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ABSTRACT
            A study was conducted to develop practical options that
could help shape an Australian national staff development strategy for
vocational education and training (VET) staff engaged in flexible delivery.
Data were gathered from the following: analysis of the literature, evaluation
of 15 case studies in two Australian states and one territory that covered
public and private training organizations and industry, and discussions with
two key stakeholder groups (state training agencies and the national Industry
Training Advisory Board executive officers). Seven best practices for online
delivery of staff development were identified: developing a network of
support, ensuring a variety of learning styles and preferences, designing
interactive learning materials, ensuring educationally driven projects,
providing organizational and financial support, ensuring adequate security,
and using a planning model. A work-based learning model structured around the
use of action learning principles was determined to be the best model for
delivery of staff development to VET staff engaged in flexible delivery and
flexible learning. (The report contains 70 references. Appended are the
following: brief summaries of the Flexible Delivery Pilot Projects; Victorian
Flexible Delivery Pilot Projects; lists of case study interviewees and key
stakeholders; and standard questions for the case study interviews.) (MN)

from

to

Staff development for VET staff in flexible delivery

**AUSTRALIAN
NATIONAL TRAINING
AUTHORITY**

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FROM DESK TO DISK

Staff development for VET staff in flexible delivery

May 1997

The views and options expressed in this report are those of the author and the project team and do not necessarily reflect the views of ANTA. ANTA does not give any warranty or accept any liability in relation to the content of the work.

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Acknowledgements

Acronyms

ACPET	Australian Council for Private Education and Training
ANTA	Australian National Training Authority
CBT	Competency-based Training
CIT	Canberra Institute of Technology
EdNA	Education Network Australia
ITAB	Industry Training Advisory Body
NCVER	National Centre for Vocational Education Research
NSDC	National Staff Development Committee
NTF	National Training Framework
OTFE	Office of Training and Further Education
OTS	Open Training Services
RCC	Recognition of Current Competency
RPL	Recognition of Prior Learning
STS	State Training System
TAFE	Technical and Further Education
TQM	Total Quality Management
VET	Vocational Education and Training
VICAD	Victorian Association of Directors of TAFE Institutes Inc.
WBL	Work-based Learning

Chapter 1
Introduction

1.1 Background

The National Flexible Delivery Taskforce Report (ANTA 1996d), chaired by Mr Brian Finn, identified the absence of a national approach to staff development as one reason for a blurred national focus on flexible delivery. The taskforce therefore supported a national approach to staff development that targeted the changed roles of teachers and trainers resulting from the introduction of flexible delivery and, in particular, technology-based learning.

The taskforce recommended that the then National Staff Development Committee (NSDC) develop a coordinated approach to the development of vocational education and training (VET) staff, based on action learning principles and work-based learning (WBL) approaches. This research project followed from these recommendations.

1.2 Aim

The aim of this research project was to develop a set of practical options, underpinned by principles of staff development, that could help inform a national staff development strategy for VET staff engaged in flexible delivery.

1.3 Research project brief

The research project brief made it clear that any national strategy had to embrace a WBL model of staff development that provided maximum flexibility in the delivery of staff development to VET staff engaged in flexible delivery. Further, there was to be a particular focus on on-line delivery of that staff development.

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1.4 Methods

The research methods used in the project report were: (i) analysis of the literature; (ii) evaluation of case studies in two States and a Territory, covering public and private training organisations and industry, and evaluation of ANTA's Flexible Delivery Pilot Project in Victoria; and (iii) establishment of communication links with key stakeholders. The methodology is explained in full in Chapter 3.

In addition, an Expert Reference Group was established, to advise the project team. The group provided contacts, introductions, and leadership for the project team, as well as giving feedback on written drafts of this research report. Communication was established with an initial face-to-face meeting and then continued through teleconferences and email.

1.5 Output

The project was expected to result in a number of outputs, including:

- an outline of the scope of the staff development required for VET staff engaged in flexible delivery, along with a clarification of the key target groups (i.e. those who require training, in both industry and training organisations);
- a set of knowledge, skills and attitudes required by the target groups;
- an overview of the barriers to staff development;
- a list of 'best practices' for delivering on-line staff development;
- a model of staff development to best meet the needs of the target groups; and
- a process for the recognition, articulation and accreditation of courses/programs/ modules that may underpin a national staff development strategy in flexible delivery.

1.6 Project team and expert reference group

The members of the Project team were:
Kevin Peoples, Project Manager, Canberra Institute of Technology (CIT).
Pauline Robinson, Manager, Centre for Training and Development, CIT.
Jocelyn Calvert, Professor of Distance Education, Deakin University.

The members of Expert Reference Group were:
Kaye Schofield, Consultant, Sydney.
Margrit Stocker, Organisation and Human Resource Development, BHP Steel, Sydney.

Chapter 2
Flexible delivery: Here to stay

This chapter focuses on three themes that inform discussion about staff development for VET staff engaged in flexible delivery:

- forces driving flexible delivery;
- definitions of flexible delivery; and
- flexible delivery in the new training environment.

2.1 Forces driving flexible delivery

2.1.1 Deregulation of the Australian economy

The pressure for a more flexible training system that meets the needs of clients is central to training reform. The reason for this centrality is largely economic.

Australian business has entered a new phase of economic development recently. The deregulation policies of the Federal Labor Governments in the 1980s opened Australian businesses up to the global economy. Tariffs were reduced and employers and employees entered into a period of award restructuring. There was widespread agreement that Australia's educated workforce was an advantage but that new skills were required, in particular skills relating to the new technologies that were themselves making globalisation possible.

2.1.2 Industry demands

Industry has led the call for greater flexibility to bolster their competitiveness in an increasingly deregulated economy. This occurred with the creation of ANTA with dominant industry representation, and with new Industry Training Advisory Bodies (ITABs) advising ANTA on their training needs. Industry leaders argued that if the training system was to become flexible then clients must have a choice. The notion of choice is central to flexible delivery. Industry argued for a greater say in what training was delivered, when it was delivered, where it was delivered and how it was delivered. The Industry VET Plans produced by each ITAB for the period 1995–97 stressed the importance of flexible delivery, in particular 'low tech' strategies such as scheduling the courses outside 'normal' business hours (ANTA 1996d:85).

2.1.3 Government support

In 1991, research found that a majority of Australian school leavers in 1988 were not involved in any further education or training in 1989 (Finn 1991). Government focus then shifted to Australia's vocational education system, largely identified as TAFE; reforms and restructures in TAFE since 1990 have, in the main, been directed at making TAFE more client-focused and, in particular, meeting the needs of industry.

There has been widespread support for these changes. The ANTA Ministerial Council, made up of Commonwealth, State and Territory ministers responsible for VET have supported the principle of greater flexibility in the delivery of education and training (ANTA MINCO November 1996)

2.1.4 The training market

The single biggest impact of the call for flexible delivery was on the public provider of vocational education and training: TAFE. Prior to the call for a sharper client focus, TAFE systems *supplied* education and training. If greater flexibility was to occur the balance had to shift to those *demanding* the training.

Integral to client focus and flexibility is choice for those purchasing education and training. Choice is normally found within a market; therefore the creation of a training market in VET became another major factor driving flexibility in the delivery of training.

The number of private providers increased from only a few in 1993 to 2500 registered in 1996. Private providers currently deliver 15% of all training annually. The aim of the training market is to increase productive competition among all training providers. If providers wish to maintain market share then they must adopt a focus on client requirements. This involves developing and maintaining effective client–provider relationships at the local level, a key principle of flexible delivery.

2.1.5 Student requirements

While industry and governments have been the main drivers of flexible delivery, individual learners also favour flexible delivery. In doing so they stress the importance of tutorial contact with teachers and other students. The National Flexible Delivery Taskforce separated the requirements of industry from the requirements of individual learners in VET (ANTA 1996d). While there is overlap between the requirements of both, their requirements are not exactly the same and the emphasis is different. Individuals, for example, tend to highlight the importance of training that is widely recognised and portable. Nevertheless, in studies referred to by the National Flexible Delivery Taskforce, individual learners favoured training that was delivered at times and in places to suit lifestyles and work demands; further, they favoured flexible assessment procedures, appropriate and adequate learner support and tutorial assistance, and mixed-mode delivery that allowed them to work more independently (ANTA 1996d:68–9).

2.1.6 Other evidence

Another force driving flexible delivery is the chain of reports that have festooned training reform in the 1990s. In a series of reports the issue of flexible delivery was addressed and advocated (ANTA 1996d:62) and there was general agreement from these studies that large, medium and small enterprises want training delivered flexibly (ANTA 1996d:69–72).

In summing up the pressures driving flexible delivery, the National Flexible Delivery Taskforce listed the following:

- the developing trend towards globalisation of national economies and the emergence of more complex and competitive economic environments

- the awareness by enterprises that national and international competitiveness depends not only on productivity but also requires quality, variety, customisation, convenience and timelines

- changes in industrial relations including the development of enterprise-based agreements

- the impact of new technologies on business operations and philosophies

- an appreciation of the central role of flexible information and telecommunications technologies in meeting the new imperatives of business, and workplace reform including the impact of the adoption of quality processes, continuous improvement philosophies, and the adoption of more flexible concepts for the organisation and conduct of work. (ANTA 1996d:62)

These reasons for flexible delivery are virtually the same as those identified by Tinkler, Lepani and Mitchell (cited in Delaney et al. 1997:11), who argued that the 'areas of globalisation, technological growth and changing market requirements are important reasons why education and training need to be more flexible'.

2.1.7 Conclusion

With the weight of support for flexible delivery in VET, what then has been the result? The evidence would suggest there is still some way to go. The National Flexible Delivery Taskforce believes that considerable progress on flexible delivery can be made in the next five years (ANTA 1996d). Their estimate of the situation prior to the election of the Federal Coalition Government was as follows:

- increasing numbers of examples of good practice in the flexible delivery of training in TAFE, private training providers and large enterprises. There is little evidence of the adoption of flexible delivery in medium and small firms

- adoption of flexible approaches in large enterprises is directly related to fundamental changes occurring in industry regarding the concept and role of training in improving productivity

- high levels of interest in the potential benefits of flexible delivery across all industry sectors

- focus on quality improvement in medium and large firms has significant implications for the delivery of training. Firms adopting Total Quality Management (TQM) view the flexible delivery of training as an integral component of the TQM Approach. (ANTA 1996d:63)

Such an evaluation suggests that the age of flexibility is still to come! Lundberg's research regarding the progress of TAFE in delivering flexibly offers a less optimistic view (Lundberg 1996:66–9). Lundberg surveyed directors and heads of school or equivalent in Australian TAFE institutes and colleges in 1994 and 1995. These surveys suggested that flexible delivery is making limited progress in TAFE and further that it is constrained by inadequate staff development provision.

2.2 Definitions of flexible delivery

The confusion surrounding what 'flexible delivery' precisely means has led to difficulties in implementation, and is one of the main reasons why flexible delivery in VET has developed slowly.

Many of the people interviewed for the case studies did not have a clear understanding of 'flexible delivery', rarely used the term confidently and generally defined it quite subjectively. This is hardly surprising when the concept flexible delivery is frequently given a variety of definitions (Delaney et al. 1997:9–10). The concept runs the risk of becoming all things to all people. The term flexible delivery is being asked to carry too many notions.

This is no mere philosophical issue. If the concept lacks precision, it will in turn work against successful implementation (Cornford 1996:1–2). Delaney quotes Tinkler, Lepani and Mitchell, who also argued that the TAFE sector's capacity to bring about change was restricted by the lack of agreement about key terminology:

> While the TAFE sector is not responsible for the fact that the term 'open learning' does not have a uniformly accepted definition in the international education community, the promotion of the terms 'flexible delivery' and 'flexible learning' in the TAFE sector has served only to muddy the issues. (Delaney et al. 1997:9)

Despite the 'muddy' waters it is important to stay with the two concepts. From the project observations in VET, *flexible delivery* seems to have swamped the concept of *flexible learning*. That trend needs to be reversed and the importance of both, and their essential differences, should be acknowledged.

2.2.1 Taskforce definition

The definition of 'flexible delivery' adopted by ANTA's National Flexible Delivery Taskforce was:

> Flexible delivery is an approach rather than a system or technique; it is based on the skill needs and delivery requirements of clients, not the interests of trainers or providers; it gives clients as much control as possible over what and when and where and how they learn; it commonly uses the delivery methods of distance education and the facilities of technology; it changes the role of trainer from a source of knowledge to a manager of learning and a facilitator. (ANTA 1996d:11)

This is more a description than a definition. What it really says is that when all these descriptors or characteristics come together then you have flexible delivery. It does not say what it is. There is ambiguity about the word 'client' and the breadth of the definition has led to widespread interpretations making implementation difficult.

2.2.1.1 Nature of the client

The problems of definition arise from the dual nature of the client in the VET sector. In the above description, who exactly is the client? In ANTA's *Developing the Training Market of the Future, A Consultation Paper* (ANTA 1996a:7) the claim is that 'enterprises are the key clients of the training market' for they 'are the ones that compete nationally and internationally and, at the end of the day, create jobs for individuals'. And individual students? They are 'the immediate clients of training providers' and their 'needs may differ from those of enterprises'. This duality can lead to ambiguity. The description of flexible delivery in the Taskforce Report includes the following:

> For flexible delivery to be a reality, the client or learner should be aware of the options available to them and the training provider should be capable of responding to the choices made by the client or learner. (ANTA 1996d:1)

What does 'client' mean here? Is the reference to 'key' client or 'immediate' client? Because there are two clients it seems appropriate to distinguish them when coming to descriptions and definitions.

2.2.2 Redefining flexible delivery

The term 'flexible delivery' encompasses two discrete developments in VET: firstly, the demands by industry and enterprises for greater flexibility in the delivery of training; and, secondly, the demands for a more student-centred approach to teaching and learning.

2.2.2.1 Organisational flexibility

When enterprises demand greater flexibility, especially from TAFE Institutes, it is a broad demand for a change in approach. Specifically it means:

1   Enterprises want greater control over the content and context of *what* is taught in order to meet their needs.

2   Enterprises expect greater flexibility from training organisations as to *when* teaching occurs, namely at times that suit the enterprises not the training organisation.

3   Enterprises want increased flexibility as to *where* training occurs, for example on-the-job and not necessarily at a training organisation's campus.

4   Enterprises want increased flexibility as to *how* training occurs, for example in more flexible ways.

Solutions to these issues are essentially practical ones involving the managing and organising of the delivery of education and training. These issues are about a relationship between one organisation and another—between one manager and another. Industry and enterprises, in their relationship with training providers, want flexible access to training, flexible teaching and learning, relevant curricula, delivery off campus, and negotiations about their specific needs. This activity is best described as *flexible delivery*.

The question of *how* students learn, however, is two-edged. Enterprises do not learn—individual learners do. While managers must ensure flexible learning strategies are in place, a different set of players are involved in the actual learning process.

2.2.2.2 Student-centred flexibility

The demands for a more student-centred approach to teaching and learning involve a different relationship to the one above. In this case it is a relationship between teacher/trainer and learner, not organisations. Here we are talking about individual learners and their ability to make choices.

This relationship is characterised by issues such as developing learning strategies that will result in effective learning for the individual, matching learning strategies to different learning styles, ensuring access to appropriate learning resources, organising and managing flexible assessment processes, applying appropriate learning technologies, and appropriate learner support systems. All of this activity about *how* individuals learn also impacts on *when* they learn, *where* they learn and *what* they learn. It is best described as *flexible learning*.

Note that it is not a question of saying the *how* question belongs to the individual student and the *when, where* and *what* questions belong to the organisation. Individual students will be vitally interested in all of these questions, just as industry and enterprises will be vitally interested in the *how* question. The essential difference between the two notions is that flexible delivery is a broad concept concerned with managing and organising. Flexible learning is more narrowly focused on the learning process and the relationship between teacher/trainer and learner.

There is a further argument. Learners should be active participants in their own development. The concept of flexible delivery with its inbuilt notion of passivity (i.e. of

unloading knowledge from one to another) fails to capture the active involvement and filtering process that occurs in learning. Kearns and Johnson (1993:16) in their report for the National Flexible Delivery Working Party, wrote

> The term 'delivery of training' carries implications of Taylorist pre-packaged parcels of knowledge and skill that is 'delivered' to passive recipients. This factory metaphor sits uneasily with contemporary concepts of empowered, autonomous workers who plan and take responsibility for their own learning and development.

2.2.3 Project definitions

For this project the following definitions were adopted:

- *Flexible delivery* is managing and organising vocational education and training programs/courses/modules in ways that meet the needs of clients—industry, enterprises and learners
- *Flexible learning* is planning, developing and facilitating a range of learning strategies that meet the needs of individual learners.

2.3 Flexible delivery in the new training environment

The significant changes to the VET sector in the past year apply pressure for much greater flexibility than has previously been achieved.

2.3.1 National Training Framework

The new National Training Framework (NTF) aims to make the regulation of Australia's national training system simpler and more flexible (*Australian Training*, ANTA 1997). It will be the new driver of flexible delivery and flexible learning; equally it will drive staff development in training organisations and enterprises responsible for delivering training. At the heart of this flexibility are the training packages.

2.3.2 Training packages

Training packages are the resources that registered training organisations (previously called training providers) will use to develop industry training programs. Endorsed parts of the packages will consist of nationally recognised competency standards, qualifications and assessment guidelines. Optional learning strategies and professional development materials comprise the unendorsed elements of the package.

Flexibility is built into the training package approach. Registered providers will develop products and services that are tailored to meet the training needs of VET clients while still maintaining the core integrity of a national qualification outcome.

Training packages may well go some way towards overcoming the problems flexible delivery has had in becoming an accepted approach to training. Firstly, they will strengthen the relationship between clients and training organisations so that real negotiations over training programs and delivery options take place. Secondly, they will ensure the clients of the system have the information to make choices that will satisfy their training needs.

Importantly, the new approach to training will emphasise flexible learning. The move from curriculum will open the way to a variety of WBL strategies to meet the individual needs of learners. Assessment will take place directly against workplace competencies, not against endorsed courses or curricula. Recognition for prior learning will be extremely important in this context. Individual learners will want to plot their own learning pathways and negotiate

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with their teachers/trainers on learning strategies that match their learning styles and preferences. Flexible learning is intrinsic to this process.

2.3.3 Transitional phase

The new training arrangements represent a radical shift from the old with its dependence on curriculum and accredited courses. The transition to the new will not be easy. To a great extent success is in the hands of industry and enterprises. Will they take up the challenge? Historically, the involvement of Australian enterprises and industry in leading education and training reform, with some major exceptions, has been less than impressive. The new arrangements will place much greater emphasis on training in the workplace. Evidence later in this report indicates that major staff development initiatives are necessary if industry trainers are to meet the challenges. Much the same can be said for training organisations with their traditional classroom notions of delivering training.

Further, while industry and individual enterprises now have the opportunity to have their training needs met, a number of recent reports have highlighted the way in which traditional mindsets can influence the expectations and requirements of VET clients. Traditional mindsets still view training as something delivered in classrooms. They limit the capacity of learners to consider new concepts of learning and in turn limit the demand for approaches which cater for these new concepts. In general, users have limited appreciation of the benefits of more flexible approaches (ANTA 1996d:67).

There are other problems on the provider side. Many teachers are sceptical about the move to flexible delivery and flexible learning, seeing it as an attack on their professionalism and a cost-cutting measure to replace them with the new technologies. Further, the Lundberg study revealed that many TAFE teachers have received inadequate staff development in flexible delivery (Lundberg 1996:69). Flexible delivery and flexible learning are currently in a transitional stage, along with the new training arrangements. Staff development is critically important if the transition is to be made smoothly and efficiently.

2.3.4 Developing the training market

The new training arrangements will introduce new market initiatives to assist the development of flexible delivery and flexible learning. User Choice funding models and the New Apprenticeship and Traineeship System will create further opportunities for flexible delivery of training.

User Choice is a funding model that enables the enterprise to select the provider of their choice. This will enable clients to negotiate with registered providers on specific aspects of training. Registered providers will have no choice but to negotiate with enterprises if they want the work. Once the choice of trainer is decided then funds flow to the provider. User Choice should increase flexibility in delivery.

ANTA is currently seeking opinions on its consultation paper, *Developing the Training Market of the Future* (ANTA 1996b). One of the major issues to be decided is the role of governments in the training market. Governments currently have four roles: funder, purchaser, provider and regulator. Governments may well move to separate out their roles more sharply. The Government provider, TAFE, may well be forced to compete for Government funds through an independent purchaser acting on behalf of Government. Competitive tendering could greatly increase thus placing pressure on training organisations to deliver what the client wants. These market-like arrangements in VET are both an expression of the need for greater flexibility and responsiveness from training organisations.

2.3.5 On-line delivery of training

Flexible delivery and flexible learning are likely to be driven in the future by a strong emphasis on the new learning technologies. On-line delivery of training is one important way of increasing flexible delivery and in particular flexible learning. On-line delivery of training is significant because it:

- has the potential to greatly increase access for VET clients;
- can deliver value for money;
- provides maximum flexibility for learning;
- offers the possibility of self-directed, student-centred learning;
- provides access to up-to-date information from around the world;
- provides immediate communication links with other learners and mentors; and
- has the capacity to customise and up-date materials quickly and cost effectively.

In mid-1995, ANTA funded a number of flexible delivery pilot projects under the Interstate Cooperative Projects Program. The purpose of the pilots was to facilitate the future delivery of training in a flexible delivery context. In particular, the pilots aimed to use communications and information technology to support the interaction of VET providers and their clients.

Funding for the pilots was distributed to each State and Territory on a population share basis. Twenty-eight pilots were funded in total. Evaluations are currently in progress but from our analysis of one State evaluation, it is clear that on-line delivery of training is a credible and viable way for many individuals to learn.

On-line delivery of training has the potential to revolutionise training. It will make State and Territory boundaries obsolete and create a national market. Individual students can study in their own time in their own home. Networks of learning support from teachers and peers can be established easily, learning styles and preferences can be met and the design of learning materials can be interactive and make for compelling learning. On-line delivery is currently in the embryonic stage and more research is needed but it will increasingly become the driver of flexible learning in the future.

2.4 Conclusion

Flexible delivery and flexible learning have strong support from the key stakeholders in VET. They are at the heart of the reform process, have been from the beginning and are here to stay. Progress to date has been slow, which is not surprising granted the magnitude of the change they bring. Staff development for all involved, including induction for students into the new ways of learning, will be critical if clients/students are to benefit. The bottom line question is not an economic one, although clearly productivity and efficiency measures are important, but rather whether the change to greater flexibility, in particular on-line learning, adds value to learning outcomes.

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Chapter 3
Methodology

3.1 Research approach

A qualitative research approach was adopted. It involved an analysis of the literature, a review of existing work in the field and various consultative processes. The specific stages, some concurrent, are listed below:

- establishing communication links via the World Wide Web with key VET stakeholders;
- reviewing and evaluating existing resources relating to staff development for VET staff engaged in flexible delivery, in particular, on-line resources for staff development;
- evaluating the findings from the Flexible Delivery Pilot Projects with reference to the recommendations of the National Flexible Delivery Taskforce Report, and evaluating any other appropriate literature;
- consulting with training organisations and industry through fifteen case studies;
- analysing the literature on work-based learning models of staff development approaches with attention to action learning as one such approach in order to provide principles to best meet the needs of VET staff; and
- analysing the literature in order to develop a strategy for recognition and the articulation and accreditation of programs.

3.2 Sources of information

Four major sources of information were drawn upon for the research project: the literature, the case studies, key stakeholders and the expert reference group.

3.2.1 The literature

The literature relevant to the research was located and reviewed. The key documents to be reviewed, as noted in the project brief, were ANTA's *National Flexible Delivery Taskforce* (1996d) and the evaluations of the flexible delivery pilot projects funded by ANTA under the Interstate Cooperative Projects Program.

Information from the *National Flexible Delivery Taskforce* has been drawn on in the previous chapter, placing flexible delivery in context.

In mid-1995, ANTA funded twenty-eight flexible delivery pilot projects, which were intended to facilitate the future delivery of training in a flexible delivery context. In particular the pilots aimed to use communication and information technology to support the interaction of VET providers and their clients. Brief summaries of these projects are give in Appendix 1. These pilots are important for this project insofar as they offer the potential to provide 'best practice' case studies in the development of responses to staff development using on-line technology.

With the notable exception of the Victorian projects, evaluations of the other State and Territory pilot projects were not available. Attempts were made to speak with individual contact persons in each State and Territory, but this failed because, in many cases, the projects were not coordinated and individuals who earlier had some responsibility had moved to new positions within their training systems. The Victorian evaluation by the Open Training Services (OTS) Unit (Armstrong 1996) is comprehensive and insightful, and informs much of Chapter 6.

3.2.1.1 Work-based learning

The project brief also sought an analysis of work-based learning (WBL) staff development approaches, especially those utilising action learning. The work emanating from the National Staff Development Committee (NSDC) is considerable on this point. *Work-Based Learning: A discussion paper* (Carter & Gribble 1991) began the process. This is a substantial and erudite paper building on the work previously done in Britain. The NSDC built on the Carter and Gribble paper which had as its base a WBL model with three interrelated components and individual development plans, all of which formed part of a wider planned response to organisational change with training and recruitment integrated with strategic planning.

What the NSDC sought was a conceptual framework for staff development that would enable them to plan, organise, manage and evaluate staff development in VET. In 1993, the NSDC initiated the 'CBT in Action' staff development scheme. This scheme focussed on competency-based training (CBT) employing an action learning model. In 1995, the NSDC produced *Work Based Learning. A Model for National Staff Development. A Discussion Paper* (ANTA 1995b). The purpose of this discussion paper was to explore additional ways of learning within the WBL model and thus provide a more flexible framework to support staff development in VET. In 1996, *Action Learning in Vocational Education and Training* (ANTA 1995a) followed along with the *Work-Based Learning in Progress* series (ANTA 1996a).

Other WBL models were also considered (e.g. *Learning is working when working is learning—a guide to learning in the workplace,* Billett 1993; and *Cognition at work: The development of vocational expertise,* Stevenson 1994). The Billett guided-learning model differs from the NSDC model in that all the learning occurs in the workplace.

An analysis of this literature is given in Chapter 4, 'Literature review', and in Chapter 7, 'A model of staff development for flexible delivery and flexible learning'.

3.2.1.2 On-line learning

A major focus of the literature review related to the possible use of on-line technology to deliver staff development to VET staff. The institutional background for flexible learning and on-line technologies, and the benefits of using on-line technologies for staff development are analysed in Chapter 4, 'Literature review'.

3.2.2 Case studies

Fifteen case studies were undertaken. These studies were a series of interviews conducted in the workplace, although a small number of interviews with private providers in a number of States had to be conducted via telephone, rather than face-to-face. The names of those interviewed and their organisations are listed in Appendix 2.

A set of standard questions (Appendix 3) was developed by the project team with input from the Expert Reference Group and from some key stakeholders via the World Wide Web (WWW) site. Many of the questions were more suited to training organisations than to those enterprises conducting their own training (e.g. questions relating to student administration areas were not relevant in private industry). The questions asked in interviews were continually adapted to fit the enterprise, and other questions were omitted because they were inappropriate.

In TAFE Institutes, interviews were conducted with practitioners who were involved in flexible delivery and flexible learning. They included both education managers involved in delivery of training and teachers directly involved with students. No senior TAFE managers were interviewed.

In private training organisations, interviews were generally conducted with either owners or senior academic managers, although a minority of practitioners were interviewed. In enterprises, the interviewees were either training managers or industry trainers involved in training of staff, or, in small businesses (those with fewer than 20 employees in non-manufacturing industries and fewer than 100 employees in manufacturing), owners or managers responsible for training.

3.2.2.1 Case study sites

The original submission identified seven case study sites.

- **Three TAFE Institutes in Melbourne**: Box Hill Institute of TAFE, which had a working relationship with one of the partners, Deakin University, and was involved in on-line delivery of staff development; Western Melbourne Institute of TAFE; and Outer Eastern Institute of TAFE, where a member of the Expert Reference Group worked. All three Institutes had staff involved in the OTS Visiting Fellowship Program. This program sponsored flexible delivery projects utilising the new learning technologies.

- **One TAFE Institute in NSW**: Illawarra Institute of Technology, Wollongong, which had developed a working relationship with Canberra Institute of Technology over many years.

- **One large company**: BHP-Steel, Wollongong, a company with a long tradition in training its apprentices and other staff and situated close to the Illawarra Institute of Technology which had staff involved in flexible delivery at BHP. A member of the Expert Reference Group is the senior officer in Organisation and Human Resource Development, BHP, Sydney.

- **One medium-sized company**: Bilcon Engineering Pty Ltd, Melbourne, a company with an outstanding record in staff training, which had 72 employees.

- **One private training college**: Metropolitan Business College, Sydney.

During the course of the research the following adjustments were made.

1   The interviews were conducted over the Christmas holiday period and it was not possible to organise the visit to the Metropolitan Business College in Sydney. Instead, interviews were conducted with the Metropolitan Business College in Canberra.

2   There was no small business case study (i.e. a business with fewer than 20 employees) so one was added: Phillip Shell Service Station, Canberra, which employed 18 staff, mostly casual, including two trainees and one qualified tradesman who had completed his apprenticeship in the business, and where the employer had a record of quality management and training. An overview of training in small business was obtained from an interview with Michael Alves, Executive Director, ACT and Region Chamber of Commerce and Industry.

3   The number of interviews with private providers was increased because it was felt this would give a much fuller picture than the one interview in Canberra. As a result, telephone interviews were conducted with: Linda Wyse, Linda Wyse & Associates, Multicultural Workplace Communication Training; Kevin Hadley, Navair International Flying College, a member of the Australian Council for Private Education and Training (ACPET); Carmel Thompson, Acting General Manager, The Southern Cross Connection, Deputy Chair of ACPET; and Viv Caulfield, Director of Academic Programs for Lorraine Martin Colleges.

4   The Flexible Learning Centre, Tuggeranong, ACT, was added. The General Manager had a long history of involvement in flexible delivery and flexible learning, having been a member of the Working Party that developed the six self-paced modules on *Open Learning and Flexible Delivery* (NSDC 1992), and both the General Manager and the Centre were readily accessible.

5   The Project Manager was asked to speak at a seminar on flexible delivery at Miller Institute of TAFE in Sydney. As a result interviews were arranged with personnel involved with staff development and flexible delivery at the Liverpool Campus and Granville TAFE Campus of Miller Institute.

3.2.2.2 Limitations of case studies

Case studies by their nature have limitations. Peoples (1996:50) refers to the argument by Adelman, Jenkins and Kemmis that the accumulation of case studies produces nothing additional to the single instance, that generalisations are just as legitimate about the one instance as from a number of cases. This may well be correct but misses the point. Case studies are a slice of life. Research is not taken to prove or disprove a certain hypotheses held before the study. Data is analysed inductively. In this qualitative approach the data is descriptive (Ahern et al. 1995).

Case studies provide invaluable insights that lead to further research. Individuals construct their own meaning and present their perceptions of what reality is for them. Case studies then provide unique discoveries about each case. Care has to be taken, however, that they are not presented as representative of a given class. Adelman et al. argue, nevertheless, that it is possible to generalise to some degree from a number of cases when common threads emerge, especially when they are supported by other studies (Peoples 1996:50).

What should be kept in mind is that naturalistic research methods such as those adopted here are well suited to educational research. Processes in education are complex and value-laden. Issues around the teaching process cannot be simply reduced to or captured by mechanistic measurement (Peoples 1996:40, 47).

3.2.3 Key stakeholders

The two key stakeholder groups were the State Training Agencies and the National ITAB Executive Officers.

Letters providing the essential information about the project and seeking the name of a liaison person were sent to all stakeholders in the two groups (Appendix 4). They were also given details about the Web site.

Replies were received from all State and Territory Training Agencies and a liaison person was nominated as a contact person. Of the eighteen letters to National ITAB Executive Officers written replies were received from two and one other replied via email. Both those who wrote had no access to email or the Internet.

Some useful communication occurred between a small number of liaison people nominated by State and Territory Training Agencies and the team. Ideas were shared and input was given into the set of questions used in the case study interviews. The Internet connection was not always successful. Attachments frequently required decoding and the facsimile machine gradually replaced the Internet. Contact with ITABs was minimal and they have had virtually no input into this project.

Servicing the Web site was much more time-consuming than originally thought. A far more concentrated effort was required to generate real interest in the project, and time was not available for this. Information on the Web site was updated a number of times. One article was written with a set of questions to stimulate a response and a network of thirty-seven people was established on email. The network comprised liaison people nominated by the State and Territory Training Agencies, people interviewed at case study sites, people who had connections with the Flexible Delivery Pilot Projects, members of the Expert Reference Group, and interested others who were doing similar research.

The idea of key stakeholders on-line has definite potential, and the relative lack of success in this project was due more to the lack of time available to the project team than anything else. The team would have had to spend a great deal more time establishing a network early in the project and then contacting members through chat sessions, stimulating and involving them with key questions and regularly up-dating material. Furthermore, not all the liaison people had access to the Internet.

Chapter 4
Literature review

4.1 Context

The conclusions of the National Flexible Delivery Taskforce report (ANTA 1996d) outline three significant contextual factors currently impacting on Australian vocational education and training:

- changing patterns of work, which require ongoing learning from a large part of the workforce;
- the shift to sophisticated communication technologies, which opens up possibilities for new and flexible means of access to vocational education and training; and
- policy changes on the part of the current government, which allow greater flexibility in gaining credentials from a variety of learning pathways.

There is broad agreement in Australia and internationally that the demands for reform in education and training sectors are the result of developments on a wider stage (e.g. Bates 1995a; Dolence & Norris 1995; Le Grew & Calvert 1997 forthcoming). Global economic restructuring has led to the demise of traditional industries and the ascent of new ones, the dislocation of communities and their workers and the emergence of new opportunities, often in other regions. As changes in industry and work continue, with little prospect of stabilisation, tertiary education and training is no longer an activity undertaken after leaving school and as a prelude to undertaking a lifetime career. Furthermore, information and communication technologies have spawned a vast industry, have infiltrated the most traditional work and personal environments, and present irresistible possibilities for enhancing education and training. Education and training are perceived not only as a tool of national development, but also as a key to national economic survival.

These factors are relevant both to the provision of vocational education and training in educational institutions and industry, and to the provision of professional development for teachers and trainers who need to change their work practice to incorporate new media, methods and educational markets. This creates an opportunity in staff development to model best practice for teaching and learning in work-related study—what teachers and trainers are advised to do in their practice should be little different from recommended staff development methods. Boud (1995:208) observed:

The fact that much of the work on student learning has been undertaken by researchers who also have a staff development role has meant that there has been a rapid dissemination of these ideas into staff development programmes about teaching and learning.

The focus of this literature review is work-based learning methods of professional development; in particular, the major themes of on-line delivery, barriers and constraints, and recognition and accreditation. It begins with a consideration of current knowledge about learning and work. Consideration is also given to the qualities of the institution and workplace that foster staff development in the area of flexible learning and on-line delivery.

4.2 Learning for work

Boud (1995) summarised the results of research on learning that are pertinent to staff development:

- Learning occurs whether or not there is formal instruction.
- Learning is relational [in the sense that what is learned is partly a function of contingencies in the environment in which the learning takes place].
- Learning which occurs away from the workplace may be necessary, but it is intrinsically limited.
- Learning in organizations is typically problem-oriented.
- Learning in the workplace is a social activity which is influenced by the norms and values of the workplace.
- Learners' expectations are a function of their prior experience.
- Learning from experience requires attention to reflection and processing of experience. (Boud 1995:209)

According to Boud, therefore, staff development should: take account of prior learning and ongoing informal learning; emphasise learning experiences that are directly connected with work practice; take account of conditions in the workplace as they affect learning and practice; and provide opportunities for the integration of learning with staff experience.

4.3 Work-based learning

Work-based learning (WBL) is one of the ways in which workers, including teachers and trainers, can acquire and continue to develop competence relevant to their work performance. Carter and Gribble (1991:17) defined WBL as 'a work-driven approach to organising employee development, ... focussed on individual development plans.' The same authors quote Levy's 1987 definition of WBL as 'linking employee learning to their work role' and suggested that it had three interrelated components, namely:

- structuring learning in the workplace;
- providing appropriate on-the-job training and learning opportunities; and
- identifying and providing relevant off-the-job learning opportunities. (Carter & Gribble 1991)

In addition, they suggested that WBL is a work-driven approach in which 'employee development can be purposeful and aligned to organisational performance' (Carter & Gribble 1991).

The NSDC defines WBL as 'a form of staff development which recognises the importance of the workplace/on-the-job environment as a place where an individual can learn quickly and efficiently' (ANTA 1996d:v).

Marsick (1987) defined learning in the workplace as 'the way in which individuals and groups acquire, interpret, re-organize, change or assimilate a related cluster of information, skills and feelings', while Billett (1993) defined it as 'the acquisition of knowledge and skills as individuals participate in authentic vocational tasks supported and guided directly or indirectly by more skilled others'.

It can be seen from this brief scan of definitions that WBL can be regarded as all learning related to work or, more narrowly, as on-the-job learning. Whichever definition is adopted, WBL is important in the context of flexible delivery for two principal reasons.

1   It is one of the major vehicles for flexible learning and it is likely to increase in prominence under the new training arrangements, and therefore teachers and trainers need to develop skills and knowledge about WBL.

2   It offers potential as a method for staff development in itself.

4.3.1 Competencies required for delivery of work-based learning

In considering the first of these reasons, we need to understand the competencies required by teachers and trainers for the delivery of WBL. Carter and Gribble (1991) provide the only explicit treatment of this issue, and suggest an 'Areas of Competence Framework' in five sections:

1   Promoter of TAFE work-based services and products.

2   Negotiator of TAFE work-based services and products (including 'flexibility' and 'availability' strategies).

3   Collaborator in enterprise performance improvement (including 'learning cultures').

4   Designer of work-based training.

5   Facilitator of work-based learning.

Each of the five sections includes a list of relevant competencies (Carter & Gribble 1991:56–59). This framework focuses on linking training to enterprise performance improvement and on the facilitation of learning. While not a fully developed set of competency statements, it nevertheless provides a significantly different focus on the competencies required of teachers and trainers than other sources, such as the Workplace Trainer and Assessor Standards (developed by the Workplace Trainer and Assessor Competency Standards Body), which are focused on training delivery.

The recent work by Chappell and Melville (1995) undertaken on behalf of the NSW TAFE Commission gives a more broadly focused set of standards that lays considerable emphasis on the ongoing development of professional competence. Nevertheless it is primarily concerned with competence in the context of structured off-the-job training delivery and does not provide a framework for the consideration of competence in relation to WBL in particular, or flexible delivery more generally.

The Victorian Association of Directors of TAFE Institutes INC (VICAD), supported by the State Training System (STS) Staff Development Committee of the Office of Training and Further Education (OTFE), has placed a tender for the development of entry-level competency standards for VET teachers/trainers. The standards will include competencies for flexible delivery and the use of information-based learning technologies. It is envisaged that the competency standards and aligned Australian Qualifications Framework (AQF) levels may be presented to the National Training Framework Committee at a later stage for endorsement.

This analysis suggests, then, that a productive starting place for the design of staff development for flexible learning, including WBL, would be the development of an adequate competency framework for teachers and trainers, which encompasses this increasingly significant aspect of their role.

4.3.2 Work-based learning for staff development

The second reason proposed for the importance of WBL was because of its potential as a staff development approach. The NSDC proposed WBL as a model for national staff development in the VET sector, based on the model suggested by Carter and Gribble (1991; defined above), which is underpinned by a strategic framework involving individual development plans, linked to team plans and/or organisational plans

Learning strategies which could be incorporated within this model include job rotation, work placements, secondment, work-sharing, project-based learning, coaching, mentoring, shadowing, simulations and participation in consultative groups. This model has the capacity to encompass the great variety of organisations which are involved in the VET sector, ranging from the large public providers to the vocational training undertaken as part of business enterprises.

The more specific approach of 'guided apprenticeship', advocated by Billett (1993), may also have application in staff development in flexible delivery and flexible learning. He identified four phases of instruction—modelling, coaching, scaffolding and fading—and suggested that skilled vocational practitioners need to develop:

- knowledge that—facts, assertions, concepts, propositions;
- knowledge how—techniques, skills and abilities; and
- attributes and values associated with work skills, values, attitudes and social values.

The New South Wales TAFE Commission (1995) identified the following principles for enhancing learning in the workplace, which could be applied to staff development in the workplace and would provide excellent benchmarks for a work-based staff development program:

- learners need to be able to take risks to reflect the authentic situation
- learners need to be involved in the learning process
- support for learners in the workplace involves
  - the concept of shared responsibility
  - recognition of the need for self direction
  - the use of action learning
  - progressive transfer of responsibility to the learner
- structuring of learning requires
  - an understanding of the concept of the spiral of development of progressive complexity and autonomy
  - encouraging learners to assess their own success; ensuring that underlying knowledge and concepts are made clear to the learner; matching learning by doing with learning from reflection

This brief review suggests that WBL as a form of staff development can, in addition to providing a way of linking learning to the real work of teachers and trainers, ensure that teachers and trainers experience for themselves this powerful form of learning. As it seems likely that they will increasingly be called on to support learning in a variety of workplaces, it is important that their own learning has an experiential dimension in this area.

4.4 Flexible learning and on-line technologies

Developments in flexible learning and on-line delivery are the latest manifestations of the movement over the past thirty years to broader access to further education for people beyond school leaving age, and particularly for working people. Distance education, open learning and, recently, resource-based learning have a history and a research literature that can inform the present discussion. For example, a legacy of distance education in Australia and elsewhere is widespread acceptance that it is possible to:

- create new institutions and restructure the staffing and activities of existing campus-based institutions to accommodate dramatically different methods of teaching and learning, although new skills and specialist support are needed;

- teach just about any subject using any technology or medium, although some technologies may be especially suited to particular subject matter and learning requirements;

- learn while contending with jobs and family responsibilities, although the pressure of these is felt by students; and

- have the same status as a distance education graduate as the graduates of campus-based programs.

During the 1990s, distance education has undergone dramatic change in its methods and its clientele. In the past, distance education was aimed primarily at individuals who studied at home using packages of materials, with some contact with a tutor. While this approach has not disappeared entirely, it became apparent that the methods of distance education could have wider use in a variety of contexts (National Board of Employment Education and Training 1992). Furthermore, considerable resources have been expended at State and Federal levels to provide infrastructure for the use of information and communication technologies in education and training. As a result, an increasing proportion of adult study occurs in work-related contexts using materials and methods designed for the specific situation. For example, in 1996 Deakin Australia catered for approximately 30 000 students in large corporations and professional associations in programs tailored to work (Deakin University 1996), a total equivalent to the number of students in Deakin University's regular courses. In light of these developments, the term 'distance education' has lost currency in many quarters, to be replaced by a variety of terms (e.g. open learning, flexible learning, flexible delivery, resource-based learning, and the virtual classroom), none of which has achieved consensual meaning. Bates (1995b:227) commented that computers may 'revolutionise the organisation and structure of education, so much so that the term "distance education" itself will be rendered meaningless'. Presumably, this assertion would apply equally to the other terms.

Despite this background of expertise in distance education, the new technologies present significant challenges. Bates (1995b:11) commented that

> …one of the great contributions of distance teaching institutions has been to raise the quality of instructional design, resulting in extremely well designed learning materials. … However, in few cases have either campus-based or autonomous distance teaching institutions significantly re-structured their internal organisation or resource allocation process to exploit fully the possibilities of the newer two-way technologies.

4.4.1 On-line technologies for staff development and work-based learning

What can on-line technologies contribute to vocational education and training and the professional development of VET teachers? What is required is a flexible system that distributes learning opportunities and resources to individuals and groups who may have

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access to colleagues in the workplace with experience and expertise but may not be joined in their workplaces by other learners at the same stage in the learning process. On-line technologies can provide electronic access to stored resources and databases, including print, graphics and, increasingly, audio and video media. More significantly they provide access to networks and a variety of services including email, bulletin boards and computer conferencing (Bates, 1995b:203–205). Thus, these technologies can greatly extend the communication options available to students and teachers, and help to create learning communities of people who are separated by time or place.

Mason (1993:206) listed the following benefits of using information technologies and telecommunications for training:

- Flexibility as to time and place of training, enabling remote or local access to training materials;
- Active and interactive opportunities for the learner, so that distance learning can be as exciting and collaborative as face-to-face training; and
- Efficient use of specialized teachers and tutors, putting at the learners' disposal, the know-how and the expertise wherever they exist.

Bates (1995b:207–212) suggested that computer communication is particularly suited to help students learn through:

- 'collaborative and project work' where participants share their knowledge and understanding;
- 'knowledge building' through 'cognitive apprenticeship';
- 'maximising the knowledge and experience of all participants', particularly important among adult learners where students may have specialist expertise to contribute;
- developing skills in analysis, argument and critique;
- 'developing reflective writing skills' as they communicate with other participants;
- providing 'ready access to help and support'; and
- enabling direct feedback between students and the 'central academic team'.

Staff development in the workplace using on-line technologies, with a focus on group communication and integrated project work, is a model supported by the literature.

Mitchell and Bluer (1997) adopted this model at Box Hill Institute of TAFE in Victoria; however, they introduce one note of caution. They point out that the participants in the Box Hill staff development pilot were selected from a large number of applicants on the basis of relevant experience and expertise. In addition, the project was highly subsidised and intensively managed, and drew on a wider range of expertise than normally might be available.

What then are the prospects for widespread staff development using this model?

4.4.2 Requirements for professional development

Ehrmann (1996:35), in a recent OECD report on information technology in post-secondary education, commented that 'No one is more critical to the operation of the educational system than the instructional staff that organises and teaches the programme. Yet few if any countries are handling the problem of helping instructors learn to teach in the new environments, and rethink courses on a national basis'. Writing about Australian TAFE, Tinkler et al. (1996:x) observed, 'Professional development was the issue of concern to most respondents, second only in importance to that of funding.'

The need for professional development includes part-time teaching staff. In her review of professional development programs in the VET sector, Perkins (1996:12) noted a 'lack of involvement of part-time staff, or no remuneration for attendance' and observed that part-time staff constituted a 'large percentage of the TAFE workforce'. Lewis (1992) reported that part-time staff in open learning in the United Kingdom were enthusiastic about participating in staff development although not always in favour of the sort of programs that were mounted.

The basis for this need for staff development lies in the extent of change in educational practice that accompanies the use of the new technologies. Ehrmann (1996:36) stressed the impact of technology in the new environment:

> In the past, instructors could teach more or less as they were taught. Today, with technology powering rapid change in research, in the workplace and in society, it becomes necessary to update teaching far more substantially and frequently.

First, teachers are expected to become experts in the use of technologies whereas in the past they either did not use complex technologies or relied on technicians to manage their operation. This is but one aspect of what Marshall (1993:73) refers to as the 'end-user society' with its 'trend toward the direct use of information technologies by the person who will ultimately produce or use the information'.

Second, as Tinkler et al. (1996:29) explain,

> Teachers involved in the implementation of innovations using convergent technologies report that to be successful they have had to take a different view of what has been accepted previously as the traditional teaching role. No longer can they use a didactic presentation style; rather they have had to adopt a facilitating role in interacting with students. Depending on the particular medium being used, there is greater or lesser need to shift along the continuum between didactic—one way transmission—and interactive communication, allowing the students to interact with the images or text provided by the technology.

This position is supported by Ehrmann (1996:35) who identifies two components of staff development programs on the use of technologies for teaching and learning, 'one component focused on learning about technologies that have only recently become truly available for post-secondary instruction, the other component devoted to supporting the rethinking of courses of study in ways made possible by those technologies.'

Tinkler et al. (1996:102) add a further point about teamwork to this list. They argue that working collaboratively with industry in the development and delivery of educational services and products 'has the potential to change fundamentally the role of the individual TAFE teacher from a "stand and deliver" model to that of a team of specialists involving curriculum development, instructional design, learning facilitation, student support resources and consultation and liaison with industry.'

Executive and senior staff are also perceived to have professional development needs with respect to flexible learning and on-line technologies. According to Moran (1995:26), such people 'will increasingly need to have the professional and managerial capacity to judge and respond to the impact that [information technologies] will have on their institutions' strategic positioning and operations.' She notes that NSW instituted a staff development program for the senior echelons of TAFE. Le Grew and Calvert (1997 forthcoming), writing about executive development needs in higher education for open and flexible learning, reviewed the literature on leadership development and concluded:

> Will our leaders, planners and decision makers learn best and most about open and flexible learning and all that it involves in our institutions by attending showcase events, going on short courses and taking packaged tours of 'best practice'? The literature suggests that these sorts of events might be useful to create an initial level of awareness. In our analysis,

however, everyone in our universities should be aware and learning about new developments and changing directions all the time. This requires a culture that fosters collaborative development.

4.4.3 Methods for professional development

Several writers have commented on methods of staff development for flexible learning and new technologies. At worst, no support is provided, resulting in what Tinkler et al. (1996:30) refer to as 'professional development by chance':

> Seldom in the early stages in the implementation of innovation is there a structured program available to train participants. …innovators have engaged in self-help—learning by doing.

One-off events have a traditional place in staff development programs for flexible learning and new technologies. Lewis (1992), for example, described the United Kingdom Open University's top-down approach to staff development, involving briefing sessions on processes and procedures. Tinkler et al. (1996:113) commented that

> Most staff development in TAFE, in regard to educational technologies, is of the show-and-tell variety and focuses on the technology, however, little is done about instructional design.

Ehrmann (1996:35), however, suggests that '…a single injection of "technology knowledge" is not sufficient. Instructors need to learn continually about the ever-changing possibilities of new technologies'. A demonstration or workshop may be a good way to make staff aware of a technology or method, but there is little reason to think that it will result in changes to practice.

Structured programs of teacher training are a third method. Some universities, are introducing courses for academics without teaching credentials (Andresen, 1995; Moran, 1995; Ross & Pittman 1995). It has been suggested, however, that general courses may not pay sufficient attention to flexible delivery (Tinkler et al. 1996:114).

Lewis (1992:23) reported that another approach to staff development for open learning in the United Kingdom, using self-contained materials and home study, was been well received and, in fact, the absence of a trainer was 'warmly welcomed'. Lewis also described a competency-based approach to staff development for open learning in the United Kingdom. The modular program, instigated by the Open College and offered at a distance, led to awards for competence in supporting learners; supporting and managing flexible and open systems; designing and developing materials and systems; and performance of a job role in support or management. He reported that the award has been used by both individuals and organisations and draws attention to three key features of the approach: (i) 'the focus is on the individual rather than the group'; (ii) the participants need help principally with the collection of evidence for their competence assessment; and (iii) 'staff development sessions become less important' (Lewis, 1992:29). Lewis (1992:30) commented that 'the main users of the open learning awards have been further education, industry and private training organisations'.

The project-based approach used by Box Hill TAFE (Mitchell & Bluer 1997) goes one step further than a general course of study. It combines relevant education and training about flexible delivery with direct application to work. It thus capitalises on the value of 'just-in-time training', which operates on the premise that 'people are most highly motivated to learn when they know that they will soon have to apply that learning' (Rippey 1993:220). It also offers the best prospect for transfer of learning to practice. A specific approach within this frame is action learning (e.g. Zuber-Skerritt 1993; Gibbs 1995). According to Zuber-Skerritt (1993:373), action learning 'has been increasingly accepted, not only in industry, but also in higher education. It maximizes participation, collaboration, creativity, innovation

and critical reflection...'. Perkins (1996) commented that action learning is considered to be the most effective approach to professional development in VET.

Finally, it must be acknowledged that much professional learning does not occur through formal staff development programs. Bennett and Fox (1993:263) observed that

> A significant proportion of changing and enhancing professional performance is a function of learning embedded in the day-to-day experiences of professional practice.

Furthermore, they assert that some of this learning is planned, identifying three phases in self-directed change to enhance competence: prepare by learning; interact with others while experimenting and testing; practice and evaluation while continuing to learn. Tinkler et al. (1996:124) considered the responsibilities of teachers in the VET sector to be similar to those of other professionals:

> Teachers, like all professionals, are becoming lifelong learners, and are being required to constantly upgrade their skills and knowledge to maintain their professional standing.the issue of professional quality and continuing accreditation will require the same systemic approach as that being faced by medical practitioners, engineers, lawyers, network engineers and other knowledge professionals.

The general conclusion is that where possible the preferred approach is what Laurillard (1995) referred to as 'guided discovery'. Temple (1994:160) described the evolution thus: 'from *open learning as a learning package*, through *open learning as a package plus support*, to *open learning as a learner plus support*'. For Temple, the support for work-based learners may include, besides tutors and trainers, 'learning centre staff', 'a peer group', 'families and friends' and 'a mentor who is not the learner's line manager' (Temple 1994). But as Laurillard (1995) points out, such an approach is expensive, and her analysis includes a role for interactive multimedia to guide learners through a learning process. According to Houldsworth and Hawkridge (1996), technology-based training using off-the-shelf or purpose-built courseware is alive and well in large corporations in the United Kingdom. When resources are tight, as during a recession, technology-based training is cost effective for large numbers of learners and generic packages are considerably cheaper than bespoke courseware. Electronic resource collections are also advocated as a means of supporting students at less cost than individual personal contact (Ruggles et al. 1995).

4.5 Barriers and constraints to flexible delivery

A variety of issues serve as impediments to flexible delivery and the use of technology. They include technical issues, teacher resistance and institutional impediments.

In the Australian VET sector, Macnamara and Dobbs (1997:57) identified barriers associated with technology reliability, learner readiness and access, the time investment required, the preparedness of teachers and existing institutional environments. Tinkler et al. (1996:*xi*) commented:

> The cost of shifting educational practice from the traditional modes in all sectors of education is considerable. Without changes in teachers' work and the infrastructure of education, equipment will be ignored, under-utilised or used inappropriately. Teachers are already fully committed. Their access to technology and the time to develop use of it to assist student learning is currently an insufficient base on which to build change. Without significant incentives for teachers to undertake the work required for better use of information technology in schools, progress will be slow.

Bates (1995b:245) cited one factor as the single most important barrier.

> The major barrier to innovation, the use of technology, and alternative delivery methods within existing educational institutions is not lack of resources, although greater investment

would help, nor lack of will or recognition of the need for change by their managements, nor even an ideological or philosophical objection by most teachers to the use of technology or to doing things differently. The major barrier is fear; most teachers do not feel comfortable with the technology, but most important of all, they do not know how to use it effectively.

Berge and Collins (1995:6) list several barriers to the use of computer-mediated communication for teaching and learning:

> ... the learning curve, with regard to learning the system and the technical 'how tos' of the computer and telecommunications, can be steep. The cost of buying and supporting systems or accessing other networks is a significant 'overhead' item in schools and colleges today, as is the cost and inconvenience of upgrading, repairing, or replacing hardware. Further, computer systems are not 100% reliable, a fact that adds to inconvenience and wasted time. With so many systems to learn and sources to tap, information overload has become a problem as some users struggle with the lack of criteria to help them to decide what to keep and what to discard from the swiftly flowing stream of incoming information.

Olcott and Wright (1995:5–8) summarised two principal sources of resistance among teachers to participation in distance education: concern that the change from face-to-face teaching would result in a diminishment of their role as teachers and 'inadequate compensation, training and incentive structures' in their institutions where distance education was seen as a peripheral activity. The first indicates concern about moving into unfamiliar territory but, they say, research indicates that teachers who 'make the shift are not only more successful distance teachers, but also more successful classroom teachers'. The second is a matter for institutions to address, for 'this resistance has been due, in large part, to the lack of an institutional support framework to train, compensate and reward distance teaching faculty at levels commensurate with those in traditional instructional roles.' 'Institutional support and leadership', they comment, 'are critical if distance teaching is to be integrated into the mainstream academic culture'.

Stacey and Thompson (1995) document issues reported by academic staff and systems developers during the implementation of computer-mediated communication in several university courses. Implementation issues included the time taken from other responsibilities in order to learn about teaching and learning on-line; the time required to deal with the system and problems that arose; the fact that not all students had ready access and needed to communicate in other ways; the addition of on-line teaching to print and phone communication; and having to be prepared with alternative strategies in case the technology failed. Pedagogical issues included whether participation in on-line discussion should be mandatory and how to encourage participation when it is not. Underlying their adoption of new methods were various anxieties that arose from coping with technological jargon; the possibility that students would be more knowledgeable about the technology than they were; their ability to change their teaching practice in a radical way; their ability to manage the technology; and the probable consequences of not meeting the challenge. Their research confirmed the conclusion of other writers that staff need time and support to explore and experiment with technologies that they will use in their teaching.

Moran (1995:23) stressed that institutions have a responsibility to support developments in flexible learning and the use of technology by providing access to equipment and resources and ongoing technical and administrative support. Even these, however, are not enough. According to Bates (1995b:58), 'institutional commitment at a senior level, together with the resource allocation needed to back that commitment, are essential if technology is to be used extensively in an institution.' Bates adds that it also necessary to 'reorganise and restructure teaching and technology support services' and that the changes 'may require a shift of funds away from traditional cost centres into new ones.' Both Bates and Moran make the point that it is necessary to develop specialist professionals to assist the transition to new forms of teaching and learning.

4.6 Recognition and accreditation in flexible learning

State and industry expectations about qualifications for their teachers and trainers are not consistent or well established. Furthermore, changing traditional practice to accommodate flexible learning and on-line technologies is a matter of continuing education. Whether professional development is mounted as a condition of employment or simply encouraged, many staff will be looking for incentives in the form of recognition of the learning they have undertaken, including academic qualifications. The Vocational Education, Employment and Training Advisory Committee (1993:11–12) identified three purposes of recognition for prior learning.

■ Appropriate placement of an individual in an accredited course or recognised training program.

■ The right to practise in a regulated occupation and the certification of competency.

■ Employment-related purposes such as award classification, recruitment and promotion.

While recognising that accreditation may be granted by central agencies, TAFE or private providers, this section will focus on recognition by universities of learning acquired through professional development programs.

The university, and previously CAE, sector has traditionally provided courses leading to teaching credentials for VET teachers. Furthermore, recognition for credit of learning carried out in TAFE or industry has become well established in Australian universities in the 1990s. Topley and Clinch (1994:3–4), in a review of industry-based training conducted for the Australian Vice-Chancellors' Committee, reported that in 1992 eighteen out of 30 universities surveyed gave 'standing recognition to specific courses conducted outside universities and TAFE colleges, including teacher and trainer education. They noted preference for:

■ individual or particular universities to develop continuing, close, workface-level relationships with particular industries at the local, regional and possible national levels;

■ distance education as the principal delivery mode in suitable cases.

The Higher Education Council (1996:*xii*), in a review of professional education and credentialism, included the following elements in its model of good practice:

■ inclusive of all stakeholders;

■ open, consultative and consensus building about future course developments;

■ as far as possible meshes the external registration requirements with internal academic priorities;

■ is focused on the achievement of objectives, maintenance of academic standards, and good outputs and outcomes rather than on detailed specification of curriculum content.

The general conclusion to be drawn from these reviews is that accreditation of in-service staff development for flexible learning and on-line technologies is best negotiated between the provider of education and training and the accrediting institution or body. Where universities are involved, incidentally, the Higher Education Council (1996) recommended against national accreditation of professional education. Credit, thus, can be applied for after the fact on an individual or group basis. Alternatively, and preferably, arrangements can be made with an accrediting institution either to provide the appropriate training for credit or to build credit for the work-based program into an appropriate award.

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Delaney et al. (1997:22) reviewed thirteen courses offered by Australian universities that covered 'areas relevant to the staff training needs for VET sector staff.' They commented that none of the courses specifically addressed flexible delivery and that those people they consulted only identified 'OTS's Staff Development Program and the National Staff Development Committee modules as being specifically relevant for their staff'. One possibility, however, would be to arrange credit for the program or modules so that those teachers and trainers who wished to pursue a full qualification could receive automatic recognition. In the present competitive educational environment, it could be expected that more than one accrediting institution would negotiate credit transfer to an appropriate course or, if sufficient student numbers could be anticipated, construct a course that incorporates the staff development program. The Box Hill TAFE staff development module is expected to 'articulate with postgraduate diplomas of workplace/industrial education and training currently being offered by a number of Victorian tertiary institutions' (Mitchell & Bluer 1997)

One course not reviewed by Delaney et al. is the new Graduate Certificate in Open and Distance Learning offered on a fee-paying basis by the University of Southern Queensland (1997). To qualify for the Graduate Certificate, students complete half- and one-credit-point modules for a total of four credit points. A one-credit-point independent project is compulsory. Other one-credit-point units include 'designing instruction', evaluation, and 'creating interactive multimedia'. Half-credit-point units include 'perspectives on open and distance learning'; 'systems approach'; 'assessing learning'; and one each on designing, developing and delivering print, Web-based, audio and video materials. The course is conducted on-line and students are required to use the Internet to obtain information. Particular units in this course appear to be very relevant to staff development needs in VET, and the modular format of the course makes it structurally amenable to cumulative credit acquisition depending on particular teacher needs.

There are some overseas reports of programs that illustrate good use of flexible learning methods in this area. As described earlier, the Open College in the United Kingdom defined a competence framework for open learning and designed flexible means for teachers to develop and demonstrate competence, leading to a Certificate of Open Learning Delivery (Lewis 1992). Boise State University in Iowa conducts an induction program for new teachers using a combination of workshops and computer-mediated communication. Enrolees, who receive 'two graduate credits' (probably about one-fifteenth of a year's equivalent full-time study) are required to use the network twice weekly, attend two workshops, complete a 'final questionnaire' and submit a 'brief final report on the value of the computer and the network connections' (Singletary & Anderson 1995:141). Moon and Shelton Mayes (1995) describe an approach to initial teacher education and training conducted at a distance by the United Kingdom Open University. They developed a matrix of competences and an activity and assessment program that involved head teachers and local mentors as well as the central course team.

Chapter 5
Case studies

The case studies sought to answer eight broad questions, as presented in the sections below.

5.1 Is the notion of flexible delivery well understood in your organisation?

Not one interviewee in TAFE thought that the concept of flexible delivery was well understood in their organisation. Most said either 'mixed' or 'pockets' of understanding existed. In these 'pockets' understanding was said to be high. Individuals tended to operate according to their own understanding of flexible delivery, with very limited organisational agreement as to what it meant or how it should be implemented. There were some areas that were 'entrenched' in past traditions of delivery and 'didn't want to know' about flexible delivery.

Private training organisations gave a similar story. Answers of 'No. Not yet' or 'It is understood but not well' were common. As with the TAFE sector, some staff had a better understanding than others. One person, who had been a member of the Flexible Delivery Working Party, commented that quite often flexible delivery in private training colleges means 'flexible enrolments and self-paced' packages.

One owner/manager admitted not knowing what flexible delivery meant and insisted that we send a definition before agreeing to talk with us.

5.2 Who needs training?
5.2.1 Training organisations

There was widespread agreement that *all* staff in training organisations need some training in flexible delivery. There were frequent responses such as 'non-teachers need to know'. These responses are significant as many examples of flexible delivery that the project found appeared to be the work of enthusiastic individuals, who seemed to think any success they had was in spite of the organisation not because of it. Staff involved in student administration areas (e.g. enrolments, student records, certification) were frequently mentioned as important for successful flexible delivery. A minority mentioned students, and when they did argued that new students needed induction programs into flexible learning.

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When asked to nominate those groups who needed training in particular, the interviewees named the following:

- teachers
- technical officers
- support staff (e.g. stores)
- senior executives and education managers
- library staff
- clerical and administration staff
- information technology staff
- graphic artists, instructional designers
- marketing staff
- counsellors
- students and student associations.

When asked about special needs or priority areas interviewees gave a range of responses; for example: 'trade teachers'; 'permanent teachers who have been in the system a long time'; senior executives and managers' who had to drive flexible delivery; education managers who 'had to motivate others'; those working directly with industry; and casual employees. There were mixed views about pockets of teachers who had been employed in TAFE for a long time and had become 'institutionalised' (e.g. 'old technical school people' in the academic areas of Humanities and General Studies). Some saw them as a group who should be a priority for staff development, while others wanted to ignore them completely.

Some argued that managers had to solve the problems 'at the top', that flexible delivery 'must be a top-down thing' and that flexible delivery was essentially a question of 'leadership'. Some commented that administrative staff in Student Administration areas were 'often working against flexible delivery'. One manager said that teachers were 'pragmatic' and 'realists': 'if it [i.e. flexible delivery] works they'll use it'. Teachers were 'slow to change' because the 'tried and true' methods had worked. Flexible delivery had to 'be part of a coherent system' if teachers were to adopt it. Others said 'the system has to change' before flexible delivery would work. One group argued that a team approach was best suited for flexible learning.

5.2.2 Industry

The case study data plus anecdotal evidence from the Expert Reference Group and the comprehensive national study by Kearns and Johnson (1993) lead to the conclusion that those staff most in need of training in big enterprises are industry trainers. This is especially the case for those enterprises who have established their own training facilities and train their own apprentices. Industry trainers are likely to have strong disciplinary skills but minimal teaching skills. Further, they are unlikely to have the background necessary to introduce new flexible learning strategies. Kearns and Johnson (1993:ii) argued for much greater flexibility in the delivery of training within enterprises and suggested that what was needed was

> a paradigm shift from a focus on teaching or instruction delivered in traditional ways to a focus on continuous learning within an enterprise.

Kearns and Johnson (1993:16) also found an important link between continuous improvement, learning organisations and flexible learning methods. Our case study experience confirms these recommendations from their nation-wide study:

- steps to foster flexibility in the delivery of training for industry should be directed at supporting the development of industry learning systems

- action to foster flexibility will require a focus on learning rather than on teaching/instruction and the requirements of institutions
- industry learning systems should be linked to industry continuous improvement and quality objectives wherever possible. (Kearns & Johnson 1993:v)

Moves to enterprise learning systems will inevitably lead to WBL models and the valuing of processes such as coaching, modelling, mentoring and scaffolding (Billett 1993:5). Further, recent policy changes in VET (e.g. training packages, assessment against work-based competencies and the likelihood of more workplace training) will lead to a greater focus on learning systems as recommended by Kearns and Johnson (1993).

5.2.3 Small business

Both small businesses were committed to training. At both, training was planned, relevant and flexible. In the bigger company, the skills of each worker were identified and placed against the skill requirements of the company. Training was linked to a business plan and individual career paths. There was a comprehensive skills audit every two years. Most of the training was on-the-job but could, and often did, involve off-the-job training. A training culture had been developed. This achievement was observed to be due to the policy and initiative of the owner/manager. Training was not a priority in this company previously. From this study it appears that the attitude of the owner/trainer to the training of staff is probably critical.

The experience in the service station reinforced this conclusion. The owner/manager was an ex-high school teacher, extremely articulate, committed to customer service and with high-level management skills, who took responsibility for training and had accumulated learning resources (e.g. tapes, videos and paper-based material). Again a training culture had been created and long-term casual staff became involved with assisting new staff, although staff turnover was very low.

It is not possible to draw conclusions from these two small businesses alone, but considerable work has been done in relation to small business and training. In their national study on flexible delivery in industry, Kearns and Johnson (1993:ii) found few examples of flexible delivery in small companies. Other studies suggest much the same—a general reluctance to embrace any form of training (Karpin 1995:820–5). Karpin found a lack of managerial skills in owner/managers in small business and a general lack of business education or experience. Owners/managers also have low participation rates in training programs. Further, small companies not only offerred limited formal training to employees, but failed to provide informal training (Karpin 1995:296). Against this, it should be said that no employee in small business can do anything without some training, whether it is casual/informal advice or demonstration given by other employees. It is easy to devalue the training/learning that occurs on-the-job in all sorts of unstructured ways most of the time. A recent survey found that 91% of worksites provide informal training of some kind (Cervi 1997:18).

It is most unlikely that a push for more training will come from staff in small business. Baker and Wooden (1995:10) indicated that

> Small firms tend to hire disproportionately large numbers of females, part-time and casual workers and young workers, all of whom typically have high rates of labour turnover and hence for whom investment in firm-specific skills will not be attractive.

Research also indicates that those responsible for training in small business may well be interested in flexible learning strategies. Karpin (1995:xxxix) recommended the piloting of training and support for small business owner/managers via the latest technologies and the

piloting of networking small business agencies and training providers via the latest technologies. No action was taken on these recommendations. Kearns and Johnson (1993:29) argued that flexible delivery methods had 'considerable potential value in contributing to the particular needs of small business'.

Clearly there are serious problems in convincing small business owners to value training. If it is difficult to convince owner/managers of the benefits of training for themselves, it is highly unlikely that they will enter enthusiastically into the training of their staff. Success, however, will depend on convincing the owner/managers. They must be the target group.

5.3 What training is required?

The question about the knowledge, skills and attitudes that were required for those involved in flexible delivery and flexible learning was broken down into the following target groups:

- General managers.
- Education/and training managers (i.e. those involved in a direct way with the delivery of education and training.
- Other specialist managers.
- Owners/managers of small business.
- Teachers and trainers involved in delivery of education and training.
- Support and administrative staff (non-managers).
- Specialist groups involved in flexible delivery (e.g. instructional designers, graphic artists, curriculum writers).

A difficulty in distributing skills between a range of target groups is the different terminology that organisations use to describe the various positions within their organisations. Further, private training organisations, especially the smaller ones, do not have the spread of support that exists in TAFE Institutes or even bigger private training organisations. Within industry, most small businesses depend solely on the owner/manager for all training arrangements. The medium-sized enterprise within the case studies had a human resource manager to assist the owner/manager.

We have assumed that the skills needed by public and private education managers are generally the same, just as the skills needed by teachers and trainers in public and private training organisations and industry are generally the same. To fill out the range of skills that the case studies provided, the project also drew on articles written by Stevenson (1996), Gonczi (1995) and Varpins (1996) as well as the evaluation of the Flexible Delivery Pilot Project in Victoria (Armstrong 1996).

Because of the extent of the target groups and the diverse range of skills required it was necessary to develop a matrix that incorporated this diversity while at the same time recognising that not all the target groups have the same needs. The matrix that was developed:

1   separates managers from non-managers;
2   separates the notion of flexible delivery from flexible learning and applies the organising and managing of flexible delivery and flexible learning to managers, and flexible learning to teacher and trainers in accord with our definition; and
3   divides skills into knowledge, skills and attitudes.

The following matrix was developed from the responses of interviewees to the question about what skills they thought the various target groups needed.

Table 5.1 Knowledge, skills and attitudes of VET staff involved in flexible learning

Knowledge, skills and attitudes	Non-Managers in Training Organisations and Industry		
	Teachers and trainers	Administrative and support staff (e.g. Library staff, Student Administrative staff)	Specialist education and and training support staff (e.g. IT, graphic artists, instructional designers)
Knowledge			
Knowledge of models and underpinning theory of flexible delivery/learning	◆	◆	◆
Knowledge of a variety of learning strategies	◆		◆
Knowledge of models of work-based learning	◆	◆	◆
Knowledge of underpinning theory of on-line delivery of training	◆	◆	◆
Knowledge of underpinning theory of RPL	◆		
Skills			
Utilising on-line technology in the delivery of education and training (e.g. email, ftp, browser)	◆	◆	◆
Selecting appropriate courses for on-line delivery	◆		◆
Working one-to-one with learners	◆		
Working in teams	◆	◆	◆
Being multi-skilled across a range of modules	◆		
Acting as facilitator	◆		
Implementing RPL	◆		
Counselling, negotiating and identifying learners' needs.	◆		
Ensuring learning is accessible	◆		◆
Catering for learning differences	◆		◆
Utilising problem-solving procedures in developing learning strategies	◆		◆
Facilitating and designing individual learning strategies	◆		◆
Customising standards to meet learners' needs while maintaining validity	◆		◆
Writing curriculum	◆		◆

(Table 5.1 cont.)

Knowledge, skills and attitudes	Teachers and trainers	Administrative and support staff (e.g. Library staff, Student Administrative staff)	Specialist education and and training support staff (e.g. IT, graphic artists, instructional designers)
Developing and designing induction programs in flexible learning for students	◆		
Planning and organising	◆	◆	◆
Providing consultative and assessment services	◆		
Facilitating practical/ fieldwork experiences	◆		
Building new understanding and skills on prior knowledge in a meaningful and interesting way	◆		◆
Mapping learning activities to competency standards	◆		◆
Designing and providing appropriate learning materials	◆		◆
Managing time	◆		◆
Attitudes			
Providing access to the norms, values and requirements of practice (i.e. 'the way we do it here')	◆		
Open minded; willing to change	◆	◆	◆
Accepting of and committing to flexible delivery/learning	◆	◆	◆
Accepting role of facilitator	◆		

Table 5.2 Knowledge, skills and attitudes of VET staff involved in flexible dlivery and flexible leorning

Knowledge, skills and attitudes	Managers in Training Organisations and Industry			
	General managers	Education and training managers	Other specialist managers (e.g. administrative & support managers)	Owners/managers of small business
Knowledge				
Knowledge of models and underpinning theories of flexible delivery and flexible learning	◆	◆	◆	◆
Knowledge of models of work-based learning	◆	◆	◆	◆
Knowledge of the changes to the training system and the requirement imposed by training packages	◆	◆	◆	◆

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(Table 5.2 cont.)

Knowledge, skills and attitudes	General managers	Education and training managers	Other specialist managers (e.g. administrative & support managers)	Owners/managers of small business
Knowledge of theories underpinning RPL	◆	◆	◆	◆
Knowledge of models and theories of on-line delivery of training	◆	◆	◆	◆
Skills				
Selecting appropriate courses for flexible learning, especially on-line delivery		◆		
Developing strategic plans for the organisation that include flexible delivery and flexible learning	◆	◆	◆	
Identifying programs/courses and students best suited for alternate forms of delivery		◆		◆
Using computing/Internet skills	◆	◆	◆	◆
Planning for whole of organisation to become flexible	◆	◆	◆	◆
Planning, managing and organising flexible delivery and flexible learning		◆	◆	◆
Working in teams		◆	◆	◆
Liaising and negotiating with internal and external clients	◆	◆	◆	◆
Applying change management skills	◆	◆	◆	◆
Evaluating flexible delivery and flexible learning processes and outcomes		◆		◆
Developing flexible enrolling, recording, certifying systems			◆	
Marketing flexible delivery and flexible learning	◆	◆		
Networking with external clients	◆	◆		◆
Attitudes				
Acceptance of and commitment to flexible delivery/learning	◆	◆	◆	◆
Strong customer focus	◆	◆	◆	
Open-mindedness and willingness to change/risk taking	◆	◆	◆	
Willingness to devolve power	◆	◆	◆	◆
Commitment to staff development and learning organisation	◆	◆	◆	◆
Leading and motivating	◆	◆	◆	◆

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5.4 What training for flexible delivery has already occurred?

Some training in staff development had occurred but it appeared patchy and *ad hoc*. Two sites reported that they had received no staff development in flexible delivery or flexible learning. It is likely that teachers who work in flexible learning centres have greater access to staff development than their colleagues in 'mainstream' areas.

The following types of staff development in flexible delivery were identified from the case studies:

- the self-paced booklets entitled *Open Learning and Flexible Delivery* (NSDC 1992);
- seminars on flexible delivery with visiting speakers;
- conferences;
- in-house computer training;
- induction programs for staff working in a flexible learning centre;
- some 'lead' teachers teaching others; and
- 'action learning' in a flexible learning centre, namely learning on the job supported by more experienced staff.

The forms of staff development that had occurred were of the traditional variety (e.g. seminars, conferences). The emphasis appears to have been on inviting 'experts' to outline knowledge and information *about* flexible delivery. Some had learnt simply by doing but not in any structured or formal sense. Importantly, the case studies revealed staff had no tools for implementing flexible delivery and flexible learning.

Recent literature suggests that access to staff development in flexible delivery is an issue. Lundberg (1996) surveyed TAFE senior and middle managers in November 1994 and March–April 1995. On questions relating to staff development for flexible delivery the survey showed that:

- two-fifths of all respondents said that less than one-fifth of their staff had undertaken professional development in flexible delivery;
- two-thirds of all respondents believed that less than two-fifths of their staff had been trained in flexible delivery; and
- two-thirds of respondents believed that three-fifths or more of their staff needed professional development in the principles of flexible delivery.

Lundberg (1996:69) concluded that

> ...despite the significant initiative shown by the NTCC (National TAFE Chief Executive's Committee) in having the national framework for flexible delivery developed, senior and middle managers in TAFE institutes and colleges indicated that significantly greater effort was required to achieve successful implementation, including more staff development.

5.4.1 Casual teachers

Casual employees in the TAFE sector are responsible for between 40% and 50% of all teaching (NCVER 1995:139). In NSW, by far the biggest TAFE State, just over 50% of the total teaching effort is undertaken by casual employee teachers. The case studies revealed that in both the public and private sectors, casual workers, according to those permanent staff interviewed, rarely had access to staff development even though some were working in flexible learning. According to Curtain (1996:28), many casual workers do not expect to be offered training and many fear the consequences of requesting it.

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5.4.2 Private training organisations

The case studies revealed that managers/owners in private training organisations are much more likely than teachers to attend meetings outside their organisations where issues about flexible delivery are discussed. Within the case study group, teachers in private training organisations had virtually no access to staff development in flexible learning. In general there was no budget for any staff training and what training there was tended to be accessed by managers/owners and senior staff. When asked to identify who needed training, the response was generally the 'main decision maker'.

The case studies revealed that the bigger private training organisations take the training of their staff more seriously than the smaller training organisations; however we did find examples in bigger organisations where teaching staff had little to no access to staff development in flexible learning. In the bigger private organisations there is likely to be a budget for staff development programs.

5.5 What sorts of training have been most successful?

Some of those interviewed viewed staff development as something that occurred when 'real work' stopped. Some were adamant than no staff development worked: what they learnt on-the-job through trial and error was the most successful. Others saw staff development as a 'luxury' that they were too busy to participate in. In fact most interviewees moved away from the question about what had been most successful for them to what their preferred model was.

The vast majority favoured staff development that was 'hands-on' and 'practical'. One person said, 'being in there doing it'. Another spoke about action learning with time to reflect and 'take risks'; another favoured group sessions and working on projects. There was a strong view favouring flexible arrangements for the delivery of staff development. One wanted a computer package as a learning resource. No-one said they wanted to do a course and no-one had been a member of an action learning team.

The answers revealed a fairly narrow view of staff development and little understanding of a model of staff development that was work-based, linked to strategic planning, and involved the development of individual or team plans.

5.6 What training, if any, is on-line?

Apart from one person who was working on developing a module on-line for OTS in Victoria, no one else had any experience of on-line staff development.

5.7 What access do VET staff have to the new learning technologies?

The questions focused on:

- what the skill levels were in the area;
- what the priority areas for training might be; and
- what access teachers/trainers had to computers and whether they were on a network.

5.7.1 TAFE sector

The skill levels in computing within the TAFE group interviewed were fairly high. Many answered 'fair to good' or 'good to excellent'. Care has to be taken here. Many TAFE teachers and even managers have very little knowledge or contact with areas outside their own; as one participant said 'people keep in their own Faculty areas'. One manager interviewed, who had a wider perspective, answered that there was an 'enormous range' of skills but the situation was 'getting better'.

Some areas are particularly strong in skills, especially those teaching computing or where computing skills are essential for the learner. Other areas of strength are Management and Business, Engineering, Electrical and Electronic and Applied Design. In some Trade areas and the Humanities or General Studies areas, skills are likely to be lower, although strong skills were found in a metal fabrication area. Many TAFE teacher participants had learnt their computing skills on home computers.

From the small project sample only a minority of TAFE teachers had access to their own computer at work. In some TAFE Institutes even those who taught aspects of computing (e.g. accountants) did not have their own computer, although most gained access in one form or other. Most TAFE managers had their own computers. Few of those interviewed in TAFE were on a network and a very small minority had access to the Internet. It was suggested that part-time or casual TAFE teachers had little access to computers at work.

5.7.2 Private training organisations

Australia has some 2500 registered private providers and an unknown number of unregistered providers delivering 15% of training annually (ANTA 1996b:3). One private training organisation which acts as a broker, especially in the overseas market, and conducts training sessions for other private providers, had staff with a high level of computing skill, most working with email and modems. Most of the staff were already skilled when employed and many were ex-TAFE employees. One other big training organisation provided ample access to computers for staff, all were networked and the skill level was described as 'pretty good'. This company trained their own staff in computing. Within the smaller private training organisations staff had limited access to computers, often limited skills and no access to a networked system or the Internet.

5.7.3 Industry

The evidence from this project is too limited to make general comments. However, most national ITABs identified a skill shortage in the use of computers and the new technologies in their industries. ITABs, in their Industry VET Plans (1995–97), identified the upgrading of skills in the use of computers and new technology as a major priority for their industries (ANTA 1996d:85–86).

The findings of the Victorian Flexible Delivery Pilot Projects (Armstrong 1996:6) probably sum up this point about computer literacy:

> Widespread use of technology for on-line applications will require the efforts of technically confident and innovative staff necessitating a major retraining effort for teachers and all other staff in provider institutions.

Further evidence comes from an evaluation report for the OTS in Victoria on another of their initiatives, 'Staff Development for Workplace Training Program', which concluded that there was 'a lack of familiarity with the more computer mediated forms of communication' (Delaney 1996:36).

5.8 What are the barriers to staff development in flexible delivery?

This discussion about barriers is informed, first, by the National Flexible Delivery Taskforce report (ANTA 1996d) and, second, by the impressions gained from all the responses to questions in the case studies. The Taskforce report was concerned with barriers to flexible delivery, while the concern here is on barriers to staff development in flexible delivery. Nevertheless there are some overlaps.

Replies to the question about barriers clearly highlighted a certain frustration about staff development and flexible delivery at the practitioner level. Many interviewees apparently did not see staff development as something that they participated in, even though they had in an earlier question listed some examples of staff development activities that they had presumably attended. Other responses indicated that there were problems with teaching and freeing people to attend, as teaching was seen as a priority. There was a sense of 'we teach and others have time for staff development'.

Some used this question to attack the notion of flexible delivery (e.g. as a 'bureaucratic initiative to undermine teaching conditions', 'managers see [flexible delivery] as a way of saving money'); one saw staff development as a mere deduction from his teaching load; another said that teachers fear flexible delivery seeing it as a threat to their authority.

The major barriers to staff development in flexible teaching and learning are discussed in the following sections.

5.8.1 Inappropriate productivity indicators and performance measures

This barrier to flexible delivery and flexible learning was identified by the Taskforce report (ANTA 1996d:3, 20–22) but it impacts here. Within the 'slice of life' explored in the case studies there was a definite perception held by some VET staff that staff development cannot be important in flexible delivery while performance indicators based on annual student contact hours persist and teachers' work continues to be measured by traditional classroom teaching, even though teachers are being encouraged to deliver their classes flexibly. Mitchell and Bluer (1997:7) found that the current VET measurements of annual contact hours between teacher and student and the number of hours a student needs to participate in a course are discouraging the movement towards flexible delivery and self-paced learning.

This problem is being addressed. The Taskforce report (ANTA 1996d:29) recommended that new resource allocation models should be developed cooperatively with States and Territories. In particular it recommended

> That the basic unit used to support resource allocation models and profiles should be changed from Student Contact Hours to a measure that:
> - is expressed in terms of skill outputs offered not hours equivalents;
> - is aligned with competencies; and
> - requires providers to align their training products and services with the basic unit.

Following the release of this report a project to develop resource allocation models was referred to the Unit Cost Working Group established by the ANTA CEO's Committee. ANTA also commissioned a report by the Boston Consulting Group in 1996 dealing with performance indicators. At this stage progress is unclear. Currently, States and Territories allocate funds to providers on the basis of targets established by agreement through training profiles.

5.8.2 Confusion about the meaning of flexible delivery

Barriers to staff development are intimately linked with the content (i.e. what people are to be trained in). The case studies revealed that many people were not sure how to implement flexible delivery and had few ideas about the implications of flexible learning. There is clear evidence that this is not just a problem for those interviewed here (Delaney et al. 1997:9, 23).

Understanding the distinction between flexible delivery and flexible learning may help. Further, practitioners need clear and practical guidelines about how to implement flexible delivery and flexible learning.

The case study participants in general agreed that a 'client focus' was important but what was lacking was a strategic direction. Garvin (1993), referring to building learning organisations, suggested that you need three things:

- a plausible, well-grounded definition that is actionable and easy to apply;
- clear guidelines for practice filled with operational advice rather than high aspiration; and
- measurement tools for assessing an organisation's rate and level of learning to ensure that gains have in fact been made.

A further point should be considered in attempting to overcome this barrier. The significance of the changes implied by flexible delivery and flexible learning should not be underestimated, especially for providers of education and training. These changes are central, and change should be gradual, carefully planned and involve all partners in the process.

5.8.3 Centralised structures of staff development

A third barrier that the participants in the case studies identified, particularly in TAFE Institutes, is the centralised structure of staff development in some States.

Staff development should be 'owned' by individuals working closely with their peers and their supervisors. Their development should flow from the needs they themselves have identified. Carter and Gribble (1991) highlighted the 'dual mandate' where employees are 'guided' through career progression that meets both organisational and individual needs. Staff development is essentially a cooperative venture between employer and employee. Both must be winners. Different learning styles should be recognised through individual development plans. All of this works best when those doing the learning take some control of it. Staff development departments and officers are important in setting these frameworks in place, anticipating future training needs and offering learning experiences once they have been identified by the learners.

5.8.4 Failure to link staff development with business plans

Within the case study sites no participant mentioned that staff development was part of something bigger, namely part of the organisation's business plan. The impression was rather one of *ad hoc* staff development exercises. Frequent references to the costs of staff development by participants clearly indicate that staff training is seen as something outside the core business rather than an integrated whole. Carter and Gribble (1991:35) highlighted the importance of strategic planning incorporating a 'people plan' in their WBL model. The 'people plan' involves extending the business plan to include a process of recruitment and training through an integrated approach. Neglecting to follow this sort of approach is part of a bigger problem of not recognising the importance of staff development to achieve business goals.

5.8.5 Narrow perceptions of staff development

The case studies revealed a narrow understanding of what staff development is. Downs (1996) defines staff development as 'a change in knowledge, skill, attitude or behaviour that enhances an individual's effectiveness in their work role'. How learning occurs is not central to the notion of staff development. Many of those interviewed saw staff development as an activity entered into when the real work stopped. As Kearns and Johnson (1993) found, most enterprises still have a view of training as something akin to schooling with instructors, classrooms and desks. A general lack of understanding of WBL and its potential to deliver relevant and cost-effective staff development was found.

If the case study group is in any way indicative of VET staff in general there is much work to be done in promoting WBL, especially in training organisations. There was emphasis on outside 'experts' and a failure often to recognise the skills of people already in organisations. There is much to be done in forming action learning teams and developing processes that recognise the informal learning that takes much of the time. Further, some VET staff could consider long-term courses if they are appropriate to their work needs and could place less emphasis on the short one-off session.

5.8.6 Marketing staff development

There is some evidence that VET staff are unaware of the skills needed. In an environment of continual change and with a reform process that has not been well understood by all, it is highly likely that many VET staff have difficulty keeping up with the changes and are unaware of their training needs. The absence of competencies for VET staff is a serious weakness. There was also a lack of awareness about what staff development was available.

There is a key role here for staff development officers to market staff development. This should be done in a facilitative way, interacting closely with staff, informing them of changes in the sector and advising them of their training needs, but at the same time allowing staff to develop a sense of ownership. Staff members who have developed skills, especially staff who have gained them in innovative and creative ways on-the-job, should accompany staff development officers to speak with other staff and encourage them.

5.8.7 Lack of resources

When asked what the barriers to staff development were, the replies consistently referred to the cost. Others referred to the problem of getting a replacement teacher and time-release costs. Many referred to a lack of funding.

This was by far the strongest point made by TAFE participants. The perceptions of these participants, however, would need validation. Individuals may have no knowledge outside their immediate areas as to what the organisation's budget is for staff development or what the priorities of the organisation are. Information is lacking as to how much each TAFE system or autonomous TAFE Institute spends on training their staff, with the exception of the Canberra Institute of Technology, which spent 4.35% of its payroll on staff development in 1996. At the national level, ANTA's NSDC had an annual budget of approximately $5 million before its operations were integrated within ANTA.

In some TAFE teacher awards, teachers are entitled to a number of hours of staff development per year that is deducted from teaching. The latest enterprise agreement in New South Wales has one hour per week deducted from teaching for staff development. There is no evidence about how much staff development actually occurs under these award-based arrangements.

In the ACT the deduction (36 hours annually) is linked to individual career plans and this development plan must be negotiated and agreed between each individual and their supervisor. There are sanctions if the development does not take place. Teachers must complete a certain number of hours of staff development including a personal contribution if they are to access the Advanced Skills Teacher classification. This arrangement is unique within the TAFE system. Anecdotal evidence and observation would suggest that this is a workable model.

Case studies indicated that staff development in private training organisations was not a priority and senior staff seemed to access what little was available. All the contacts in private training organisations said that their staff had received virtually no training in flexible delivery. It is unclear whether this lack of training is due to lack of resources.

Adequate resourcing for staff development is related to employment modes. Employers are more likely to assist permanent staff than casual staff in meeting training needs (Curtain 1996:ii–iii). This could become an important issue as more teaching/training staff in the VET sector are employed on a casual basis. One interviewee complained that part-timers had to attend training in their own time.

Training is not a priority in the small business sector; however, this is not to deny the obvious informal training that occurs on-the-job in small companies. Further, a recent study of training in small business found that access to formal training has less to do with a lack of employer support than with the concentration of low-skilled jobs in small business (Baker & Wooden 1995:x–xi, 10). Australian enterprises are currently spending $4.4 billion per year on training from public and private providers (ANTA 1996b:3), but a breakdown of this figure is needed to clarify how the resources are spent.

5.8.8 Conclusion

This identification of barriers is tentative only, and much more research is needed, especially in the TAFE system where each State and Territory is now very different. It does seem that there is a degree of inequity in who actually accesses staff development and there are obvious problems in defining staff development. If staff development 'is a change in knowledge, skill, attitude or behaviour that enhances an individual's effectiveness in their work role', as Downs (1996) suggests, then a lot of staff development goes on that is not formally defined.

Chapter 6
'Best practice' for on-line delivery
of staff development

This chapter identifies seven 'best practice' principles for on-line delivery of staff development for VET staff, with particular focus on the Victorian evaluation of their flexible delivery pilot projects, as well as other relevant literature and the case studies.

The Victorian evaluation (Armstrong 1996) reveals that on-line staff development for VET staff is both possible and viable. Moreover, the seventeen projects in Victoria indicate some of the potential benefits that the new technologies will make available to the clients/students of VET and to VET staff.

6.1 The Victorian flexible delivery pilot projects

The seventeen projects in Victoria were funded to trial a range of educational functions associated with on-line technology. The projects were jointly funded by Open Training Services Victoria (OTS) and ANTA. A list of the projects and their aims is found in Appendix 5.

OTS recognised the project pilots as an opportunity for on-line staff development of VET staff. They developed a staff development framework based on action learning principles. They also saw the projects as an opportunity to assist the development of Education Network Australia (EdNA) and to consolidate existing initiatives. They also hoped to establish links with other States and Territories, and to disseminate information.

OTS developed four criteria for selecting the trial projects. The projects were to reflect the ANTA 1995 flexible delivery project guidelines; they were to inform and contribute towards the organisational, operational and delivery capability of providers to embrace on-line technologies in VET delivery; they were to contribute to the skill development of VET personnel in the use of on-line technologies to enhance learning; and they were to ensure a comprehensive and broad information base to support the future implementation of EdNA. All projects were required to provide an interim evaluation by 30 March 1996 and a final evaluation by 30 July 1996, which detailed educational effectiveness, and identified successful practice and guidelines for further use.

6.1.1 The OTS evaluation

The contents of the evaluation report (Armstrong 1996) were the outcome of face-to-face interviews with project managers and others involved in each of the projects, emailed interview schedules and documentation made available by project managers as part of progressive project reports, papers prepared for conferences, curriculum department reports and course outlines. On-line materials associated with several of the projects were viewed.

The evaluation report divided the seventeen projects into five classifications: (i) on-line marketing and course information services; (ii) publication and distribution of learning resources; (iii) support of workplace training; (iv) communication and research; and (v) on-line delivery of training.

The evaluation report summarised the project outcomes as well as providing an assessment of the issues associated with the educational effectiveness and support infrastructure requirements of the specific technologies. Barriers to the process of on-line delivery of training were also identified and comments were made on the requirements for mainstreaming the delivery of training on-line.

6.2 Technology not an end in itself

New learning technologies are not an end in themselves. The National Flexible Delivery Taskforce in its analysis of flexible delivery took the view that the application of modern learning technologies was not the panacea for all problems (ANTA 1996d). The application of these new technologies has to be placed in a broad context, including identifying client needs, identifying the barriers and only then looking at the role they might play. This approach allows the technologies to be assessed and evaluated in a context that identifies the specific contribution they can make (ANTA 1996d:15).

The same approach can be adopted for staff development. On-line delivery of staff development for VET staff is not the driver; it is one of the ways in which skills can be gained and it has numerous advantages.

Towards the end of the research for this project the study by Mitchell and Bluer (1997), for OTFE, became available. This research looked at eight case studies with a view 'to identify if, and in what circumstances certain technologies lead to improved learning outcomes in the vocational education and training sector' (Mitchell & Bluer 1997:1). They found that 'a strong emphasis on learning as the chief criterion for using technology is not a feature of recent Australian studies', that measurement of learning effectiveness is difficult, and that few of the case studies 'included substantial evidence indicating improved learning outcomes that may be a consequence of the application of learning technologies' (Mitchell & Bluer 1997:2). In addition, they suggested that no significant body of research existed that indicated that the Internet has all the answers as an effective new learning technology (Mitchell & Bluer 1997:3).

The 'best practice' elements found in the Victorian evaluation, and listed below, need to be viewed in the context of the Mitchell and Bluer (1997) findings.

6.3 On-line 'best practice'

'Best practice', in this context, means identifying those attributes and practices that will lead to effective learning outcomes using on-line technology. Based on the analysis of the Armstrong (1996) evaluation, six 'best practice' elements were identified, and a seventh element has been taken from Mitchell and Bluer (1997).

6.3.1 Developing a network of support

A major element in the success of a number of pilot projects in Victoria was the establishment of support networks. OTS has developed considerable skills in the area of learner support. They already offer their own flexibly delivered 'Staff Development for Workplace Training Program' with comprehensive support systems built in for learners; namely tutors, mentors, peer learner support and local support (Delaney 1996).

OTS facilitated a network of support for their project managers. Names and addresses of project managers were supplied through listserv. This network enabled the learning by the project managers and their teams in the workplace to take place with groups of critical friends—much the same as the traditional action learning model. Project managers could discuss their problems and successes and share their questions and new sources of information. An advantage of on-line action learning is that geographical barriers fall away. The evaluation pointed out that 'experts' can be brought in and questions answered on how to use the technology. Further, OTS organised a conference on on-line technology where project managers presented their projects and they set up informal links for information exchange between the projects.

In summarising the importance of networks for the professional development of staff, the evaluation says:

> The importance of networks of learners within and across providers has been a major element in the success of several EdNA projects. These networks have by necessity extended beyond individual providers. (Armstrong 1996:24)

The supporting networks in Victoria were set in the context of an action learning model (i.e. the flexible delivery pilots involving VET students/clients and using on-line technology were within a structured staff development exercise for VET staff), but not all learning by VET staff will occur within that model. In the future, VET staff may access training on-line directly. However, networks will be important irrespective of the different learning strategies and pathways. For example, Mitchell and Bluer (1997:3) stress the important role of peer support:

> Student support services, such as local tutors or the provision of learning centres, are often more significant than the learning technology.

Further, Mitchell and Bluer found that service was a critical factor in successful learning on-line, and interaction between student and facilitator was strong in all cases where effective learning appeared to be present. They concluded that:

> Students' attitudes to courses involving new learning technologies will be influenced by the way their needs are addressed. These usually include the need for advice, access to learning materials, communication, and administrative assistance. (Mitchell & Bluer 1997)

Universities have also found that networks that supply human contact are important for on-line learning. Some universities are making extensive use of such networks for their postgraduate students. One of our case study interviewees was a postgraduate student living in Wollongong and enrolled in a Sydney university. Most of his study was on the Internet, working with his supervisor and a network of fellow doctoral students. The learning environment was interesting and compelling and there were cost savings for the university. With such small classes everyone benefits. Students saved hours and money in travel time, communication with supervisors and other students was fast, and individual students were in instant contact with their supervisor and received one-on-one advice/information.

The Victorian experience makes clear that support systems are critical factors in on-line learning—both peer support systems and supervisory or tutorial support.

However, not everyone wants to learn within a network. Many teachers and trainers may prefer to work on their own either because that is their preferred learning style or because they want to access staff development when it suits them. Learning on-line provides this flexibility.

6.3.2 Ensuring a variety of learning styles and preferences

For on-line staff development to be successful it must take account of different learning styles. In setting up modules or courses on-line for VET staff, it will be necessary to consider the broadest range of study modes possible.

The Victorian projects used a variety of approaches and methods on-line, four of which are described below.

6.3.2.1 Complete on-line delivery of training

In this model, VET learners may be in a remote location. They can access Internet facilities from their home, their workplace or perhaps a local public library or community centre. These learners would need to use a wide range of Internet facilities (e.g. synchronous and asynchronous communication, ftp (file transfer protocol), email, search engines etc.). They would access on-line course information, interactive instructional material and collections of primary material sourced by those facilitating the learning. The learner needs to have a choice of when they will enrol on-line, the pace at which they move through the course and when they complete. All administrative arrangements would be worked out on-line (Armstrong 1996:22).

6.3.2.2 On-line delivery in a learning-centre context

In this model a learning centre would provide access to computing and Internet facilities and be facilitated by staff development officers or training officers in industry. Learners could use a variety of interactive instructional material provided on-line with a broad range of technologies. Experienced teachers and trainers and IT staff could act as tutors in the centre and assist with both content and technical questions. Learners could collaborate and assist each other in their learning with discussion groups both face-to-face and electronically. VET staff could take their current work on disk to such a centre and continue to work while at the same time receiving expert advice on work-based issues.

6.3.2.3 On-line delivery as a supplement to print-based and other forms of delivery

In this model the Internet could be used to supplement print-based learning resources. The learner could work from home or at work. Internet resources would enhance the currency and customisation of training materials and provide quick and easy access to tutors or mentors (Armstrong 1996:23).

6.3.2.4 On-line as a supplement to classroom delivery

Classroom delivery of staff development is still the most popular form of staff development for TAFE teachers. In addition to face-to-face classroom delivery, learners could actively source relevant information to enhance course materials. The Internet could be used for quick communication with the lecturers or teachers. Learners could discuss and exchange information with each other via the Internet. Materials could be customised to suit individual needs (Armstrong 1996:23). This approach will be valuable when VET staff start to introduce this mode of learning into their own classrooms.

The Victorian evaluation highlights the importance of informal, practical learning that could well be adopted for staff development. One of the Victorian projects used on-line staff development to establish a mailing list of sixty-six professionals in the adult literacy and basic education area. The aim of this project was to use the list for information dissemination, resource sharing and discussion. A similar project for those involved in flexible delivery and learning would be relatively simple and very useful (Armstrong 1996:37).

6.3.3 Designing interactive learning materials

One issue for those contemplating using on-line learning as a supplement to classroom learning is to decide what to put on-line and what not to. The Victorian evaluation developed a 'decision table' to assist education managers and teachers/trainers to decide which modules/courses are best suited to on-line delivery for VET students (Armstrong 1996:55–60). With some minor customisation, the same table could be used in deciding the suitability of material for on-line staff development.

Mitchell and Bluer (1997:2) make the point that selecting the most appropriate new learning technology for a particular application is important. They also developed a check list to assist decision makers. They argue that check lists need to be supported by staff development. Mitchell and Bluer (1997:6) argue that, given the complexity of VET, a decision tree for deciding what to put on-line would need to be tailored to each specific context.

The Victorian evaluation found that simply putting blocks of printed material on-line which students then down-loaded was not productive. The major advantage of the Internet is 'its capacity for information seeking and communication rather than provision of material that can otherwise be given to learners in hard copy' (Armstrong 1996:35). Therefore, on-line learning material must have a high standard of design and a degree of ingenuity to maintain interest. Mitchell and Bluer agree that the quality of instructional design is a significant issue, as is its interactivity (Mitchell & Bluer 1997:2).

The design of learning material must work in a way that enables the learner to increasingly direct their own learning. If teachers/trainers are to become facilitators of learning for their students, they must have experience in accessing information on the Internet. Staff development material should be readable and straight forward. In one Victorian project the team placed extensive course information on the Web with an intricate series of links. While the approach was comprehensive, users had difficulty in navigating through the information.

6.3.3.1 Co-operative project teams

In the development and design of learning materials, the advantages of cooperative project teams were highlighted in the Victorian evaluation. This will equally be the case for the development of on-line material for staff development. The teams should comprise teachers/trainers with expertise in flexible delivery and learning, information technology staff, and instructional design staff.

6.3.3.2 Metaphoric Training Environment

Recent work by staff at the Canberra Institute of Technology is relevant here. On-line staff development must be relevant in a general sense and should reflect the wide cultural environment in which VET staff operate. That is, it should construct virtual work experiences on-line that force the learner to problem solve in an environment that they recognise. The Canberra Institute of Technology has developed an interactive 'Metaphoric Training Environment' (MTE). It is a training methodology using a virtual organisation

structured to include the systems and structures inherent in real life organisations. It makes for compelling and interactive learning. (It is one of the eight case studies in the Mitchell and Bluer (1997) report.)

6.3.4 Ensuring educationally driven projects

The Victorian evaluation highlights the importance of educational and learning issues in the development of on-line materials:

> A consistent theme in some projects has been that while there are a multitude of technical and computing issues to resolve, the primary issues are educational (Armstrong 1996:21).

With educational concerns at the forefront, greater emphasis will be placed on innovation and creativity, ensuring learning is an active and compelling experience. Learning outcomes, such as 'student independence, motivation, research skills … as well as student performance on set tasks' (Mitchell & Bluer 1997:3), should drive the development of on-line learning.

The Victorian pilot projects found that some teachers and trainers were reluctant to take responsibility for on-line technology, leaving it instead to the 'experts'. The report concluded that teachers and trainers will need to take some ownership of the technology to gain the best outcomes for themselves and their students; that is, VET teachers and trainers will need training in the new technologies (Armstrong 1996:21).

6.3.5 Providing organisational and financial support

The provision of organisational and financial support, including a staff development framework, were major factors in the successful introduction of new technologies in the Victorian pilot projects. The same will be the case for on-line staff development for VET staff if effective learning outcomes are to be achieved.

The Victorian evaluation argues that provider organisations must contribute.

> The EdNA initiative has been able to provide funding which has allowed the possibility of time release for project development by interested staff within the system. Without this type of investment forthcoming from providers themselves it is very difficult for staff to participate in projects such as these which have invariably very high time commitments (Armstrong 1996:6, 20).

Many teachers and trainers and education and training managers will require some basic computer training to get them started (Armstrong 1996:22). Time allowance, access to mentors/coaches and access to Internet facilities with competent technical support will be necessary. In Victoria, isolated learners where in-house technical support was not available were vulnerable. The Victorian evaluation recommended that two generic or foundation modules be integrated into existing curriculum frameworks (i.e. 'Learning to Learn on the Internet' and 'Information Retrieval and Management'); it also suggested that technical support could mean face-to-face tuition in the early stages.

In projects which actually trialled on-line staff development the Victorian evaluation found that:

- some of the intended audience had restricted access to Internet-capable computers and modems;
- many teaching staff struggled to find sufficient time to participate due to demanding teaching duty schedules; and
- many staff lacked the computing skills to participate.

The evaluation concluded that it is 'insufficient to merely provide a service to teachers such as a listserv without accompanying intensive professional development to provide the skills and confidence to use the service' (Armstrong 1996:39).

There are undoubted costs in developing modules and courses on-line. They relate to development time, learning materials, uploading time, and time spent communicating with likely participants. Further, many VET organisations may well have no policy in relation to the Internet. Issues include costs of Internet access, purchase of equipment and regulation of the use of facilities.

While some of these costs can be directly related to on-line staff development, savings could be possible through national cooperation. The Victorian evaluation strongly endorses 'model building' to allow for rapid expansion of gains made to new courses once a satisfactory model has been constructed. Working together at a national level could assist 'model building' (Armstrong 1996:7). Individual training organisations and industry will need the necessary computer equipment and they will need to provide the time for the training of their staff. The development of the content of staff development for flexible delivery and learning, however, could be a cooperative national initiative, worked through with a team of practitioners in flexible delivery and learning.

Mitchell and Bluer (1997) recommend that administrators exercise caution before investing considerable sums, unless 'they have hard evidence that a return on investment in terms of improved learning can be expected'. Further, they suggest that benefits such as increased access and participation should be weighed against costs and these benefits often need to be estimated over the medium term (Mitchell & Bluer 1997:4–5). These points are valid for those contemplating the use of on-line technology for staff development.

6.3.6 Ensuring adequate security

Security of materials may be an issue for staff development for VET staff, especially if assessment is involved. In the Victorian pilot projects, some providers were unwilling to allow free access to course materials on bulletin boards where enrolled students were placing work. Where staff development involves accredited courses and staff seek certification these may well be issues that need consideration. The use of passwords to pages with sensitive materials may be an answer. There are issues in relation to copyright that also need to be considered.

6.3.7 Using a planning model

Mitchell and Bluer (1997:9) found examples of flaws in concept or delivery in their eight case studies. As a result they developed a planning process for those introducing learning on the new technologies. This model will be extremely useful in setting in place on-line delivery of staff development.

The planning model consists of two main components: performance indicators for the new technologies and planning stages checklists. The performance indicators are built around three categories: effective learning, effective learning technologies and improved learning outcomes. In turn, each of the categories has a list of five or six practical criteria enabling a form of assessment (Mitchell & Bluer 1997:10).

The planning checklist identifies the following four stages: initial planning stage, production stage, delivery and support stage, and evaluation stage. Within each stage is a list of criteria that can be easily checked off.

6.4 Advantages of on-line delivery of staff development

The Victorian experience shows the advantages of on-line delivery of learning. Not only is on-line learning viable but it has the potential to greatly increase access to staff development by VET practitioners in industry and training organisations. It can deliver value for money as well as provide maximum flexibility for learning by VET staff. In terms of learning it offers the possibility of self-directed and student-centred learning, and students can access up-to-date information from around the world. Communication links with other learners and mentors can be almost instantaneous and it has the capacity to customise and up-date materials quickly and cost effectively. Staff in private providers who do not have access to the infrastructure of major public providers to access training have the opportunity to access staff development on-line. Finally, it sits easily within a framework of work-based models of staff development.

Chapter 7
A model of staff development for flexible delivery and flexible learning

7.1 Why a model?

Models are exemplars, something to follow or imitate. They set in place a framework for achieving maximum benefits and set a standard for excellence. Models work best when they provide a framework that allows movement and flexibility for those working inside them.

7.2 Preferred model

Both the National Flexible Delivery Taskforce and the project brief favoured a WBL model using action learning principles for the delivery of staff development for VET staff engaged in flexible delivery and flexible learning (see Chapter 3). Work-based learning is a way of learning from and through an individual's work (see Chapter 4 for definitions).

The WBL model acts as a catalyst for real change in the workplace; it is sufficiently broad and flexible to accommodate the wide range of needs of the target groups nominated in the case studies (see Chapter 5); it is educationally sound; it is cost efficient in comparison with other staff development models; it has a history of support in VET; and it is in keeping with recent training reforms. This chapter develops these arguments, discusses a strategy for recognition and offers a case study.

7.3 Why work-based learning?

Five reasons for choosing a WBL model for training VET staff in flexible delivery and flexible learning have been developed from the literature and the research undertaken for this project. These are outlined below.

7.3.1 Impact in the workplace

As early as 1991, the NSDC sought to establish a model or conceptual framework for staff development, because it was concerned with 'the lack of flexibility of the popular train-the-trainer model of staff development' (ANTA 1995:2). This model essentially drew participants from their workplaces to provide conference/workshop-type training programs, usually to groups of 10–40 people. The NSDC had evidence that this model may have worked reasonably well for those who attended, but what they wanted was a model of delivery that was a 'catalyst for behavioural, attitudinal and organisational workplace change within the NVETS' (ANTA 1995:2).

The NSDC adopted a WBL model for their national staff development initiatives, because of its potential to act as a catalyst for change. The model was first outlined in the discussion paper, *Work-based Learning* (Carter & Gribble 1991) and developed again in 1993 (Carter & Gribble 1993).
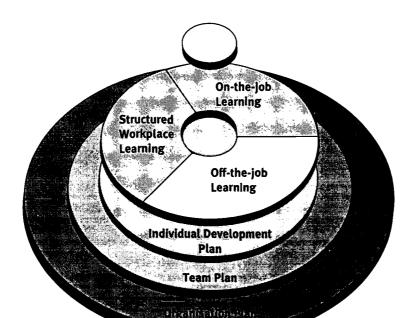
Figure 7.1 Work-based learning model

Carter and Gribble 1993

The WBL approach is not a training system *per se*; rather it is a conceptual approach

> which is part of a wider planned response to organisational change when this is deliberately worked through to the level of individual employee. (Carter & Gribble 1991:18)

The goal of WBL is learning to improve work (ANTA 1995:6), not learning for learning's sake. Training and education have traditionally been associated with courses and curricula. Staff development, however, needs to be driven by the needs of both the learner and the enterprise within the political and social environment of the workplace (ANTA 1995:6). Employers have to be clear about the competence they require from employees. In the WBL model, the link between individual and enterprise, between work and learning, is made by way of individual development plans, which in turn need to be linked with the organisational business plan (Carter & Gribble 1991:19). Learning needs to be valued by both employer and employee.

This is particularly important for flexible delivery. Evidence from the case studies highlighted the difficulty enthusiastic individuals had in making flexible delivery work, especially as there was no strategic or business plan to support them. Furthermore, there was widespread agreement from those we interviewed that it was organisations that needed to be flexible, not just those in the front line of delivery. The WBL model emphasises a business plan that drives a 'people plan' and a 'training plan' (Carter & Gribble 1991:35).

WBL thus works as a catalyst for change in the workplace. This is critical for development of greater flexibility within training organisations and industry. The national study by Kearns and Johnson (1993) into flexible training in industry, pointed out the importance of developing learning systems within enterprises. The WBL model will do that.

7.3.2 Flexibility and range of learning strategies

The evidence from the case studies demonstrates the broad range of target groups in training organisations and industry who require training in flexible delivery and flexible learning. The WBL model offers an extremely wide, flexible framework that enables individuals or teams, managers and those directly involved in delivery of training ample choice in selecting learning strategies to match their needs. VET managers can decide to watch a video or learn on the Internet. Teachers and trainers can develop a project, work in teams or enrol in a course. In the WBL model, the learning strategy suits the needs of the learner.

The NSDC has continued to develop the WBL model and in 1993 included action learning as one form of WBL. This form of learning provides

> a flexible and adaptable model of guided experiential learning within the enterprise where the participants work and focus on real workplace problems and issues. (ANTA 1995:2–3)

In 1995 the NSDC added further learning options to the basic WBL structure (ANTA 1995:11), which provided an approach that could inform the design of virtually any training and staff development process in the VET sector.

Figure 7.2 Learning options under the work-based learning model

ANTA 1995

The additional learning options arise from the three basic components that provide the learning environment. Structured learning in the workplace involves learning strategies such as job rotation, secondment, mentoring, coaching and project work. Appropriate on-the-job training relates to specific skills training arrangements (e.g. support from more experienced co-workers, instructors, supervisors and other specialists), as well as projects, assignments and targets which directly relate to the recognition and improvement of individual performance. Off-the-job learning opportunities are provided by external organisations (e.g. TAFE Institutes). There is nothing prescriptive about the relative balance of each of the three components, as this is determined by individual needs (Carter & Gribble 1991:26).

The WBL model proposed is not simply advocating on-the-job training, but

> is a way of encouraging systematic and coordinated training, and in recognising the need to integrate workplace learning opportunities with other provider services, but at the level appropriate to individuals. (Carter & Gribble 1991:31)

7.3.3 Sound educational basis

By learning from and through their work, individuals can readily:

- see the purpose of their learning
- see the relevance of their learning
- relate their previous experience to their learning
- feel that their learning is self directed
- have a sense of how they are progressing.

The characteristics of WBL are in accord with adult learning principles. Adults learn best when the above characteristics are present, and in such situations motivation will normally be high. Further, the WBL model opens up the possibility of problem-solving in real work situations, particularly when action learning is the chosen learning strategy. Learning theorists agree on the need for adopting authentic problem-solving activities into the learning process, because learners construct their own meaning through involvement with problems and possibilities they encounter in real situations. This contextual or 'situated' approach to learning (Gonczi 1995:7) also leads to the greatest possibilities for the transfer of knowledge.

7.3.4 Cost efficiency

Traditional methods of staff development often involve outside 'experts', conferences and workshops, which may be expensive and require time away from the workplace. The WBL model does not necessarily involve people withdrawing from the workplace. With the action learning approach much of the learning occurs at work, although there must be a time for reflection and discussion with critical friends. WBL is more likely to make use of local 'experts' who mentor, coach and shadow.

In addition, the WBL model seeks to establish where the learner is and start the learning process from that point. Recognition of prior learning is an important attribute of the model.

7.3.5 History of support and alignment with recent training reform

The WBL model has a history of support within the VET sector. It has developed within the NSDC, and is popular and credible, although the evidence from the case studies indicated that many VET staff have not been involved in WBL staff development. Further, the National Flexible Delivery Taskforce urged a model of staff development based on action learning principles and work-based approaches (ANTA 1996d:5).

Recently VET has seen the development of the Management Enhancement Team Approach (META; ANTA 1995) and the Frontline Management Initiative (FMI; ANTA 1997). Both of these approaches to training are work-based and involve individual development plans, developed by weighing up skills against a set of generic competencies and identifying the gap. Filling the gap is related to a real work-based issues and involves staff development. The new National Training Framework with training packages is also very much in accord with a WBL approach.

7.4 Recognition of work-based learning

VET staff will seek recognition for their learning within the WBL model. Recognition can be given in many ways. Individuals are given official recognition when they successfully complete an accredited course or program or when assessed as competent against a set of workplace competencies. They are given recognition when one institution or organisation grants them credit transfer for credit earned in a program of learning in another institution or organisation. They are given recognition when they are assessed in a recognition of prior learning (RPL) process that identifies their skills, knowledge and attitudes gained through their work experience, their life experience or in industry-based programs and formal training programs.

There are also forms of recognition quite outside the field of assessment and qualifications. Individuals can gain promotion or increase their status; they can receive greater job satisfaction or acknowledgment from their peers. All of this is a form of recognition.

7.4.1 Difficulties

There may be difficulties in gaining recognition for learning that takes place in a WBL model, particularly when an action learning approach is used. Learning in the WBL model is driven by the needs of the workplace. The skills required are identified as a gap after an audit of what skills are needed and what skills are available. The skills that individuals must gain to solve a work-based problem may not coincide with any accredited course or program. Further, there may be an absence of competency standards, as is the case with VET teachers and trainers. Recognition of prior learning or recognition of current competency (RCC) requires a benchmark for assessment purposes. Typical benchmarks are:

- elements or performance criteria from units of competency in industry or enterprise standards; and
- learning outcomes and associated assessment criteria from training modules.

It is quite possible that neither of these benchmarks would be available for VET staff to gain recognition through an assessment process.

It should be noted, however, that not all learning can be recognised and qualifications granted. Most of us learn all the time, both at work and away from work. We do not expect that all our new skills will be recorded and assessments made of our efforts. This is not to suggest that skills should not be recognised. RPL or RCC can occur in the workplace without any necessary link to gaining entry or credit in a recognised course or program. RPL can be used simply to recognise existing skills in a formal way, perhaps to encourage employees to participate in structured training and gain a qualification; to develop employee skill profiles; or to create a reliable basis for analysing training needs and enable better planning.

7.4.2 Strategy for recognition

Formal recognition (i.e. where certification is involved) can happen in three ways:

1. through an RCC process against existing workplace standards (industry or enterprise);

2. through an RPL process against learning outcomes in a course or program currently offered by VET Institutes or Higher Education institutions (e.g. graduate certificates, diplomas or masters degrees); and

3. through the development of course frameworks that are sufficiently flexible to enable individuals to complete them through action learning projects at work or through work-place performance, as well as the traditional module approach.

At present, there are no standards for flexible delivery or flexible learning, although some are being developed for the VET entry level teacher/trainer course in Victoria. Competencies such as these may be useful for all VET staff, and developments in this area should be closely monitored.

The second process is also problematic. It is likely that individuals would have to negotiate with universities regarding RPL. In some cases TAFE Institutes have managed to work out articulation arrangements with particular universities but there are difficulties gaining credit into higher education on the basis of RPL. TAFE Institutes now offer graduate certificates and VET staff could expect greater cooperation from TAFE.

The third process seems to offer the best strategy in the immediate future. The new training packages in industry offer individual workers a choice of pathways to meet the workplace competencies. In the same way, VET staff involved in the delivery of training should have access to flexible pathways, although in their case without industry-based competencies.

For example, CIT is about to offer a Graduate Certificate in Educational Management, for which the staff have developed enterprise competencies. They have developed an assessment framework broken into formative and summative assessment pathways by which participants may

- have their progress checked during competency;

- collect evidence of workplace competence for presentation to an Assessment Panel; and

- have their competence formally assessed against the eight units of competency.

Participants develop a plan for their own unique training pathway, which includes the following three different forms of learning, one of which is the traditional classroom model.

- Significant work-based projects, which will provide evidence of performance across units of competence. The objectives are clearly defined in the training plan and the results are assessed by workplace supervisor(s)—formative assessment only.

- Sustained workplace performance indicated by a record of training. This activity is designed by the participant and mentor and assessed by mentor/peers and supervisor.

- Assessment against modules in the formal sense, thus combining theory and practice.

The final assessment is before a panel which makes the decision as to whether the competencies have been met. The participant brings to the panel a portfolio outlining the full process of learning from the projects, workplace performance and modules.

7.5 Case study: Visiting Fellowship Program

During the course of the case studies, personnel at OTS in Melbourne were interviewed. In 1995, with funding support from the OTFE and the Victorian Education Foundation, OTS initiated a 'Visiting Fellowship Program' for the State Training System. This program was one of a series of initiatives undertaken by OTS in the area of staff development and training to enhance the flexible delivery capacity of the State Training System.

A similar program was offered in 1996. The purpose of the 1996 program 'was to enable providers to utilise the services of visiting experts to enhance their capacity to incorporate open learning strategies in their delivery arrangements through staff development and associated organisational changes' (Ahern 1996).

The notion of 'visiting experts' is somewhat misleading. In fact 'fellows' can be internal or external, and in 1996 the fellows were all internal recipients of funding. An evaluation of the program recommended the appointment of 'appropriate external fellows' in the future (OTS 1996:3). The fellows seem to act as team leaders and managers of change.

Essential features of the program include:

- specific source funding to support the fellow;
- the fellow undertaking specified activities to assist the organisation and their own professional development (e.g. conduct workshops); and
- evidence of a tangible outcome (e.g. prototype, generic model).

Funds are granted to the fellow and the team, not to the individual institute or college. The institute or college does not appear to be central to the scheme, although in some cases local management made a contribution to assist the scheme. Funds are distributed on the basis of tenders, using the following six key selection criteria.

1   Identify and explain the staff development need it is addressing.

2   Explain the context, form and design of the proposed staff development which is intended to meet their need.

3   Identify the person to be involved and their relevant experience; and, as appropriate, their needs and the profile of any target groups they may be responsible for developing.

4   Explain how the Fellowship is intended to increase the skills or the transfer of skills for its participants and as appropriate, for any of its target groups.

5   Explain how the Fellowship can add value to the proposer's current staff development arrangements.

6   Indicate how the Fellowship's processes, outputs, and outcomes might contribute to a better understanding about the type of staff development required in the State Training System to support open learning and flexible delivery in the future. (Ahern 1996:3)

The Fellowship WBL model adopted an action learning strategy for staff, incorporating a number of the learning options from within the Carter and Gribble (1993) and ANTA (1995) models. These are indicated in the following comparison of the Fellowship model with traditional models of staff development (J. Ahern, Coordinator, Systems and Staff Development, OTS).

	Traditional Staff Development Models	Fellowship Model
1	Rigid delivery models	Applies open learning principles in staff development context
2	Lack of connections—theory to workplace practice	Work-based learning
3	Lack of coherent development plan	Project goals negotiated at outset
4	Lack of ownership of learning	Insights emerge from own and shared experiences
5	Professional isolation	Team-based approach
6	Fragmented staff development experiences	Sustained project-based approach
7	Geographical and time constraints	Learning based around participant's work and workplace (on-the-job learning)
8	Lack of connection to organisational goals	Use project outcomes to achieve organisational goals

Chapter 8
Key findings

Nine key findings have emerged from the research, analysis and consultation undertaken in this course of this project.

8.1 Understanding flexible delivery

The research and case studies indicated that the concept of flexible delivery was not well understood, especially in training organisations; a finding supported by other researchers (Tinkler et al. 1996; Delaney et al. 1997). The project team concluded that problems with the concept arose from the dual nature of the client in VET (i.e. industry/enterprises and individual learners). A clear definition is required in an environment where flexible delivery and flexible learning are becoming increasingly important; thus, the project team redefined flexible delivery by separating out the notion of flexible learning.

- Flexible delivery is the managing and organising of vocational education and training programs/courses/modules in ways which meet the needs of clients—industry, enterprises and learners.
- Flexible learning is the planning, developing and facilitating of a range of learning strategies that meet the needs of individual learners.

8.2 Target groups requiring staff development

The scope of the target groups requiring staff development is extremely broad.

8.2.1 Training organisations

Virtually all staff in training organisations will require some training and the various groups of staff have different training needs. The evidence indicates that training organisations themselves should be flexible if flexible delivery and flexible learning are to progress.

8.2.2 Industry (big enterprises)

The target groups for big enterprises are training managers and industry trainers. There is some evidence to suggest that where industry trainers are employed as full-time trainers they may well be locked into traditional modes of delivery. Where big enterprises develop

policies of continuous improvement and the development of learning systems, flexible learning strategies that are work-based and utilise action learning principles are likely to follow.

8.2.3 Small business

The target group for small business is owner/managers. Both case study sites had a commitment to training and the drivers of training were the owner/managers. The literature, however, indicates a serious problem in convincing small business owners of the value of training, although the evidence indicates that a considerable degree of informal training occurs in small business.

8.2.4 Division of target groups into managers and delivery staff

To coincide with the definitions of flexible delivery and flexible learning above, the project team divided the target groups into managers and non-managers (Chapter 5, Tables 5.1 & 5.2), with the latter being directly involved in flexible delivery and flexible learning. The division is not perfect. Training managers in big enterprises and owner/managers in small business are mainly responsible for the flexible learning of their staff. Senior managers and education managers in training organisations have responsibilities across flexible delivery and flexible learning, although responsibilities differ. There was no agreement among those interviewed as to which target groups required special help or deserved priority status.

8.3 Skills required

The case studies and the literature identified a number of skills in flexible delivery and flexible learning that each of the target groups require. These were separated into knowledge, skills and attitudes, and presented in Chapter 5 for each target group (Tables 5.1 & 5.2).

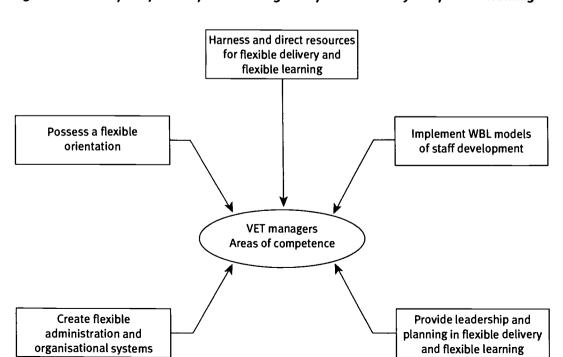An analysis of these skills allowed them to be grouped under 'Areas of competence'.

Figure 8.1 Areas of competence for VET managers in flexible delivery and flexible learning

Figure 8.2 Areas of competence for VET delivery staff (non-managers) in flexible delivery and flexible learning

8.4 'Best practice' in on-line delivery of staff development

Seven 'best practice' elements were identified (see Chapter 6), based on the Victorian flexible delivery pilot projects (Armstrong 1996) and the work of Mitchell and Bluer (1997).

1 Developing a network of support.
2 Ensuring a variety of learning styles and preferences.
3 Designing interactive learning materials.
4 Ensuring educationally driven projects.
5 Providing organisational and financial support.
6 Ensuring adequate security.
7 Using a planning model.

8.5 On-line delivery of staff development

It appears that on-line staff development for VET staff is still in the embryonic stage. The case studies revealed no examples of on-line staff development although a number were under way.

8.5.1 Computer literacy

Computer literacy varies across the sector. In general, the TAFE group interviewed were fairly positive about computer skills. Some areas in TAFE Institutes have high skill levels, while others had few skills. Computer literacy in private providers was reasonably strong. Many of the staff were highly skilled in this area when employed. Evidence from this project is too limited to make a judgment about computer literacy in industry, although national ITABs report a skill shortage in the use of computers and new technologies in their industries via their Industry VET Plans.

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8.5.2 Access to technology

A minority of TAFE teachers had access to their own computer. Few of those interviewed in TAFE were on a network and a very small minority had access to the Internet. Casual employees in TAFE, who are responsible for nearly 50% of all training in TAFE nationally, also had limited access to computers at work.

Evidence from the project suggests that staff in the big private provider enterprises are likely to have access to a computer and access to the Internet, while those in smaller companies are likely to have limited access.

8.6 Current access to staff development in flexible delivery

The findings from the case studies reveal that some training has occurred but it appears to have been *ad hoc* and minimal. Those involved in flexible delivery were developing their skills but the vast majority of teachers in training organisations appeared to have received no training. The limited evidence from the project was that casual TAFE employees did not have access to staff development in flexible delivery.

The forms of staff development that had been used were traditional (e.g. seminars and conferences). Most of those involved in flexible delivery were learning by doing but not in any structured sense. The only example of WBL was found within a flexible learning centre.

Within the private training sector, the evidence suggested that managers/owners were more likely to receive what training was available, and that the teachers had received little to no staff development in flexible delivery. Only in the bigger private training organisations was there a staff development budget.

The most successful staff development was seen to be a 'hands-on', practical approach, although no-one interviewed had been in an action learning team.

8.7 Barriers to staff development in flexible delivery

Seven barriers to staff development in flexible delivery were identified (see Chapter 5), but further research is required.

1   Inappropriate productivity indicators and performance measures.
2   Confusion about the meaning of flexible delivery.
3   Centralised structures of staff development.
4   Failure to link staff development with business plans.
5   Narrow perceptions of staff development.
6   Marketing staff development.
7   Lack of resources.

8.8 Preferred model for staff development

A WBL model, based on that developed by Carter and Gribble (1991) and the NSDC model (ANTA 1995), was the preferred model for staff development for VET staff in flexible delivery.

An analysis of the literature led the project team to adopt this model for five reasons.

1　It acts as catalyst for change in the workplace.
2　It is sufficiently broad and flexible to accommodate the wide range of needs of the target groups.
3　It is educationally sound.
4　It is cost efficient in comparison with other staff development models.
5　It has a history of support in VET and it is in keeping with recent training reforms.

8.9 Recognition strategy for staff development

There can be complications in gaining recognition for learning that takes place in a WBL model, because learning is directly related to workplace needs and therefore not determined by available courses. Recognition requires assessment against benchmarks, such as performance criteria or learning outcomes. These are not yet available for VET teachers and trainers.

The research identified three ways of gaining recognition in a formal sense: through an RCC process against existing workplace standards; through an RPL process against learning outcomes in a course or program; and through the development of course frameworks with flexible assessment pathways that enable individuals to complete the course through action learning projects at work or through work-place performance as well as the traditional classroom approach.

The third option, at least in the short term, seems to offer the best opportunity for VET staff to gain recognition for learning completed in the area of flexible delivery within the preferred WBL model. Courses are now being developed within training organisations where staff can be assessed against learning outcomes or enterprise competencies in multiple ways, including work-based projects directly related to work-based problems and workplace performance, as well as the traditional assessment resulting from attendance in class. Until competencies are developed in flexible delivery and flexible learning for VET staff, this third option is a strategy worthy of consideration.

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Appendix 1
Brief summaries of the Flexible Delivery Pilot Projects

Western Australia

1   **Electronic fault diagnosis.** To develop four computer-based systems for teaching electronic fault diagnosis and to evaluate the educational effectiveness and practicality of the four technologies. To develop the skill of VET staff in computer-based training systems.

2   **Development of WA TRAIN.** To prepare and develop the WA component of TRAIN.

3   **Professional development for EdNA infrastructure.** To train a number of college-based coordinators to facilitate the rapid development of curriculum on EdNA. The project includes the creation of a model Web server on the departmental server. The objective is to empower colleges to develop their own content.

4   **EdNA and Internet course delivery.** To develop infrastructure to allow for course delivery to remote and international clients using Internet tools, to develop TAFE's international home page and to increase student enrolments for TAFE courses and users of networks such as EdNA.

5   **Rural business management.** To develop four computer learning modules for rural business management and 15 flexible delivery modules for grain production and management curricula.

6   **Development and delivery of National Metals Module via EdNA.** To establish a national electronic network of providers in the metals area and to cooperate in the trial delivery of a module.

7   **Open access to TAFE students via the Internet.** To develop national electronic modules at Certificate 1V level in Information Technology for delivery over the Internet.

Queensland

1 **Development of resource packages for frontline management training.** To produce a national certificate in workplace leadership utilising existing print-based materials enhanced by CML and Cdi, and to provide professional development for facilitators.

2 **Learning resources for fishing industry.** To produce learning resources (print and video) for mandatory certificates, and align or develop national competency standards to support CBT curriculum.

3 **Queensland TRAIN.** To prepare and develop the Queensland component of TRAIN.

New South Wales

1 **Flexible delivery mechanisms for small retailers.** To determine how promotion of retail training programs can be accomplished through EdNA and look at how existing video and text-based programs can be adapted for delivery by EdNA.

2 **Flexibile delivery centre in hospitality.** To establish a flexible delivery centre for the hospitality industry and make resources, assessment tasks and a guide for applying RPL in bakery available nationally through EdNA.

3 **TRAIN implementation.** To develop multimedia training programs in the use of TRAIN in all media on which it is available.

4 **Open learning in the ACE sector.** To develop a comprehensive open learning network in NSW ACE, including satellite delivery for ACE courses. Information programs will educate and train ACE providers in the use of flexible delivery.

5 **Key competencies for a mobile workforce.** To identify and deliver training to mobile transport workers who cannot access training at specific locations. The project will concentrate on literacy and numeracy skills as preparation for required Dangerous Goods courses.

6 **Delivery of animal production modules through CAL.** To produce animal production modules in multimedia forms, trial a range of flexible delivery modes, develop articulation pathways from VET to university and improve access.

7 **Information technology.** To develop a World Wide Web home page for information technology and a student support link and resource packages and learning/assessment guides for the IT diploma.

8 **Aquaculture.** To develop and produce additional modules for the Freshwater Aquaculture Production Certificate.

9 **Firefighting.** To provide learning guides and assessment tasks using Opennet and EdNA and develop links with Fire Service Providers for exchange of student data.

Victoria

1 **Major project.** To develop VET delivery using on-line technologies that includes a major extension of the Victorian WAN into a support for educational technology and delivery.

2 **Trial projects.** A total of 17 pilot projects that will contribute to the further development of EdNA.

Tasmania

1   **TRAIN implementation in Tasmania.**

2   **Access to VET EdNA and CAL.** To establish 15 CML centres in regional and enterprise centres throughout Tasmania and provide infrastructure to increase access via LAN, WAN or modem connection, including student induction.

Northern Territory

1   **TRAIN implementation in NT.** To develop the NT component of TRAIN.

2   **Electronic delivery of Master Class 5 and entry level deckhand.** To enhance delivery of Master Class 5 and entry level deckhand courses by developing computer-based courseware for the modules and purchasing equipment for trialling delivery while vessels are at sea

South Australia

1   **On-line education project.** To develop the technical and human support infrastructure to enable the use of on-line delivery. Four projects will be: on-line delivery to small business, communication studies via computer, on-line delivery of electronics course and on-line support of national cookery program.

ACT

1   **TRAIN implementation in the ACT.** To develop the ACT component of TRAIN. Also linking ITABs and Group Training Companies in the ACT to TRAIN.

2   **Communication modules—workplace communication.** To develop national communication module workplace communication through the Internet. The project will trial voice communication.

Appendix 2
Case study interviewees

TAFE Colleges in New South Wales

1   **South Western Sydney** (Liverpool and Granville Campuses).

Ms Judy Ryan, Manager, Staff Training and Development

Mr Garry Turner, Teacher Education Assessment Advisory Coordinator

Mr Kevin Heys, Head of Studies, Pre Vocational & Science Programs.

2   **Illawarra Institute of Technology** (Shellharbour and Wollongong West Campuses).

Mr Eric Whittaker, Head of Studies, Engineering Services.

Mr Colin McIntyre, Head Teacher, Fitting and Machining

Mr Hank Slueren, Teacher, Fitting and Machining

Mr Peter Rickson, Teacher, Fitting and Machining

Ms Sue Scott, Teacher, Faculty of Business Services, Administrative Studies

Mr Graham French, Teacher, Accountancy, Business Studies.

TAFE Colleges in Victoria

1   **Eastern Institute of TAFE, Croydon Campus.**

Mr Sean O'Sullivan, Expert Reference Group, Curriculum Services Unit

Mr Bruce Clifford, Head of Centre, Information Technology

Ms Diane Barbuto, Project Manager, Centre for Flexible Learning

Ms Ann Deschepper, Head of Community Programs

Ms Kay Burton, Curriculum Officer, Curriculum Services Unit.

2   **Box Hill Institute of TAFE.**

Mr Don Sweeney, Director of Educational Resources

Ms Kerri Ferguson, Centre Manager, Hairdressing and Beauty Studies

Ms Ann Hannan, Curriculum Officer, Centre for Program Development

Mr Colin Hardy, Teacher, Applied Sciences.

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3   Western Metropolitan Institute of TAFE.

Ms Di Williams, Head of Department, Wholesale/Retail

Mr Dale Williams, Teacher, Wholesale/Retail

Ms Jessica Hope, Head of Department, Administrative Studies, Footscray Campus

TAFE Institute in ACT

Canberra Institute of Technology
Mr Graham Withers, Centre Manager, Tuggeranong Flexible Learning Centre

Open Training Services, Footscray

Mr John Hird, Manager

Ms Julie Ahern, Coordinator, Systems and Staff Development

Mr Laurie Armstrong, Project Officer

Private training organisations

1   **Metropolitan Business College, Canberra.**

Ms Cathy McNicol, Teacher

Mr Les Scammell, Teacher

The following private training organisation personnel were interviewed by telephone.

2   **Linda Wyse & Associates, Multicultural Workplace Communication Training.**
Ms Linda Wyse

3   **Navair International Flying College.**
Mr Kevin Hadley (a general member of ACPET)

4   **The Southern Cross Connection.**
Ms Carmel Thompson, Acting General Manager (Deputy Chair of ACPET)

5   **Lorraine Martin Colleges.**
Mr Viv Caulfield, Director of Academic Programs

Industry

1   **Bilcon Engineering Pty Ltd.**

Ms Stella Axarlis, Owner/Manager

Ms Melinda Darabont, Human Resource Manager

2   **BHP Steel, Wollongong.**

Mr Kevin Locke, Employee Development Manager

Mr Phil Crawford, Senior Human Resources Development Officer

Mr Alan Russell, Senior Human Resources Development Officer

Mr Reiner Glaser, Human Resources Development Officer

Mr Leon Dickson, Human Resources Development Officer

Mr Mark Gorodecki, Senior Resources Development Officer

3   **Shell Service Station, Phillip, ACT**.
     Mr Les Hanbidge, Manager
4   **ACT & Region Chamber of Commerce and Industry**.
     Mr Michael Alves, Executive Director

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Appendix 3
Standard questions for case study interviews

A Questions about target groups

(i.e. **Who** needs staff development?—Ask people who might know; e.g. people involved already in flexible delivery, managers, staff development officers.)

1   Is flexible delivery well understood in your organisation?

2   Who are the groups or categories of people in your organisation who are most likely to benefit from formally organised staff development in relation to flexible delivery? (e.g. education managers, teachers, etc.).

3   Do you think it is important that staff development for flexible delivery is seen as something for all teaching and non-teaching staff? Why?

4   In any organisation staff have layers of need (i.e. all staff may need **some** staff development for flexible delivery but others may need a great deal). If staff have layers of need which groups of staff need 'advanced' staff development? 'Intermediate' staff development? 'Basic' staff development? (e.g. CEO may need basic training).

5   Who are the staff who have special needs and need to be targeted for staff development?

6   Which groups should be given priority for staff development? (e.g. part-time teachers, teachers who have been in education and training for many years, teachers in trade areas, new teachers, education managers, support staff).

B Organisational questions

1   Do the existing structures in your organisation readily facilitate flexible delivery and flexible learning?

2   What changes, if any, need to be made to organisational structures outside delivery (e.g. administrative and corporate support areas) to enhance flexible delivery?

C Questions about skills in flexible delivery

(i.e. **What** sort of skills are needed—Ask managers, staff development personnel and flexible delivery specialists.)

1   What do you think is the role of educational managers in flexible delivery and flexible learning?

2   What knowledge/skills/attitudes (e.g. full understanding of flexible delivery, planning for flexible delivery, marketing flexible delivery) do education managers (i.e. managers involved with delivery areas, such as departmental heads, head teachers, heads of studies, school or faculty heads) now need to encourage implementation of flexible delivery and flexible learning?

3   What knowledge/skills/attitudes (e.g. full understanding of flexible delivery, computing skills, writing curriculum) do teachers and trainers in delivery areas need?

4   What knowledge/skills/attitudes do people in senior management positions need?

5   What knowledge/skills/attitudes do people in support/administrative areas need?

6   Are there any other groups of staff who need knowledge/skill/attitudes to enhance flexible delivery? (e.g. specialists in desktop publishing, writers of curriculum, developers of learning resources, instructional designers).

7   How important is multi-skilling in flexible delivery? Should we be thinking of teams of specialists?

D Questions about staff development

(Ask staff development departments.)

1   What sort of training has been offered to staff in order to enhance flexible delivery and flexible learning including writing of materials? Describe.

2   What access, if any, has staff had to staff development to enhance flexible delivery?

3   What sort of training has been the most successful?

4   Have you developed any on-line training for staff?

5   What are the problems for staff in accessing staff development for flexible delivery? (i.e. what are the barriers?).

E Questions about on-line delivery of staff development

(Ask staff development officers and managers.)

1   What percentage of teachers would have a computer on their desk (one that does not have to be shared with others)?

2   What percentage of teachers would have ready access to a computer (one that they share with 1 or 2 others)?

3   What percentage of teachers work with networked computers or access by modem?

4   What is the current technical knowledge of staff, in particular teachers/trainers, in computing?

5   What are the delivery areas who have the best skills in computer technology and what are the areas needing help? (e.g. management and business, trades).

6   Are part-time teachers involved with flexible delivery? Do they have access to staff development for flexible delivery?

F Questions about attitudes

(Ask managers, flexible delivery people and staff development officers.)

1. Is the attitude of staff in delivery positive or negative to flexible delivery?
2. How do you explain the attitudes?
3. How do you try and 'sell' flexible delivery to your staff?
4. What are the ideal ways of marketing flexible delivery?

Appendix 4
Key stakeholders

National Industry Training Bodies

- Ms Roselyn Williams, Executive Officer, National Public Administration ITAB, Canberra.
- Mr Nick Murray, Executive Officer, Forest and Foret Products Employment Skills Company and joint Executive Officer , Primary ITAB.
- Mr John Braddy, Executive Officer, Automotive Training Australia Ltd, Doncaster, Victoria.
- Ms Sally Davis, CEO, Community Services and Health Training Australia, Sydney.
- Mr Peter Wilson, Executive Officer, Construction Training Australia, Carlton South, Victoria.
- Ms Cassandra Parkinson, Executive Officer, Cultural & Recreational ITAB, Surrey Hills, NSW.
- Ms Loretta Winstanley, Executive Officer, Finance & Administration ITAB Ltd, Melbourne.
- Ms Gabrielle Dorward, Executive Officer, National Food Industry Training Council Ltd, Brisbane.
- Mr Lance Hadaway, Excutive Officer, Australian Light Manufacturing ITAB, Carlton.
- Mr Bob Paton, Executive Officer, Manufacturing, Engineering and & Related Servces ITAB, North Sydney.
- Mr Des Caulfield, Executive Officer, National Mining ITAB, Sydney South.
- Mr Jeremy Gilling, Executive Officer, Manufacturing Learning Australia, Sydney.
- Mr Geoff Brooks, Executive Officer, Property Servics Training Australia, Turner, ACT.
- Ms Jenny Whiffen, Executive Officer, National Retail & Wholesale Industry Training Council Ltd, Burwood, NSW.
- Mr Leo Van Neuren, Executive Officer, Telecommunications, Postala Services, Information Technology and Printing ITAB, Carlton South, Victoria.
- Mr Bill Galvin, Executive Officer, Tourism Training Australia, Sydney.
- Mr Gerard Langes, Executive Officer, Transport & Distribution ITAB, North Melbourne.
- Mr Tony Palladino, Executive Officer, Utilities ITAB, Sydney.

State Training Authorities

- Mr Peter Harmsworth, Director, Office of Training and Further Education, Victoria.

- S. Prathapan, CEO, Northern Territory Employment and Training Authority.

- A.D. McGaurr, Secretary, Department of Vocational Education and Training, Hobart.

- B.K. Stanford, CEO, Department of Employment,Training and Further Education, Adelaide.

- Ms Jane Diplock, Director General, Department of Training and Education Co-ordination, Darlinghurst NSW.

- Mr Bernie Carlon, Executive Director, Division of Vocational Education, Training and Employment, Brisbane.

- Mr Ian Hill, CEO, WA Department of Training, East Perth.

- Mr Peter Gordon, Executive Officer, Vocational Education and Training Authority, Canberra.

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Appendix 5
Victorian Flexible Delivery Pilot Projects

Title: Industry training Links via the Internet

Institute: Wangaratta Institute of TAFE.

Description: Development of interactive links with materials from both accounting and information technology using Internet and WWW as well as email, chat sessions and real time video.

Contact: Bruce Riley.

Title: On-line Mining

Institute: Bendigo Regional Institute of TAFE.

Description: Use of on-line services to permit particular institutions to concentrate on areas of expertise in development and maintenance of learning resources.

Contact: Trevor Gerdsen.

Title: Professional development for audiographic conferencing. Summative evaluation of the implementation of audiographic conferencing in four regional Victorian/VET providers

Institute: Bendigo Regional Institute of TAFE.

Description: To undertake a professional development activity using best practice principles of a core group of staff from four institutes who will be responsible for subsequent training in their own institutions. An evaluation of how the four providers implement the technology will be undertaken.

Contact: Trevor Gerdsen.

Title: National warehousing project — management training for warehouse managers

Institute: Western Melbourne Institute of TAFE.

Description: The project will establish a flexible delivery infrastructure using EdNA and collaborative learning syndicates for delivering accredited training for warehouse managers.

Contact: John Clarke.

Title: Using technology to expand open learning

Institute: Outer Eastern Institute of TAFE.

Description: The development and trialing on a local level of an OECT WWW major page with a series of pages that comprise as well-designed information service for front-end services. The research and development of a proposal that will allow for the creation of a 'virtual classroom' from either a community, industry or home location a practical way to the current open learning delivery being undertaken by the institute in small business, computing and information technology, business accounting. A paper to be presented to senior management and relevant teaching centres that identifies issues and recommends the potential for transfer and development of supplementary materials for use on Internet.

Contact: Derek Burgell.

Title: Adult literacy research network node for Victoria

Institute: Victoria University of Technology.

Description: Networking through email technology project (ALRNNV).

Contact: Prof. John Dewar-Wilson.

Title: Flexible delivery World Wide Web home page and electronic discussion group

Institute: RMIT.

Description: To facilitate and increase the dissemination of information on flexible delivery by utilising both static on-line databases and mechanisms of electronic communication, and to enhance and improve the existing flexible delivery gopher by translating source material to WWW format.

Contact: Diana Harrison.

Title: Bulletin board for Scitech

Institute: Box Hill Institute of TAFE.

Description: Development and maintenance of a bulletin board to assist in the implementation of the new Science Technician course throughout Australia from February 1996.

Contact: Ann Jones.

Title: YCIN/Swinburne pilot of on-line support and delivery for education

Institute: Swinburne University of Technology/YCIN Project.

Description: Development of a trial of electronic support and delivery for SACS Management and Home Based Care.

Contact: Maryla Juchnowski.

Title: Flexible delivery of national information technology curriculum

Institute: School of Mines & Industries Ballarat Inc.

Description: Establish and expand a network of information technology providers in order to share resources, provide consistency of delivery and assessment and further develop the national IT curriculum.

Contact: John Kemp.

Title: Off-campus delivery of the Certificate of Basic Electronics via the Internet

Institute: Gordon Institute of TAFE.

Description: The establishment of a virtual electronic format off-line as a platform for delivery of the Certificate of Basic Electronics.

Contact: Stephen Gale.

Title: Investigation of the use of Internet and creation of a model for collection, marking and recording of assignments or formative evaluations in print-based courseware used in flexible and distance delivery of TAFE accredited programs

Institute: Peninsula, Wodonga and Western Institute.

Description: Investigate the scope and limitations of using Internet for providing faster, more cost-effective and responsive means of submitting assignments as part of a learner's distance education delivery.

Contact: Marion Lester.

Title: Delivery of training on the Internet—teachers' and learners' perspectives

Institute: RMIT.

Description: A project to develop a manual which elucidates both the educational and technical issues arising from delivery of training through CMC.

Contact: Leone Wheeler.

Title: Remote area technology training

Institute: East Gippsland Institute of TAFE.

Description: Development and trialling of a training program which will enable TAFE staff, community centre staff and community members to effectively use the existing technology to link bulletin boards, library networks and Internet.

Contact: John Ireland.

Title: Staff development for TAFE and school staff to promote the use of Scitech Modules to be delivered via the Internet

Institute: Box Hill Institute of TAFE.

Description: Training teaching staff in the use of Internet-delivered modules.

Contact: Ann Jones.

Title: EdNA Starter Pak

Institute: Box Hill Institute of TAFE.

Description: Multimedia training package for first time users of Web browser software incorporating introductory video, booklet and off-line computer-based tutorial.

Contact: Leonie Pope.

Title: Computer training for building and construction teachers

Institute: Holmesglen Institute of TAFE.

Description: Further extension of the existing bulletin board to enhance the quality of training materials.

Contact: Charles Simpson.

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Glossary

Accredited
Indication that official recognition of approval has been given to a course, a program of training, or a provider of training.

Accredited course
A course or program which has been approved by an accredited authority and leads to a credential.

Action learning
Learning to take effective action to solve real work-based problems. The learning occurs with a group of colleagues, who share the problem, and who are able to offer mutual support, advice and criticism. The action learning group develops a united approach to solving the problem.

Assessment
A process of collecting evidence of a person's competency and making judgments as to whether they have met the benchmarks.

Benchmark (for RPL)
An established standard against which a person's prior learning and experience is judged.

Certification (for RPL)
Provision of a credential or statement recognising attainment of a defined set of competencies or learning outcomes; usually awarded by a State or Territory training authority.

Competence
The quality of being competent; the ability to satisfy the requirements of a competency.

Competency
A specification of knowledge and skills, and their application, within an occupation or industry level to the standard of performance required in employment.

Competency standards

Standards based on the organisation of work and expressed in terms of workplace outcomes, which describe what a competent worker does in the workplace. Competency standards are normally developed and/or endorsed by the relevant industry.

Credential

A formal document or certificate given to a person in recognition of their attainment of a defined set of competencies or learning outcomes. Examples are: certificate, advanced certificate, associate diploma, diploma.

Credit transfer

Recognition by one institution or organisation, of credit earned in a program of learning in another institution or organisation.

Flexible delivery

The managing and organising of vocational education and training programs/courses/modules in ways that meet the needs of clients: industry, enterprises and learners.

Flexible learning

The planning, developing and facilitating of a range of learning strategies that meet the needs of individual learners.

Learning outcome

Learning outcomes specify what a person should be able to demonstrate as a result of skills and knowledge gained from a module or program of training. Often used as benchmarks for assessment of RPL.

Qualification

A formal statement confirming successful completion of a course of study or program of training.

Recognition of prior learning

A process of assessment which seeks to identify the skills, knowledge and attitudes which a person currently posses as a result of:

- formal training
- industry-based training programs
- learning resulting from work experience
- learning resulting from life experience
- a qualification gained overseas.

Staff development

A change in knowledge, skill, attitude or behaviour that enhances an individual's effectiveness in their work role.

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Staff development strategy

A planned approach to the provision of experiences, interactions and/or resources which promote, initiate and support a change in knowledge, skills attitude or behaviour that enhances an individual's effectiveness in their work role.

Work-based learning

A work-driven approach to organising employee development, which is focused on individual development plans.

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