------|
| 42. What is your attitude to training packages at the moment? | <table border="1" style="margin: auto;"> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td style="text-align: center;">5</td> </tr> <tr> <td style="text-align: center;">strongly disapprove</td> <td></td> <td></td> <td></td> <td style="text-align: center;">strongly approve</td> </tr> </table> | 1 | 2 | 3 | 4 | 5 | strongly disapprove | | | | strongly approve |
| 1 | 2 | 3 | 4 | 5 | | | | | | | |
| strongly disapprove | | | | strongly approve | | | | | | | |

| | |
|---|---|
| 43. Do you think training packages will change your everyday work as a teacher or trainer? | √ |
| A lot | |
| Somewhat | |
| A bit | |
| Don't know | |

| |
|--|
| 44. What would be the best way for you to learn about training packages? |
| <hr style="border: 0; border-top: 1px solid black; margin-bottom: 10px;"/> <hr style="border: 0; border-top: 1px solid black;"/> |



The National Centre for Vocational Education Research is Australia's primary research and development organisation in the field of vocational education and training.

NCVER undertakes and manages research programs and monitors the performance of Australia's training system.

NCVER provides a range of information aimed at improving the quality of training at all levels.