5TH NATIONAL WORKSHOP ON
VOCATIONAL TEACHER EDUCATION

LAUNCESTON, TASMANIA
25-27 SEPTEMBER, 1995

SELECTED PROCEEDINGS

EDITED BY
SUE KILPATRICK
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KEYNOTE ADDRESS BY

Ron Robson

Chief Executive: Anderson Rea Pty Limited
Chairman: Australian Centre for Best Practice Limited

Achieving World Class Performance through Workplace Change and the Best Practice Demonstration Program
INTRODUCTION

I have been asked today to talk about some specific and practical issues associated with the Best Practice Demonstration Program and how by changing the culture in our company and all of our employees embracing Best Practice, we have been able to turn what was a very ordinary Company in the mid eighties to a Company that is committed to and achieving world class performance.

Let me begin with a brief profile of the Company and its history.

ANDERSON REA: THE COMPANY

Anderson Rea is part of an international group of companies involved mainly in the engineering, manufacturing and mining industries. The Company was founded in 1946 as A B Rea at Mayfield in Newcastle. Due to business expansion we re-located to Argenton in 1955. During the 1960's and 70's the Company grew gradually and in 1979 we became a wholly owned subsidiary of Anderson PLC. In 1989 the Company's name was changed from A B Rea to Anderson Rea Pty Limited as we are today.

The Company's product range has grown extensively in recent years but is still predominantly engaged in the manufacture, sale and service of mining equipment as well as general engineering and fabrication.

We are proud of our growth, particularly over the past decade. Since 1988 sales have risen by 360% to approximately $45 Million per annum. Growth in sales has also been accompanied by significant expansion in employment. Since 1988 employees have increased from 114 to 200.

The Company's success is further indicated by our improvement in share of the Australian Longwall Shearer market against the best of international competition. In 1986 we shared the market equally with two overseas companies, one German and the other Japanese. By the end of last year we had gained more than half the market with further growth indicated in the coming year.
ANDERSON REA: WORKPLACE REFORM

Let me turn now briefly to our progress in workplace reform. Much of the Company's success is the direct result of our efforts since the mid-1980's to change the culture of our organisation. In 1987 the Company was granted funds under the commonwealth Government's Heavy Engineering Development Program. Important activities at this time were the development of a comprehensive Business Plan and the establishment of our Consultative Committee.

Our 1987 Second Tier Agreement was a further step forward in that we achieved real agreement to flexibility in a number of areas. In 1990 we also undertook a significant Restructuring Project which dramatically improved the involvement of a wide range of employees in the analysis of Work Organisation and subsequent re-design of jobs. Our investment in training in a range of skill areas was also substantially increased.

Our first Enterprise Bargaining Award was federally registered early in 1992. The basis of this agreement is an important commitment from employees and management to undertake a range of measures to achieve International Best Practice.
BEST PRACTICE PROGRAM

ANDERSON REA'S PARTICIPATION IN THE PROGRAM

In December 1991, we were invited to participate in the Australian Best Practice Demonstration Program, the principle effects of which include the accelerated implementation of Best Practice in all parts of the organisation as well as the dissemination of our experiences in the change process. For those of you not familiar with the Program, it is a Commonwealth Government initiative to assist a limited number of companies to implement Best Practice and to demonstrate the results to Australian industry. Selection of participants was made through a competitive bidding process which resulted in approximately 40 companies being invited to participate out of about 600 applicants.

PRINCIPLE ACTIVITIES / RESULTS

It must be said that the overall objective from the Company's participation in the Program is to achieve further significant improvements in productivity throughout the organisation. We are transforming our Company into an organisation which will grow and prosper in the future. This is being done through the involvement and participation of all our employees. The process is about improving our employees' knowledge and understanding of the business and, in so doing, giving them the capabilities and power to make decisions for themselves. Principal activities in this process have so far included simultaneous efforts on a number of fronts, all of which are linked to the development and adoption of International Best Practice.

CELLULAR WORK TEAMS

At the outset of the Program we formed Work Teams across all functional areas of the company.

These teams are not based on the traditional hierarchical structure of the organisation but reflect the fundamental processes within the business. They are also cross-functional in that internal customer/supplier relationships are represented on each team. Some work is yet to be done to complete their evolution to a network of cellular work teams, and they are currently working on the remaining barriers to this transition. Indeed they are still learning about the ways and means to achieve this goal and the Benchmarking process will undoubtedly assist them greatly in their task.
PERFORMANCE MEASUREMENT

If our primary focus is on the total productivity of the organisation then it makes sense that we should be able to gauge our progress over time. The traditional financial and cost accounting measures fail to provide enough meaningful information in this regard. Moreover, they have never actually belonged to the people who can most contribute to productivity improvement, i.e., all employees. Our work teams have therefore established for themselves a set of real physical and tangible measures, our Key Performance Indicators. These indicators focus on the elimination of waste and reduction of activities which do not add value, the factors which truly affect productivity.

The teams actually collect and are responsible for the maintenance of the measurement system using software specifically designed for the purpose. These indicators are automatically charted and are also aggregated to provide an overall multi-factor productivity index.

STRATEGIC PLANNING

The Company has operated to a four-year Business Development Plan since the mid-1980's. In those days, the Plan was developed by a small number of senior executives and not properly communicated to anyone but a few senior employees. By 1989 we had at least begun a briefing program by conducting small group education sessions with all employees to ensure that they were exposed to the strategic direction of the business. As an important part of our activities in the Best Practice Program, we have, this year, pushed the planning process much deeper through the organization. Our 1993/97 Plan was developed by a team of 25 people comprising representatives from all the work teams including ironworkers, engineers, tradesmen, accountants, managers, and other staff. Each work team is currently analyzing the parts of the Plan relevant to their functions so that improvement efforts can be directed towards the achievement of the strategic goals for the Company. The Key Performance Indicators are also being linked with the higher order financial and other objectives of the Plan.
BENCHMARKING

GENERAL

It should by now be obvious to you that we view Benchmarking as a part of an integrated approach in the implementation of Best Practice, albeit an important element I must also make it very clear that we are still much in the early days of our Benchmarking efforts. Nevertheless we have, from the outset, been concerned to "avoid the pitfalls of industry tourism". We believe there is a great danger in Australian industry grasping at Benchmarking as yet another fad in so-called management science and thus missed the point as we seem to have done with many other techniques which are now little more than anachronisms. If this happens Benchmarking will ultimately be discredited and will lose much of its potential impact as an integral element of becoming internationally competitive. At Anderson Rea we are determined to apply Benchmarking in our efforts to become "Best-in-Class" with great care to ensure that we obtain the best return possible from our considerable investment of money and the time of our people.

BENCHMARKING AT ANDERSON REA

At the risk of covering some aspects that may be dealt with by other speakers I must explain to you how we have gone about the process of Benchmarking. In so doing you may understand our approach and the ways in which we have guarded against the tendency by some to see Benchmarking either as a panacea or an opportunity for what I would call executive "junkets".

THE BENCHMARKING TEAM

To undertake our Benchmarking program we formed and trained a separate team of approximately 15 people. These people were drawn from all Work Teams across the Company and here lies an important principle. The Benchmarking Team must not be seen as yet another management dominated stunt. Those involved must include the people who will be responsible for achieving the Benchmark targets once they are established, i.e. those who actually do the work. More often than not they are best able to know what to look for in other organisations since they are most familiar with the company's work processes. The credibility of observations made is also enhanced when the people who do the work have witnessed these things for themselves.
Functions of the Benchmarking Team

So much for the make up of the Team, but what are its functions and how should they go about their task? I will briefly describe the Teams various roles which will give some indication of how we have tried to "avoid the pitfalls" Our Benchmarking Team has been charged with two major responsibilities

- To prepare for and conduct the Benchmarking Study and make recommendations for change
- To communicate the findings of the Benchmarking Study and assist in the implementation of approved recommendations

In order to fulfil these responsibilities the Team has had to undertake a number of activities

Self Analysis / Measurement

Since Benchmarking is about comparing ourselves with others it is all too easy to focus on the selection of the others without due regard to ourselves As I indicated earlier, we believe that those best able to know what questions to ask of our Benchmarking partners are those who best understand our own processes and how they are performing

In our case pulling together this knowledge was a relatively simple matter Our Work Teams had already spent considerable time analysing and documenting their processes on simple flow charts They had also developed a comprehensive performance measurement system for all processes The Benchmarking Team simply got the Work Teams together and with their help, re-assessed and amended our process flow charts, where necessary, to make them understandable to outsiders

They also showed clearly the Key Performance Indicators and what parts of the process each Indicator is measuring This exercise assisted the Benchmarking Team greatly in deciding which processes and what areas should be Benchmarked In reaching these decisions the Team also reviewed the other elements of our Best Practice initiatives such as Strategic Planning, Cellular Work Team Development, and Total Quality Management Finding potential Benchmarking subjects has, in fact, been the least of our problems Indeed so many potential subjects were found that the team had to prioritise them so that they could be reduced to manageable numbers
Research / Planning

Once they decided what should be Benchmarked the Team next put its collective mind towards who should be our Benchmarking partners. They have found that this can be a difficult and somewhat inexact phase of the exercise. How do we find the world's best organisations in the areas in which we have an interest? How do we know they are the best? Why will they want to share information with us? These are just some of the questions they have had to address. The search is not always easy because there are no maps or guideposts. The world's best companies generally don't broadcast that they are the world's best in any given process. It is also true that many of the "best-in-class" companies have been so set upon those wishing to learn the secrets that they have become reluctant to enter into new relationships. We believe the key to overcoming such difficulties is to sound and careful preparation and research. Our Benchmarking Team established a small group of 4 who were allocated responsibility for Research. This research has been conducted in three main forms:

- **Brainstorming**

  The Benchmarking Team and other interested people met to see what they could come up with. You'd be surprised how many people keep up with the news or read business journals and have ideas as to potential Benchmarking partners.

- **Library**

  The small group responsible for Research got to know our local University library which has a wide selection of journals and texts. This step in the study has been remarkable since none of the four people have previously gone beyond trade training. It has been an enlightening and challenging time for them.

- **Electronic Databases**

  We have explored and accessed a number of public databases which today have an amazingly extensive amount of information on them including financial records, articles printed in newspapers and journals and other citations.

These Research activities have taken and continue to take up a significant amount of time. It is, we believe however, critical that we be as best prepared as possible.
Making Contact / Correspondence

A separate sub-group of the Benchmarking Team has been responsible for this part of the exercise. Before any contact was made with other Companies, however, they first set about developing a Questionnaire which would detail the areas of interest to us so that our Benchmarking partners could be well prepared. Our Team found that this also requires a good deal of attention. It is easy for the Questionnaire to be too general and it takes a lot of work to develop a logical and specific set of questions. Having developed our Questionnaire this group set about corresponding with a shortlist of potential Benchmarking partners. This list was selected by the Team from their initially lengthy list following the results of our early research.

From responses to our correspondence, both by letter and over several telephone conversations, the Team nominated a group of Australian and international companies with whom we wanted to establish a Benchmarking partnership. We are still very much in the process of forging these links and as I said at the outset it is still early days for us in what is a long term commitment. The list of Benchmarking partners was also very difficult to decide upon and has taken a good deal of soul searching. Some of the companies are clearly "best-in-class" and have invested literally millions of dollars over many years in becoming what they are today. The other companies, principally the local ones, are more similar to our own organisation. They are trying genuinely to implement International Best Practice and in so doing can easily relate to the problems we face. Some of the companies are in similar business to our own but most are entirely different. The different locations, size and culture of these companies, together with the varying amount of information about them which can be accessed also begs the question of how we should gather the data we need? In other words should we arrange to visit them or not? We realise that in some cases the information can be gathered from research, or alternatively, one can try to obtain it from written questionnaires or telephone interviews. It is our view, however, that by far the best means of data collection is a direct site visit and we decided that this would be our preferred method. This decision to conduct visits opened up two more preparatory roles for the Benchmarking Team.

Logistics / Company Image

Clearly someone has to organise the trip and all that goes with it such as travel, accommodation etc. Also, thought must be given to how our Company presents itself. What presentations should we make to our partners? What equipment does the Site visit team need on its trip? Who should be in the Site visit team?

These issues are best left with the people responsible for the success of the Benchmarking Study, i.e. the Team itself, except of course where they will need guidance and assistance in areas such as travel arrangements, buying equipment, having presentations made up etc.
Site Visit Strategy

The Benchmarking Team had already developed a detailed Questionnaire. But they also needed a strategy. How would they arrange the visits, i.e., in what order? What roles would each of the visit team members play? They were very conscious of the need to be well prepared. At least one of the trips would require taking a team to the United States. Such visits are very expensive. It would be more than a little unfortunate if the most important conclusion of the study was "We now think we know what questions to ask when we go back next time." The Team made a few important strategic decisions:

- They decided to conduct a couple of visits and then stop and review the situation. They asked themselves - Are we getting the information we seek? Should the Questionnaire be changed? How is the Team performing? Do all the Team members understand their roles? Are the Benchmarking subjects as valid and interesting now as they were when we started? Should we add other subjects based on the things we have found out so far?

- The first two visits conducted were those closest to home. In some ways they were our trial runs. Some of the team members were a little uncomfortable in their respective roles. This is neither surprising nor devastating. Remember, some of the team members have spent many years on the shop floor but have never done this sort of thing at all before.

The Team also assigned differing responsibilities to each Site visit team member. It is important that each person is and is seen to be a contributor to the information gathering process. Therefore each person was assigned an area of responsibility. This allocation of responsibility was also useful when it was time to write up and present reports of the findings.

As if these functions aren't onerous enough the Benchmarking Team is also responsible for completing the study. In so doing they must

- Determine the Gap in performance between our Company and our Benchmarking partners

- Communicate their findings thoroughly and logically to all our employees

- Assist in establishing Functional objectives and Action Plans at the Work Team level to meet and exceed the Benchmarks

- Monitor progress towards these objectives and ensure that Benchmarking is not a one-off exercise but a dynamic and continuous effort for improvement
As I indicated at the outset, our Company is still early on in the process yet we have already learned many lessons about Benchmarking as part of our effort to implement International Best Practice. Let me lastly turn to the specific questions I have been asked on many occasions in the past twelve months.

THE PITFALLS OF "INDUSTRIAL TOURISM"

Through my description of our experience to date it ought to be obvious that we believe the key to "avoiding the pitfalls of industrial tourism" is thorough preparation, planning and research. But let me take each issue briefly in turn.

"Evaluating Your Partner's Business Culture"

How do you evaluate someone else's business culture? It is obviously important to try to make an assessment of this in order to achieve some sort of "fit" between our Company and our Benchmarking partners. It is also difficult to do before you actually visit and talk to the people in these other companies, which poses a problem when some of the organisations which are potential Benchmarking partners are overseas.

At Anderson Rea we have relied much on our Research group in the Benchmarking Team. You'd be surprised how much information is publicly available nowadays, especially on electronic databases. As information technology grows and becomes more accessible then this will only improve further. As it stands we have been able to obtain a good deal of information about our potential international Benchmarking partners and this has greatly assisted us in making assessment of culture. The other activity which helps in this regard is correspondence between our companies. As I have indicated, the more preparation that can be done prior to Site visits the better. This exchange of information itself also assists in evaluating a company's culture.

"Identifying Their Key Performance Areas for Measurement"

In seeking areas of measurement it is not so much a question of looking for your partner's key performance areas but rather a matter of really understanding your own processes and being able to measure them. Our Benchmarking Team has worked diligently with our own Work Teams to document our processes and to show clear links between them and our Key Performance Indicators. Whilst the measurement systems of our Benchmarking partners are invariably different from ours we have found that in most cases we can break down the work processes sufficiently to get comparable data. Again this is an issue very much related to thorough and detailed preparation.
"Development a Site-Visit Strategy and Questionnaire"

I have already dealt with this issue in describing the functions of our Benchmarking Team. The critical factor here is also detail and planning. How we go about establishing Benchmarking relationships with other companies has been a particularly important issue at Anderson Rea. We are not a large company. The prospect of dealing with the world’s best companies, all of them much larger than ours, can be a bit daunting. Also, because we are a relatively small company, we do not employ specialists in the field of Benchmarking. Our entire Benchmarking Team is made up of people who have not done this sort of thing before. Defining their roles within the Team and designing a strategy for site visits, including the preparation of a detailed and specific Questionnaire are all critical to the success of the Study.

"Formulating Information Gathering Objectives"

The question of formulating information gathering objectives is obviously also one of proper planning and knowing clearly what questions to ask. Our Team has spent a considerable amount of time first deciding what we should benchmark, and then working through a detailed analysis of our own processes including specific measures of their performances. In this process they have become very familiar with our own practices and this has put them in a good position to seek better methods, practices and policies from our Benchmarking partners.
INTEGRATING BENCHMARKING WITH BEST PRACTICE

In concluding I would like to emphasise a couple of points I have already made here today. We are enthusiastic about Benchmarking and very much look forward to gaining significant benefits from the process. We also are seeking substantial productivity improvement from the formation of Cellular Work Teams, from pushing our Strategic Planning process throughout the organisation, from Total Quality management, from refining our Performance Measurement System and from all the other elements and activities we are undertaking.

Benchmarking is undoubtedly an important facet of continuous improvement and, in Australia, at least, a relatively new one. Its successful application, however, will depend as all things do, on the way it is done. If organisations attempt to use only the metric comparisons as a "stick" with which to "beat" their employees, or as a method to "pull the wool" over their shop floor people then I am sure they will fail accordingly.

However, if Benchmarking is approached as a part of an integrated approach to improving the productive performance of your company through educating and involving genuinely all employees then and only then do you have some chance of truly becoming a Best Practice company.
TOTAL QUALITY MANAGEMENT

Total Quality Management is a key element of our Best Practice Program and I commend the outstanding work of the Australian Quality Council.

If Australian industry and commerce are to be internationally competitive we must fully embrace Best Practice and Total Quality Management. How can companies such as Anderson Rea compete against manufacturers in Germany, Japan and the USA if our practices and quality are not of international standard.

It is a priority that Australian industry must commit the necessary time and funds too if we are going to become a leading manufacturing country.

JOB DESIGN

Anderson Rea are currently carrying out Job Design to compliment changing Work Organisation and build into Job Models the appropriate decision making, planning, technical and interpersonal skills for all parts of the organisation.

The Job Design project is being undertaken on a participative basis - utilising the knowledge and experience of a cross section of employees. Such an approach will ensure both the relevance of the Job Models themselves to the Company and the understanding of employees as to what is proposed.

TRAINING

Training is one of the key elements in transforming your employees into a highly skilled workforce. Training must meet the needs of industry and companies must have an input into the courses their employees undertake ensuring they benefit the Company and the employee receives accreditation to progress up their skill path.

DISSEMINATION

Dissemination is a key element of the Best Practice Program and companies that participate agree to Disseminate their experiences to other companies across Australia. Anderson Rea have been very active in the Dissemination of Best Practice methodology and have hosted companies on a weekly basis over the past eighteen (18) months as well as speaking at seminars, education institutions and at manufacturing and mining plants in all states of Australia.
CONCLUSION

Last year I attended an Ecology of Work Conference in Cincinnati USA. This conference was attended by over 900 representatives of leading USA companies. I attended over ten (10) workshops conducted by these Best Practice Companies and was pleased to learn that the programmes they had completed with great success were identical to the programme we at Anderson Rea have been working at for the past two (2) years.

I commend the organisers of the 5th National Workshop on Vocational Teacher Education for putting together such a comprehensive Workshop and I would like to thank them for allowing me to share some of my experiences with you.
National Training - Reforming or Regressing?

Address to the 5th National Workshop on Vocational Teacher Education

Launceston - 25 to 27 September 1995

Prepared and presented by

Andre Lewis
General Manager - Standards
Standards & Curriculum Council of ANTA
Why did we embark on Training Reform?

Changes in Australia that were initially called the National Training Reform Agenda were primarily driven by economic pressures, which came from being a small internationally exposed economy that was having problems maintaining living standards and employment in an increasingly globalised economy. This was complicated by the reduction in tariffs that was occurring in Australia to increase exposure to international competition, and the pressures this created on some traditionally highly protected industries. That is a very simple way of highlighting a few broad priorities and a very complex set of factors that drove reform forward.

A range of workplace and labour market changes contributed to pressures, including:

- restructuring of industry,
- multi-skilling of the workforce,
- introduction of team based approaches to work,
- greater emphasis on quality and process based approaches to work, coupled with continuing pressures to reduce costs,
- blurring of organisational structures resulting in more autonomy and responsibility for employees more traditionally seen as low on the hierarchy and 'low skill' positions,
- greater demand for higher skills, particularly by ‘leading edge’ companies where technology and innovation have become critical to their success,
- obsolescence of skills held by the existing workforce,
- breaking down of demarcations between occupationally defined types of work and who carries them out, particularly in the trades, but increasingly in technical, para-professional and professional work,
- growth in jobs that demand middle level skills (technical and para-professional mainly) and reduction in jobs requiring basic skills (traditional unskilled and semiskilled work), where the majority of the Australian workforce is currently employed,
- a blurring of the boundaries of traditional occupations and a decline in the relevance of occupation as a basis for describing work or training, and
- the emergence of skills shortfalls in technical, professional and trades areas in the midst of considerable unemployment, potentially restricting the capacity for economic growth.

In addition there were other social concerns, primarily about:

- reintegrating the unemployed into the workforce,
- preparing the young, particularly school leavers, better for the world of work,
- breaking down gender based assumptions about work,
- equity and access for the less skilled members of the workforce - disproportionately migrants from non-English speaking backgrounds, and
- portability of skills and employability for workers displaced by structural changes in the economy, particularly between States with different recognition and regulatory approaches.

Without doubt the range of objectives intended to be addressed by reforming national training approaches and strategies was ambitious - but is embarked upon with considerable support.
from key industry parties and all governments. It is only because the original aims were widely held as desirable outcomes that were worth undertaking major change for that we have come as far as we have to date.

Broadly Commonwealth (Federal), State and Territory Ministers responsible for vocational education and training agreed, over several years, to:

- introduce a competency-based training system,
- establish the National Training Board to assist industry to develop competency standards and then endorse them, and
- implement a new method of recognising migrant skills, through the establishment of the National Office of Overseas Skills Recognition
- establish a new national framework for accreditation/recognition, and
- improve arrangements for curriculum development, and
- establish a Unified Entry Level Training System.

This indicated a number of significant shifts in Australian approaches to training. These included:

- agreement among Governments to a national approach to vocational education and training, that addressed national needs and priorities, and involved co-operation between the Commonwealth, State and Territory Governments,
- movement of the vocational education and training system from a time-served, academic qualification driven system to one based on recognition of competency regardless of where attained, length of time taken to develop, or where the person was born,
- enhancement of the role of industry in driving the vocational education and training system,
- recognition of linkages to the then reform of workplace pay and classification systems (called award restructuring in Australia), and
- incorporation of training reform as part of the broader micro-economic reform agenda, providing links to developments such as mutual recognition of regulated occupations and professions between States and Territories.

Where are we now?

Many bodies were either created or restructured after the Ministerial decision to embark upon training reform was taken - among these have been the NTB, ANTA and a number of State and Territory Training authorities. The Department of Employment, Education and Training (DEET) also commenced major funding increases for industry-based programs such as traineeships and devised strategies for ensuring industry-based initiatives gained precedence in the publicly funded arena. Inter-government agreements were initiated such as the National Framework for the Recognition of Training (NFROT). Training advisory bodies were increasingly supported and enterprises actively encouraged to become involved in national skills development and recognition. Some other strategies were well intentioned but not spectacularly effective - the Training Guarantee is seen by some to be in this category, although it certainly put training firmly on the corporate agenda.

The Australian National Training Authority (ANTA) was formed 18 months ago. The Authority is essentially the strategic and funding arm for the vocational education and training.
sector, and is controlled by a Council of Ministers from all Governments. It also funds a national system of industry training advisory bodies. The recently established Standards and Curriculum Council within the ANTA framework operates at the interface between all the main clients of the system. There will be an inevitable difficulty in satisfying them all. This is particularly so in an environment of wider micro-economic change, that includes debates between Federal and State levels over who should do and control what in the system.

As a primary funding body the family of ANTA operations is required to deal with myriad inputs from training delivery organisations, industry representative bodies and enterprises seeking to access national recognition for training and assessment that they undertake or that occurs on their behalf. Clearly the public ‘cake’ of funds is less than the sum total of demands upon it and policy decisions on priority areas and scheduling of work are required which make the operational outcomes as fair and effective as possible.

ANTA relies heavily upon advice from industry on its training needs that is encompassed in the VET plans provided yearly by the Industry Training Advisory Bodies (ITABs). As a rolling update of present and future needs for training delineated by industry sector this advice is unique in its inclusiveness and currency. Based upon the advice provided a wide range of projects for standards, curriculum and assessment strategy development are funded and parallel work on delivery mechanism initiatives which will support the industry needs are progressed. The new Council translates initiatives to products in the form of nationally endorsed competency standards, national curriculum and assessment which links the two together to allow skills recognition through national qualifications where appropriate.

Why have a Standards & Curriculum Council?

Given its wide range of functions in the national vocational education and training system the Council is essentially an operational and quality assurance body endeavouring to integrate some of the formerly disparate parts of government support and regulation that impact on training for industry. Two key bodies brought together within the Council were ACTRAC and the NTB.

The Australian Committee for Training and Curriculum (ACTRAC) funded development of curriculum across the full gamut of vocational and related areas. Originally concentrating on TAFE delivery needs it broadened to fund development of training frameworks for all structured vocational education and training and marketed its products through ACTRAC products Limited, or APL as it is currently known.

The NTB worked closely with industry parties to set and meet specific targets for coverage of the workforce by competency standards. Currently around 85% of the workforce has a Competency Standards Body developing standards for it. 69% of the workforce is covered by endorsed competency standards, with the aim being 80% by mid 1996, and 90% by the end of 1996. 90% is regarded as full coverage.

By integrating the funding and monitoring of standards and curriculum, while also overseeing the operation of accreditation processes for national recognition, the Council performs a vital function at the genesis of vocational skills development activity.
How close are standards and curriculum becoming?

What has been introduced in Australia is a Competency Based Training (CBT) system based on explicit, industry-defined competency standards. It is useful to view CBT as being in essence extremely simple, involving

- being clear about what people need to be able to do,
- basing vocational education and training, at the least, on those identified outcomes, and
- certifying that people can actually do what was specified as the outcome

The system is designed to enable people to acquire and demonstrate the skills and knowledge that enterprises and their industries actually need in the workplace. This requires a process to enable industry to define its workplace requirements. This is done through competency standards, which are statements of outcomes indicating the knowledge and skill, and application of that knowledge and skill, to the standard of performance required in the workplace. Curriculum supports achievement through training of these defined outcomes in a wide range of environments and in whatever modes of delivery are possible and suitable. Assessment occurs within structured training and in industry contexts but, as an aim, with parallel results in terms of skill recognition.

Establishing a shared view of the difference between competency standards and curriculum has been a long running source of angst for the National Training Board (NTB) and will probably continue to be so for the new Standards and Curriculum Council (SCC). Drawing a distinction between work-outcome based standards that have one format and structure and curriculum and learning approaches that have another has also confused some education and training practitioners. This has been further complicated by difficulties in reconciling workplace based approaches to both training delivery and assessment of competency with more traditional institutional based approaches, and getting relevant parties to accept each others' judgements.

Clearly standards should inform and underpin curriculum but not unnecessarily constrain it. The responsibility for ensuring that this is indeed the case rests with the standards developers and the curriculum designers. This nexus between industry and training system partners is not always working well. The reasons go to:

- the quality of the standards,
- the understanding by curriculum designers of both the nature of standards and the make-up of the relevant industry and the training provided to it, and
- the quality assurance processes which cover endorsement of standards, assessment and accreditation of courses

The very first standards developed by industry often have problems. Common flaws relate to:

- focusing on process rather than outcomes, often influenced by traditional approaches to curriculum ingrained in the key group or consultant steering the development
- standards too broad to the point that essential specifics of workplace performance are lost - often this has to do with trying to accommodate a multiplicity of possible enterprise practices
• descriptors overly tied to procedural norms rather than a genuine description of the full range and integration of skills and knowledge the worker brings to bear on a day-today basis
• work delineated by narrow sector definitions or particular processes rather than having industry wide applicability

If these are problems in the initial drafting of the standards then many of the uses of standards to provide quality training and assessment cannot be delivered. Performance criteria that do not spell out the necessary workplace outcomes and have evaluative statements linked holistically to the whole unit and complementary units can waste effort in training delivery and make assessment more of an observations checklist than a true indicator of competency.

Lack of specificity in the standards, particularly in Ranges of Variables statements and Evidence Guides, leaves the trainer and assessor without proper guidelines and consequent judgements about intent and emphasis lead to variability in courses and programs which adversely affects portability and the reliability of qualifications.

Emphasis on procedures locks the standards into the here and now such that work organisation is not easily changed because skill application is based upon a set routine and reliance upon industry 'givens' rather than a flexible and adaptable workforce.

Standards tied to narrow occupational or industry sector models leads to difficulty in skills transfer, restricted career paths and a very limited capacity for industry to easily take advantage of emerging technology or demand for different products and services.

The restructuring workplaces of Australia are moving towards a shared view of what competent workers will constitute the flexible workforce required.

This leads into another issue, which is whether standards developed are just a minimum 'lowest common denominator', or are at the 'leading edge' and can lead to a 'high performance work organisation'. Some companies are concerned to add their own 'competitive edge' to the standards and training based on it, as they see themselves as the industry leaders. It is sometimes said standards are always minimums or even inherently conservative, but it depends how they are set. There is a continuum of evaluative outcomes which can be utilised in describing what is required and choices can be made as to where any particular set of standards broadly falls.

Standards can thus be minimums, or set to an average, or leading edge. Usually only companies do leading edge standards. An example of an exception to this is the American Electronics industry in the US, which has explicitly couched its standards for high performance work organisations. This may have interesting consequences for delivery of training that meets all the industry needs though.

*How well are we delivering vocational education and training?*

There has been a significant shift from the traditional method of sharply distinguishing between, and separately delivering, theory and practical components of vocational learning. Most progressive vocational education and training practitioners have, of course, long ago moved to a sound integration of theory and practice but I suggest that a modern learning...
environment must go further than this. Opportunities should wherever feasible be presented to the learner which allows for a complete synthesis of the skills, knowledge and judgement required to achieve and demonstrate competency. This potential to develop and apply the full components of competency should not rely upon access to considerable training resources, but rather be dependent upon the trainers innovative application of learning techniques and ability to deal collaboratively with industry-based learning partners. Curriculum which does not support such approaches, quite apart from seeming to mitigate against them, is dysfunctional and missing the aim of a competency based skills development system.

Techniques such as team-based longer term projects, problem-solving case study work, well-coordinated work experience programs and multiple group activities with a common major outcome are all established teaching/learning approaches which lend themselves to developing competency to its fullest definition. The additional benefit to providing a richer learning environment is that attitudinal changes in learners to the vocation in question are more realistically developed. By better experiencing the full range of work requirements in a contextual manner the learner is more likely to understand the relationships, practices and individual responsibilities required. The validity of competency assessment often rests with the industry itself after the off-the-job training provider has taken the learner as far as is possible in a simulated work environment. This does, of course, have implications for the comparative value of qualifications gained in various ways - such as through full pre-vocational courses, AVTS programs or mainly or wholly in workplaces. Some degree of pragmatic acceptance of the limitations, advantages and realistic outcomes of each approach by employers, training institutions and the individual learners themselves is required to ensure the credibility of qualifications is maintained in all cases.

When standards are developed the individual units of competency are put together in groups (a process called packaging) that are meaningful to industry and the workplace. These units can be combined together in a variety of ways to enable flexibility in the choice of competencies needed by an enterprise to meet its requirements that also achieve the general industry wide competency requirements. These groups of units are then related to a set of 8 benchmark statements about delineating work that are the levels of the Australian Standards Framework. This framework provides a link between the competencies (as packages) and qualifications.

The combining of standards and curriculum oversight in the same national organisation, the SCC is one step toward ensuring that there is better integration of these two vital skill development tools. The additional function provided to the Council of technically advising the Australian Qualifications Board is also a key step in providing a direct linkage between vocational qualifications and the industry benchmarks which underpin them.

What are the implications for teachers and trainers?

In essence most professional teachers and trainers addressing vocational education and training are already involved in reform to some degree even if they are just beginning or are experienced practitioners. Irrespective of whether this involvement is in developing strategic partnerships with industry in delivery of programs or interacting with focus groups developing standards, reviewing curriculum, or through involvement in accreditation and other quality assurance processes the need to move outside of institutional boundaries is paramount.
Teacher education must include and reflect upon the full range of initiatives in place and being proposed, such as CBT, User Choice, implementation of the Key Competencies, workplace assessment or other aspects of the system. A major need in this regard is a full appreciation of the emerging Australian Vocational Training System (AVTS) as it will impact on nearly all vocational entry-level programs in a fully integrated relationship with schools and pre-vocational education and training providers.

The expectation on professional trainers and vocational educators is that they contribute in a major way to national economic and social development - no more, no less. This includes all aspects of personal development for the learner for societal betterment. It also, I suspect, presupposes a move away from any lingering 'class' distinctions between education and training sectors. We tend to use the term 'vocational education and training' inclusively now and this is a sound approach. There is no purpose served by continuing to look for fine definitions between 'vocational education' and 'training.' Much that's termed education includes aspects of training and no training - no matter how Tayloristically intended - can occur without broader educational changes taking place in the learner. Even if definitions can be arrived at they have no utility in a country endeavouring to raise the value of its human capital across the whole range of the population.

There are challenges also for higher education to at least be fully cognisant of the training system objectives and contribute to these rather than set boundaries around learners depending upon where they learn. Shifts in perceptions and attitudes are visible across all the sectors and there is hope that a willingness to interact toward a common goal rather than construct barriers will prevail.

\textit{Is quality assurance being achieved?}

Accreditation of courses and programs is one aspect of the reforming system struggling to achieve quality and national consistency. The additional factor of the need to fully integrate various modes of assessment into issue of qualifications to some extent exacerbates the pressure on the recognition authorities. The key seems to be the better education of the parties involved in accreditation decision-making and more salient and accessible information on the benchmarks for determining a course or program meets a given set or sub-set of standards. It is not uncommon that accreditation committees of otherwise well experienced industry and training representatives are not fully informed on the technical content and structure of the standards that the course before them purports to meet. If this is the case then decisions on the suitability of the course to deliver the competencies cannot be soundly based and the discussions that ensue often relate more to perceived requirements for training resources and credentials of training staff than the desired outcomes for the learner.

On a positive note the closer relationships being forged between industry and training parties in initial work on standards, curriculum and accreditation of courses and programs will overcome most concerns in the foreseeable future. Thus quality assurance is becoming a fully integrated aspect of development and decision-making rather than a number of isolated consultation and testing processes which do not evaluate the holistic nature of the activities involved.

\textit{Where to now?}
There are five key challenges that can be drawn from the experience to date

Setting System Parameters - The first issue in defining the boundaries of a standards-based CBT system was - what was it supposed to achieve? It noted at the beginning of this paper it intended to tackle

- reform of the workplace,
- reform of vocational education and training,
- improving school to work transition,
- increasing the level of access and equity for disadvantaged groups

For any system developed to achieve these aims the degree of structure and central control needs to be thought through. For example, our experience is that a single approach to establishing the categories of information to be collected and for presenting them (eg a format for the standards or measures of educational achievement) is essential if they are to be widely understood and used. Each group using their own format will lead to a Tower of Babel situation, where no-one can understand anyone else

Satisfying Stakeholders - It is relatively easy to get all the key parties at a national level to agree that the country needs to be more internationally competitive and have improving living standards. They may readily agree to the big picture of an industry-driven, competency-based VET system with flexible, user choice delivery mechanisms as part of lifting the overall skills of the workforce. However, once it gets down to details of how things will operate, and what will be the consequences, and who will be affected and have to change, then it can be much harder to find agreement.

At a peak level employers, unions and Governments do not necessarily support reform for the same reasons, and the different emphases in their approaches comes out as you get into the detail. As an example when standards are being dealt with at industry level and another set of issues, history and personalities on, say, apprenticeship, intervenes. The context of each industry can also effect the way they approach the detail. For example, the history of the relationships between the unions and employers in an industry, or an enterprise can have a major impact. So can the extent to which there was already an established training system through which many senior industry people gained their own careers.

Handling Diversity - Diversity in an Australian context is variability and handling the range of needs and possible outcomes. This point really flows on from the differing perceptions of stakeholders in a CBT system. The system needs to serve both local and enterprise level needs, and lead to broader national outcomes. What will best serve one will not necessarily lead to the best outcome for the other. Individual companies can be nervous about approaches that unions particularly support to make sure competencies (and perhaps qualifications) are transferable and portable. Some employers can be concerned about making it easier for labour to move between companies and industries. Government may be more ambivalent on this, regarding it as desirable in some circumstances and not in others. Purpose of the system is also quite important in this, as it will influence the extent to which outcomes are sought that are exclusively vocational or include an element of more general education.

A national training system needs to allow for flexibility and variability, while ensuring overall agreed outcomes are achieved. A particular point of tension in Australia has been between the
enterprise specific approach to standards, training and recognition and the broad national
genric approach One response to this has been to allow industry, enterprise and cross-
industry approaches to standards and curriculum to develop, while insisting on relationships
between them being mapped for portability and transferability purposes

Another recent response to both increase ownership of vocational education and training and
allow for greater variability is to push greater responsibility for the operation of the system
back to industry An example is enabling industries with an established track record to endorse
their own standards and accredit courses within an overall quality assurance framework

Achieving Best Practice - A major issue for any national system is that it does not exist in a
vacuum Improvements relative to the particular countries past are good, but if they do not
match or exceed improvements occurring in competitors systems then they are unlikely to lead
to improved outcomes for international competitiveness or living standards This is where it is
important not to be blinded by the beauty of one’s own system and achievements The real
question is how it compares to international best practice

When applied at the level of an industry this can be particularly difficult A major and radical
change for a traditionally protected industry may still not bring it to a level that is
internationally competitive, let alone best practice Groups can only be pushed so far to
change, so a pragmatic approach to targets is necessary

Achieving Outcomes from standards- Finally, it is perhaps stating the obvious to say that
standards must actually be used if outcomes are to be achieved and there is to be an impact on
both company and national bottom lines What this means in practice is perhaps not so
obvious Certainly standards need to be used as the basis for training, which is actually delivered,
outcomes assessed validly and reliably, and certification/qualifications given for achievement
That is one form of implementation

Another is actually achieving economic outcomes The production of more and better skilled
people will be of little benefit if they are not able to use their skills in forms of work
organisation that maximise productive outcomes Skills need to be used to get results This
kind of implementation occurs primarily in companies, so they need to be reached as well and
encouraged to move towards best practice in using workforce skills

In the final analysis many training reform initiatives at a national level are still experimental
They seem to promise progress in dealing with problems that have been difficult for many
countries to address They certainly work at company level and results are starting to show at
industry level Outcomes at national level will be a longer time coming There are costs in
time, effort and money involved in getting them operating There seems to be evidence that
these initial costs can be considerably reduced once the system is in place We need to
persevere with directions already embarked upon if we are not to lose the impetus to develop
a better national training effort, and refine the processes cooperatively as we go forward

Business or bureaucracy?

An industry-driven training system frightens some people There are images of fast-track,
minimalist approaches to learning to satisfy short-term needs Certainly some industry past
records of valuing workers and contributing to their career and other aspirations are not good. Equally industry already spends more than the publicly-funded training system in skills development so there is obviously some commitment.

It is best therefore to look at industry-driven as meaning 'more involved' rather than 'totally controlled by'. Undoubtedly industry was a passive recipient of publicly funded and developed training in the past. Little interaction was encouraged or undertaken to ensure that what trainers and educators delivered was what industry could use - the ultimate loser was often the learner themselves left with completed qualifications that did not readily translate into employment or career advancement. Moreover the delivery of training was frequently too long, too expensive to provide and poorly structured and assessed. This is not to denigrate the professional in the field but rather question the systems, both national and institutional under which they laboured, and the quality of the tools and resources they could access.

Having said that industry should be a more inclusive and important partner in education and training is not to say they are the only voice to be heard. Structures must be in place that ensure quality, access and equity, fairness in assessment and so on. This is rightly the domain of government in concert with professional practitioners. But whenever accreditation, recognition, endorsement and other processes are put in place there is often a charge of 'bureaucracy' levelled at the bodies carrying out the functions. In a number of instances this is a valid charge as systems do tend to gain a life of their own after a while and build in unnecessary or overly prescriptive aspects of their operation. One of the functions of clients of the training system is therefore to monitor and evaluate processes designed to service them and provide feedback on blockages and inconsistencies. The responsibility of the authorities is to respond meaningfully and quickly to such feedback.

Learning or training?

Many major companies have identified a goal of becoming a ‘learning organisation’. This is consistent with the national aim to encourage life-long learning among the population for economic, social and personal reasons. In talking to some of these enterprises about the strategies they are following to achieve this aim it is clear they are actually proposing or supporting a training organisation. This is patently not the same thing.

Trainers and educators can help business to create genuine learning cultures within their organisation where the desire to learn and progress is both valued and nurtured. Mentoring, flexible and integrated on and off-the-job opportunities to gain skills and knowledge, growth rather than testing focused assessment and other techniques are the tools of the successful learning manager. Perhaps this is a better term than trainer anyway as it more aptly describes the challenge for professionals in the future.
PLENARY PAPER

A SNAPSHOT OF THE IMPLEMENTATION OF THE NTRA

Andrew Koo
Chair, Tasmanian State Training Authority

As this is the beginning of day 2 of your conference it may be helpful to re-examine the background of the NTRA, to revisit the objectives of the reform. I apologise to those of you who are thoroughly familiar with this but I believe that it may help to focus our minds while we debate issues over the next 2 days.

In the Federal Government’s efforts to produce micro-economic reform it became necessary to improve the skills of the Australian workforce. So one of the national agenda items has been to institute training reforms in an attempt to help industry become more competitive internationally.

This national training reform agenda (NTRA) has impacted fundamentally on all industries in the country. Equally impacted are the training providers, education and development, designers of national curriculum and those who wish to be employed by industry.

The other major elements of the economic reform and the search for structural efficiency in Australia include:
- Deregulation of the finance section
- Tax reform
- Foreign investment reform
- Wages policy reform
- Education and training reform
- Workplace reform

The last 2 elements are commonly known as the Structural Efficiency Principles (SEP). These agenda items encompass the formation of competency standards and competency-based training (CBT). Competency-based training represents one element in Australia’s strategy to improve national productivity and competitiveness against international players.

The basic principle is that education and training of young people should increasingly concentrate on producing outcomes expressed as the attainment and demonstration of competence in key areas. This in turn will provide multiple pathways for young people into industry, removing time serving apprenticeships, reduce the burden of basic training and education on industry, and increase the performance of staff thereby improving industry performances. (This should challenge the traditional university view of academic excellence).

As the identification of competencies occur within industries and national curriculum becomes focused on competency standards, the vocational employment, education and training systems can be extended. In particular the national training reform agenda would be targeted in school based curriculum, adult education and community education.

The question I pose is where does the university sector like to be positioned? Does it see itself as part of this reform process or exclusive of it?

Any personal belief is that articulation should begin with schools leading to multiple pathways with options say, leading through the vocational sector and ending up through the university system.
As an example, in this State cross sector work between schools and the VET system has commenced. A schools/VET coordinating committee has been established to examine and report on a number of issues relating to AVTS.

The terms of reference include:

- To provide advice and report to agencies (DEA, DIRVET, TASSAB, TASTA etc) in relation to AVTS implementation.
- To seek advice from, and facilitate between, state government agencies and external stakeholders (include Commonwealth agencies, TCCI, TTLC, ITABs and other peak bodies).
- To monitor and facilitate the resolution of school/VET cross sector issues in AVTS implementation including fees and levies, resourcing and provider agreements in relation to joint program provision.

Marketing and information
cross sector professional development
career education to support AVTS
-curriculum development
education sector relationship to ITABs
cross sectoral statistical data
-accreditation and recognition
access of DEA colleges to VET funding as private providers
-management and coordination of work placement supply and demand
-qualifications/certification
-and any related issues.

I look forward to initiatives to include the University of Tasmania as part of this cross sector activity.

Coming back to the NTRA. Many issues are highlighted. Today I would like to address just one issue, the question of how this reform process impacts on non-metropolitan areas or regional Australia.

Based on the experience in this State as well as similar experiences elsewhere we could be debating this issue of ‘regionalism’ into the future and probably would not find definitive answers. So my purpose is not to attempt to provide definitive answers but to raise some issues with you. Hopefully, I can convince you that the key to training reform is ‘flexibility’.

Flexibility in structure, content and delivery of vocational education and training and above all flexibility in meeting the needs of industry, ie the market, be it in local, regional or an international context.

And, to be successful we must be flexible as well as adaptable and dynamic.

To some of you non-Tasmanians and especially the cynics amongst you, flexibility, adaptability and dynamism and Tasmania cannot be synonymous.

Let me assure you that that is the case.
The first state to have a Casino.

We are the first state to introduce daylight savings.
The highest per capita export state.

The state that launched the green movement.
The state that continues to save Australia at cricket through David Boon.

It was us that founded Victoria and now we are leading the debate on the Republic.
On a more serious note, however, I should state categorically that the Government of this State, the Minister, the Tasmanian State Training Authority and the Dept of Industrial Relations, Vocational Education and Training, all support the aims, objectives and implementation of recent training reforms.

The VET sector reform as agreed by all State and Federal Ministers is defined as providing a broad range of articulated pathways combining education, training and experience in workplaces. It is based on nationally endorsed industry and enterprise competency standards.

In recent years, Bill Kelty chaired a task-force on regional development which produced a report titled *Developing Australia*. This report is significant as it draws a picture of regional Australia, of its potential and characteristics. *Developing Australia* did not define regional Australia as a mere set of words, but mapped regions by commonality of activity. Some of the regions in *Developing Australia* occurred within the large capital cities, while the report draws attention to local identifiable areas within Australia as a whole.

For today’s purposes, I am referring to non-metropolitan regions of Australia such as the Northern Riverina area of New South Wales and the Central Highlands of Victoria. Although much of what I am about to say has application in many local situations.

*Developing Australia* also described and mapped Tasmania as a region.

I would suggest to you that Tasmania, reflects the characteristics of the regional market place in which vocational education and training has to operate. As the VET objective is fundamentally about developing a national work based training system, the market place for the delivery focuses heavily on workplaces and therefore on employers.

In 1993 the ABS published the employer statistics for Australia. These are interesting because of the 20,000 businesses in Tasmania, 19,400 were classed as small business, i.e. 97 percent of these, some 18,300 or 91.5 percent employed less than 10 persons, and as a whole, these small businesses employed around 55 percent of all private sector employees in Tasmania.

Approximately half the employers were found to be in the agriculture and retail sector. This fact alone should be beginning to ring bells for those of you with sizeable rural communities or service industries, as this might indicate a narrow range of opportunity for workplace training. The report *Developing Australia* identified the fact that regions usually have niche markets. One of Tasmania’s is tourism, and I welcome you all here for your contribution to our economic well-being.

Closer analysis of Vocational Education Training reveals one comprehensive framework, i.e. proper articulated pathways, with the emphasis on life-long learning and bringing general and vocational education closer together.

On the other hand nationally endorsed competency standards are recognised as workplace training standards. National accreditation and registration is in place under the Australian Qualifications Framework and there is now portability between all states.

So, what is the result of combining the NTRA and the Tasmanian regional employer profile? Implementation of a national training strategy with a requirement to meet workplace training competencies at a local level is to be achieved with a *limited* employer base, predominantly comprising small businesses with *very limited* training infra-structure to support workplace...
assessment. Add to that, Tasmania’s dispersed population spread over a diverse geographical area. What is the result? Ladies and gentlemen, I give you the NTRA in a regional setting.

As you can imagine there is a multitude of issues that arise from this very basic picture, this morning I wish to focus on only two:

- pathways and
- NTRA versus local requirements

1. **Pathways** - Let’s look specifically at the AVTS. Implementation of the AVTS will deliver national industry career pathways through industry taking the lead.

Many courses have six weeks of unpaid structured work place training. I referred to the significant number of small businesses in the State, however, finding work placements, both paid and unpaid is a difficult task. This task is made even more difficult because of the geographic distribution of those employers and their business focus. Not every location is capable of, or willing to, provide a work placement, either paid or unpaid. Therefore actual placements may be substantially lower than the number of potential trainees.

Add to this, the fact that the number of potential work placements have to cater for apprenticeships, traineeships and vocational placements, plus labour market programmes, and the question becomes one of priority.

The capacity of Tasmanian industry, to create the number of required new placements, must be questioned. Regional Australia may require some novel solutions to meet this challenge. In any case we should be aware of the potential volatility of the labour market cum training relationship in regional Australia.

2. **National training reforms and local requirements** - Given our definition, implementation of the NTRA should deliver national industry career pathways via national endorsed competency standards. However, are nationally developed training frameworks applicable at the regional level? The industrial organisations which participate in the debate on training are those of large firms. It is therefore not surprising that development, reflects their needs rather than the small businesses in decentralised locations.

National industry training advisory bodies and VET educators in developing frameworks, must ensure that frameworks are flexible enough to be delivered at the local level, at the level of the local industries. If the framework is introduced as a top down impost it will not meet the needs of industry in this State. We need the freedom for local industry to direct the customisation of these frameworks. If Australian industry is to take the lead for implementing the AVTS, it is important that we involve these local enterprises in training reform.

One way out of this straight jacket, we will be told is flexible delivery. While it is true that flexible delivery in all its formats has cost savings, there are up front costs in development. If the unit cost is not sufficient to make an intake of trainees cost effective, it is highly unlikely that any amount of flexible delivery will result in quality training being undertaken at unit cost lower than at present.

So we ask, can the NTRA work in the regional Australia? The answer in our experience is a qualified yes. A qualified yes, in that, in the development of national initiatives, more attention must be given to implementation needs at the local level. For those regions with a limited employment base we need initiatives that will allow those Australians with limited access to work places, an entry point to the VET system.

This will require a change in focus from designing Rolls Royce models of training, designed to meet the needs of large employers, to simple, cost efficient and effective training structures that cater for small business and those without access to work places. That is, flexible structures and flexible thinking.
I would suggest that regional Australia has much to offer in implementing this national initiative. These smaller cohesive but dispersed regions of Australia have a capacity to contribute to the AVTS in an informed and innovative way.

In this room today we have some of the most learned, prominent and influential people in this country that can contribute to this debate. Please when you go back to Sydney, Melbourne, Brisbane and other larger cities think of us poor souls in regional Australia. Indeed you must speak out. The challenge again, is how does the university sector approach this question.

Of course the AVTS is only one issue, you will address at this workshop. Other important issues under the NTRA will deserve your close attention.

Thank you. I hope the conference so far has been fulfilling and stimulating for you, and may it continue to be so and that you have a safe return journey at the conclusion of your stay with us.

Thank you.
KEYNOTE ADDRESS

A SPANNER IN THE WORKS: WORKERS CULTURES AND LEARNING

Peter O'Connor
Workplace Learning Futures, NSW

INTRODUCTION
This paper is presented with the full knowledge that the National Training Reform Agenda commands a popular support from many quarters, and as such has many powerful allies and defenders. In some regards, I also am one of those defenders, although you may not think so after this presentation.

I am also acutely aware of the enthusiasm which some of the more zealous champions of the reform package bring to this and other arenas of contest. I am aware of the almost religious fervour which attaches to some of the sacred cows in this paddock, and the technobabble and false sciences conjured in support of the reform process. To raise any criticism or concerns in this context is to run the risk of being dismissed as a heretic, fool or unpatriotic ideologue, or a combination of all three. I will run that gauntlet here today.

Writers such as Manne (1992) have commented eloquently on the hysterical populism and defences which surround this area. He argues that the ideology of the NTRA becomes 'unfalsifiable', and those who express doubts are made to feel 'either foolish, arrogant or both' (50 -52).

Bill Mansfield (1993) of the ACTU leaves no room for doubt on this score, in a statement defending the union position on training reform, when he says:

*critics are ivory tower academics who have their own positions of privilege to protect or else are individuals who distinguish themselves through their stupidity rather than their intellect* (209)

As I am not now, nor have I ever been, a card carrying member of the academy, I guess that leaves me with my distinguished stupidity. So, please humour me for a short while.

Mansfield's comments do reflect the intolerance common in this area. It is the claim of virtue grounded in a good positivist tradition. Here is the side of the reform process which is based on scientific fact, backed up by good old fashion, clear, straightforward, unproblematic pragmatics. This is the statement of the 'doers', rather than the dilettantes or dreamers, this is hard core, roll your sleeves up and get on with the job. There are no difficult concepts or complexities in this approach to workplace education, just engineering and accounting issues to be resolved.

I would like to begin this presentation, and distinguishing myself through my stupidity, by posing a series of general questions on the National Training Reform Agenda, some more serious than others.

Am I the only person here who continues to be bewildered and confused by the rhetoric and stated intent of many of the reforms, and who feels that there are large chunks of this puzzle missing?
In terms of how the national training reforms are actually experienced by living, breathing, thinking people, can we all be so stupid (distinguished or otherwise) that we keep missing vital aspects? Is it too cynical to suggest that there is a chasm which spans different worlds between the official pronouncements and activity on the NTRA at the level of bureaucracy (public and private), the policy makers, breakers and brokers, and the perceptions on the shop floor? Has the NTRA craft actually landed in many places, or is it still in a holding pattern?

Reference is occasionally made to the education and training debate. I am aware of many descriptions, discussions and marketing exercises, volumes of commissioned reports, but the 'debate' seems to have escaped me. Where is this happening?

Why is a package of training reforms, which insists that it is premised on 'cleverness', set its goals and sights on mediocrity, on developing skills and standards which uniformly locate people as 'ordinary' or minimally competent?

If there is wholesale commitment even to this ideal of mediocrity in skills development, why has there not been a flood of private sector award variations (by consent) to provide sufficient provisions for paid education leave?

Shouldn't we all be just a little suspicious of any discussion which is consistently and conspicuously silent on matters of sex, politics and religion?

How is it that in the name of greater co-ordination and streamlining of vocational education and training, we have witnessed the spawning of a 'dogs breakfast' of organisations, organisational systems and structures, committees, statutory authorities, and heightened tribal rivalries?

What impact has the NTRA had on small business, geographically and politically isolated enterprises?

The questions could go on indefinitely. Indeed, the NTRA is still at a juncture where it generates more questions than it resolves. However, the 'Spanner in the Works', referred to in the title is not so much to do with critiquing or nit-picking on systems detail, or the size or authority of the various education and training bureaucracies. Nor is it my concern here with contrasting pedagogic strengths or weaknesses, but rather with what I consider to be a more fundamental enquire going to the conceptualisation of the role of learning in the scheme of things.

These concerns can be summarised in a number of related clusters:

- the omission of much of the reform effort to actually conceptualise and develop research and educational activity around the how, where and why of workers' learning
- the pre-occupation with formal structured training as the only viable and effective mode of learning, and
- the fascination with the false sciences of measurability, predictability and standardisation of individual skills development as the means to dynamic, innovative and creatively new learning processes

Thus, the 'spanner in the works' is an understanding and set of innovative responses to how workers actually learn, the relationship of this learning to job performance, and how workers' cultures, identities, and contexts shape, re-shape, and are shaped by meaning in the workplace. This spanner could interfere with some of the neat, simplistic, administrative approaches to training, but could prove an effective tool in examining the complexities of work and of workplace learning possibilities. This tool is pre-set to specifications which do not attempt to measure workers' skill deficits, or what workers can't do. It starts from the point of what
workers do know, what they can do, from their experiences and expertise, as the basis for developing collective and collaborative learning potential and outcomes.

THE LANGUAGE OF EDUCATION AND TRAINING REFORM

For the past decade in Australia there has been a rhetoric of panic and crisis around notions of workers' skills deficiencies, restrictive work practices, antiquated industrial relations, productivity levels, ratios of imports to exports and the balance of payments, competitiveness of Australian capitalism, and the failures of school and post-school education in this scenario. A constant corollary to the economic forecasts of doom and gloom have been the arguments for the need to more closely and explicitly orient education and training to the immediate demands of capitalist rationality and the values of an unregulated 'free' market. Thus, Australia has summarised many of its economic imperatives in the slogan of the need to become a 'clever' country. This slogan has been eclipsed by the US, which is aiming for a slightly higher plane, which instead emphasises 'surpassing ourselves' as the ideal.

The education and training reform chorus, the flagship or theme song of the 'clever' push, has almost unanimously been joined by a spectrum of politicians, business, trade unionists, and educationists. The focus, however, has not been on the failings of international capital, reckless lending by the banks, poor management practices, wisdom of investment choices, corporate fraud, and so on, but rather on individual workers' deficiencies and incompetence, and the failure of education systems to adequately arrest these deficiencies. The solution to many of the problems is micro-economic reform grounded in education and training policies. Thus, education and training occupies the unique position of being both the cause and solution to the 'problem'.

The past decade has also witnessed decentralisation of industrial relations, massive wage restraint, which has not been reciprocated in managerial or politicians' remuneration packages. One of the breaks with the hierarchical work structures of the past is a new 'duty of individuality' which requires workers to invest their personalities in their work, and to increasingly obliterate distinctions between work and other social domains. Many of the promises of the education and training reforms have simply not materialised. There have been changes in education and work, some of them indisputably for the better. There have been improvements in systems and relationships between work and the various education institutions.

There have also been some significant failings of these reforms, which are not as readily showcased or even reported. There have been many broken promises, false expectations, and increased inequities and hardships for many who remain disadvantaged in and by the education and labour markets. Perhaps one of the greatest sacrifices at the altar of education and training reform has been the limited expansions made in education and training pedagogies, and the circumscribing of notions of adult learning and the nature of work. This conservative limitation appears to run through much of the broader workplace reforms, where business, education and the bureaucracies are reluctant, while dreaming of a new future, to relinquish much from the past. The enthusiasm of reform is tempered by an equal desire to hold on to the past, and merely shop between aspects of the new proposals, resulting in an awkward dual set of processes.

Silences and Silencers

The rhetoric of vocational education and training reform in Australia is littered with silences and silencers, or silencing devices. The silences sustain the rhetoric and the idealised reform landscape, as well as avoiding or blocking contentious issues, while the silencers act defensively to shut out critical or opposing points of view. It is dotted with what some writers refer to as 'shock' words, which conjure both negative and positive connotations. Shock words are used strategically to value and silence or shut down particular voices or discourses.

We are all probably familiar with terms such as 'clever country', 'working smarter', 'one nation', 'international competitiveness', 'globalisation', 'skills development', 'participatory',

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'inclusive', 'flexibility', 'mobility', 'access and equity', 'integration', 'career-progression', 'multi-skilling', 'learner-centred', 'partnership', 'lifelong learning', 'empowerment', 'quality assurance', 'productivity improvements', 'competency-based', and so on. Some of the negative shock words include 'Taylorism', 'Fordism', 'low' or 'unskilled', 'incompetent', 'inefficient', etc. These are more than just buzz words, they are ideological designer words.

The 'motherhood' statements or descriptors of these discourses are thrown up as indisputable 'universals'. In the broader community we talk positively of 'freedom', 'choice', 'progress', or 'empowerment', as unproblematic, clear statements of virtue, common sense, and as a way of labelling and naming a discourse. Conversely, we hear the use of terms such as 'radical' or 'critical' (we used to use 'communist', 'socialist', 'activist'), as condemnations of wrong-headed mischief-making. 'Politicizing' becomes another effective negative shock word. These negative shock words serve as silencers to any criticism of the dominant ideology or discourse.

Unfortunately, these terms are all too readily hijacked and manipulated into very awkward and uncomfortable expressions, and as means of positioning opposing views. The hijack and appropriation of these terms is so widespread it is not difficult to locate examples of the ideological projects behind them.

Ronald Reagan and George Bush, for example, spoke of death squads in El Salvador, and the contras in Nicaragua as 'freedom fighters' and 'revolutionaries'. The destruction of whole villages in Vietnam by the U.S. was called a 'pacification operation'. The last invasion of Panama was named 'Operation Just Cause'.

Instrumental approaches to education have an important part to play in these projects. This approach fragments skills and bodies of knowledge, thus preventing the critical linkages between the 'facts' and 'truths', and deadening the senses. It emphasises the mechanical learning of reading skills while sacrificing the critical analysis of the social and political order that generates the need for reading in the first place' (Macedo, 1994, 17).

This reduction of priorities of education to the pragmatic requirements of capital, necessarily has to create education and training structures which not only deaden or tranquilize critical abilities, but also attempt to domesticate consciousness as an act of cultural domination. Learners or students are to be filled with predetermined bodies of knowledge, which are often disconnected from students social realities. Education and training become a vehicle for what Macedo (1994) refers to as 'stupidification'. The instrumental approach in fact produces semi-literate, or people who are 'competent', who may be able to read the word with some efficiency and technical mastery, but is unable to read the world.

Of course, this is not simply some pedagogical limitation or oversight of this approach to education, it is a core structural component. As an effective tool in cultural reproduction, the instrumental approach has, as part of its mission, to separate events from their historical contexts, to fragment the skills and knowledge from understandings which would enable the critical linkages. It produces a self-serving history that feeds a distorted and often false reality. Central to this cultural reproduction is language.

Fairclough (1992) argues that many of the contemporary social and cultural changes involve the ways in which power and social control are exercised, and explicitly target language as part of the changes.

There has been a long-term tendency for power relations to be increasingly set up and maintained in the routine workings of particular social practices (e.g. performing one's job, or consulting a doctor), rather than by force. This shift from more explicit to more implicit exercise of power means that the common-sense routines of language practices become important in sustaining and reproducing power relations (3).
He argues that in addition to the shift in the exercise of power, the changes involve transformations of language practices, and that these represent a focal point for some of the change project

/language itself is more and more becoming a target for change, with the achievement of change in language practices being perceived as a significant element in the imposition of change (3)/

Thus, during the Gulf War, for example, we were saturated with images and representations of technical wizardry which was applauded and celebrated as high-tech magic. Through this positioning and language, the representations dehumanised, sanitised or "cleansed" the tens of thousands of people who were the victims of the technical prowess, of the 82,000 tons of "delivered packages".

Human destruction and wholesale killing of children, men, women, elderly, unarmed, defenceless civilian citizens, during the Gulf War, was referred to as 'collateral damage'. Even the death of U.S. pilots, air crews, or other forces allied to 'Operation Desert Storm', by their own colleagues was reported as due to 'friendly fire'. It must have been comforting to the friends and family of each of those individuals to know that they died 'collaterally' or in a 'friendly' manner.

Similarly, some of the filthiest, most vile acts of contemporary genocide have been described as 'ethnic cleansing'. The expression effectively prevents us from becoming horrified by Serbian brutality against Bosnian Muslims in particular, and to acts of aggression or violence against Muslim 'filth' in general, wherever and whenever it may occur.

The recent Oklahoma bombing, on the other hand, was reported as the greatest human travesty of recent times. The U.S. media referred to the single largest scale act of violence to be perpetrated on U.S. soil (they were obviously limiting this claim to 'unofficial' or 'unsanctioned' violence, thus excluding massacres of native Americans, the Civil War, or violence against African Americans). Electronic media carried daily accounts and graphic coverage of the bombing site, interviews with witnesses, survivors, relatives of victims, concerned citizens. The death of 104 miners in the collapsed shafts of the Vaal Reef mine in South Africa, on the other hand, received minimal and disinterested coverage.

Thus usage and manipulation of language is not so much a question of linguistics as one of ideology. By naming the discourse and using the silencing strategies of shock words or terms, renders it clear and unproblematic. Thus, 'complexity' itself becomes another unacceptable probe of issues which have been declared clear. This is especially true if the complex theoretical constructs interrogate the prevailing dominant ideology.

Returning to our 'shock' words. The term 'reform', especially in conjunction with education and training is designed to produce a positive effect, to the extent that, without threatening the core values of the system or the people who operate it, and benefit from its operations, the term proclaims change in a system which has been determined not to be working effectively. In this sense, 'reform' elicits positive connotations in that it tranquilizes people who consciously recognise that some cosmetic changes must occur while they adhere to the same values, mechanisms and structures that created the need for reform in the first place.

Edelsky (1991) insists that any change in education must be viewed as part of other more fundamental social change aimed at transforming social structures and dominant ideologies. Edelsky is unambiguous in stating that "transformative work in language and education in Western and Westernized societies is based on certain assumptions that these societies are unjust and unequally structured, that the texts, voices and interests of the dominant drown out those of the subordinate" (2), and that while educational practices reproduce social hierarchies, they can also be the sites for challenging them.

WORKPLACES AS SITES OF LEARNING
This discussion approaches workplace settings as multi-dimensional and consisting of complex contexts and practices in different and shifting configurations. Any analysis of language, literacy, numeracy, or other communicative practices in the workplace must focus on the practice of the various discourses, that is, the social activity through which discourses are produced and within which they are located.

Similarly, the discussion is grounded in a perspective that views the workplace as a site of constant learning, where workers through their interactions, relationships with others and job performance integrate affective, cognitive, reflective, and psychomotor learning on a daily basis. Thus, skills are developed, self-concepts change, knowledge is acquired, challenged and modified, and workers' internalized assumptions are realized in equally complex and shifting configurations. Learning is evidently sufficiently complex and contextually specific to require learning which can address contextually ambiguous and variable settings, where workers think as well as behave contextually, and do not simply perform previously determined tasks drawing on predetermined skills or bodies of knowledge. Indeed, in many situations there is a vast gap between the 'official' or formal approach of organizations to learning and work performance and the 'unofficial' or 'informal' learning and work practices which actually occur (See Schon, 1983).

In contrast to the espoused theories and practices of many workplaces, workers often spend much of their time responding to unforeseen situations and are required to constantly vary standard practices in the face of such situations. What is often evident in many workplaces is what some writers have referred to as the development and testing of 'theories in use' rather than espoused theories of work. Workers are forced to regularly question, and often abandon the official theory (or standard practice) as their experience demonstrates that these do not fit a particular situation. They are constantly testing out hunches, guesses, intuitive responses, as well as drawing on their culture-based background and present knowledge and experience of the work-life and the world, in relation to what their own reality tells them will work. This process is refined and honed in the course of daily work experience.

An underlying principle of this discussion is that the language, literacy and numeracy requirements (the behaviours, practices, uses, interactions, values and meanings attributed to these, and the relationships between them) are context specific. That is, they are shaped and influenced by the setting and its demands/structures/cultures and characteristics, and the way in which language and literacy are used, modified and valued within and between them. These uses and practices often vary between official and unofficial or formal and informal workplace practices.

It is argued that any workplace, then, is a site of social interaction, where the practices, histories, speech acts, meanings, values, beliefs, culturally-based knowledge, experience and practice intersect, overlap, conflict and inter-relate. Each worker, manager, supervisor, union official, supplier of raw materials, customer etc., brings to this site their own peculiar perceptions, knowledge, experience and expectations. With the social interactions and processes which are shaped and constantly re-shaped within the workplace goes a myriad of learning processes and activities. That is, most workers, in and through their daily practices, are often simultaneously 'learner' and 'learned', 'reader' and 'author' of texts and their meanings. If this is so, then it follows that the needs, resources and expertise of individuals and groups of workers are to be emphasized in any examination of learning requirements.

In their discussion of developments in collaborative research, Shuttleworth et al. (1994) note that addressing some of the distortions of the past involves

\[ \text{a building of knowledge and understanding outside traditional boundaries, drawing on the perspectives and experiences of oppressed groups themselves. This has meant, for example, in developing countries, research and education determined by the indigenous population, in feminist methodology, learning from research by women for women, and in factories, research and education done by workers for workers (at 3).} \]
The Scope of Workplace Communicative Practices and Learning

There is a body of work which stresses that the definitions we develop of illiteracy impact unevenly, are invariably arbitrary and ideologically loaded, and add to the disadvantage particularly to women, migrant, aboriginal and other already disadvantaged workers. This disadvantage extends to an almost exclusive focus on the language, literacy and numeracy needs of 'production' level workers and seldom is it extended to the trades, post-trades, professions or management workers. Thus, in itself, would suggest that an implicit stigma or set of misconceptions continues to operate which contradicts many of the current proclamations surrounding the need for a better skilled, more 'clever' and innovative workforce, which can ultimately 'surpass' itself. If only production workers are to be the recipients of the new 'cleverness' this begs the question of the good sense or assumptions of this approach. According to this view, either other categories of workers possess all of the requisite 'cleverness', or it is being tacitly acknowledged that it is more important to have clever, highly skilled production workers than it is for the other categories.

Many definitions of adult language, literacy and numeracy enjoying popular usage, and particularly those relating to workers' literacy, are conservative and restrictive. They invariably focus on and build responses around individual worker's 'deficits' - what workers are considered incapable of doing, what skills and knowledge they lack, and therefore must be explicitly taught. These definitions are inadequate in addressing workers learning requirements and as such are in desperate need of revision or replacement with more positive critical perspectives. We need to build on existing work of critical theorists in developing a coherent theory of workers' literacy.

Thus, to attempt to define literacy as an abstract entity or individual quality, or as politically or socially neutral and devoid of gender, race, class or other social content is at best naive, and at worst pernicious in its implications. It is necessary to more comprehensively explore and address workers' literacy requirements and particularly their workforce requirements. The method and practice of education is inseparable from the social, political and economic content, and the interests they represent.

The dominant 'autonomous' view of literacy focuses on the individual problems or deficiencies in acquiring literacy and the implications of this for cognitive as well as social and economic development. Thus, with the teaching of literacy skills, it is assumed that people will achieve a state of literacy, which in turn will result in social and economic benefits. This view has been at the heart of what writers such as Graff (1987) have referred to as the 'literacy myth'.

In his 'ideological' model of literacy, Street (1984) rejects the professed intrinsic qualities of literacy in favour of understanding the forms literacy practice takes and their outcomes within given social contexts. Thus proponents of this 'ideological view concentrate on the specific social practices of reading and writing, that is, on the forms reading and writing skills are used, rather than as some abstracted technology' (Lankshear 1987 38 ff, see also Street, 1993, Baker and Street, 1991).

As Lankshear and Lawler (1987) have argued, many standard accounts of literacy fail to see how literacy is integral to gender, cultural and language politics, and consequently view learners uniformly and literacy as established as an isolatable, measurable, 'uniform' thing, a skill or commodity that can be acquired by participating in literacy programs. Horsman (1990) argues that this 'process silences and delegitimates alternative forms of literacy, based on alternative life experiences'.

Street (1993) advocates an 'ethnographic perspective' on literacy which relies less on the traditions of those educationists and psychologists which have focussed on discrete elements of reading and writing skills, and more on the developments in anthropology, sociology and socio-linguistics, which concentrate on "literacies - the social practices and conceptions of reading and writing." (at 1) This view maintains that an understanding of literacy requires detailed and comprehensive accounts of actual literacy practices in different cultural settings. He goes on to warn against a narrow defining of social context to a linear continuum. This
approach he argues is inadequate because "spoken and written activities and products do not in fact line up along a continuum but differ from one another in a complex, multi dimensional way both within speech communities and across them " (at 4)

Thus, it is necessary to refer to and understand what Street calls 'literacy practices', or Grillo (1989) has extended to the concept of 'communicative practices' These are practices which 'include the social activities through which language or communication is produced', the way in which these activities are embedded in institutions, settings or domains which in turn are implicated in other, wider, social, economic, political and cultural processes' and ' the ideologies, which may be linguistic or other, which guide processes of communicative production' (cited in Street 1993 13)

Learning responses based on a social view of language will focus on the uses and purposes of spoken and written language, and will emphasise the whole set of relationships, contexts, and connections of culture, society and language, codings of value systems, the production, maintenance and reproduction of power relations, and the possibilities of making meanings through language as such, and in the discourses and language usage of specific social settings In this understanding, 'genre', or patterned and recurring text-types, is only one aspect of textual structuring, and must be treated as one social practice of many configurations and fluctuations of complex social relations and factors which must be considered

It is this added relationship of the language of texts, and the generic forms which flow from the action of cultured individuals and particular social settings and events which present another point at which to probe the contexts and activities of the workplace As Kress (1993) would have it

In a pluricultural or multicultural society the social histories of all individual members of that society will be histories of greater or lesser difference, producing social subjects who share significant social/cultural experiences, values, meanings and yet have significantly different experiences, values and meanings In the production of any one text in any one social interaction there will be a degree of repetition (out of shared experience and knowledge) and degrees of differences (36)

It is precisely an examination of the extent and significance of the shared and different experiences and knowledge in particular workplace settings or contexts which will inform and guide understanding and appropriate responses to actual work performance and appropriate learning responses

The temptation for many educators, however, is to distinguish workplace literacy education from any critical framework, to somehow view it as a neutral, homogenous site of learning, when in fact the politics of the workplace are usually more evident and explicit than in other educational settings Educationists must develop, understand, reflect on and be committed in action to their own political stance in workplace education, and to be guided not only by abstract educational theory, but also its peculiar applications to this setting There is an urgent need for workplace language and literacy activities to be informed by a more sophisticated understanding of the social relations, forums, contests, interests and cultures which characterise and influence this area That is, there is an urgency which demands that educationists, policy makers and breakers, and industrial brokers learn to read the world that workers inhabit, and to contribute to the development of learning responses based on that reading

Knoblauch (1990) states the potential danger in a restrictive approach more forcefully, by claiming that

their (teachers) offerings of skills constitute a form of colonizing, a benign but no less mischievous paternalism that rationalizes the control of others by representing it as a means of liberation To the extent that the non-literate allow themselves to be objects of someone else's 'kindness', they will find no power in literacy, however it is defined, but only altered terms of dispossession (at 80)
In a recent review of North American workplace literacy writing and programs, Hull (1993) describes a situation which can be readily applied to Australia. In examining a range of 'popular' accounts and approaches to workplace literacy, she cautions that we are falling into a discourse of worker or workplace literacy which is grounded in an individual deficit model: "Notice the constant emphasis on deficits - what people are unable to do, what they lack, how they fail - and the causal relationship assumed between those deficits and people's performance at work" (at 23) Hull goes on to argue that these false and misleading assumptions lead to a view of many workers "as deficient, different, and separate those who are not or do not appear to be conventionally literate" (at 31).

A vital part of our interventions around workplace literacies and programs we are involved in developing is an acknowledgment and investigation of the polyglot of voices, the different workplace and worker traditions, the various ways which populations and sub-populations find for literacy, the actual literacy components of specific work performance and the range of knowledge workers draw on in their work. Programs which are considered effective and relevant for workers and companies cannot overlook the relationships and histories within and between these groupings, nor can it ignore the social context of work, workplace communities, and whether the version of literacy instruction being offered enhances or diminishes the life of the particular workplace.

**Workplace Discourses**

One of the major premises of this discussion is that meaning is a matter of words or actions being recognised as meaningful in particular ways within the communicative practices of social groups within specific contexts. The conceptual notion of 'discourses' and the framework offered by critical discourse analysis, particularly the work of Gee (1990, 1991, 1992, 1993), (see also Fairclough (1989, 1992), and Kress (1993), and Kress and Hodge (1993)) provides an effective analytical tool for analysing communicative practices within workplace contexts in a way which acknowledges, respects and utilises the cultural, social and political relations of those contexts as the basis of developing collaborative learning strategies.

Of particular significance to this discussion is the related notion of 'Borderland Discourses', which allows a straddling of Primary and Secondary discourses. The 'borderland' provides a space which is characterised by points at which the secondary 'official' workplace discourses conflict with and are opposed to the workers' primary discourse. This concept of the 'borderland' will be discussed in more detail following a brief overview of the more general conceptualisations of 'discourse'.

**What is a Discourse?**

Gee (1992) provides the following general description of what is meant by Discourses:

*Discourses are composed of people, of objects (like books), and of characteristic ways of talking, acting, interacting, thinking, believing and valuing, and sometimes characteristic ways of writing, reading, and/or interpreting (offering translations of oral and/or written texts sensitive to the cues those texts present for interpretation to these practices).* (20)

Discourses involve these as well as the spaces and material 'props' the group uses to carry out its social practices. Discourses integrate words, acts, values, beliefs, attitudes, social identities, as well as gestures, glances, body position and clothes. (107)

Discourses in a society are 'owned' and 'operated' by socioculturally defined groups or networks of people, and within particular social settings. People within these groups are accepted into 'membership' of the Discourse and play various 'roles' and give various 'performances' within the Discourse and its sites of operation. Through rewarding and sanctioning particular communicative practices as 'right' or 'wrong', 'appropriate' or 'inappropriate', 'normal' or 'deviant', the Discourse incorporates a normative or ideal set of actions, theories, meanings and associations, toward which its members more or less converge. Thus, Discourses 'apprentice' their members to ways of behaving and thinking as group
members, and establishes folk theories and associations common to the group and allows it to continue

These norms, discoverable by ethnographic study, are, in fact, where the meanings of the acts, beliefs, values, and words of the group reside (Gee, 1992: 108)

The discussion adopts Gee's notions and description of Primary, Secondary and Borderland (or mediatational) Discourses, which are summarised below. The idea of overlap between workers' primary and secondary discourses and the resistance and conflict which manifests itself in various anti-workplace discourses while operating within the 'official' discourses of particular workplaces will be explored. Similarly, a clearer distinction is drawn between the extent of 'determinism' within discourses, and between the notion of 'dominant' ideologically and politically powerful discourses and 'subordinate' less powerful, minority discourses.

**Primary Discourses**

Primary Discourses are those which people are apprenticed to or acquire early in life during their primary socialisation as members of particular families or kinship networks within specific sociocultural settings. That is, they are our 'home-based', cultural identity Discourses, and the base from which we confront, navigate, acquire or resist later Discourses.

As we enter the 'public' world and come into contact with a range of secondary Discourses, complex and multiple relations develop among Discourses and individuals and their communicative practices. However, it is the primary Discourse which establishes a range of identity norms, and allow identification and valuing of 'people like us' in our private and informal lives. To a large extent these provide a unity and identity to our multiple social selves.

**Secondary Discourses**

Secondary Discourses are those that people become apprenticed to 'out in the world', as part of their socialisation within various local, state, and national groups and institutions outside early home and peer-group socialisation. These can include churches, street gangs, schools, workplaces, unions, or political parties or associations. As we enter these public domains beyond the primary socialisation unit, people take on new identities as members of various secondary Discourses.

"Each secondary Discourse is a tradition passed down through time - ways people who 'belong' to the Discourse tend to behave now and have behaved in the past in certain settings" (Gee, 1992: 109)

Thus, secondary Discourses constitute public identities, and that which is recognisable and meaningful of our more 'public' or 'formal' acts.

There are obviously, even from this brief description, areas of overlap and influence, as well as conflict and tension between Primary and Secondary Discourses, which in turn shape and re-shape them and the relationships of individuals and acts within them. Practices, behaviours and 'norms' drift across or filter through Discourse boundaries and become incorporated within other Discourses.

For example, a child from a family with strong and active religious beliefs, will more readily identify and move into a church or school with the same religious practices, than a child who has not been exposed or socialised into the particular religion in their primary discourse. Or, the Aboriginal child, whose primary discourse represents and frames time, space and geography in a particular way, experiences difficulty when exposed to a school discourse which requires address details contrary to the primary socialised concepts and values.

Thus, the lines we draw around Discourses should be viewed not so much as solid boundaries, but more as permeable membranes which allow various elements to pass through them while filtering out others.
Thus, it is argued that people inherit, through apprenticeship in the Discourse of their community, home, kin networks, schools, workplaces, ways of making sense of experiences, that in many instances have long and rich histories. This enculturation/apprenticeship gives people within those groups or networks certain forms of language, ranging from devices at the word and clause level through to detailed and complicated texts, that are intimately connected to 'forms of life' (For an interesting selection of cultural and historical models of 'apprenticeship', see Lave and Wenger, 1991)

Therefore, a caution for workplace educational activity is the need to be conscious of comparing and understanding the meanings of like texts and communicative practices, rather than comparing with forms of text or practice from other remote and dissimilar contexts, such as classroom or college-based texts. To generalise or compare, say, a workplace narrative text with a school, college or university essay, would be as absurd and meaningless as comparing a work team production report with a report in a scientific journal. The danger is comparing 'apples' with 'oranges', and trying to determine the deficiencies or how learning might be able to re-shape the orange to more closely resemble an apple

Gee uses the illustration of comparing someone playing baseball and someone playing football, observing and analysing the competencies and concluding that a baseball player is playing bad football or that a football player is playing baseball poorly. As absurd as this type of comparison may appear, it is maintained that much of current workplace assessment and program activity and effort involves precisely this type of quasi-scientific comparison. As such it does not come close to identifying actual practices or requirements of the participants and contexts under review. Certainly much of the current practice does not have the theoretical or practical experience of the workplace as its guide, and seldom does it thoroughly consult, draw on the expertise of the workplace, or engage in collaborative practices to arrive at this understanding.

**Borderland Discourses**

Of particular significance to this discussion is the notion of 'borderland' discourses. These refer to a set of discourses which are located somewhere between the primary discourse and the secondary discourse (in this case, work), which Gee (1992) refers to as a 'borderland Discourse' which effectively straddles the two as a means of coping, surviving, and navigating the dominant

The 'borderland' is characterised by points at which the secondary 'official' workplace Discourses conflict with and are opposed to the workers' primary Discourse. There is an uncomfortable or poor fit, and at times irreconcilable differences, between the two. In these situations, workers develop a Discourse which allows continued 'membership' of the work group, and at least the appearance of acceptance and adherence to the normative values, as well as making sense of and maintaining some loyalty and allegiance to the primary Discourse.

Thus, the 'borderland' mediates between the primary discourses of workers and the secondary discourses of the workplace, as a means of rendering the latter more bearable or palpable in terms of their continued participation.

Similarly, the tensions of the Borderland evolve around resisting aspects of the workplace which either contradict, or are offensive, to the primary (and other outside of work) discourse, or even the ways that workers interpret and make meaning of the dominant workplace secondary discourses, to the way that workers know that work can and should be performed most effectively.

We can take the notion of Borderland discourses further yet, to assist our understanding of workplace communicative practices. We can argue that the Borderland is characterised not only by its points of conflict, tension and resistance between primary and secondary discourses, but also by conflicts and tensions between and amongst competing primary and secondary discourses within the workplace. Thus, it provides a space and a means for workers to make sense of the various discourses which operate within the workplace, whether they be tensions...
between the primary and 'official' organisational discourse, between worker and management, between sections of different workplace contexts or operations, or between groups of co-workers

At any point in time, then, there will be a number and variety of Borderlands operating in a workplace. They may not be restricted, as the name suggests, to the margins or fringe of significant activity, but rather may in fact occupy central and vital positions in particular workplaces.

The Borderlands may be found around all types of groupings, such as those generally or specifically identified through membership of primary discourses (national, cultural, ethnic or language groupings), other external or public secondary discourses (religious or political affiliations, union membership, occupation, age, gender, neighbourhood, or community groupings such as street gangs, sporting clubs, and so on), or those more 'organic' to the particular workplace setting (general mixed groupings of co-workers, work teams, sections or departments, work operations, job or occupational classifications, geographic location in the workplace). As with other discourses, an individual may simultaneously belong to and move within and between a number of Borderlands.

It is argued that the Borderland discourse accurately describes the situation and reality experienced by many workers, both as they enter new work contexts and as they 'colonise' and become familiar with workplace settings over time. It was mentioned earlier that in most workplaces workers quietly resist many official edicts and directives, as their own experiences tell them they won't work, or won't work as well as they can perform the task. Thus, workers employ 'unofficial' or 'theories in use' (or their specialised 'local knowledge') rather than the 'official' or espoused theories of the organisation. In a sense this a manifestation of the operation of 'borderland Discourses'. The operation of the 'borderland' provides a terrain which is characterised by constant tension and working 'against each other'.

Borderland discourses operate in opposition and exclusion (in part or whole) to other workplace discourses, including other 'borderlands' perceived to be offensive, threatening, in opposition or conflict. New identities, pertinent to, constructed and generated in the workplace, but incorporating composite elements of other public and private, formal and informal, identities, are shaped, developed and sustained in the Borderlands. These new identities and relationships, while having their genesis in the workplace, are not restricted to this domain, they are taken 'into the world' in the form of friendships, organisational affiliations, and a range of social activities and relationships.

It is through investigating how the Borderlands are formed and re-formed, operate, sustain and defend themselves, which provide a fascinating entry crucial to tapping the layers of workplace communicative practices. It is the workplace Borderlands (not always visible or accessible to the observer or researcher) which potentially provides the richest research material and data in this area.

Most workers know that the workplace Discourse is not likely to value many of the practices of their community or cultural groups, and in many instances are in direct opposition to them. Due to these conflicts and the power relations of the workplace, it is equally likely that these community values and social practices will not gain full or equitable access to the dominant Discourses or the social goods that go with them. Thus, as Gee states:

the "borderland Discourse is a form of self-defence against colonization, which like all organized resistance to power is not always successful but does not always fail" (at 150)

Thus, the quest of most developing workplaces will be to attempt to reduce the area of the 'borderland' through practices which address the tensions and conflicts between the 'official' and 'unofficial'. Ideally, workplaces will seek a close alignment between the primary discourses of its workers and the secondary discourses of the workplace, whereby conflict and resistance is minimised. It is unlikely that this will ever be effectively achieved through
'conquest', but rather through a genuine convergence of the two. This can be achieved by establishing approaches which share common values and objectives, collaborative 'partnerships' and establish ownership and control of ideas, planning and learning strategies as part of the dialogue and practices of the workplace.

The point at which workers abandon the defensive aspects of the 'borderlands' will be when they see and are part of changes which they value and trust, and which values and trusts them and their abilities, views and so on. This level of collaborative 'give and take' will add profound definition to the substance of 'team work'. Until such time, many workers will continue to take up residence in the borderland and continue to perform work in ways that they know, whether it is officially endorsed or not. The full potential of learning and developments which accelerate change in the workplace, for workers or the company, are unlikely to be significantly progressed until some of the major issues of the 'borderland' are addressed and reconciled.

**Acquisition and Learning of Discourses**

It is worth outlining here a distinction between 'Acquisition' and 'Learning' as a means of both understanding how people gain or come by discourses, and signalling ways in which our understandings and approaches may need to be shaped in order to provide useful information as the basis of planning workplace learning interventions. The discussion in this paper has involved a mix of these notions, and referred to 'learning' as any means of coming by the requisite knowledge or skills.

Much of the knowledge and skills that most of us have are the results of a combination of both acquisition and learning. Through a range of experiences and exposure to role 'models' we acquire a repertoire of behaviour, understandings or 'being in the world'. Through overt instruction or teaching we may learn other knowledge and skills which allow us to analyse, describe or conceptualise (often referred to as 'critical thinking') what we have acquired. For the purposes of assessment and constructing appropriate learning responses to workplace requirements, it is essential to have some understanding of how workers come by, use and modify certain types of skills and knowledge.

It is argued that you can overtly teach someone the content knowledge of the particular subject (for example, machining skills or principles of hydraulics for fitting and turning), but it is not possible to teach someone to be (behave like) a fitter and turner. Being a fitter and turner is a discourse - to become a member of the discourse, it is necessary to practice being a fitter and turner (being apprenticed) with people who are already in the discourse (other fitters and turners). The argument is that once, or while, a discourse is being mastered through apprenticeship, then overt teaching may facilitate 'metaknowledge' or conceptual understandings - the ability to articulate how the knowledge and skills acquired relate to those you are attempting to acquire, and how those already acquired relate to identity and social contexts and practices.

*Discourses are mastered through acquisition not learning. That is, Discourses are not mastered by overt instruction, but by enculturation ('apprenticeship') into social practices through scaffolded and supported interaction with people who have already mastered the Discourse* (Gee, 1992: 114).

Thus, workplace education processes will need to examine or investigate what has been acquired, what is required, and what conceptual or 'metaknowledge' requirements workers may have in a particular context. The outcome of these investigations will be a consideration of whether particular requirements will be best met through approaches emphasising acquisition, more structured overt teaching or instruction, or a combination of the two.

There are a wide range of texts which occur or are generated in workplaces through both acquired and learned knowledge. If the starting point for this discussion is that as part of the workplace discourses, language as text is acquired (or workers are apprenticed in their use), and that this precedes overt learning, then this may guide any closer examination of the text.
types and structures. The focus of this examination is not the text composition or structures in themselves, but how they serve as 'transmitters' of the workplace discourses, how they shape and are shaped by the social practices, and what they tell us about the requirements of the workers in a particular context (For a detailed discussion of the alignment between business and education discourses, see Gee, 1994)

**Workers Identities, Cultures and Learning Requirements**

There can be no simple relationship or correlate between communicative practices, learning and power, between the getting of education and acquisition of social goods. If we explore the complexities of workers' daily realities, discursive practices and relations, if we interrogate the workings of workplace borderlands, our conclusions cannot be as simple as colonisers and colonised. Our explorations must more carefully examine not only our own limited notions of learning, but also the social roles of 'work' (paid or unpaid, formal or informal sectors) as social events or activity. We need to more carefully investigate the values attached to these activities, as well as come to understand something of the identities of the participants in the work processes and events. If we are researching workers, workplaces, work performance, workplace communicative practices, we must constantly reflect on how limiting or expansive are our own definitions, theories and methodologies.

For example, and by way of highlighting or exaggerating this last point, take the example of a hypothetical Aboriginal elder, who is employed as a cleaner in a factory in the town near to where he, his family and clan live. Can he ever be accurately described or understood merely as a cleaner? Who determines this description or classification?

What about when he has a night on the drink - is he then a drunk?

When he attends Christian church services for worship - is he a Christian?

At home with his spouse, children and other kin - is he a father / husband / lover / uncle / son / grand-father / son-in-law?

When he provides counsel to his community - is he a community counsellor/welfare worker?

When he provides oral histories, folklore and traditions from the Dreamtime, through storytelling and participation in rituals - is he a historian / story-teller / dancer / mystic?

What of the situation when he creates art and music as representations and records of his history and culture - is he a musician / artist / archivist?

When our elder sits on regional Lands Councils, or lobbies governments on indigenous issues - is he then a politician / advocate / adviser / lobbyist?

When he speaks haltingly and without confidence in English, but converses confidently and fluently across many indigenous languages - is he illiterate / a linguist / translator?

We could continue to explore our hypothetical elder's daily realities and possible range of identities, building or compiling an increasingly complex image of the person and his world. One thing we can say at just about any stage of the enquiry is that our Aboriginal elder is seldom, if at all, merely perceived or referred to as a 'cleaner', except perhaps by his immediate supervisors in the workplace, or by co-workers who, due to their discourse position, place no value on the discourses of the elder. However, even this rejection or devaluation is a tacit acknowledgment that he is more than a factory cleaner.

What have these multiple identities got to do with his paid employment, his workplace communicative practices or job performance? How do some of these identities wash over, or are brought into, the workplace? If a hierarchy of value exists between these various identities, where is that of 'cleaner' located? By whom / for what purposes? How do our education interventions acknowledge these identities, skills, experiences and relationships?
At work, is this person ever really the 'cleaner' as we originally labelled him, or does he still carry some or all of the influence, identity, meanings, understandings, status, and so on, of the tribal elder into the workplace? How does he view/describe himself? How do others, including educationists, view, perceive or respond to this person?

What are we prepared to understand of the multiple identities of our Aboriginal elder? How do we assess or analyse his workplace communicative practices? To what extent do we incorporate/screen them from our education strategies? How is our understanding reflected in our research, in our teaching programs, in the development of optional and alternative approaches to learning, and in our own professional development efforts?

What we can be sure of is this person, and his learning requirements, cannot be understood by reference to an employee number, a job description, or an occupation classification.

The other thing we can be sure of is that the recognition of the multiple identities of the Aboriginal elder, which he brings to the workplace, the ways and configurations in which they are brought and realised, and how these shape and influence his work, are only one line of enquiry in our examination of the communicative practices, and provide only one part of the story. A second line of enquiry in our ethnographic studies must interrogate the identities of co-workers, identities as collective members, as well as the specific context layers, peculiarities and idiosyncrasies of practices and meaning-making within and between those context layers and the workers and others who inhabit them, or operate within and across them.

Thus, our ethnographies become a search for discourses within workplace settings. They become a story of collisions and harmonies between the various discourses, and how meaning is generated, developed and modified through these collisions and harmonies.

**Contexts of Workplace Learning**

When approaching program negotiations, assessment, curriculum development or other workplace activities there is often the temptation (and danger) to generalise about the 'nature of the workplace.' Some people seem to need the comfort and security of a belief in constant, rational universal rules of human behaviour. However, beyond very broad economic, political and policy considerations, it makes little sense to talk of industry or a particular industry as a homogenous body of people sharing common attributes, objectives, goals and practices. Indeed, in wishing for such an idealised 'industry' many people overlook the fact that beyond broad common interests, company networks and enterprises within the industry are often in direct competition with each other for markets, product superiority, skilled labour, and so on. There is a point at which the common bonds break down.

Thus, for any specific enquiry or activity, this generalisation of the industry is not useful, and risks glossing over or ignoring crucial local, geographical, sectoral or enterprise requirements. There can be no single instrument or learning response which could be adequately or consistently applied to the communicative practices (or anything else) across a particular industry. The focus of such activity needs to be much more localised and specific.

Increasingly there may be developments of industry or sector standards of operation, regulation, quality assurance, or functional competence, which operate across a particular industry, but even the implementation of these necessarily require close attention to local requirements. They will not, and cannot be applied evenly or consistently across all enterprises comprising the defined 'industry.' It is interesting to note on this point, how fragile some of the definitions of industry have become in the face of the training reform agenda and related policy initiatives.

Industries which may have been traditionally defined around common production or economic activity, or in terms of industrial relations issues and coverage, are being re-defined for other, primarily policy and bureaucratic purposes. The notion of 'industry,' in this context, will continue to vary and shift depending on whether it is being considered for the purposes of...
statistical data collection, policy formulation, competition for government favours (funding, tax concessions etc.), legislative requirements, industrial relations, or in planning coverage and activity of training advisory bodies. That is, any description of an industry is only what somebody or some set of political interests wants it to be at any given time for a particular purpose.

Given the ambiguities and looseness surrounding industry definitions, consensus on industry activity and relationships, the relationships of industries to enterprises within them, and the equally vague notions of skill and competence contained in much of the current education and training reform rhetoric. It is not surprising that there is little attention paid to the equally complex interactions, relationships, practices and meanings which characterise the sites of work performance.

Similarly, when the focus of much of the industrial relations and vocational education and training reforms is on the 'significant' manufacturing industries (particularly those with export markets or potential) and the larger companies within these industries, many of the research, structural and strategic requirements of these reforms have been ignored. This focus is only gradually turning sufficiently to accommodate some level of (larger) enterprise focus, and as yet has paid little attention to the internal workings, peculiarities and requirements of most enterprises (let alone smaller, isolated companies) and how these might relate to the broader reform process.

However, as significant as the 'big picture' developments may be, effective developments require the information and detail of the local settings of industry enterprises to provide the full range of shadows, hues, detail and relief in the big picture. It is necessary to continuously reference or earth many of the overarching reforms and developments in research, data and understandings gathered from the shop floor. Otherwise we end up with what Darrah (1992) describes as 'thin' descriptions of work, work contexts and skill requirements of these contexts:

*Thin descriptions of skills present context as an external backdrop to action that constrains, but is not affected by, worker actions. This view is inadequate, for there are processes internal to the production floor that generate and reproduce the very context in which operators work.*

(269)

Thus, there is a need to identify a range of relevant contexts operating within the industry, sectors of the industry, and within individual enterprises, and to locate and examine the communicative demands, practices and requirements of the various contexts in order to address priorities, relevance, and responses as the basis of the purpose of educational responses. Therefore, if what is being examined is the communicative practice and requirements of a particular enterprise in an industry, it is important, but not sufficient, to locate the enterprise within the context of the industry and the particular industry sector. However, it is vital to then closely consider the contexts of and within the particular enterprise, and their relationship to the broader industry and social contexts.

**Workplace Context Layers**

Each workplace is characterised by complex layers of different contexts which affect and are affected by language, literacy and numeracy patterns, usages and practices. The particular context (or discourse sites) and what text types and genres are used will determine how they are to be approached and what learning options they present. That is, the content of educational interventions will be informed by the actual contexts and practices of the workplace (or section, or work team and so on) under investigation. How closely the educational activity reflects these realities will depend on how accurately we understand and identify the real workplace interactions, cultures and relationships.

If workers in fact learn with and from each other (as is the thesis here), then this must inform and provide the basis of many of our learning activities and responses. We must apply another conceptual 'cut' between those situations which may be best served by 'external' expertise and
instruction, and those which would be more appropriately and efficiently developed by using, encouraging and developing the indigenous learning structures and processes of the work groups within (or between) specific contexts. The purpose of any structured activity will need to be guided by an understanding of what is actually occurring in the particular contexts in order to most appropriately respond through possible learning options.

Many basic skills assessment exercises or techniques, for example, in fact have never adequately assessed what is actually occurring, but rather have simply gauged something of an individual's ability to perform the allotted exercise. As Edelsky (1991) claims, most assessment of reading and writing is in fact assessment of a simulated exercise, with the exercise itself being the focus, resulting in very little useful information about actual reading or writing ability. Similarly, many assessment instruments are designed to suit the needs and purposes of the institution rather than the needs of learners. Thus, much assessment and training programs based on the assessments, are concerned with 'appropriate' placement in existing pre-set courses rather than establishing the learning needs or desires of those being assessed as the basis for developing learning responses matched to those needs. Thus, both the modes of learning and the assessment exercise are established before the contexts, participants or potential range of other purposes have been identified.

The main contexts operating within, and influencing an enterprise would include (but not be restricted to) the layers of:

- Individual workers
- Work teams or groups (formal or informal)
- Work section or department
- Enterprise
- Company (consisting of enterprise networks)
- Industry Sector
- Industry (companies and other industry bodies)
- External Industrial factors
- External Social factors

and the relationships between these in any given situation. Our interventions would need to consider the remoteness of each context layer from the specific context or purpose, the different internal and external processes and interactions within each band to be considered, different language uses (levels of abstraction, indigenous dialects, usages, values), how tasks/jobs are actually accomplished, formal and informal structures and processes operating, and significance, interplay and impact on industrial relations, customer, market, legislation, social policy, family etc.

Thus, diagrammatically it is possible to map the general contexts as a series of concentric circles, with the focus of any education activity based on a ripple effect from core purpose of that activity. Where particular items are plotted within the diagram will depend on what is being examined and the particular objectives of the activity. That is, if team demands and requirements are being assessed for the purpose of group training or learning, then the context layer of the work team will be the core focus, and other factors will be located in relation to the core depending on significance and remoteness. Likewise, if focus is on identifying needs or requirements of industrial relations legislation and developing appropriate responses, then external industrial factors may be the core focus.

Most enterprises have their own distinct internal structures, procedures and operations which will define the context layers. The relationship between these context layers and more remote external factors will depend on the activities, functions, demands and requirements of the particular context layer. If a section of an enterprise, say a chemical laboratory, is more heavily regulated than another section, then the external legislative considerations would need to be included. However, when external factors have such a direct bearing on the context, it is usually evident within the context activity, and is in fact a part of the internal communication
and other practices within the context. So, the investigation is not so much a never-ending search for possible variables, as they tend to 'come to', and form part of, the subject and context under examination, but is more often simply a matter of acknowledging their existence and importance.

Thus the relationship of one context layer to a significant other or others and the significance attributed to each will be determined by the participants, and by the purpose of the investigation and assessment process. While many context layers within workplaces will be 'self-defining', there is obviously a point at which an arbitrary line is drawn for the purpose of investigation. As the focus is established, then other variables are screened out from the main focus. It will be necessary to be conscious and vigilant about the 'arbitrariness' of these exclusions, and the need to re-include some variables or shift some of the boundaries to accommodate significant factors as required.

Obviously, the contexts and the processes and communicative content and practices will vary from worksite to worksite, enterprise to enterprise, industry to industry. However, by identifying and describing types of workplace contexts and some of the relationships and activities which occur within those contexts, it may be possible to sensibly provide a framework which can guide the development of assessment and curricula tools / instruments / practices / ethics which come close to accurately gauging some of the main workplace needs, and in finding appropriate and specific responses to the identified needs.

More often than not, those who know most about the detailed and intimate workings and requirements of the particular context layer, are those who occupy, operate and shape its functions. The information gained from even brief discussions with workers familiar with a workplace context layer, would be qualitatively different and considerably quicker than a team of researchers observing in isolation. Thus, it is imperative that any 'authentic' investigation of practices and requirements of a context layer collaboratively combine the expertise of the 'experts within' as well as any external expertise brought to the intervention. Indeed, the external expertise may be most useful in facilitating and supporting the organisation and articulation of the internal expertise of workers in a particular context.

Other context layers which should remain in view when considering current and future requirements are those of the marketplace in which the enterprise operates. Many competency standards, developments and education and training initiatives only indirectly consider the competencies, practices and other requirements of variables such as suppliers of raw materials or components, transportation, external service providers and contractors, wholesale and retail consumers of the company product. Without these participants, even the most highly prepared and organised enterprise will be in difficulty. These contexts are relevant not only in terms of satisfying, but also significantly influence the enterprise's present and future requirements.

Depending on how significant some or all of these are to the operations of the enterprise, their proximity, and so on, it may be necessary and beneficial to collect data on/from these sources, liaise and consult with them on particular developments. In some instances, it may be appropriate and sensible to involve them directly as major participants in the enterprise context under review, even though this may not sit comfortably with some company cultures.

To make claims for adequate assessment and other learning processes which can reliably and validly make confident and defensible statements on skill performance and requirements, it is necessary to understand the contexts and context layers in which skills are acquired, modified, used and derive their meanings. The danger of only engaging in 'thin' descriptions and analyses is one of glossing over vital factors, activities and clues that go to how skills and learning actually operate, not only to maintain, but also to improve, the way that work is performed. The risk is that of a superficial analysis which views the surface of the workplace context, and provides single and simple explanations and solutions from those observations. A related risk is focusing exclusively on individual skills as constant, rational, visible entities which can be gauged to the satisfaction of performance criteria, as a key to understanding and enhancing work performance.
There is a danger also of only acknowledging, seeking out and assessing a distorted view of communicative practices and other workplace practices. Assessment and the analysis of data and possible learning strategies flowing from these research activities must attempt to seek out some of the significant invisible, ambiguous, irrational, long-term processes and outcomes, informalities, varying methods of performing the same work, and paradoxes involved in the actual performance of work. Our enquiries, examinations and analyses need to contribute to 'thicker' or deeper descriptions of workers practices and requirements.

The importance of context is emphasised by Darrah (1992) reporting on a range of research, including his own in a division of a large international corporation. He explains that his research focus shifted from skills as the first line of enquiry, to the specific context of work performance, and arrives at the following concluding comment:

*The research described here suggests that a narrow focus on individual job skills is inadequate. Rather, analyses that place people in the actual contexts in which their activities are shaped and given meaning are needed. Such analyses must recognize context as a dynamic component of a larger system. If context can be so analysed, we may then not only seek to improve the skills of individuals to work in extant workplaces, but also improve workplaces as arenas in which learning for improvement is facilitated.*

**Learning in the Workplace**

Brookfield (1987), in his discussion of the 'critical thinking' potential of the workplace, cites Rubin's comment that "only a tiny minority of us ever are involved in inventing our present, let alone our future. Ordinary men and women - which means almost all of us - struggle along with received truths as well as received ways of being and doing" (cited at p 135).

Much of the rhetoric, and research focus in the area of workplace education, however has been directed at building dynamic, motivated, thinking, problem-solving workers. Further, the vast bulk of this research has been in the management and professional areas (e.g. Weick 1983, Schon 1983, Johnston 1986, and many others) Work outside of these domains has largely been viewed as routine, unsophisticated, with workers responding to directions as to how and when to perform allocated tasks. Many of these perspectives assume that workplace change, organisational effectiveness and so on occur through 'good' management. Thus, the 'thinking', 'innovative' managers and professionals provide the impetus and creative directions for others to follow. Some of the more recent work in Australia (e.g. Ford, 1987, Mathews, 1989) claim a wider vision for the 'new' workplace, yet many of the responses are still on management strategies and how workers can better (or more competently) perform the tasks required of them.

However, some of the work in the professions can be usefully extended to apply to the whole workforce (though this was seldom intended). As Brookfield (1987) points out, "most workers, then are theorists, though they do not dignify themselves by that term" (at 152) Rather, many workers apply what Schon (1983) refers to as 'theories in use' to accomplish job performance. That is, despite official edicts, most workers determine for themselves, in the course of their work, what works well in a particular situation and why, and how to modify practice to accommodate changing circumstances. "Theories in use are kept private, since they frequently contradict many of the apparently revered tenets of espoused theories." (Brookfield, 1987 153)

Thus, in many work situations, the problems are posed and reconciled by workers participating in a particular setting, rather than by external experts, who in fact created many of the problems in the first place. Workers' ability to 'theorise', problematise, resolve, and modify work practices, needs to explicitly inform our research and responses of what actually occurs, and what skills and knowledge workers regularly employ in performing their jobs. Much of the following discussion reveals an emerging trend in some areas of study to accept and explore these premises more thoroughly.
Viewing Workers as Theorists

Before proceeding further with this part of the discussion, it is important to debunk the pervasive myth of workers as 'unskilled'. While much of the research focus on management and the professions, as well as many of the more general contemporary discussions of workplace learning, implicitly or explicitly refer to 'unskilled' workers, the argument here is that such a notion needs to be consciously and explicitly rejected.

Apart from the obvious offensiveness, and historical abuses to justify occupational devaluing and hence lower wages and conditions, and the encouragement and maintenance of craft monopolies and wage relativities between groups of workers, the notion is a conceptual nonsense. There is no living human being, let alone a worker (paid or unpaid) who performs a range of complex physical and cognitive tasks on a daily basis, who can be accurately or fairly described as completely lacking skills or knowledge.

It is maintained, and assumed throughout this discussion, that all workers are 'skilled'. Some vegetables, and a larger number of inanimate objects can more confidently be classified as 'unskilled'. While there will no doubt be endless contests and demarcation disputes around which skills are more valued in a particular situation, it must be acknowledged that the contests are less about objective truths than they are about positions of power. For example, if the skills I want in a particular situation are in the expert laying and finishing of floor tiles, it is cold comfort if the only skills on offer are those of a micro surgeon or an elephant trainer. Similarly, workers will possess greater and lesser repertoires of skills, and varying levels of expertise in the performance of tasks. Nonetheless, educational interventions need to start from a premise of existing skills, knowledge and ability, if they are to use those skills to assist in their development and the acquisition of new skills and knowledge.

There is an increasing body of research which acknowledges and respects the fact that everyday or routine tasks or job performance reveal a deeper set of understandings of the complexity (physically and cognitively) of skills and knowledge brought to bear in the performance of work. Hull (1993) cites the work of Kusterer (1978), whose study of the work of machine operators and bank tellers indicated that "although we usually recognize the basic knowledge necessary to do even highly routinized work, we are much less cognizant of how much supplementary knowledge is also necessary" (at 33 Hull also reviews a range of other research work in this area - see chapter 1).

Adult education's (and particularly adult literacy and numeracy) dependence on the theoretical and pedagogical focus of childhood learning (teaching?) experience, and more often school classroom experiences, has left a legacy which presents a distorted uncomfortable translation of these to the contexts of adult learning. Even many 'critical' theorists talk of 'critical' learning activities in terms of structured, teacher-dependent, institutional classroom settings. When we bother to address notions of learning in workplaces we tend to bring to the workplace our own enculturated views of learning, regardless of whether they suit the needs of workers.

The format of much workplace instruction is characterised by a teacher in the front of a classroom using the 'authentic' texts (or a translated 'surrogate' version) and readers in much the same way as children are taught in school classrooms. Our interventions would be aided by the advice offered by Hull (1993) on this point to seriously rethink our own concepts and practices.

Rather than assuming that structures and practices for learning literacy must be imported from school-based models of teaching and learning, we might do well to study workplaces and communities to see what kinds of indigenous structures and practices might be supported and built upon (41).

Maietta (1993) argues that much of our workplace training has been inappropriately focussed on the vague concept of individual skills, or on occupations and their skill requirements. He argues that to speak of skill in a decontextualised way, without reference to the task or activity which a person is performing, is awkwardly generic. Similarly, if skill is treated as an attribute
of the task being performed, or a complex non-technical process, it falls short of the potential which exists in treating skills as an attribute of the workplace

**Skill as an attribute of the workplace resides in the interactive work of a group in a particular work setting.** Treating skill in this way is a group activity. Structures are set up which provide the opportunity for natural workgroups to understand something about their work environment and collaboratively act on this understanding (43)

### Collective and Collaborative Assessment and Learning Practices

The workplace, more than many other adult education settings has the potential for a range of collaborative assessment and learning efforts. To the extent that there are commonalities, parameters, objectives etc which represent a community of interest, workplace education activity has the potential to develop those interests in ways which are not always as possible or as self-evident in situations drawing on more disperse and disparate participants and objectives. Whether it is necessary or appropriate in other settings, it is argued that the focus on individual assessment exercises and learning responses and strategies in the workplace is mostly inappropriate, and an inefficient means of determining the current practices and future requirements as the bases for developing learning strategies

This is not to argue that there is no place for individual assessment or tuition, but instead that the needs and abilities of individual workers are more likely to be ascertained through methods which view the individual as a group member. Within any workplace there resides a range and depth of expertise which, if tapped, will profoundly affect the full complement and possibility of learning responses, which do not constantly or exclusively depend on external training provision and expertise. It is imperative that our approaches not only respect this range of knowledge and skills, but that it is actively sought out and used in collaborative efforts to analyse and develop workplace learning practices and potentials

### Collective Skills of Work Groups

The collaborative approach outlined rests on how we conceptualise or view 'skill', learning and future requirements and developments in these areas of workplace activity. In contrast to approaches which view skill as an attribute of the individual worker that can be carried from one work site to another, or the view that skill is a job requirement which may be altered through changes in work structure and organisation, the view adopted in this discussion is that it is often the 'work group' rather than the individual worker or job role, which is the focal phenomenon to which skill is attached and should be examined. That is, the focus is on how work and learning is carried out by the group of workers, and how understanding and gauging this can assist to develop the future requirements of the work groups

There have been many ethnographic studies which have researched and analysed this type of approach. These studies emphasise that the nature of work itself is collective, and almost always requires informal collective interaction and action among individuals. Even isolated work (say computer operator, word processor, security guard etc) requires informal cooperation, resource and knowledge sharing, especially in the area of problem-solving, which in most work environments is a continuous activity. Workers turn to, share experiences, swap positive and negative experiences, and consult with their work colleagues on a regular basis

Further, the fact that workers do not adhere to formal job descriptions or 'espoused theories' in the conduct of their work (either because the formal organisation of work may be cumbersome and inefficient, tasks and roles not matching job descriptions, introduction of new technology or work systems, etc.), and often use their various specialised forms of 'know-how' (or local knowledge) to achieve work output, has significant implications for what is examined and developed, and how competent performance is determined. Thus, it is argued that it is the actual demands of work in a particular context that create the need for skill, and the work group that must possess, obtain or develop the skill, even if it is missing (or not visible) from the formal system of work. As Baba (1991) concludes, "All of these circumstances suggest that the demands of work can override formal work organisation, causing workers to act in ways that were not envisioned by the creators of organizational charts" (4). It is these understandings,
and tensions within the 'borderland' which, if reconciled, can release the potential of workplaces to develop learning strategies, work practices which can contribute to profound change

Also, workers require increasingly new types of 'local knowledge', in particular knowledge about systems (see Howard and Schneider 1988, Sachs and Scribner 1990), which integrates formal and informal understandings about the abstract rules of production systems as well experiential understandings about concrete steps in the production process. This knowledge is 'conceptual', and is used by workers to solve, predict, plan for and avoid problems that arise through the operation of, and changes to, the production process. Thus, it can be said that many workers have, and all workers require, a mental blueprint or model of their work, which enable them to understand their work in conceptual and concrete terms, and assist in the organisation of new knowledge and the retrieval of information. Obviously, the collective or communal model created and possessed by the group has a greater depth than any individual knowledge base. One of the questions then for assessment and learning strategies is to understand and facilitate how these 'mental models' are acquired and developed.

A number of difficulties arise from this approach. Firstly, the skills that are required to do work effectively are not always reflected or acknowledged in formal job roles or titles, work systems or work practices. Wenger (1991) refers to a 'black box' approach, which workers are meant to use, without being expected or allowed to know what is inside. To merely assess the formal descriptions and requirements (the outside or external dimensions of the black box) would miss much of how work is actually accomplished. Secondly, skill often depends upon a pool of localised knowledge that is initially distributed across a number of individual workers, but becomes shared as a result of informal social interactions and communication (discussions, comparing approaches and solutions to work problems, and so on) within a work group. Thus, the group develops what Orr (1986) refers to as a communal memory of problems and solutions.

Thus, the deeper structures or layers of the work group, which go beyond the formal system and individual knowledge, enable the whole of work group knowledge to exceed the sum of its individual parts. The collective pool of knowledge is enriched by more information than any one individual worker could accumulate. Work groups are functioning more as a collective expert system, using formal and informal knowledge, experience and experimentation to confront and resolve a range of often complex problems. However, the communal memory or data base of the group is available, and provides assistance, to each individual within the group. It is perhaps one of the most valuable and relevant learning assets available to the enterprise or company.

Since many of these work patterns are enterprise specific (in that they are cultivated and maintained within specific work contexts), they tend to remain within the enterprise and its work groups and their discourses regardless of whether individual workers leave the group or the enterprise. They are transferred to and acquired by new workers who join the enterprise, much as other cultural aspects are transmitted from one generation to the next. Thus, collective skill, and its development, may be seen as a relatively inalienable asset of the enterprise, unlike the concept of skill as an individual attribute (which may leave the enterprise when a worker leaves).

In examining the collective skills and requirements of the work group within the enterprise, we need to be conscious of combining direct and indirect methods, in order to capture the depth and possibilities of the work group and the communicative practices within its discourses. Direct measurement methods or assessment strategies alone may yield invalid results if the formal descriptions (and visible aspects) significantly under-represent the full scope or depth of skills found in the context. There is the danger of only measuring or seeing the 'tip of the iceberg'
There is the added danger of only viewing this depth as extending to the boundaries of the workplace. This observation is borne out by Shuttleworth et al. (1994) in considering different approaches to collaboration.

There tends to be a common intention concerning the transformation of participants in the process of learning through the collaborative experience, but different views about how far this goes beyond individuals towards social and political change. Finally, there is a divide between worker-oriented collaborative research and research embodying a more managerial perspective. In the latter, individual or collective transformation tends to be seen in terms of an aid to improvements in productivity rather than wider social structures (5).

The need to understand collective skill will increase in importance with workplace reforms which emphasise team work and problem-solving as essential to any work organisation. There are currently few concepts or adequate measures that would enable us to adequately identify the complexity of relationships or determine changes in collective skill over time. Further, skill viewed as a collective phenomenon is fluid and very much a 'moving target'. Unlike the view of individual skill which sees skill as fixed or permanent and only changing in response to external stimuli, the collective view sees it as more dynamic - one that is constantly changing and evolving. Thus, our research methods need to be able to focus on, track, measure and utilise or harness the energy of this moving target.

Increasingly, research in the area of workplace learning is arriving at conclusions which focus on collective and shared activity and knowledge as the basis for effective learning strategies. Wertsch (1985), for example developed the concept of what he refers to as 'socially distributed cognition', using the Vygotskian notion that knowledge and socially derived norms and practices are generated interpersonally before being appropriated by the individual through joint problem-solving to become internalised as an intrapersonal attribute. Similarly, Sampson (1988) speaks of 'enssembled individualism' to argue against the validity of self-contained individualism, and promoting achievements of co-operative groups who engage in mutually obligatory communal relationships. Hull and Rose (1990), through their research on adult literacy programs, claim that a fundamental social and psychological reality about discourse, oral or written, is that human beings continually appropriate each others language to establish group membership, to grow, and to define themselves in new ways - and that such appropriation is a fundamental part of language use, even as the appearance of the text belies it (242-243).

Hull and Rose advocate for the development of a social and cognitive framework that not only allows us to analyse the discourses produced by learners, but also a framework that allows us to go beyond merely describing textual features, whether written or oral, to a description of those knowledge structures that yielded those features, and moving from a description of those knowledge structures to an understanding of their origins in a broader context (1990 244).

The concept of collectivity becomes particularly significant in relation to our understandings and interventions in workplaces. If we accept that individual workers are not isolable entities for the purposes of assessing language, literacy and numeracy requirements, but rather are 'ensembles' of individuals, then the main focus of any research should be on the collective 'ensemble' or group rather than the individual members in isolation from the group. Further, if we accept that these requirements vary within and between different contexts, the assessment must also concentrate on the various contexts in which workers interact, as well as the relationships between the various contexts.

This focus, away from the individual 'deficits' of workers, moves from a traditional emphasis on individual needs assessments towards assessing the needs of individuals as group members and the collective needs of the group as more than the sum of the needs of the individuals.
within it. That is, the group itself (as a separate entity to its members) has identifiable needs based on the context, collective practices, objectives, customs and so on. Thus, the language, literacy and numeracy requirements of a work team will be different to those of a section or department, which will be different again from a say, an industry body or policy level context.

The needs and requirements identified within and across each of these contexts will give rise to a range of learning options beyond (but perhaps including) individual tuition in particular skills areas. It also assumes that a vast range of expertise resides within groups of workers, which can be manipulated, focused or developed in ways which enhance the group as a whole.

At one level, then, it is not surprising that recent research by Billett (1993), comparing formal pre-vocational, integrated, and on-the-job learning modes, found that survey respondents rarely referred to the institutional teacher as an expert, and were more likely to talk of experts 'on-the-job' in the workplace.

The on-the-job mode of learning exemplifies the notion of situated learning, occurring in a culture of practice. This mode of learning was generally valued by respondents. A significant number of respondents claimed that the access to experts, practical experiences, relevance to work, and hands-on experience were of great utility. Access to experts and authentic activities are also integral to current theorising about situated learning and are central to models of instruction such as cognitive apprenticeships (Collins, Brown and Newman, 1989), 'apprenticeships of the real world' (Gott, 1989) (Billett 1993 12).

Wenger's (1991) research with an insurance claims processing centre refers to the distinction between the official institutional setting provided by the employer and the 'community of practice' constructed by workers to actually accomplish job performance. "The practice of a community is where the official meets the unofficial, where the visible rests on the invisible, where the canonical is negotiated with the non-canonical" (at 181). Where the two communities of practice, between official and unofficial, are significantly mismatched, where workers become disengaged from their work, is what Wenger called 'identities of non-participation'.

Gowen (1991, 1993) in her work with African American women employed in a large public hospital in the southeastern United States, and more recently with workers in a rock quarry, illustrates both the complexity of language, literacy and numeracy requirements and responses for the workplace, and the range of unofficial learning strategies and resistance that workers utilise if the learning is considered inappropriate or irrelevant. These range from passive resistance, to active subversion, to non-participation. Her work is also a lucid reminder of the obstacles which can be created through a dogged persistence with the 'official' at the expense of the unofficial practices.

While management thought productive and co-operative employees must focus on text, the women believed that the most efficient way to execute their jobs and to gain information was through oral, face-to-face communication contextualized in the particulars of the moment. As a housekeeping aide explained 'What do he know? If I did my job the way he [black male manager] said, I'd never finish' (1991 443).

In reviewing the research of McDermott and Goldman (1986), Kusterer (1978), Wenger (1991), Scribner (1985, 1987), Jacob (1986), Gowen (1990), and others, Hull (1993) suggests that the

promise of this kind of research is that it will bring to light the literate events - the situated writing, reading, talking, and reasoning activities - that characterise the work that people do in particular job and job training settings, and that it will cast workers in a different light, one that gives their expertise its due (33).

Billett's research also found that most workers surveyed placed strong emphasis on 'working with others' or working in teams, as something they do most of the time. "This suggests the
need to account for this collaborative arrangement in skill development processes" (8) The research findings indicate that the more 'authentic' the learning exercises, the more likely they are to be viewed as relevant and valued in the development of required knowledge.

Respondents who are supportive of on-the-job learning frequently refer to their highly active role in the learning process, albeit by doing things, working with experts, observation and consultation with others, being able to approximate expert actions, and enjoying guidance towards success (1993 12)

The research reported that while learning through a culture of practice in the workplace appears to be particularly effective for acquiring and developing procedural knowledge, it does not necessarily lead to deeper or more conceptual knowledge. Thus, workers learning in this way may readily come to understand how a task or job is performed, however, it is not always evident 'why' they were performed in a particular way or for what purpose.

As a guide to possible structured learning responses, Billett suggests that

it may be necessary for mentors or experts in the workplace to explicitly provide access to understandings through explanation in dialogue. Conceptual understanding is necessary as this allows the learner to evaluate the skills, situation, process or whatever and determine its application elsewhere. The mentor must consistently make explicit the reasons why things are done, and consequences of failure to do those things in that particular way (1993 14)

Rethinking the Notion of Apprenticeship

The usefulness of any strategies based on these notions and research findings will depend largely on what definitions of 'mentor' and 'expert' are developed, and how these are reflected in practice. If we rely on the traditional academic concepts and practices of 'mentoring' and 'expertise', as dependent on the wisdom and reified knowledge of gurus or prophets, a vital opportunity will have been lost.

Further, the notions of 'mentor' /'expert' and 'novice'/apprentice' are often used in a restricted and limiting way. In their attempt to 'rescue the idea' of apprenticeship, Lave and Wenger (1991) provide an interesting selection of historical and cultural apprenticeship models in their discussion of situated learning, through developing what they refer to as legitimate peripheral participation. Hanks (1991) in his Foreword to their discussion, describes how legitimate peripheral participation (LPP) works as a way of engaging and occupying various roles in the learning process.

In other words, LPP is not a simple participation structure in which an apprentice occupies a particular role at the edge of a larger process. It is rather an interactive process in which the apprentice engages by simultaneously performing in several roles - status subordinate, learning practitioner, sole responsible agent in minor parts of the performance, aspiring expert and so forth - each implying a different sort of responsibility, a different set of role relations, and a different interactive involvement (23).

I would argue that what is needed in workplace activity is a conception of apprentice/expert or learner/mentor, which edges beyond that of legitimate peripheral participation, in developing the extent of interaction and role changes in many learning processes. Often the roles interchange, and are seldom stable. Someone is not at all times and for all purposes a 'mentor' or 'apprentice', either over long periods of time or within a more particular immediate learning interaction.

Lave and Wenger (1991) introduce their notion in the following terms:

'Legitimate peripheral participation' provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artefacts, and communities of
knowledge and practice. It concerns the process by which newcomers become part of a community of practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice (29).

Learning relationships cannot be viewed as linear or one-directional, say, from expert to apprentice, as transmitter and receiver. Learning cannot be just about 'newcomers' to a particular site of learning, but rather must encompass all corners. Everyone brings something to the learning situation or processes, which in turn influences the learning. Thus, in many exchanges or engagements in the workplace, the same worker can move backwards and forwards, and occupy the roles of both 'mentor' and 'learner' within the same engagement or sequence of interactions. Our concept of mentor/apprentice needs to be expanded to accommodate these dynamics.

Any expanded notion would need to acknowledge that it is not a simple matter of workers getting or learning a discourse or set of discourses to gain full participation, but also how the discourses 'get' the worker and becomes them, and how the characteristics of each shapes and influences and is transformed by the other. The danger is to view a participant as either 'mentor' or 'apprentice/learner' and fail to accept and respond to the fact that often the same participant is or can be both, or shifts from the role of one to the other in patterns which are not as regular or consistent as many descriptions suggest. A vital part of our development of expanded learning concepts is the ability not only to envisage the concepts of alternative learning, but also to begin to imagine what these alternatives might look like and how they might be created or facilitated.

Gee (1994) reminds us, through his examination of the work of Brown and Campione, how practices that may be associated with 'liberal' theories can be manipulated and restricted.

Working within [Vygotsky's notion] the zone of proximal development allows teachers to co-opt the learner's activity and understanding. Dialogues provide a way for learners to adopt the 'goals, values, and belief systems of scientific practice', and, we might add, the classroom as part of the cognitive science. Discourse, 'implicitly', while appearing to be true 'partners' and pro-active participants with their 'own voice' (30).

If these approaches are to differ genuinely from those before them, then what counts as meaningful in learning objectives, strategies and outcomes cannot be pre-defined or controlled from outside the learning community itself, and careful consideration must be given to both the range of expertise which resides within that community and how that expertise can be effectively assessed and developed. When learning needs can be identified within and by the learning community (and they can), when assessment methods and learning responses are developed and controlled by those most directly affected by, and responsible for, the life of the group, then we may arrive at a sensible and powerful use of expertise for learning in the workplace. For participants to 'own' their learning in this sense, requires a material and equitable interest in the learning and its structures and processes.

CONCLUDING COMMENTS

It is the understanding of and respect for the settings and the workers and other participants within them or with an interest in them, (a respect which extends to admitting a range of voices and experiences to the learning process) which will determine the effectiveness and equity of any workplace program. In setting our objectives we need to avoid the temptation to be drawn into the popular discourse of individual workers' deficits as the source of economic problems, workplace inefficiencies or low productivity. We need to avoid the false promises that rest on workplace literacy or other education programs solving these and myriad other problems (perceived or real). There is a responsibility to assert and articulate the existence of workplace and worker literacies as the basis to any planned education intervention.

We need, rather, to seek out the personal stories of workers, and to learn what it is like to take part in a vocational program or a literacy class and what effect such an
experience has, really, on work and living. We need to look with a critical eye at how work gets accomplished and to examine what roles literacy has within work and what relationships exist between skills at work and the rights of workers (Hull, 1993: 44).

The overwhelming tendency of much contemporary education and vocational reform is to simplify, standardise, and render all manner of phenomena predictable. This tendency is what I have referred to earlier as an 'administrative' (or bureaucratic) approach to education and work. In contrast, by using the approach outlined here, which problematises rather than simplifies, allows us to more adequately address the complexities, promote creative and collaborative problem identification and resolution, and to begin to map out new directions and strategies for learning in the workplace.

Aronowitz and Giroux (1991) maintain that

to argue for a recognition of the dialectical quality of literacy- that is, its power either to limit or enhance human capabilities as well as the multiple forms of expression it takes- is a deeply political issue. It means recognizing that there are different voices, languages, histories, and ways of viewing and experiencing the world, and that the recognition and affirmation of these differences is a necessary and important precondition for extending the possibilities of democratic life (51).

Critical educationists, through their practice must, in the words of Edelsky (1991) be characterised by, amongst other things, "resistance to educationally sponsored means of oppressing and interrogation of taken-for-granted assumptions about language, text, knowledge and learning" Edelsky cites Ira Shor (1990) who surmised that "if we do not teach in opposition to the existing inequality of races, classes, and sexes, then we are teaching to support it " (at 2)

If our understanding extends to the specific and broader ideological interests and power relations of particular employers and their corporate and political associates, particular unions and their histories, internal and external politics, if it extends to a critical awareness of the political interests of the institutions we work for, and to geographic, demographic and cultural considerations, it must also extend to the acknowledgment that the various relationships are riddled with any number of tensions, paradoxes and inconsistencies within and between the groups of players and their connections. In this context the intervention of educationists is necessarily complex and prone to manipulation and abuse by any single or combined set of interests Thus, our enquiries should not only lead us to examine the history, expectations, investments and multiple interests of other parties, but also to closely and honestly question our own political assumptions, class or professional interests, biases, values, limitations and our strategies for extending 'sound' educational practice in the workplace.

The terms and conditions we negotiate for our educational interventions, our methodologies, content, curricula, evaluation and assessment tools are not neutral. The choices we make, how thoroughly we research, analyse and prepare our work, how forcefully and convincingly we negotiate aspects of our intervention, whether we are ever prepared to withdraw our service, expertise or involvement if genuinely held 'principles' will be compromised, will determine what and whose interests we ultimately serve. We must somehow come to terms with the often contradictory roles, goals and impact of our research or instruction interventions and those of the workers, to avoid or minimise our models monopolising.

The opportunities exist to use and engage these sites in a political project of resistance and opposition to traditional boundaries and barriers. The opportunities exist for educators to cross new borders with confidence, to redefine the purposes of those border crossings, and to be welcomed as allies rather than invaders. The intervention of educationists can assist workers in redefining the relationship between power and culture, representation and domination, into a more equitable and just set of social relations.
When we respect indigenous workplace practices, understand the complexity of work skills and their relationship to job performance, that is, when we are prepared to listen to workers' voices and respect their daily realities as the basis of our programs, we will be negotiating for a more informed and appropriate set of approaches to workplace education activities than at present. We will be proceeding or intervening from a position that values these understandings and practices grounded in them, and from a position which can avoid the under-sellling or under-valuing of workers' language, literacy and numeracy needs and potentials.

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ARRANGING THE PRACTICUM ACROSS THE SECTORS

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The practicum component of the various courses offered in Vocational Education and Training (VET) at Charles Sturt University (CSU) represents a departure from the usual pattern of practicum design both in terms of day to day organisation and the relative amounts of responsibility assumed by the students and the practicum coordinator. The practicum as part of a set of subjects devoted to Teaching and Training Practices inextricably ties together training, practice and real world experience. The assignments, readings and practical experiences of the students have been constructed so that they are mutually dependent and integrated within the subject. One part is of little value without the other segments of the learning jigsaw puzzle.

The practicum further encourages an adult view of learning in that the responsibility for its organisation is firmly attached to the students and not the practicum coordinator or other academic staff. Knowles (1984) and McCombs (1991) have identified some of the general principles which underpin adult learning and Smith (1992) has articulated these common and emerging themes in the following way:

1. The role of self. The focus of attention is on the individual learner. The effectiveness with which the individual learns is a function of the development of self. The individual learner is self-directing and the process is the growth of self. The individual, following Kolb can determine his or her own preferred learning style. The ultimate goal of the learning process is the fulfilment of self, what Maslow referred to as 'self actualisation'.

2. Experience. Learners draw on their fund of experience and learn through experience. Thus, the best instructional design must incorporate experiences which the learner undergoes in a self-directed manner rather than relying on traditional didactic techniques.

3. Facilitation. The role of the teacher needs to change to accommodate the emphasis on self and experience of adult learners. The teacher/trainer becomes a facilitator, helping the students by clarifying their personal goals in the learning process and creating conditions for these goals to be achieved rather than directing the content and process of learning (Smith, 1992: 39).

The theoretical framework within which the design and effectiveness of the VET practicum will be analysed is a model of workplace learning devised to describe the learning experiences of school teachers (NBEET, 1994: 25).

This model (Figure 1) sets out to chart the factors which impinge on the learning of chart the factors which impinge on the learning of individuals within their workplaces.
It is dynamic and ecological in that it attempts to explain how things are, how they can change, what affects change and how the landscape reconfigures itself when change of one or a number of types takes place.

It is fascinating to lay this template across the professional experiences of our students. If for instance we take the TAFE teacher in engineering who is returning to formal VET study after 15 years in the workforce we can chart the pressures and encouragements that will impinge on that person's progress. Since their worksite and their learning site are the same the likelihood of support and hopefully success within the course will be enhanced.

If alternatively we look at a student whose work site is quite different to their Practicum site we can see that the pressure on them in both contexts are going to be quite immense.

This way of viewing the Practicum allows us to identify and categorise some of the hurdles which our students have to negotiate.

The Students
The students enrolled in CSU's VET courses come from an extensive variety of backgrounds. They come with vastly different levels of experience, expertise and educational confidence. For instance in the one course we have a 30 year old hairdresser who completed formal schooling to Year 10 and then joined the workforce, a TAFE teacher/administrator who is presently responsible for the dispersal of information regarding the Australian Vocational Training system.
throughout his Institute, and a number of instructors from the RAAF. This range reflects the diversity of students throughout the courses. Our students come from all the VET sectors TAFE, community colleges and Skillshares, the defence forces, private industry and individual students employed in areas which have nothing to do with their present enrolment in the course or unemployed or undertaking home duties.

All these students are enrolled via distance education. There is no face to face teaching.

Most of the students are expected to complete their first practicum during second semester of their first year. The responsibility for organising this practicum firmly resides with the student, supported by members of the teaching staff and the practicum coordinator.

The student was expected to select a site for the practicum and approaching a person who would act as the 'observer'. The 'observer' is required to observe the student teaching for a maximum of three teaching sessions. For those students firmly embedded in a training organisation, this activity posed few problems. TAFE employees enrolled in the course for instance could approach their supervisor to assume the role of observer and found it relatively easy to formalise these arrangements for their practicum.

Students outside the confines of training organisations experienced difficulties in organising their practicum sites, times and formal observers. These difficulties were accompanied with varying levels of anxiety and stress. The Practicum Coordinator spent an average of 15 hours per week in first semester answering the phone queries and solving practicum problems for these students. The pen-pictures which follow later in this presentation illustrate some of the uncomfortable realities which confront our adult learners as they return to formal tertiary study.

The organisation of the practicum
Each student has to complete 100 hours of practicum for each Teaching and Training Practices subject. This 100 hours should normally include 48 hours of delivery. The student has four people involved in his or her practicum. The university is able to provide payment for all these people:

1. **Supervisor** Must be within the organisation where the practicum takes place. S/he will help the student with the arrangements and provide support.

2. **Observer** May be within or external to the organisation. S/he makes three formal observations and provides reports to CSU. Meets with student before observation and provides debriefing afterwards.

3. **Mentor** Helps students appreciate the broad role of the practicum setting and the institutional expectations.

4. **Coordinator** Ensures that practical arrangements are made and pay claims are returned. While in some organisations some of these roles are combined, where possible the observer role is kept separate from the other roles. It has been noted (eg Price, 1987 in Ryan et al 1994, 22) that there is a conflict between the role of counsellor and assessor.

Recognition of prior learning (RPL) is available for up to 75% of the practicum where achievement of the required competencies can be documented. The RPL policy is still evolving.

Students receive communication from the practicum coordinator throughout the semester preceding the practicum. A practicum handbook is sent to all students and all nominated observers. An attempt to ensure the quality of nominated observers is made before they commence their duties. A video of a teaching session is sent to observers, they are required to complete a practicum observation report about that teaching session and return it to the practicum coordinator for checking.
Pen-pictures of selected students

*Susan* is a young hairdresser who works 5½ days per week, whose last taste of formal learning was ten years ago at a TAFE college. She attended school to Year 10 and has problems with literacy and numeracy.

She completed one subject in first semester and was enrolled in her Teaching and Training Practices for Semester 2. The practicum coordinator met with her on three occasions and helped to organise her practicum within the local TAFE college which also agreed to pay her for the time she spend teaching in the college. Initially she was excited about the prospect although her employer was reluctant about losing her employee for 1 day per week.

She found the practicum requirements and the other assignment load far too heavy and withdrew without penalty from the course, leaving herself the option of picking up the threads again in 1996. Susan was also confused by the different views of the teaching process and of hair styling expressed by teachers at the college. She reported that lessons she had prepared meticulously were cancelled and she was asked to deliver lessons on other topics with no preparation time available.

The course materials which Susan faced whilst gentle in their construction and clear in their expression and expectations were clearly beyond her current capacities. A quick glance at her lesson notes showed that she needed the time and space to do a bridging course before launching into tertiary study.

*Jane* is an experienced TAFE nursing teacher. She is capable, and efficient and had no apparent trouble organising her observer for her practicum period. She applied for RPL on the basis of her teaching background and was given a reduction in practicum hours and the number of observations required.

Jane has chosen to combine her practicum with her job at TAFE and she has arranged for her normal teaching hours to be counted towards her requirements. Jane is finding the course beneficial as she incorporates new ideas into her teaching. She maintains that the Practicum has been useful in reminding her of the need to be refreshing in her teaching. Jane does not see much difference between her Practicum and her normal job. The only additions come in the form of paperwork and formal observations.

Jane rang and talked for comfortable confirmation that the directions she was going in were appropriate and 'right'.

*Peter* has no STD facility on his phone so all messages come through from the student help desk. The practicum coordinator has spent many hours on the phone to this student.

He had lots of problems with his Practicum - where to go, what he wanted to do with his qualification and how he was going to complete his other assignments in the Teaching and Training Practices subject. As the practicum coordinator and Pat worked through the problems he gradually became clearer about a number of his goals and actually completed his practicum at the local high school in a third of the required time.

*Cynthia* is a highly educated and self motivated individual. Before enrolling in this course she had a successful career in journalism.

She applied for a grant through the Ministry for the Status of Women, organised training workshops for women and the media and organised her observer in consultation with the practicum coordinator. She created her own practicum and funded it through her own initiative.

*Mary* lives in a remote area and has no fellow-students nearby. The practicum coordinator suggested a nearby and non-confronting community college course for her practicum. This...
was originally to be the venue but this fell through and subsequently we found a school where she could work with a supervisor.

Lack of confidence made approaches to people and organisations a real trial for Mary. Mary required a lot of support from the practicum coordinator. She found the ethos of the school difficult to accommodate and because of her inexperience her supervisor agreed to team teach with her. Whilst this was exceptionally supportive Mary was then very concerned that she would not be able to fulfil the mandatory hours of her practicum within the semester period. This problem was solved but is indicative of the insecurity which Mary expressed all through her practicum period.

Rena works at a University as a secretary to a Head of School. She has had this job for quite a few years and before this worked in offices in similar if in slightly less demanding roles. She has been away from formal education for about 25 years, but recently decided that she would change career directions.

She has a reputation among her colleagues as being an expert with computers and computer systems and has taught a lot of friends and colleagues how to access this technology. Rena’s decision to enrol in tertiary study, however, has created a great deal of anxiety for her. Universities for Rena are places where those with proven intellectual credentials take up their places. She had never considered herself as a tertiary student. With some encouragement and support she has begun her course. She has already arranged her first two practica one at a local Skillshare where she will be doing a block placement and one in her university’s training division.

From the Student’s View

The students mentioned above were contacted by a research assistant and asked to comment on the organisation of the practicum supplied by the University and their reactions to having to organise their own placements, observers, supervisors and mentors.

Some of the issues raised were:

- The need to have any information as early as possible during the first semester so that they have adequate time for setting up the practicum.

- The practicum requirement was not clearly specified in the Handbook and some students realised with some sense of shock that three 100-hours-practica were mandatory components of their courses.

- The need for further support either in the form of a preliminary opportunity to observe teaching in different contexts or the provision of a video demonstrating these situations. This has allowed the students who had never taught before to have some sense of what was expected of them.

- The task of preparing teaching plans and training session notes was a totally alien experience to some of those mentioned before and the students articulated their horror at having to undertake such a task with incomplete guidance.

- Most of the students contacted felt that the University offered good support. One student disliked voice mail and would have preferred lecturers’ home phone numbers.

- Some mentioned that a residential school would have helped them to settle in and make contact with other students.

- The suggestion was made that the role of the mentor could be stressed earlier and more forcefully in the Practicum. This would help to overcome some of the feelings of isolation and insecurity created by studying in distance mode.
• One student found the RPL arrangements unsatisfactory and not explained to students early enough.

Clearly the diverse backgrounds makes the writing of the modules in these courses difficult in terms of matching text to audience. Some students mentioned that the materials were too oriented towards TAFE students and did not accommodate their lack of experience in the teaching and training contexts where their practicum placements were located.

From the Observer's View
Most of the observers contacted by the research assistant were positive in their responses to their role. Those most positive came from a strong teaching and training background who had been in positions of supervision before.

• One observer dislike the fact that the list of competencies for their reports made no reference to 'how well' the student had done, but simply asked that its achievement be recorded.

• The video provided for the observers as a trial run was produced very quickly and received quite a number of unfavourable comments. Clearly this has to be redone more professionally for 1996.

• A number of observers felt that lesson preparation was not adequately covered in the course.

Outcomes
It is clear from the responses which our research elicited from students and observers that a number of factors affect the success of the practicum and also that this success can be assessed in two ways: did the practicum 'run smoothly' and was the learning effective?

Running smoothly
Since the practicum is still in its infancy at CSU we are still working on ways to make the practicum 'run smoothly'. The range of situations within which our students undertake their practicum makes this task much more difficult than for other programs within education faculties.

Effectiveness of learning
Figure 1 (NBEET 1994 25) provides a way of looking at teacher learning within their workplace. This model was not designed to represent teachers' learning in a different workplace. Although the factors affecting the effectiveness of learning remain the same in the latter case, their relative importance can change quite dramatically. For instance, some TAFE colleges tended to be uncomfortable with the idea of having a teacher on 'work experience', despite the fact that TAFE colleges send their own students out on work experience placements.1 This attitude added to the stress placed on the CSU student. In terms of the model, the 'culture of the school' was not one that easily accepted learning teachers from outside. The 'learning resources and support' would accordingly be diminished because there was no history of dealing with this type of learning teacher.

Teachers and trainers undertaking their practicum within their own organisation found the experience less challenging. In terms of the model, the practicum had minor effects in the way they saw their teaching and the way others viewed them. The same report (NBEET 1994 26) identifies a number of facilitating and inhibiting factors for teachers' workplace learning. A few of the facilitating factors may be particularly important in the context of the VET practicum.

• The school is viewed as an 'educative workplace' for teachers as well as students.
• Stages of professional development are recognised in teachers' lives.
• A culture of collaboration and a sense of professional community in the school.
These factors were identified as absent in the case of ‘Susan’. In the case of ‘Jane’, although her department appeared to possess these factors (as ascertained through the interview with her observer) ‘Jane’ herself was a little resistant to the practicum and seemed not to share fully in this learning culture.

**Implications for teachers and trainers in their own practice**

Most teachers and trainers expect their own students or trainees to undertake workplace learning connected with their course. This could be within the students’ own workplace, in the case of industry trainers or TAFE teachers teaching apprentices. Alternatively, it could be within a different workplace, in the case of TAFE or community providers of VET sending students out on placements or work experience. CSU students who have undertaken the practicum should have a much greater understanding of the challenges facing their own students.

**Conclusion**

We found that the use of adult learning principles in the practicum created discomfort for some students and also for the organisations within which they sought their practicum. However, the greater the discomfort for the student the greater the learning was likely to be. The concept of transformative learning is relevant here: critical self-reflection which leads to a reformulation of an individual’s "meaning perspective" (Mezirow, 1990 in Cranton, 1992:17). The critical self-reflection has been extreme for some students. For those students undertaking their practicum within their own workplace the challenges have been gentler but nevertheless present.

**Endnotes**

1. Several colleges elected to give the learning teachers a class and pay them as part-time teachers. In other words, they assigned them to a role familiar to the college.

2. It is possible that part-time teachers are excluded to some extent from the learning culture within teaching and training organisations.

**References**


**Acknowledgement**

Thanks are due to Paul Perry, the research assistant, who carried out the telephone interviews with selected students and observers.
"WE DID IT OUR WAY" (AN INNOVATIVE APPROACH TO INITIAL TEACHER EDUCATION AND TRAINER TRAINING AT CANBERRA INSTITUTE OF TECHNOLOGY)

Trish Carroll
Canberra Institute of Technology

Introduction
In July 1994 Canberra Institute of Technology took the radical step of implementing its own initial teacher education course. This course was designed to meet the need of teachers who were recruited with industry experience but no recognised teaching qualification. In addition to this, it was felt that it would be opportune, given the nature of Canberra's industry base, to develop a certificate for workplace trainers. Thus the twin certificates of Tertiary Education and Training and Training and HRD were conceived.

This step was taken after a series of reviews and investigations of the current provision of initial teacher education for the VET sector both locally and overseas. A perusal of the provision of university offerings indicated a serious lack of relevant and practical content at both the graduate and undergraduate levels. Further, investigations of alternative approaches to teacher training of TAFE teachers, most notably at Auckland Institute of Technology helped the Institute to create a framework for our own teacher training. Another impetus was the development of the competency standards for workplace trainers and assessors and the desire to create links between the training provided for TAFE teachers and workplace trainers. This was seen to be important given the changing role of TAFE teachers and the new directions implicit in the Training Reform Agenda.

<table>
<thead>
<tr>
<th>Certificate in Tertiary Education and Training</th>
<th>Certificate in Training and HRD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Director</td>
<td>1 Representative,</td>
</tr>
<tr>
<td>Centre for Professional Development</td>
<td>Customised Training Unit,</td>
</tr>
<tr>
<td>Auckland Institute of Technology</td>
<td>Torrens Valley Institute</td>
</tr>
<tr>
<td>New Zealand</td>
<td></td>
</tr>
<tr>
<td>2 Representative</td>
<td>2 Representative</td>
</tr>
<tr>
<td>Office of Deputy Vice Chancellor</td>
<td>Attorney Generals Dept</td>
</tr>
<tr>
<td>Academic</td>
<td>Practice Development Section</td>
</tr>
<tr>
<td>University of Canberra</td>
<td></td>
</tr>
<tr>
<td>3 Head of School</td>
<td>3 Representative</td>
</tr>
<tr>
<td>Canberra Institute of Technology</td>
<td>Defence Force</td>
</tr>
<tr>
<td>4 TAFE Liaison Officer</td>
<td>4 Representative</td>
</tr>
<tr>
<td>Australian Education Union</td>
<td>CPSU</td>
</tr>
<tr>
<td>ACT Branch</td>
<td></td>
</tr>
</tbody>
</table>

At the same time that the development was occurring in the teaching certificate, a national focus was placed on the career development and national standards for trainers. Previously there had been no formal access to training for experienced trainers in the workplace. Category one trainers were covered by Train the Trainer short courses but those who design, manage, conduct and evaluate training as a full time function were unable to access formal training. The development of national standards for trainers, assessors and human resource development
(HRD) practitioners created an impetus for an in-depth course which would give these trainers some certification for their skills.

The framework that was developed had to provide for:

a) the needs of two diverse client groups: TAFE teachers and workplace trainers
b) the development of a career path for our teachers and trainers

The course developers in a joint consultative process consulted with clients, industry and the university sector to make sure that the needs of both client groups were being met. Firstly, the joint Course Reference Group consisted of representatives of the Australian Education Union, PSU and Industry (Defence and Ambulance Training areas) who met regularly over 1994 to resolve issues of structure, content, assessment and resources. Secondly, the accreditation panels for both certificates were well represented by stakeholder groups including an international academic for the Certificate in Tertiary Education and Training.

Both certificates were seen as initial training, that should link to appropriate professional qualifications at a university level but there have been major barriers to articulation despite repeated overtures. The issue of credit transfer is discussed more fully in a later section.

**Structure of the Courses**

The following table outlines the basic structure of each of the two certificates, the Certificate in Tertiary Education and Training and the Certificate in Training and Human Resource Development. In each course students must undertake 12 modules. The core and electives are configured so as to meet the needs of the different client groups.

<table>
<thead>
<tr>
<th>Table 2: Structure of the Two Certificates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CERTIFICATE IN TERTIARY EDUCATION AND TRAINING</strong></td>
</tr>
<tr>
<td><strong>6 COMMON CORE MODULES</strong></td>
</tr>
<tr>
<td>Principles of Adult Learning (20 hrs)</td>
</tr>
<tr>
<td>Current Issues in Education and Training (20 hrs)</td>
</tr>
<tr>
<td>Developing Learning Resources (18 hrs)</td>
</tr>
<tr>
<td>Planning and Delivering a Training Session (40 hrs)</td>
</tr>
<tr>
<td>Assessment (20 hrs)</td>
</tr>
<tr>
<td>Diversity Training (12 hrs)</td>
</tr>
<tr>
<td><strong>2 OTHER CORE</strong></td>
</tr>
<tr>
<td>Assessment Techniques ** (30 hrs)**</td>
</tr>
<tr>
<td>Gender Inclusive Teaching (12 hrs)*</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>COMMON ELECTIVES</strong></td>
</tr>
<tr>
<td>(Participants in the teacher education program choose 4 modules and participants in the HRD program choose 3)</td>
</tr>
<tr>
<td>Recognition of Prior Learning (20 hrs)</td>
</tr>
<tr>
<td>Managing Training (20 hrs)</td>
</tr>
<tr>
<td>Standards to Curriculum (20 hrs)</td>
</tr>
<tr>
<td>Negotiation Skills (20 hrs)</td>
</tr>
</tbody>
</table>
| * indicates that these modules are offered in flexible mode | **In the second offering of this program Assessment and Assessment Techniques have been integrated**

**Implementation Issues**

There have been a number of aspects that have arisen with regard to the implementation of the two courses.
Practical Focus and Development of Reflective Practitioners
TAFE teachers have qualifications and training in a variety of professions and trades. The initial teacher/trainer education they need is one that equates more with the apprenticeship model than the school teacher front-end model as these individuals are studying at the same time they are experiencing the rigours of the class/training room. Their immediate needs have more to do with How of teaching than with the Why of educational philosophy.

Many of the complaints of the university courses concentrated on the lack of a relevant practical base and the seeming unwillingness of the lecturers to contextualise the material to the VET sector. In order to overcome this issue both certificates were given a strong practical emphasis in their development and delivery. Participants work on their own documents, their own workplace experiences and their own issues in all the modules within a theoretical framework provided by the facilitator. This is seen by the participants of the courses as being one of their greatest strengths.

Having a practical emphasis based in the modules gives greater meaning to the development of reflective practice. Concrete situations and events are used as springboards to reflect on the positioning of both participants and facilitators within educational theory. This reflectivity is not just left to the facilitators' discretion but has been specifically written into the outcomes of the modules.

In contrast to the TAFE teachers situation, many of the experienced trainers have been training for many years and need the underpinning theory, the Why of what they are currently doing. They have gained much experience and often are extremely good at what they do and it is often through instinct and personal abilities rather than through a comprehension of educational theories.

Contextualization of Material
As stated above the modules were developed with specific client profiles in mind. This means that the broad context of the VET sector underpins the curricula. Consultative processes were undertaken by the development team with TAFE teachers, workplace trainers, managers of these groups, professional organisations and university co-ordinators. In addition, the team perused a wide range of VET sector publications including competency standards for workplace trainers and assessors, as well as general educational and training literature.

There is also the specific need to contextualise presentation material. All the facilitators are currently working within the TAFE sector and have a wide range of experience in vocational education and training as well as publishing in the area. All have immediate experience of the issues confronting the participants and because of that are able to model good teaching and reflective practice.

Cross Fertilisation
Initially the two courses were delivered separately. The primary perception was that there was a need to contextualise the delivery for teachers and workplace trainers as two separate groups. This view has been diluted over time and not all of that change has been for pragmatic reasons.

Facilitators cross from one certificate to the other and now participants do the same. While this does place a greater burden on the facilitator to contextualise successfully for both groups when giving direct presentations, the practical nature of the activities allows this mixing to happen quite successfully. It also means that there is greater cross fertilisation of ideas. Occasionally, specific context dominates the content of a session or part of it eg introducing curriculum documents to TAFE teachers and/or training programs or standards to workplace trainers. Here the participants need to be introduced to specific documentation. Generalisation is inappropriate and a waste of time. In these circumstances we have been able to engage two facilitators and split the group. This has had the dual effect of modelling good practice and making the activities specifically relevant.

Development of Flexible Delivery
Two of the modules are already delivered in flexible mode (Gender Inclusive Teaching and Open Learning). CIT is now looking into developing flexible resources for more of the
modules. The National Staff Development Committee's (NSDC) project material on Workplace Trainer, Teaching and Learning and Standards to the Curriculum can be used to allow teachers and trainers to make real choices about how and when they will undertake their study.

Due to the nature of our client pool, CIT will not be offering total self-paced packages but maintaining a balance of on-campus tutorials and supports and off-campus materials. We have experimented with offering 4 of the teacher education modules (Dealing with Conflict, Standards to the Curriculum, Learning Resources and Diversity Training) in a flexible mode where participants had less contact with a facilitator and more negotiated project based work. Once these modules and the parallel traditionally offered modules have been completed we will have a better idea of how the two modes compare.

Because many of the trainers are full time practitioners, many of whom travel nationally to deliver training, an aspect of the flexible mode has been CIT's ability to offer weekend as well as weekday workshops, night and day classes at various times.

**Recognition of Prior Learning**

A major policy initiative in CIT is Recognition of Prior Learning (RPL) where individuals are assessed on their skills gained through work and life experiences rather than in formal education. This process is particularly relevant to both certificates since many of prospective participants have either taught for many years as part-time teachers with no formal qualifications or have been in training for many years. The learning outcomes for all the modules are made available to the participants in order for them to self-assess, and where they feel confident about their skills level, to apply for RPL.

The RPL process consists of two parts. Firstly there is a detailed application which enables the participants to match their experience to the learning outcomes. Secondly, there is an interview with bench mark experts to examine the applicants experience, knowledge and skill level through questioning, discussion and the producing of concrete examples where appropriate (eg session plans and assessment instruments). Observation by the bench mark experts and practical demonstrations are also part of this process.

An example of RPL working very effectively and the relationship between the two certificates has been the case of a fully qualified teacher from CIT who wished to gain the Certificate in Tertiary Education and Tertiary as he was on a return to industry and that certificate was seen as directly related to his needs. This teacher applied for RPL and will have both qualifications as workplace trainer Category two and as a teacher. A very advantageous position for his career future.

**Credit Transfer**

In order for the certificates to fulfil the career aspirations of both teachers and trainers there need to be established links with university programs of adult education. Despite numerous overtures to the university sector there has been little forthcoming with regard to credit transfer.

The University of Canberra has proposed that in their new undergraduate and graduate courses the certificates receive generous credit transfer arrangements. The individual involved in proposing this was on the Accreditation Panel for the Certificate in Tertiary Education and was very impressed with the quality of the program. The fact that the AVCC Credit Transfer Project on Teacher Education used the Certificate in Tertiary Education and Training as the bench mark in their recent survey also attests to its quality.

It is yet to be seen as to whether the proposal will make it through the University of Canberra processes or what the outcomes of the AVCC survey are. There appears to be a high degree of suspicion and possible elitism on the part of the universities with regard to teacher/trainer education and the involvement of TAFE and the wider VET sector. Perhaps some of this can be overcome by opening up the channels of communications and addressing the issues in free and frank discussions.
Present Enrolments
The following tables indicates the present enrolment details.

Table 3: Certificate in Tertiary Education and Training Enrolment Details for 1995

<table>
<thead>
<tr>
<th>No of Permanent Teachers Enrolled</th>
<th>No of Contract Teachers Enrolled</th>
<th>No of Casual Teachers Enrolled</th>
<th>TOTAL ENROLLEES</th>
<th>No. Anticipating Graduation</th>
</tr>
</thead>
<tbody>
<tr>
<td>18</td>
<td>11</td>
<td>24</td>
<td>53</td>
<td>26</td>
</tr>
</tbody>
</table>

As can be seen from the above figures the largest number of enrollees are casual teachers who constitute approximately 40% of the total teaching hours offered by CIT. The Institute has undertaken to waive course fees for this certificate for all casual teachers. Therefore the demand for the course is very high.

Perceptions of Participants
The participants in both certificates have been very positive in their perceptions of the courses. The following information is based on informal interviews with current participants who have almost completed the full certificate. A formal evaluation of all modules will be completed in December.

Certificate in Tertiary Education and Training
The teacher education course appears to be exactly what most of the participants need. Some of them have been very exuberant in their praise: "It is the best learning experience I have ever had." Others tend to be less effusive but nonetheless attest to how the course has made incredible changes in their teaching skills. It has also assisted teachers to become life long learners. "I thought I knew it all before I started this course. Now I know it (learning about teaching) goes on forever."

The best part of the course was its total relevance to their teaching. Everything they did in the classroom or out of it for assessment or homework was related in a practical way to TAFE teaching. A number of the participants in the program are or were enrolled in university programs of adult education/HRD. Their comments were that the Certificate in Tertiary Education and Training far outdistanced the university courses in its relevance and ability to develop their skills as classroom teachers.

Issues to be Addressed
As with all educational programs there are issues that CIT needs to address in continuing to offer our own teacher training and category two trainer training.

a) With the Certificate in Training and HRD, because it is a fee-for-service course, and therefore needs a base line number (approximately 6-8) of participants to make it viable many participants have to wait varying periods of time for the modules of their choice. This is also exacerbated by the fact that many experienced trainers have successfully applied for RPL in many of the modules. This has been over come somewhat by introducing the combined classes but there are modules where this combining might be problematic (eg The Role of HRD in the Organisation). On the other hand this encourages us to look for innovative ways of delivering and moving people through the modules. The move to developing flexible resources will also assist in this delivery issue.

b) The Certificate in Tertiary Education and Training has the opposite problem and is in great demand through out the whole course. We have not been able to offer enough modules at any one time to meet this need. As stated above combining classes and developing flexible delivery has helped.

c) There is a need to develop links with universities so that the certificates form the corner stone of a career path for teachers and trainers. While we have our own plans for the future
development of Graduate Certificates, it is important for the participants to have a wide range of choices.

To date most universities have not been very forthcoming with credit transfer arrangements which has been very disappointing. The University of Canberra was on the accreditation panel of the Certificate in Tertiary and is eager to discuss favourable credit transfer arrangements for their revised offerings in 1997. They have recognised the value of teachers having a solid foundation based in practical, relevant studies.

**Conclusion**

As we move to the completion of the first year of operation of the certificates and to the first cohort of graduates, it is time to undertake a formal evaluation of the programs and to continue with the task of addressing the issues raised in this paper. Understandable we are very proud of our efforts and from the comments of all participants they have benefited greatly from their studies. We have yet to see whether the informal and initial perception that the teacher training is changing the learning culture of CIT is well founded. While still concentrating internally to improve content and delivery, we also look forward to constructive dialogue with the universities.

**For further information please contact:**

*Certificate in Tertiary Education and Training*  
*Certificate in Training and HRD*

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Introduction
In 1995 Australian managers and vocational educators were presented with a major review of management practices in Australia. The final report Enterprising Nation - Renewing Australia’s Managers to Meet the challenges of the Asia-Pacific Century was an indictment of the way we have managed our organisations over the past decade. The Karpin Report’s findings revealed a lack of preparation for entry into the Asian-Pacific marketplace, poor levels of competitive advantage and many operational managers untrained for the challenges beyond the year 2000.

"Enterprises, training providers and educational institutions around the world have begun implementing a wide range of innovations which aim to develop managers with the new skills. Investigating management development in Australia, however, has led the Task Force to a disturbing conclusion. It appears incontrovertible that Australian enterprises, training providers and educational institutions are not moving quickly enough to address the new paradigm of management. Many of their counterparts overseas, and especially the leaders in various fields of industry and education, are changing more rapidly and more extensively, and will be better prepared for the next century."

The message is clear. Unless Australian managers and management educators significantly improve themselves, their awareness of the changing world and ultimately their performance as leaders, decision-makers and mentors, then competitive disadvantage will become a way of life with all the associated negative economic and social costs such a diminishing national reputation will attract.

In my opinion there are four perspectives that need to be taken into account by vocational educators as they look at the impact of the Karpin Report and its warnings.

Perspective #1 The TAFE Challenge
The technical and vocational education system of Australian has developed into a an arrangement of public and private providers. The public sector provider is known as the TAFE sector. It represents an array of institutions across the nation and funded primarily by State governments with additional support from Federal Government initiatives. In Victoria the TAFE institutes have been given considerable freedom and autonomy under legislation to manage their own affairs in line with clear strategic plans and annual performance agreements.

However, the Victorian model also allows for considerable private provider style operations within the TAFE institutes. This dual role has been encouraged by State Government policies that focus on public sector efficiency and industry relevant vocational training. It is this dual image that signals the first major communication challenge for management training in Australia. The TAFE sector in Victoria is not clear about its core business function given an increasing attraction to performing like private sector business organisation. The introduction of a level playing field in July 1996 through the application of the Hilmer policy on competition will create immense pressure on some TAFE institutes because they have not recognised the inherent conflicts that stem from a dual roles in the course of everyday business practice.
The TAFE sector in Australia has a weak history with respect to management education and its training links to industry. There are various reasons for this weak track record. They include

* Many years of incremental not structural organisational change
* Too much reliance on a public service model of management
* Very hierarchical lines of authority
* Heavy unionisation of the teaching profession
* Weak management training of TAFE staff
* Weak employer organisations
* Low levels of investment in R & D
* Annual funding cycles

The communications challenge contained within this weak history is enormous. After years of discouraging dynamic, flexible management systems and communication between the various players, the 1990s demand is for an immediate turnaround without the attendant funds or training resources to achieve the outcomes. Also, simultaneously, the TAFE system has some apparently conflicting cultures born of past ideological and and political decisions about the nature and supply of vocational education and training.

In my view the TAFE challenge can be separated into three categories where **alignment has to be developed** if the expectation of competitive advantage is to become a reality.

Alignment Issue Areas

Organisational Vision

External Images

Internal Culture & Values

**Perspective #2  The Karpin Challenge**

The Karpin Report 3. was quite clear with respect to the areas of deficiency in Australia’s management systems. They include

* Inadequate investment in management as an organisational tool
* Poor training of frontline managers
* Pressure to lift organisational performance
* More emphasis on a quick return on investment
* International competition
* Insufficient attention to analysis of issues
* Inexperience with turbulent times
* Poor levels of senior manager qualifications
* Inadequate communication skills training

The combined impact of these deficiencies has created a fundamental challenge for the years beyond 2000. This challenge is essentially a human resource issue with four dimensions. They are

* Pressure to find motivated new style managers
* Pressure to rapidly educate new style managers
* Need to expose all managers to the notion of constant change
* Need to develop supportive family/social systems to help face change

This challenge is huge human capital issue because it requires a complete change in the values underpinning the typical Australian way of life. I suspect few Australians aspire to the image of 2010 senior manager profile identified by the Karpin Report where the

"environment is typified by rapid change, limited term appointments, high pressure and results driven.” 4.
Perspective #3 The Information Technology Challenge
The world of information technology represents another massive social and organisational challenge to Australian managers. The Karpin Report also recognised this issue, stating

"Increasing globalisation, widespread technological innovation and pressure on business to customise products and services have created an international business environment that would be unrecognisable to the manager of fifteen years ago." 5.

The precise extent of the influence of the new information systems remains undetermined. Terms like Internet, Email, World Wide Web and Satellite television are still in their infancy and evolving. The traditional reliance of Australian vocational education on classrooms and the chalk and talk technology has not disappeared in 1995. However, there is a very rapid shift through Open Learning and teletutorials to replace the inefficient small classroom with a global equivalent that picks up several hundreds of students at a fraction of the traditional cost of service delivery. For example, 8 hours of Computer Based Training could be offered via Internet for a mere $US20 with additional access to a tutorial network around the world. Australian TAFE providers or even private providers would be hard pressed to match that price.

Virtual reality is another source of challenge and opportunity. The virtual reality environment is unlimited. It offers the Vocational Education and Training (VET) system a cost effective way of allowing self-paced technical learning with the maximum feedback potential via electronic monitoring. As yet though there has been little government interest in the project and the private providers have not yet reached the scale of operation required to consider such R&D investment. Virtual Reality is one field where Australia could establish a leading edge reputation if there were sufficient interest in taking up such a market position. So far there is little evidence of an interest in this kind of leadership role.

The information technology challenge rapidly brings into play several influences, each a powerful agent of change in their own right. They are

* End of geographical boundaries as barriers
* Global project teams to replace existing permanent staff
* Discontinuous change processes
* Much greater focus on innovation as a way of thinking
* Smarter and quicker intelligence processes
* End of the 800 year old model of the dominant teacher controlling information
* More training by simulation and electronic technologies
* Greater integration of home and work activities
* Less reliance on oral communication methods
* Supermarket shopping for studies and education programs

The emerging challenge is radical. It presents a totally foreign world to those who are not keeping track of change and its impact. The challenge at this level is a survival matter because of the high stakes involved and the potential to lose out permanently if mistakes or omissions are made. The key challenges are

* Total uncertainty about direction and focus
* Growth of new words and languages
* Less demand for workers
* Total revision of work practices and contracts
* High emphasis on communication and interpersonal skills
* High levels of self-esteem and confidence
* Very complex models of organisation
* Heavy reliance on team skills
* Extremely entrepreneurial managers
The new vocational educators must also shift towards this paradigm and recognise that their own employment will be strong in its customer focus and heavily dependent on outcomes.

**Perspective #4 The Learning Challenge**
The integration of all of these challenges will call for a new approach to learning for all players in the vocational education game, whether managers, educators or employees. The new model will not rely on ascribed authority and power but earned respect and credibility. Performance will be the key measure of effectiveness with a strong commitment to structured learning against tight timelines.

The nature of the learning challenge in has been described by author Alan Mumford in the following terms -

"Learning from day to day activities is not only the most prevalent process: it is probably for most people the most important. It is also the least disciplined, the most subject to competing time pressures as compared with the more dedicated learning processes off the job." 6.

The teaching expectations of this kind of learning environment are enormous. The teacher will be a mentor, consultant, change agent and student at the same time. Participant observation methods will be commonplace requiring constant self-review and performance appraisal. Team dynamics will be the driving psychological tool and teachers will require highly developed interpersonal skills as they try to guide workplace students through uncharted and uncertain territories.

Learning will be more than an exercise in training and skills testing. Competency will depend as much upon motivation as upon theoretical knowledge. Mumford identifies 4 core types of learning -

- **Intuitive Learning**
- **Incident Learning**
- **Retrospective Learning**
- **Prospective Learning**

The success of the modern learner will depend upon her/his ability to blend all four into a coherent whole process that can be observed and understood by others. The task will not be easy as it will require the same mental effort as that required for a PhD.

At the present time many Australian managers, employees and organsational systems are not focussed on learning from experience. Instead, they continue to use established methods of practice expecting others to provide the new products and technologies at same later time. This mass production approach will fast disappear in a climate where innovation will be essential not optional. In my view the problem is compounded because most managers in Australia are

- * not self-analytical in style
- * lonely in their roles
- * untrained in the learning process
- * weak in communication skills
- * uncertain about managing change

The challenge ahead is formidable, demanding and tiring. It will require a lot of experimentation in order to create the appropriate climate with the following basic features -

- * the freedom to learn
- * the right to take risks and make mistakes
- * acceptance of turbulence
* reliance on multiple methods simultaneously
* the ability to see and capture opportunity ahead of competitors.

**Conclusion**

Australia is entering an entirely new era of management. It is largely unprepared for the change it is about to encounter. Traditional models of organisation and behaviour are not going to be of much value in the times ahead. Asian and Pacific social and cultural pressures will test our national sense of identity. Good leaders will be hard to find and then keeping them will be an enormous challenge as they will be in demand by highly supportive organisations. The family structure will change in the process and the way of life will alter significantly for all Australians if the country is to succeed in the global marketplace. Vocational education will undergo massive disruption followed by reform as the demand for customer service increases. Fundamental beliefs and values will be thoroughly shaken if not thrown overboard amid the turbulence of change.

**Endnotes**

1. Enterprising Nation Renewing Australia’s Managers to Meet the Challenge of the Asia-Pacific Century AGPS April 1995
2. ibid. pp xi-xii
3. ibid.
4. ibid. pp xi
5. ibid pp x
7. ibid. pp 20-21

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Enterprising Nation Renewing Australia’s Managers to Meet the Challenge of the Asia-Pacific Century AGPS April 1995


**WHAT IS "QUALITY" IN VOCATIONAL EDUCATION? A CRITICAL EVALUATIVE FRAMEWORK**

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**Abstract**

Reference is made in the quality management literature to a slump in quality's popularity in the USA. The reasons cited relate to the lack of full commitment to quality at all levels of an
organisation, as well as the absence of strategy in a rush to implement training. In Australia, the quality movement is affecting all sectors of education. To avoid the overseas negative features of quality, a framework for evaluating quality in educational institutions should be implemented alongside that of the quality measures themselves.

It is the purpose of this paper to explore issues related to "quality" and "good practice" in the implementation of the quality agenda in modern institutions involved with adult and vocational education, now often referred to as "learning organisations" in the business and corporate training sector. This exploratory work sets the scene for a more detailed look at the vocational education example of assessment in adult literacy and basic education.

The paper begins by summarising the critical theoretical background which explains quality implementation as the adoption of new sets of values. It is argued that the adoption of new sets of values is achieved through apprenticing workers to new discourses, and that "quality" values are no exception. Discourses are not viewed simply as "empty sets of words". They are viewed as the means through which desired values and ideologies are transmitted. They are, then, the very mechanisms of change. Viewing discourses as mechanisms of change provides an explanation of how and why quality as organisational change is just a particular case of cultural change.

The paper then discusses the "casualties of silence" which result from the apprenticing of workers to these new discourses of "empowerment" and "learning organisations". It is posed that educational institutions are at the early stages of implementing quality schemes, and have so far only donned a light mantle of the quality discourse. It is suggested that without a full and committed adoption of its principles, the victims of the quality agenda's discursive silences will be these very institutions and their students. To combat this possibility, the paper argues for a cohesive and strong theoretical socially critical position from which educational institutions can evaluate and argue the quality agenda. Using this basis, such institutions can actively inform government and industry policy, rather than simply be driven by them.

The paper concludes by proposing a framework for evaluating "quality" and "good practice".

Quality and good practice
Perhaps the most used words and phrases in education, training, business and industry today are "quality", "good practice", "appropriate practices" and other combinations such as "best practice", "quality practice" and "excellence in practice". Little research has been done, however, to establish precisely what quality and good practice mean, and how to judge when it has occurred. This paper investigates the nature of good practice and poses a framework for investigating quality and good practice.

The original research upon which the development of the framework is based concerned a national study of adult literacy assessment practices, reported in full in Falk (1995). Reference is made in this paper to the specific case of assessment in adult literacy and basic education, which is treated here as a case study of good practice in vocational education and training. The framework has been developed to be widely applicable, with little change necessary to its structure in different applications.

The question of what criteria should be used to judge if in fact practice in education, training, and particularly in assessment, is "good" is clearly problematic. Consider this range of indicative statements:

• The practitioner should be the only judge of good practice since they are 'on the ground' and in a position to judge as trained and reflective professionals.

• Feedback through evaluation sheets which indicates that the teacher / trainer has met the needs of the learners is the best indicator of good practice.
• The student retention rate through a program is the best indication of a successful program, then word-of-mouth which fills the next group.

• Very clear control over implementation and evaluation of the meeting of course objectives is the only real indicator.

• All of the above.

Many, if not most, of these statements are obviously correct. The question is not yet fully posed, however. For practitioners also know that "keeping students happy" is by no means the only indicator of good practice, since it does not indicate any more than the ability to manipulate the "happy sheet", as the student evaluation form is often called, in order to get good ratings.

Recent research, especially the study conducted by Shore (no date), and more recently in her report (1994), and by Falk (1994, 1995) question the continued argument that good practice in adult literacy and basic education is what good practitioners do. The circular illogic of this kind of reasoning does not allow the question, "Good practice for what?" to be answered. Such studies find that some classroom practices, while fulfilling all the usual criteria for good practice, are in fact reproducing the deficit "remedial" model of education, casting adult students as failures once again, and entrenching a structure through curriculum and institutions whereby literacy is and can only ever be illiteracy. That is, there are present elements of so-called "good practice" which are in fact producing outcomes which are opposite to the outcomes believed for that practice.

In relation to choices to be made in Australia regarding government's role in accountability through assessment and reporting, Wickert and Freebody (1994) argue that:

...adult literacy educators are playing some unwritten role in a particular enactment of what-counts-as-literacy - a role that can isolate and thus celebrate/blame The Individual doing The Task in a workplace that now mimics the conventional classroom as an arena for individual displays of success and failure. (pp. 3-4)

It is in an attempt to clarify the circular argument that this report now turns to the development of a framework which can be used as a guide for judging aspects of "good quality" and "good practice" in education.

It should be noted that the sites where adult language and literacy education take place are now in considerable states of change, and are more diverse than ever before. Workplaces, as sites for vocational language and literacy education, often occurring under the banner of "workplace communication", are at the forefront of the government's agenda for a more competitive Australian economy. The present section will address the issue of "good practice" as a "quality" issue, using the rhetoric which applies equally to all sectors involved, namely, practitioners, industry and governments. It will establish this framework using a literature reference from the management, sociological and educational literature.

Conceptualisation of "quality"

The first step is to examine the "quality" rhetoric in the literature associated with modern corporate practice. This is performed against a broad, socio-cultural framework. In this way, the framework for quality and good practice is embedded in the context of change found on the diverse vocational education sites where adult language and literacy education are now found.

These "quality" discourses are the public linguistic manifestation of groups of social corporate activities, where a discourse is defined as a group of ideologically related social practices manufactured and made manifest through language and literate behaviour (Gee, 1990; Macdonell, 1986). Differences between knowledge, values and ideologies (and so realities) are what constitute a culture's uniqueness in the broad sense. They are also what constitute the culture, it is argued here, at a bureaucratic, organisational or institutional level, and it is from this perspective that a functional critical view of "change" can be explored.
The importance of recent trends in corporate discourses and educational discourses can be seen in their increasing similarities to each other (Gee, 1993) where corporations and business and industry are shifting their corporate objectives to embrace the notion of becoming "learning organisations" (Senge, 1990). There are in fact instances where corporations have embraced universities within their operations, as is the case with Motorola University (Wiggenhorn, 1990). Similarly, educational institutions and practices are using the discursive practices associated with corporatism, such as "strategic planning" for objectives and goals, "clients" for students, "management by teams" for administration, and so on.

Following from the above discussion, it can now be seen that change is viewed functionally as becoming apprenticed to a new discourse. Lave and Wenger (1993) established the notion of learning as "...cases of apprenticeship" (p. 105). They talk of "...communities of knowledge and practice" (p. 29), whereby the "...newcomers become part of a community of practice" (p. 29). However, they seem to nominalise the word "discourse" as a less flexible set of social practices than is the case when they talk of, for example, "the discourse of practice" (p. 107) which creates a new linguistic practice "...which has an existence of its own" (p. 107). While Lave and Wenger do argue for a discursive position of "peripheral participation", this position is explained more convincingly by Gee's (1990) notion of "borderland discourses" (p. 169).

Gee (1990) contends that each of us operates effectively within a variety of discourses. Gee uses discourse analysis to discuss the idea of a person's primary discourse, namely "the Discourse into which [the person] was apprenticed as part of [their] initial....socialisation within the home and family" (p. 177). Second, he identifies a person's secondary discourses, which are those "...Discourses each of us have mastered by being apprenticed to groups and institutions - churches, gangs, schools, offices - outside the home" (p. 176). Third, he illustrates instances of how these primary and secondary Discourses relate to each other, while putting forward the idea of borderland discourses, which are peer-based, and have flexible ways of interacting with primary and various secondary Discourses.

The analyses Gee performs are on transcripts of school-aged children, but the implications for workplace processes and practices are analogous. Employees and employers bring with them and act from a variety of discursive roles: Their primary Discourse from home and family, their various secondary ones from institutional roles they play in their private lives, and there are their borderland discourses which are peer-related. In workplaces, the kinds and nature of the discourses will depend on who those peers are. Funnell (1993) uses the term "cardigan set" to refer to those staff in some TAFE Colleges he studied, often called "the old guard", who represent reactionary values and a certain commonality in their dress code. The "cardigan set" say that they simply have to wait until the new quality "fad" passes. In these actions, the "cardigan set" in the TAFE staffrooms enact a borderland Discourse which is both reactionary, and similar to those of many school-children's peer discourses.

So far, this section has explained the theory and the mechanism which allows an examination of differentially valued discourses. These discourses are those associated with "quality", and their implementation into organisations has been viewed in the light of significant "cultural change", where culture is viewed as differing discourses and change is described as the process whereby people become apprenticed to new discourses. What the paper moves to now is a discussion of the discursive silences inherent in the quality agenda, followed by an explanation for the rationale of a framework from which to critique and evaluate the quality discourse.

**Evaluation and discursive silences in the quality agenda**

To attempt to establish some kind of rationale for arguing that discursive silences damage people, and are counterproductive to strategic corporate achievement, this section draws on Gee (1990) who provides an initial rationale for this argument. He states that we all have "...a moral obligation to render one's tacit theories overt when they have the potential to hurt people" (p. xx). In order to evaluate a process or a practice of some kind, we must have moral or value frameworks from which to do so. These values are often referred to as the "criteria" which we use to make such judgements. The key points of Gee's quote is "tacit theories" and "hurt
people". It is sustainable to argue that we all act on the basis of some reasons, criteria or theories. Sometimes these theories are consciously drawn upon, especially when we are called to question by someone asking why we acted or believed in a certain way. However, for many of us, the theories or reasons we have which underpin our overt social acts are "tacit", hidden, unconscious or inadvertent. The job of evaluation, then, is to render overt those things which might otherwise be rendered opaque through discursive silences.

The consequences of founding the rationale on these precepts are multiple. First, there is the growing gap between the rhetoric of the quality agenda and the "lifeworld" (Gee, 1993; Habermas, 1984) enactment and differential viewing of these same discourses. That is, there is a discrepancy between the rhetoric and the reality. Quality is often taken as the token word for change, with little actual reference to "quality of what?" or "quality for whom?"

In the last decade, the term "quality" is usually associated with the Total Quality Management (TQM) and Quality Assurance (QA) agendas. The quality agenda is indicated by terms such as Mission Statements, which, though meant to be long-term expressions of institutional direction, in fact seem to change with the wind in some institutions. As rapidly, corporate letterhead and personnel change to suit. There is evidence here for Cocheu's (1993) claim that one of the reasons for the slump in quality's popularity in the US is:

...the tendency of companies to begin quality-related training before establishing an overall strategy for improvement. Training in the absence of strategy is a blunt weapon in the battle for quality. (p. xii)

For those who are employees at various positions and in various parts of "quality organisations", the institution often seems to mouth rhetoric of being "proactive", "collaborative", "responsive" and "flexible" (among many such allied discursive terms) while in reality, living out a model or reactivity, authoritarianism, randomness and a developing inflexibility to management structures ("You will work in loosely knit, flexible and responsive teams!") and longer term strategic planning.

While these events were being enacted in many institutions over the last decade, the union movement in Australia was being completely re-shaped. Under the rhetoric of "flexible" enterprise agreements which the collaborative partners agreed to "harmoniously", there was the reality of factors which O'Connor (1994) lists as "weakened bargaining positions, lower wages, less but staggered hours of work, less work-related benefits, less job security, fewer career options, and fewer opportunities to access education and training" (p. 14). In the system for which I worked, for example, the constant change and insecurity could be seen to weaken the strategic direction of the organisation and, on a wider scale, to lie at odds with a national policy of "clevering" Australia, a position argued more fully elsewhere (e.g., Falk, 1995; Funnell, 1993).

The kinds of discrepancies which have and will emerge extend further than those relating to more traditional views of "workers' rights" such as pay and conditions. The newly emerging discrepancies are also evident in the "equity" discourse, where it has been shown (e.g., Rockhill & Tomic, 1994) that, for example:

...women continue to be relegated to the "back" (or ante) room of mainstream education and training,... [and] how...other social policies...add structural racism to an already imbalanced equation. (O'Connor, 1994, p. 14)

Current equity policies enacted by workplaces, such as those related to ethnicity, gender, age, class and sexuality, might well contain hollow promises. The equity provisions might simply provide access and equity to diminished rights and poor work conditions, where education and training in the workplace may provide opportunities, but equally, may be used in the "...screening, selection, denial of promotion and sacking of workers" (O'Connor, 1994, p. 16).
To return to the issue of "evaluation" of quality practices in workplaces, it is helpful to reconsider Gee's (1990) rationale upon which the previous discussion was based. Gee states that we all have "...a moral obligation to render one's tacit theories overt when they have the potential to hurt people" (p. xx). In the context of the previous discussion of discursive silences (related to tacit theories) in the quality agenda, it can be stated that it is simply not accurate to evaluate quality - or any other practice or process - only by asking participants if those processes and practices "worked", or whether they are happy with them, or what changes they might make to them. Apart from the fact that this process does not elicit discursive silences which might "hurt people", there is the further reason that we are framing, through our discourse of evaluation in this case, the limits within which the participants can respond. What have they not said? What areas have they been silent about as a result of our evaluations having been framed only within a set field? Are there silences caused by fear and insecurity? In addition, we are avoiding the tough issue of placing those participant evaluations within a wider framework: why did we choose those practices, what is the value and purpose of those practices in the wider corporate picture?

A Critical Framework for Quality Evaluation

As has been argued so far, the notion of "discourses" provides a functional mechanism for viewing the modern institutional and corporate scene from a critical perspective. Using this as a basis, the various corporate and institutional discursive practices can be explored to provide a framework of questions from which to evaluate the 'real' quality systems and good practice (or "best practice") of an organisation. However, the term "evaluation" is in itself problematic, and needs to be re-phrased in order to allow it to be "operationalised".

The questions which form the framework set out below are simple enough, but their purpose is to attempt to disclose the full range of "tacit theories" which might "hurt people". As the management literature from the USA and Japan shows, corporate values such as 'trust' between employers and employees, 'commitment to quality', and 'taking the fear and insecurity out of the employment situation' (e.g., Cocheu, 1993) are underpinned by the susceptibility of people being hurt.

Moving from the assertion argued already, that the employees of an organisation are the "consumers" of the prevailing discursive patterns, and that it is the managers of those organisations who are responsible for implementing the quality initiatives, the resulting questions put forward here can be grouped around each of these sets of people:

1. Since management (the corporate bosses and top level managers) are implementing these initiatives, what do they stand to gain, and what do they stand to lose by the implementation?

2. Similarly, what do the employees stand to gain from quality initiatives, and what do they stand to lose?

Given that a critical social theory is concerned with differentially powerful discourses implemented differentially, it follows that certain people are likely to be disadvantaged - or hurt - from such moves to implement quality. A systematic asking and answering of the questions posed above will allow an exploration of these critical issues.

Very few people either in Australia or overseas are concerned with evaluating the quality agenda in any systematic fashion. A perusal of the literature from the business and industry sector (e.g., Cocheu, 1993) reveals a pattern of trial and error, led by charismatic leaders in the field, such as Crosby, Deming, Feigenbaum, Imai, Ishikawa and Juran. Their views appear to be followed zealously, passing through periods of "fashion" in management techniques. Then reports appear in management journals that a particular approach does not seem to work as well as was thought, and another area of favoured practices develops.

Of course, many areas of human endeavour follow this pattern, and it is not suggested that education is exempt from this. What is suggested is that "quality procedures" do seem to pay
close attention to workplace processes and practices which are primarily to do with changing a culture, and this is therefore a matter for the development of 'human resources'. It would be a shame if the potential good in this movement were to be lost through a hasty and illogical change to a new trend.

There is, then, a need to construct an evaluative framework for researching the quality agenda so as to be able to make judgements as to the effectiveness of present implementations, to present cases to government, critique policy from a sound and cohesive theoretical platform and so inform future directions for quality. The debates over quality and education institutions which have so far appeared in the media have appealed more to emotions than logic. They have used student voices to play on this, and have used threats of overseas odious comparisons (e.g., Powell & Healy, 1994) as platforms for raising issues of policy. Nowhere has there been observed an academic argument being mounted from a strong socio-political, historic-economic, critical theory basis.

In summary so far, constructions of realities include constructions of knowledges and values. It is the clearly stated goal of corporate strategic implementation of quality to create the quality reality, which is the creation of a new organisational reality. The new reality is a new "culture". The reason for the difficulty of cultural, corporate or other "reality" changes is explainable by reference to the assumption of new discourses-which-include-value-systems.

Quality and good practice framework re-framed
The framework forwarded earlier was phrased so as to capture the corporate discourse flavour. It used terms such as "management", "corporate bosses" and "employees" to explicitly address the organisational perspective on quality and good practice in those settings. Now, this section turns to a re-statement of that framework so as to provide a basis for re-framing it to account for educational quality and good practice more directly, and good practice in assessment more particularly as a sub-set of education:

1. Since management (the corporate bosses and top level managers) are implementing these initiatives, what do they stand to gain, and what do they stand to lose by the implementation?

2. Similarly, what do the employees stand to gain from quality initiatives, and what do they stand to lose?

In the socio-political framework established in this chapter, these questions can be interpreted for education as follows:

1. Since government (politicians, top-level bureaucrats, policy-makers and -implementers, and top level managers and implementers such as TAFE Directors, Managers and owners of private training providers, CES offices, SkillShare organisations, community groups) are implementing policy initiatives through the Training Reform, what do the politicians and others stand to gain?

2. Similarly, what do these people stand to lose by the implementation?

3. What do the employees (lower level public servants, teachers, trainers, consultants) stand to gain from the initiatives?

4. What do the employees stand to lose?

Using the framework to identify good practice in assessment
In the particular vocational educational instance of assessment, given the features of the socio-political context already established, these questions can be interpreted for an instance of assessment. To use this as a guide to establishing good practice, the answers to questions 1-4 can be sought using criteria A and B for guidance, namely:
Seek to make explicit what has been taken for granted (that is, disclose what various groups have been silent about) using a broad social theory outlined here through examining the available texts and discourses.

Identify who might be hurt by the policies and implementation of the measures. Which groups are likely to be affected in particular, and how? Here, the broad social context provided earlier leads to an examination of commonly disenfranchised groups such as the poor, some groups of women, people of different races, and groups previously identified as "special" in some way such as the disabled.

Questions 1 to 4 follow:

1. **How do government and educational managers (Principals, Directors, HRD and HRM personnel and so on) stand to gain in this instance?**

   Do they achieve accountability? Do they need this assessment result for national, state or regional purposes, or not at all? In other words, what are the site and system features of the assessment act?

2. **Similarly, what do these people stand to lose by the particular assessment?**

   Will it contribute to knowledge which demonstrates that a particular policy is not effective? Will it not be used at all, and simply "gather dust"? Who will lose prestige from publication of results of the gathered assessment acts? Will it create the need for greater funding than anticipated for this area?

3. **(a) What do the assessors, teachers and trainers stand to gain from the assessment initiatives?**

   Do they gain useful information which will guide placement of students, and permit ease of transmittal of information on students to their referred placements? Do they gain recognition for gaining successful results (however defined) as measured through assessment? Do they gain harmonious employment conditions through complying with employer demands for assessment processes?

   **(b) What do the adult learners stand to gain from the assessment initiatives?**

   Do they gain a greater understanding of their own progress in learning literacy through the assessment? Do they gain awareness of how literacy learning affects their lives? Do they find how their literacy learning relates to their "real lives"? Do they relate their literacy learning to real life? Does the assessment take account of their existing knowledge and experience in such a way that it values rather than deriding (by silencing) these experiences?

4. **(a) What do the assessors, teachers and trainers stand to lose from the assessment initiatives?**

   Their jobs, through showing they were not needed? Professional standing, through not understanding the broader context of why they are assessing? Professional credibility if their assessment practices run against the current accounts of "good practice"?

   **(b) What do the adult learners stand to lose from the assessment initiatives?**

   Self-confidence, often newly re-acquired, through assessment which "hurts" them, shaping them once again as "remedial" and inadequate learners. Respect at home, and respect at their places of work through public accounting of 'test' or assessment results.
Their jobs, in the case of assessment used as screening. Their leisure time and established life patterns, if assessment confirms their need for wider changes than anticipated.

The two groups of features to this framework, questions 1 to 4 and considerations A and B, can be located along two axes of a matrix for ease of use. Such a matrix might be as follows:

<table>
<thead>
<tr>
<th>A: What 'impartial should be made explicit'</th>
<th>B: What (groups of) people may be hurt and how?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Benefits to government and managers</td>
<td></td>
</tr>
<tr>
<td>2. Losses to government and managers</td>
<td></td>
</tr>
<tr>
<td>3 (a) What do educators gain?</td>
<td></td>
</tr>
<tr>
<td>3 (b) What do adult learners gain?</td>
<td></td>
</tr>
<tr>
<td>4 (a) What do educators lose?</td>
<td></td>
</tr>
<tr>
<td>4 (b) What do adult learners lose?</td>
<td></td>
</tr>
</tbody>
</table>

Matrix relating "quality" in good practice questions to critical considerations

As this framework of questions and answers is explored, it becomes obvious that there are a great number of factors which become drawn into the decision about "What counts as good practice" in assessment, or other aspect of pedagogy.

Some questions

In putting forward some questions which might guide an evaluative framework for quality implementation, two related intersections have emerged. One of these intersections is the emergence of a "social responsibility" tendency in the discourse of the learning organisation. Here is evidence of an explicit social agenda included in corporate responsibilities. It is not unreasonable now to talk of hidden agendas or "tacit theones" which might "hurt people". There has been shown to be a discourse which talks of equity, individual worker satisfaction and so on, as discussed earlier. The same discursive elements are now clearly evident in the corporate sector discourses as well. Here, there is an explicit recognition that worker satisfaction is a key element in productivity. Work security is the cause of many problems, as Cocheu (1993) states:

...driving fear out of your organization is the single most important thing you can do. Helping people feel secure and unafraid to say and do what they know to be right....Improvement is...a question of...liberating [people's] natural enthusiasm from the grip of fear. (p. 172)
The second intersection of significance in considering an evaluative framework is the evident intersection of corporate and educational discourses. There is the traditional "bottom line" profit discourse which is evident in the literature. Corporations, business and industry are clearly in it for the money. As Cocheu (1993) states:

"The quality training curriculum is not a static, fixed path that people march down to completion. Continuous improvement requires continuous learning of new and innovative ways to stay a step ahead of the competition and satisfy customers' expectations." (p. 29)

Such comments are common in the literature, and "the bottom line" is the ultimate corporate reality in most respects. But there is the new "Learning Organisation" discourse which values people, and seeks to educate the whole individual. Both Cocheu's examples above illustrates this discourse well, and can be compared with the "hollow" rendition of the similar discourses described earlier. The implications of the confluence of these two discourses are dealt with in some detail in Gee (1993).

In the recent corporate literature referred to, the inducement for corporations to adopt a "learning organization" direction is linked with their view that this learning is the only way that modern business can cope with the "all-at-onceness of electronic communication" (Adams, 1994), namely, rapid change. It has been argued here that change can be accounted for in terms of being apprenticed to different discourses. There are two aspects of this change which are important, one is a micro aspect, the other a macro aspect.

Concluding remarks
At the micro level, the discussion in this paper has suggested the notion of learning-as-change as a process of apprenticeship to new discourses. This explanation provides a functional mechanism for (a) showing how people move from a state of novice to expert consumer of that discourse, and (b) provides a methodology, through discourse analysis, for observing and documenting how and why this happens, and under what circumstances it occurs most effectively; namely a process of evaluation. It seems that this not only provides a description of learning processes, but also an explanation of how this may be evaluated.

It is at the macro level that the critical framework provided here can be used as an ethical "watch-dog" for the overall implementation and evaluation of quality and good practice processes. If the quality agenda is being used, consciously or unconsciously, to apprentice workers into a field so they become unthinking and compliant workers, then it is argued that they should be educated that this is likely to occur, and it should be an explicit part of the curriculum which comes with their membership of a "learning organisation" which must be flexible, creative and thinking. If the "new hegemony" (Gee, 1993, p.10) is the product of insecure contract employment which acts as "incentives" to take on the new discourses, then the quality agenda and its potential strengths for long-term strategic good is likely to fail.

It will fail for two reasons already explored in this section: First, that the corporate cardigan set will pay simple lip-service to the passing new fad of quality, and the conservative reactionary discursive forces, researchable through examination of social practices, will reproduce the old order. Second, as O'Connor (1994) claims, the new workforce will be left with one right: the "...right to be oppressed without interference" (p. 10). The changes involved in becoming a new corporate culture, namely, a "learning organisation", will need to involve people in explicit and secure workplace curricula.

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THE PREPARATION OF VOCATIONAL EDUCATORS IN A WORLD OF CHANGING WORKPLACES: EFFECTS UPON LOCAL AND NON-FORMAL LEARNING ARISING FROM CHANGES IN WORKPLACE ORGANISATION AND DESIGN

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Marsick, (1988) describes the importance of designing workplaces that build in opportunities that are conducive to learning. The 'built-in learning' referred to in the discussions could be described as a set of relationships between work, decision making and technology, not the strategic classroom learning processes prescribed by some human resource development practitioners. Marsick's research activities are highly critical of organisations' attempts to separate workplace learning from personal growth: "...for learning to be effective, one must consider two deeper levels in which job skills are embedded: the social unit that shapes the individual's reactions at work, i.e., the organisation and the immediate work group; and the individual's perception of self vis-a-vis the job and the organisation. Thus, learning for organisational productivity cannot be separated from learning from personal growth, as is often done. Nor can the burden of change be placed primarily on the individual in isolation from the organisation" (Marsick, 1988:92).

Personal growth is viewed as a worthy educational outcome from workplace learning. Thus, the separation of organisationally based learning from personal growth is an exercise of power and control over workers. Reflexive workplace learning practices that can dissipate the separation of personal growth from organisationally based learning may be incorporated into a process of organisational change. The non-formal aspects of workplace learning that meld everyday workplace practices with cyclical reflexive learning opportunities appear to be the least acknowledged, understood or considered integral to the continued development of personnel in organisations. Any workplace reformation activity should be considerate of the effects upon people's "...capacity to observe and examine one's own practice critically" Marsick and Watkins, (1990:247).

Schon, (1987), Watkins, (1990) and Senge, (1993) found that designing workplaces that were conducive to reflexive dialogues between people and workplace incidents heightened the opportunity to engage in local learning. They also found that this form of reflexive dialogue contributed to the development of knowledge associated with particular fields of endeavour. The limitations associated with these studies arise because of a preoccupation with discovering a means of improving workers' productivity. Knowledge acquisition and worker 'empowerment' are perceived as strategies for motivating workers to take greater responsibility for the quality and advancement of their productive efforts. Workplace learning activities are perceived by some human resource development practitioners to be another approach to the application of human capital theory.

Central to some of the opportunist arguments that may emerge from workplace reformation practices is the notion of the learning organisation. Senge, (1993:13) one of the major exponents of this proposed paradigm shift in workplace practice and design, uses the term 'metanoia' to encapsulate the essence of his premise. He cites the meaning of this term as: ".....a shift of mind". The 'shift' he refers to advocates people and organisations become more proactive and reflexive about activities associated with learning ".....that enhance our capacity to create".
It seems that systems thinking and the practices of re-engineering workplaces are advocated by some of the economically oriented actors reshaping our workplaces. There is an inherent assumption, and I suggest danger, associated with the application of such management science methods. The use of scientific management processes is outcomes focused and materially oriented. They sometimes result in a demise in tacit ways of knowing, a decline in craft skills and desirable workplace social relationships. The challenge therefore, is for contemporary workplace reformists to find new ways of designing workplaces that countenance the tacit as well as the materiality in the outcomes achieved.

The researcher believes there are more insightful and helpful 'stories' emergent from the ever increasing amount of literature that converges studies in the fields of technology, sociology of work and science. It seems that the technologies resultant from the field of scientific research are changing our world at a dramatic pace. Science and technology are not autonomous, McGinn,(1991). The 'doing of science', and resultant technology, is shaped by people who are subject to influences from their peers and other communities of knowers who may support or refute their assertions. The understanding and study of workplace organisation, how technologies are used and affect people when reshaping the workplace are critical factors for consideration by vocational educators and trainers.

Sociologists Bijker and Law, (1987), Leigh-Starr, (1988),Westrum, (1990) and Dosi, (1991) suggest that science and technology shape our society. They use case studies and elaborate ethno-methodologies to 'tell the stories' of how workers are required to change their craft practices to accommodate new forms of technology. The socio-technical philosophers and social studies of science researchers, Latour, (1988), Callon, (1989) and Hughes, (1991), performed studies that considered technological apparatus, systems and humans as equal protagonists. In doing so they constructed helpful 'stories' to explain the complex array of networks, apparatus, and actors associated with effects arising from the adoption, and diffusion of contemporary scientific and technological practices.

Workplace reformation and its effects upon workplace practices and tacit ways of knowing is an emerging field of research in its own right. Workplace reformation practices are recognised as a necessity for organisations to become viable, for survival, and as a strategic means of implementing new technologies in an increasingly competitive global market-place. The acknowledgement of learning in places other than formally instituted places of education has been recognised by adult educators for some time and is well documented in the literature. Recent changes in educational policies, for example the accreditation of private providers of training/learning and the restructuring of TAFE colleges in Victoria appear to have resulted in a perception that vocational educators and trainers require less rather than more preparation prior to entering a classroom, workshop or laboratory to facilitate learning.

Whilst one may applaud the 'official' recognition of learning practices in contexts other than established educational institutions it is important to examine the processes that shape vocational learners' education and training in these 'other' contexts. Congruent with the discovery and analysis of these processes is the design of suitable learning strategies for the preparation of vocational educators and trainers. The purpose of this paper is to examine one process (effects arising from workplace reformation) that shapes the vocational learning and training of people, and propose a model of workplace learning practice for vocational educators and trainers.

Workplace reformation combined with strategic Human Resource Development appear to be universal practices seized upon by many organisations as a means of achieving organisational effectiveness, and global competitiveness. HR managers "...have flocked to bookstores, conferences, training programs and universities to learn new management practices and ways to improve organisational excellence..." Huse and Cummings, (1985). Vocational learning within the workplace, other than learning strategies formally constructed by HR departments, has not been considered by many workplace reformists as an integral workplace cultural practice. It seems that workplace reformation practices introduced in haste by some organisations and shaped by economic imperatives may result in negative long term consequences for the intellectual development of
employees, and possibly the derivation of new knowledge, and vocational practices. These assertions are based upon recent research of one advanced materials technology based organisation and a current study of a scientific research and development organisation. Whilst the acceptance of scientific theory and principles as a key to modernity have been questioned and researched since the early 1980's, it seems that most HR managers and workplace designers of reformation resort to management 'science' as a strategic rationale for their change practices and resultant workplace structures, Hughes and Reed, (1994). Whilst there are always exceptions to these observations where organisations have made genuine attempts to use reformation practices that demonstrate wider, more eclectic, human centred and long term visionary practices, many reformists appear to be using Taylorist models disguised as innovative contemporary workplace practices; for example cellular workplace groups, team based cultures and quality workplace teams.

Case study: (Aerospace Technologies) ASTA Chemical Laboratory: The Effects of Workplace Change Upon Scientific Practice, Non-Formal Learning and Tacit Ways of Knowing.

This study commenced as an MEd research project in 1990. Two years part-time was spent with the ASTA chemical laboratory scientists studying the effects of workplace change upon their scientific vocational practices, and their non-formal means of learning/tacit ways of knowing within their laboratories. The ASTA organisation had undergone five massive workplace reformation changes in seven years in the transition from the former federally funded Government Aircraft Factory to the latter, mostly self-funded organisation of Aerospace Technologies. Interviews, observations and case study methods were used to triangulate data and support the findings.

- Decisions made within the organisation reshaped the vocational workplace practices of all personnel. More specifically, to ensure the organisation was able to meet the statistically verifiable quota of approximately $100,000 worth of productivity per ASTA employee decisions were made to massively reduce the number of personnel, automate as much of the work as possible, contract out many higher order analytical operations, redesign the architecture of workplaces, introduce the 'cellular workplace group' workplace structure for the 'lower level' grades and narrow the range of vocational pursuits within the total organisation.

From an economic perspective the ASTA organisation did become more competitive in the global aerospace industry market place. However, the level of efficiency realised was hampered by unforeseen problems associated with the contracting out of work, lower overall morale and a high degree of uncertainty in the workplace.

A brief synopsis of how the chemical laboratory scientists were affected by these workplace reformation practices is outlined below:

- The laboratories were re-located and re-built resulting in specialised environments that focused and directed the activities of each scientist. An internal brick wall separated the two major laboratories. The scientists could no longer see each other or converse about problems and practices associated with the performance of their science.

- Each scientist's vocational pursuits were narrowed to focus and direct their energies towards one area of scientific practice, and consequently one environment within the ASTA plant. The scientists could no longer work together or change their scientific vocational activities to ensure each colleague understood how one set of practices is related to and informs the other set. Incidentally, there was less variety and challenge for each scientist.

- Apparatus used by the scientists to perform higher order analysis and problem solving activities was sold off. The higher order scientific analysis activities were contracted out to privately owned commercial laboratories. The results that came back from these laboratories were raw data that required interpretation because the data were derived out of context, Hanrahan, (1993).
The overall effects upon non-formal scientific learning and tacit ways of knowing that informed scientific practice appear obvious. Scientists had fewer opportunities to solve problems together, engage in reflexive learning activities, engage in experiential learning that informed their skills and advanced their applied scientific knowledge base. Scientists could no longer use their higher order analytical abilities or extend the possibilities for use of their apparatus in context, and perhaps contribute to the field of chemistry through the publication of their tacit scientific endeavours.

<table>
<thead>
<tr>
<th>MACRO EFFECTS</th>
<th>MICRO EFFECTS</th>
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<tbody>
<tr>
<td>A decrease in ideas generation and organisational levels of innovation.</td>
<td>Worker alienation.</td>
</tr>
<tr>
<td>A decrease in productivity. A lowering of morale.</td>
<td>Loss in worker confidence. Loss in workplace satisfaction levels.</td>
</tr>
<tr>
<td>Loss in market place position for the organisation.</td>
<td>Increase in work related mistakes.</td>
</tr>
<tr>
<td>A decrease in the quality of products produced and work.</td>
<td>Reductionist approaches to workplace and occupational definitions for workers.</td>
</tr>
<tr>
<td>Potential loss of world standards certification and resultant loss in competitiveness.</td>
<td>A lowering of the levels in intellectual exchange and flow of work related intelligence information.</td>
</tr>
<tr>
<td>A narrowly defined and skilled workforce, ill-equipped to cope with rapid changes in expectations.</td>
<td>An inability to plan ahead due to uncertainty in workplace expectations.</td>
</tr>
<tr>
<td>A decrease in the concern for the human side of organisations, substituting this with concerns for productivity and competitiveness.</td>
<td>A decrease in abilities associated with problem conceptualisation and creativity problem solving.</td>
</tr>
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(Hanrahan, 1993)

**Current Research**

Current research of workplace reformation at the CSIRO builds upon the research that was completed in 1993 at ASTA. The potential effects arising from workplace reformation upon local learning amongst a scientific research community in a research and development organisation appear to be far more dramatic. Research scientists are using *current / known* knowledge to solve industrial problems. The industrial problems are presented to CSIRO research scientists through the use of project funded contractual arrangements. The 'contract' prescribes the working arrangements (i.e. time, money, reporting structures and processes and a host of other project management strategies) that appear to work against the conventions associated with the performance of fundamental scientific research (Hanrahan, 1995). The perceptions of some CSIRO research scientists are:

"....we have a conflict of ideologies....its economics verses science and scientific research...." Srn. Research Scientist (CSIRO Biomolecular engineering) - 1994.
we are running out of new knowledge....we are tinkering around the edges solving problems that industry should be solving for themselves....sure we should be doing some strategic research but we should also be doing some fundamental scientific research....to create new knowledge....to create new knowledge to push the frontiers of learning what we know....Snr. Research Scientist (CSIRO Chemicals and Polymers) - 1995.

"....unless we commence to establish new knowledge, push the boundaries there will not be any basis for the performance of scientific work...even if it is strategic in nature....for the next generation of scientists and biomolecular fields of scientific work...." Snr. Research Scientist (CSIRO North Ryde, NSW Biomolecular Engineering Group - 1995.

Through the introduction of an emphasis upon project driven research science, via workplace reformation at the CSIRO, research scientists now have a prescribed time in which discoveries are allowed to be made. Nearly all research scientists' efforts are directed towards material outcomes, i.e. the discovery of compounds that have market value to their project partners. The intellectual property is owned by the project partner for extensive periods of time and not by the CSIRO. New knowledge is not permitted to be disseminated amongst members of the scientific community because copyright is owned by the partner and not CSIRO. Research scientists are not able to publish their findings for the same reason. Local learning amongst the CSIRO community has been restricted because members of the same scientific research community are in competition with each other for funded projects.

Contemporary methods of educating people in the workplace have been (and dare I say still are) through the use of heavy productivity laden, strategic HR and organisational development (OD) oriented activities. This is not to detract from the importance of educating a workforce to enhance an organisation's productive output. However, it could be argued that organisations have misinterpreted this relationship, resulting in the shaping of workplaces and workplace learning practices that are not conducive to learning, rather they may be perceived as places of conditioning towards organisationally prescriptive behavioural outcomes.

Towards a Model of Vocational Education and Training Teacher Preparation
Apart from exposure to the learning of conceptual models and skills the literature advocates as necessary for all aspiring teachers who work in diverse vocational education and training contexts I suggest the following fields of endeavour and practice should be studied:

- The study of technology and society and/or the social studies of science. This would provide exposure to some of the central literature and researched practices associated with the relationships that are shaping the future directions of work and society.

- The study of work / the sociology of work. This would provide an orientation to the historical and ideological influences upon the shaping of current workplace practices and philosophies.

- A critical study of labour market economics. This would provide a critical insight into the political, economic and philosophical principles and practices associated with some of the strategic thinking and policies advocated for workplace reformation.

- The opportunity for vocational education and training teachers to engage in reflexive learning practices relative to their own organisationally situated learning contexts. To acquire the skills of strategic thinking, action, learning and self management.

- An introduction to sociotechnical forms of research. This would afford opportunities for students of vocational education and training to engage in reflexive discourse in context.

Vocational education and training is organisationally situated. For future vocational education and training teachers / trainers to be effective they should be involved in strategic...
decision making. They need to guide the organisation's adoption and diffusion of learner considerate workplace reformation practices. A detailed examination of these practices should be central to the preparation of all vocational trainers and educators.

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COMPETENCY: A REVIEW OF WHO IS CALLING THE TUNE, THE PLAYERS AND THEIR INSTRUMENTS

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INTRODUCTION
This paper will review the competency based movement within the metaphor of an orchestra (higher education), who is conducting (calling the tune), the orchestral players (mature-age students), and the instruments used in the performance (credit transfer and recognition of prior learning).

It is more common knowledge these days that the Australian Government have initiated the multifaceted National Training Reform Agenda [NTRA]. An education and training initiative described as pivotal by Prime Minister Keating; 'no micro-economic reform we have undertaken has been more important than our investment in vocational education training, (The Australian, 5 April, 1995:24). The changes in Australia's vocational education and training agenda and the subsequent implications for teachers, trainers and educators is becoming more pronounced. Within the parameter of the NTRA, there is an emphasis for adult educators, vocational teachers and industry trainers to upgrade their knowledge and skill competencies in preparation for the change and ongoing maintenance of the Training Reform. The potential to gain formal qualifications at the higher educations level are increasing in number, be it the practice of Technical and Further Education [TAFE], Industry/Workplace Training [Human Resource Development], Adult Community Education [ACE], or Adult Language and Literacy [ALL]. In this field most are mature-age students.

The role of business, industry, and education (the tune callers)
The role of education is now directed by the influence of social reformation and as a result demands a rapid change to meet society's urgent and immediate needs. As a result, under the dual regulation of the National Training Board [NTB] and the National Office of Overseas Skills Recognition [NOOSR] in the establishment of the Australian Standards Framework [ASF], collaborative links between business, industry and education have been accentuated in order to make sure the right competencies or 'tune' is called.

The most recent definition of competence issued by the National Training Board is one that:

comprises the specification of the knowledge and skills and the application of that knowledge and skill, within an occupation or industry level to the standard of performance required in employment. (NTB, 1992)

Mature-age students in higher education (the players)
Entry to higher education has changed over the last two decades, since the government has made access easier for mature-age and disadvantaged students, (Dawkins, 1988:20-21, Dawkins, 1990:2, 3). In 1992, 28% of students were 25 years of age and over with the main source of growth to be the 30 - 64 age group with a projected 23% growth to 2001. The rising demand from the 30 - 64 age group includes those new to higher education and those seeking to broaden their skills to requalify for occupational change, (DEET, 1993:3, 40).

The mechanics of Competency Based Training (the instruments)
The Competency based Training (CBT) projected initiatives for establishing national targets for post-compulsory education and training competencies based on workplace task analysis with performance criteria to which education, training and assessment programs are based. The Finn Review (1991), projected six areas of learning with a key competency standard framework applied across these areas. It forecast equal opportunity and social justice with
curriculum relevance for students and their future role. It foresaw increased learning pathways and closer links between school and work, and between training and employment. Finn in his review (1991:xi) stated 'that students should have access to a range of different pathways and should be able to move from one to another without losing ground'. The Mayer Report (1992) identified competencies that formed an essential basis in the approach to education and training. Mayer, (1992:1) recommended that key competencies should be generic and apply to work generally, rather than being specific to particular professions and industries. In so being, becoming more essential for effective participation in further education and in adult life generally. He listed the generic skills as,

- collecting, analysing and organising information
- communicating ideas and information
- planning and organising activities
- working with others in teams
- using mathematical ideas and techniques
- solving problems
- using technology (1992:4,5)

The Carmichael Report (1992) proposed key areas that were generic and occupational specific, focussing on outcomes. That is, attainment and demonstration of specific knowledge, skills and application, rather than inputs, such as time served, (1992:vii). Stating that 'all pathways should provide for recognition of prior learning (RPL), articulation and credit transfer (CT) to higher levels of competence, (vii). Implications for higher education involving the Competency-based movement will surface in the way competencies are recognised, assessed and transferred from learning environment to workplace.

**WHO CALLS THE COMPETENCY TUNE**

As a consequence of the ASF framework and associated competencies, business, industry and education have become more vocal and demanding. It began when the government recognised, based on the industry response to the Dawkins' 1988 White Paper, 'Higher Education - a policy statement', the value of graduates with broad educational foundations with well developed communication skills.

**Links with industry, government and education**

A survey conducted in 1992 of Business executives on the expectations of graduates revealed communication skills [writing and speaking] ranked the highest, with decision making and problem solving ranking fourth. (DEET,1993:42). This attitude was further accentuated by David Karpin the chairperson of the Industry Task force when he expressed 'that the skills imparted to graduates are too often only technical and discipline based' He continues:

...the 'soft skills' which involve human inter-relationships and communication are the vanguard society require...private sectors are dissatisfied with most of the curriculum content of our universities... and the manner in which it is delivered...they [the industry groups] are demanding more attention to the so-called soft skills. (Karpin, July,1994)

Karpin reinforced that view in 1995, adding that people skills, team building and leadership skills remain undeveloped, (Karpin,1995:9). As well, the 'higher order' skills for problem solving, inquiry, conceptualising, analysing and synthesising are rendered as being essential requirements for the rapidly growing workforce environment, (Dawkins, 1988:8,9, Mayer, 1992:1, NBEET,1992:17, Costello, 1995 ). Higher education on the other hand remains resolute on their need to remain academic in their outlook, concentrating on producing professional graduates with 'higher order' skills synonymous in the context of academia, primarily orientated towards the pursuit of knowledge and the extensions of research, such as critical, reflective thinking and analysis, (Bowden & Masters,1993.60).

However, there remains pressure for greater attention to occupational relevance and development of employment related skills and vocationally orientated curriculum. This will include greater attention to links between workplace performance and practice with discipline-based knowledge, and acquisition of underlying attributes of a generic nature, (Harris,
Guthrie, Hobart & Lundberg, 1995: 61). Identifying competency skills is not isolated to business, industry or higher education. A commissioned report on the skills required at ASF levels 4 - 6, made reference to the 'middle level skills'. The Employment and Skills Formation Council (ESFC) suggest an approach that describes a workplace related view that segregates broad-based technical skills, team skills, self-management skills and thinking skills, (EFSC, 1994).

The area of competence and the method of determining competencies has been a contention and continues to be debated. There is a growing concern amongst practitioners that the competency-based approach depicts a narrow view of skill acquisition accredited against a checklist of behavioural competence. (Gonczi, Hager & Oliver 1990, Bowden & Masters 1993 Preston & Walker 1993, Ducker, 1993) and offers no more than a regurgitation of a system reminiscent of Bloom's behavioural objective regime of the 1970's. There is continued reference to the inadequate description of competency as a 'checklist' of performed tasks in contrast to a preferred effective demonstration of quality skills, knowledge, and attitudes, thereby continuing to cite exploration for competency as a holistic nature.

While Mayer, business, industry, and education, and the Employment Skills Formation Council (ESFC) are some who delineate the search for a marriage of vocational, academic and generic competencies being applicable, usable and appropriate, there remains a question that has drawn attention to an ability to transfer these attributes in another context beyond the training situation to the workplace or indeed to another learning situation. One such suggestion is a set of five survival learning skills to assist the CBT learner to be more effective. They are projected as 'self-directing skills', 'locating learning resources', using relevant resources', relating to human resources', skills in self-assessment', (Harris, Guthrie, Hobart, & Lundberg, 1995:146,47). Candy (1994) views a similar generic requirement as possessing lifelong learning skills. He projects a definition of lifelong learning as including '...all formal, non-formal and informal learning, whether intended or unanticipated - which occurs at any time across the lifespan', (1994:xii). Lifelong learning skills would therefore equip the learner for a life time of learning. It is within this confine that the follow discussion occurs.

Lifelong learning skills as a generic concept
A competence profile of a lifelong learner has several qualities considered essential for continuous learning throughout life, each containing some or all of the 'higher order' skills generic in nature and transferable to other situations including employment.
In this instance, Candy has grouped them as, 'an inquiring mind, helicopter vision, information literacy, a sense of personal agency and a repertoire of learning skills', (Candy,1994:189-90). The philosophy of lifelong learning and associated competencies recounted above is not only knowledge and skills but an aptitude to be developed in undergraduates of higher education to enable them to keep abreast of the world of rapid change in which they practice. (Aulich,1990, Candy 1994)

THE PLAYERS
The ramification of lifelong learning and the 'flow-on' effect of competency-based methods for mature-age students entering higher education further accentuates the relationship between lifelong learning and prior learning, (Candy,1994:107), which reverts to Finn's pathways' and the mobility through the use of Credit Transfer and Recognition of Prior Learning discussed earlier.

Mature-age students the players entering higher education
While access to higher education appears to be a 'second chance' answer for mature-age entrants, research indicated in studies conducted in the 1980's by McDonald & Knights, (1983, 1979), West, Hore, Eaton & Kermond,(1986) and Small (1986), it is not an uncommon trait for mature-age students to lack confidence, fear returning to study and profess inadequate study skills. Potential causes for mature-age withdrawal from higher education study are the workload being too heavy, job pressure and family commitments, (West et al,1986). Though
motives have been fuelled by the Training Reform, these mature-age characteristics have not changed over fifteen years.

In an investigative study, Harrison (1994) identified mature-age students still display similar qualities to the studies of the 1980's. The predominant motive for entering higher education was potential job advancement from part-time to full-time or for full-time requirements. Following closely was the foreseen need to increase teaching/training ability and skills (p.17). Their expected achievements coincided with their motivation with expansion of their teaching skills and gaining teaching qualifications (p.19). Time restraints of attending university and the expected strains on relationships were the leading concerns when the new students were questioned on anticipated problems.

Further probing of their answer revealed lack of confidence, expected work load and fear of returning to study, (p.18). It is accepted that adults differ in their ability to be self-directed in learning and rely on their workplace, life and community experience, however, mature-age learners who have not experienced formal study, been absent for a long period or who are reminiscent of a highly constrained traditional approach to learning, possess a common legacy when returning to study. Students who lack confidence are the students most 'at risk' who are unable to judge quality of their own work, are teacher dependant and lack self-direction attributes and possible lifelong learning competence, (Candy, 1992, Harrison 1994).

More importantly, mature-age students in this instance have not encountered the competency-based standards and training framework in their foundational education. They therefore rely on 'checklist' qualifications and life experiences to justify competencies for credit transfer and recognition of prior learning. As a result, it has been increasingly important to determine what knowledge, skills and attributes they bring to the higher education situation.

**The possibilities of the mature-age learners experience**

In the discussion above, competencies (skills and knowledge and attributes) have been deemed preferable as being generic, specific and transferable from the learning environment to the workplace and to life's learning in general. They are directed to the youth of the post-compulsory arena of vocational education and training in preparation for the training reform and the likely-hood of articulated pathways between the training and workplace sectors. In so doing the competency criteria have been reckoned by the 'tune callers'. Consider mature-age students who have already 'played the tune' that is, life's learning in general, who have experienced the workplace and a continuing education environment, what competencies do they perceive to have and to need? Is it possible that lifelong learning experiences and attributes endemic to mature-age learners are potential keys, enabling learners to adapt to, be flexible within, and visionary towards a culture of learning?

**THE INSTRUMENT**

The use of advanced standing instruments of Credit Transfer (CT) and Recognition of Prior Learning (RPL) are potential instruments for mature-age learners. The very name of the instruments 'transfer' and 'recognition' pre-conceives the notion that credit is transferable and prior learning will be recognised. Surpassing this bias is the ability to appraise prior learning. Considering the 'profile of a mature-age learner' discussed earlier and the potential for mature-age students in using the instruments of CT and RPL was cause to conduct a study into the impact of such use.

**A local study with Adult and Vocational Education Students**

This study was conducted in 1995 with 70 mature-age students aged between the ages of 25 - 50 years entering the Adult and Vocational Education Diploma. It found many competencies were required by students in higher education. What has resulted is a set of competencies that the students themselves have sanctioned as being the enabling qualities that underpin the notion of competency. Firstly, a profile of the mature-age vocational education and training (VET) students was collated and is typified below as table 1.

Table 1. A profile of a typical V.E.T. Mature-age student.
<table>
<thead>
<tr>
<th>Attribute on entry</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>age</td>
<td>37 years average</td>
</tr>
<tr>
<td>gender</td>
<td>35 female 37 male</td>
</tr>
<tr>
<td>employment</td>
<td>58% f/t 42% p/t</td>
</tr>
<tr>
<td>teaching exp</td>
<td>28% none/new 51% &gt;3 yrs 21% &gt;15 yrs</td>
</tr>
<tr>
<td>highest educ. level</td>
<td>22% high sch 25% trade 42% other 11% Uni</td>
</tr>
<tr>
<td>age of quals</td>
<td>8% &gt;1 yr 19% &gt;5 yr 15% &gt;10 yr 58% &gt;35 yr</td>
</tr>
<tr>
<td>why enrol</td>
<td>66% self choice 21% emp req. 13% asked to</td>
</tr>
<tr>
<td>what quals. will do</td>
<td>31% career adv 28% recog. qual 19% career chang 18% other</td>
</tr>
<tr>
<td>hope to achieve</td>
<td>40% teach skill 33% imp. skill 10% prove self 13% other</td>
</tr>
</tbody>
</table>

Secondly, using questions moulded on preliminary lifelong learning groupings (Candy, 1994) and preliminary findings of 'mature-age study concerns' Harrison (1994), a questionnaire, to determine entry competencies, was designed with potential answers graded in degrees of agreeability. A key set of skills, knowledge and attributes worthy of mature-age students have been retrieved, (Harrison, 1995). The competencies, are grouped around four factors.

They are:
- Positive learning attitude
- Vision for competence
- Abilities in Self-Direction
- Learning tools for Autonomy

Table 2. Positive Learning attitude

A mature-age students who possess this attitude loves learning for the sake of learning and is likely to deeply search into learning rather than surface over

Skills involved:
- curiosity in what is being learned
- an ability to question assumptions

Attitudes involved:
- positiveness

Table 3. Vision for Competence

This and 'positive learning attitude' are closely related. A mature-age students who is visionary understands that learning is lifelong, each learning opportunity, whether formal, informal or experiential is part of the learning culture. Competencies are seen as interconnected as skills, knowledge and attributes and therefore assessable and applicable to lifelong learning.

Table 4. Abilities in Self Direction

A self-directed mature-age student should be able to set their own learning goals, locate their own resources, and produce evidence of the learning outcome. Firstly with facilitated assistance, tapering to independence.

Skills involved:
- framing questions
- critically evaluating information, prioritising main themes and support in formation.
organising and recording information, keeping notes
expressing their ideas and research information in written and verbal form

Knowledge involved:
• of their field of study

Attributes involved:
• confidence in abilities
• independence
• self-expectancy

Table 5. Learning tools for Autonomy

A mature-age student who possess these competencies stretch beyond self-direction to be autonomous, that is an ability to self manage and be unconstrained in their learning ability.

Skills involved:
• reflection on the learning process
• self assessing their own work
• analysing expectations
• computer, internet, CD-rom and associated technology
• planning, organising, scheduling time
• setting and keeping goals

Knowledge involved:
• of preferred learning style
• of learning strengths and weaknesses

Attributes involved:
• adapting and ability to change
• innovativeness
• flexibility

PERFORMANCE ON OPENING NIGHT
In the finale of this metaphor, 'opening night' of this performance is the linking of the orchestra, the tune callers, the players and their instruments. It became increasingly evident that there were varying students scores of the four factors and this was likely to influence the use of credit transfer and/or recognition of prior learning for advanced standing purposes.

• Those with a high factor score sought out the process of CT and RPL themselves. Many were already undertaking other or continuing study, others had extensive work and life experience and were often in the older age bracket. They saw the relevance of their prior learning, saw advantage of not having to over learn topics they had already completed, or were confident at. Plus it was an opportunity to reduce the workload or cost. Anything they came across with which they were unfamiliar or unsure of they were confident enough in their own ability to teach themselves, or find the appropriate resource that would assist that.

• Those who had a high factor score who did not take advantage of CT or RPL did not have enough forewarning that it was available or what the course they were entering into actually entailed. Many had extensive work and life experience, but considered higher education a formal and alien environment and did not know what to expect. In retrospect could have confidently taken advanced standing.

• Those who did not have a high factor score but took CT and or RPL did not display confidence in their ability or lacked considerable work or life experience. Many were new or beginning teacher/trainers and were in the younger age bracket. The reason for taking advanced standing was to finish as quickly as possible. They compensated for their lack of confidence by sitting in on lectures and doing assignments for the subjects for which they have received advanced standing for, to establish their self worth. In retrospect, these students were confident
they had done the right thing in seeking CT and RPL as long as they were able to participate in the assessment.

- Those students who were low on the four factor score and did not take CT/RPL were a mixture of those who perceived their prior learning to be out dated, or their work and life experience of little consequence. These students were new to the teaching/training and higher education scene and wanted to learn all they could. In retrospect, after completing the course, these students were pleased they did not seek CT/RPL.

In addition, irrespective of taking advantage of CT/RPL or having a high factor score, two elements emerged from this inquiry. They were:

- The majority of students who have been absent from study for a considerable time, or who had not experienced the higher education culture, expressed the continued need for learning how to write, research, report at an academic level.

- The students who participated in their peer support study circle found the experience of sharing, learning and collaborative discussion in a team atmosphere benefited to their learning. Most expressed the advantage to reflect on the process of learning and self assess their progress.

In conclusion, under the auspice of competency based training within higher education, when dealing with mature-age students using CT and RPL, there are several things to consider. It appears that mature-age students who are already on a learning pathway or who have extensive work and life experience are confident and possess higher factor score. They appear more likely to seek CT and RPL and to transfer their competencies from learning environment to workplace and life in general.

Those students who are less familiar with the learning environment, and possess less work and life experience are less confident in their abilities and the use of CT and RPL. To make this effective however, there appears a need to offer student counselling prior to course commencement, forewarning and explaining the content of the course. A strict assessment on the relevance and currency of prior learning and perceived competencies is suggested, not necessarily to restrict the use of CT and RPL but to encourage the use. In addition, offering non graded assessment on some aspects prior to commencement for those students who want to determine their competencies in a different context, offering short courses to those students who do not display high factor scores in their transferable competencies, and arranging peer group learning opportunities enhances transfer from context to context.

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DOES THE LEFT HAND KNOW WHAT THE RIGHT HAND IS DOING? ORGANISATIONAL STORIES AND MYTHS AS CROSS-SECTORAL COMMUNICATION VEHICLES FOR WORKPLACE LEARNING IN ADULT AND VOCATIONAL SETTINGS

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Abstract
This paper examines the extent and effectiveness of dialogue among different groups of professionals committed to making the workplace a ‘learning theatre complex.’ In these ‘learning organisations,’ it is suggested that people learn a great deal informally through the exchange and creation of myths and stories about the life, culture and interpersonal relationships at work. When these exchanges are based on shared meanings, learning occurs in a culture of certainty and openness. Alternatively, a ‘shadow side’ workplace culture can develop when stories are not part of the overt and open communication flow.

Following this rationale are specific examples of successful as well as unsuccessful cross-sectoral communication. Included here are instances of communication (or the lack of it) among stakeholders such as government bodies, educational providers e.g. universities and TAFE, and human resource or vocational educators in industry. Particular attention is paid to the effects of these cross-sectoral communication practices on the learning and experiences of adult and vocational educators. Through reference to specific workplace contexts, implications are drawn for ways of creating a healthy storytelling culture to promote learning, productivity and quality of life in today’s ‘learning organisations.’

Introduction
I’d like to begin by clarifying my frame of reference for this conference’s theme - ‘Communication Across the Sectors.’ Whilst I work in a university School of Adult Education and my students are predominantly HR practitioners, management educators, trainers, organisational developers, community adult educators, and vocational teachers, my field of study is applied social science. I see myself primarily as a scholar interested in problems and issues of communication management for workplace learning (Kaye, 1994, 1993). If we were to think of my orientation as a figure-ground problem, the figure would be the substantial study of communication science and the background or context to which I apply this knowledge is adult and vocational education, especially management education.

‘Communication Across the Sectors’ is a timely and appropriate theme for a conference on vocational teacher education. As I reflect on events and developments that have taken place in this field of practice over the past few years, I am reminded of unforgettable examples of poor communication (including misleading communication) between various interested parties and stakeholders. I am also convinced that a major reason for poor communication across the sectors is largely due to people with influence taking communicative competence for granted - as though this ability is something with which we are all naturally blessed - and thus making no real effort to understand the other party’s point of view.

In thinking about vocational teacher education I imagine we would all agree that the relevant sectors involved include the university (or higher education) sector, employers of vocational teachers such as the state TAFE systems, the industry sector which inherits the graduate learners from systems like TAFE, and the public which provides funds regulated by appropriate
government and bureaucratic bodies. There are also professional and industrial unions with long-standing historical ties with the vocational sector. Whilst we could surmise that there is a commonality of purpose cutting across these various sectors because the surface rhetoric in the stories of the different stakeholders often appears to be pretty much the same, in reality it is not difficult to form the view that certain of these sectors have been working at cross-purposes. In part, this is because on occasion they have appeared to be operating from specific politically-driven reform agendas rather than from plans for the 'common good.' Some of the sectoral stories, therefore, seem to be situated in the 'shadow side' or covert culture within their systems (Egan, 1993, 1994). This perception of mine is a theme of this paper.

Recently, the surface rhetoric characterising communication across the sectors has resonated with politically correct buzzwords and phrases like 'quality,' 'client-driven,' 'benchmarking and best practice,' 'strategic change management initiatives' and 'learning organisation culture.' On top of this managerialist argot is the jargon of the policy-makers using terms linked with the ever-increasing number of bureaucratically created committees, boards and authorities like the Australian Committee for Training Curriculum (ACTRAC), the Australian National Training Authority (ANTA), the National Training Board (NTB), the National Office Skills Formation Advisory Board (NOSFAB), the National Forum for the Recognition of Training (NFROT) and the National Office for Overseas Skills Recognition (NOOSR). So we have recurrent allusions to the Australian vocational certificate training system, national competency standards for assessors, workplace assessors training package, national industry training plan, key competencies, off-the-job competency delivery and assessment, pathways directions policy for post-compulsory education, the Australian standards framework, and national performance measures and profiles. When officialese proliferates in this way, the potential for confusion and miscommunication is naturally heightened, especially in cases where existing thinking is reinvented by a new power broker entering the politico-educational arena.

What I'm leading to is the fact that whilst all these power plays continue to generate official, policy-based stories as a basis for communication across the sectors, the real, flesh-and-blood stories of individuals with small voices in their systems remain for the most part unheard. In my forthcoming book 'Myth-makers and Story-Tellers' I identify different kinds of stories which can illuminate our understanding of communication and culture in the workplace (Kaye, 1996: in press). For example, there are 'official' stories in publicly available documents such as annual reports, visionary and strategic mission statements, board minutes and agenda papers, prospectuses, business plans, and system-wide memoranda. Other kinds of stories may include myths about organisational heroes (e.g. Lee Iaccoca of the U.S. Chrysler Corporation), individual accounts of day-to-day events, conversational stories, jokes, rumours and gossip.

As we noted fairly recently, one politician used a whiteboard to tell her story.

If we think of vocational teacher education as a theatre complex with several stages, different players (or actors) and audiences, we could assume, with some justification, that no two performances are exactly the same (Kaye, Gates and Ross-Smith, 1995). Even though the plot or storyline is relatively consistent as we move from one auditorium to the next, there are shades of difference in how the story is interpreted in the enactment of the play. For instance, the employing authorities may be seeing the unfolding drama through a filter of value for money. On the other hand, the trained vocational teachers may be more concerned with ensuring the best opportunities for learning are being provided regardless of cost. Teacher educators may hold the vision of helping trainee teachers develop into self-directed professionals capable of engaging in lifelong learning and continuing self-improvement. The common storyline is the mission of creating a cohort of high calibre professional teachers.

It's at times like this when we have the opportunity to reflect on the various performances we have been witnessing that deeper learning, insights and understandings can occur. Illumination of this kind is even stronger if we have been caught up in the stories and dramas which have been performed on different stages. Schon (1983) saw the mechanism for organisational learning as 'reflection-in-action' where experience rather than the textbook, be it on-the-job or in formal places of learning like colleges, is a powerful instructor. In the workplace, reflection-in-action can transform systems into 'learning organisations' (Senge, 1992). So there is a
strong link between learning and communicating across the sectors. I believe that the vehicles for learning are the myths and stories which pervade our workplaces.

Stories of cross-sectoral communication in vocational teacher education

Story No. 1: The 1990 National Review of TAFE Teacher Preparation or Throwing the Baby Out With the Bath Water

One of the most dramatic sagas of cross-sectoral miscommunication concerns the 1990 National Review of TAFE Teacher Preparation (Scarfe, 1991). Early in 1990, when I was Head of Technical Teacher Education in the UTS Faculty of Adult Education, I first learned of this review from a consultant appointed to the steering committee. The official story was that the review was stimulated jointly by DEET and the CEOs of the various state TAFE systems. There was some equivocation about the real reason for this review. One official story was in the bland terms of reference which gave the impression that this was yet another in a series of 'quality assurance' exercises being promoted by economic rationalists with an apparent conscience and passion for accountability to the taxpayers.

Pretty soon, however, people involved in making submissions to the investigative team were beginning to become suspicious. Other unofficial stories, principally in the form of rumours, were beginning to surface. The most talked about piece of behind-the-scenes gossip was that the senior TAFE bureaucrats Australia-wide had set their private reform agenda for removing TAFE teacher preparation from the university providers and entrusting this to the employers (i.e. TAFE). Underlying this speculation was the story that the state TAFE systems, especially NSW TAFE, were finding the current TAFE teacher education arrangements too much of a financial burden. Those involved in providing information to the review consultants were seriously starting to think that the commissioning TAFE bureaucrats had reached their conclusions and were using the review for obtaining evidence to support these conclusions.

All sorts of stories were told in the course of this review. Over the twelve months when the review was conducted, I was interviewed personally for nearly two hours, invited to a 'search conference,' and appointed to a special seminar group to decide on how the findings of this review could be disseminated and applied. From start to finish the cynicism of the review's participants increased dramatically. By the time the special seminar group met, it was clear that the review had been a very costly waste of everybody's time. The review had found existing vocational teacher education to be highly effective and valued by all stakeholders with the notable exception of the senior TAFE bureaucrats concerned with saving money.

The final story about the 1990 review is that nothing was achieved by the exercise. In order to find ways of reducing expenditure on vocational teacher education, those pushing this review had instead squandered their funds. On the other hand, there was one positive outcome of this review. All those who took part in it ultimately appeared to become united against a common enemy - those trying to subvert existing vocational teacher education. Indeed, the following year saw the birth of this national workshop which is now five years old. These workshops became symbols of cooperative effort by everyone concerned with the quality provision of vocational teacher education. During the past five years the bonds of unity continued to develop amongst those who fought so hard in 1990 to preserve what they had struggled to achieve in previous decades.

In one sense, the review story is an example of both good and devious communication across the sectors. Most sector representatives contributing to the review appeared to hold the same values and to be talking the same language. Each story they told seemed to reinforce the stories of other participants. The only conflicting story was the one attributed to those who had set this review in motion. While nobody could say with certainty what the rumoured thinking of the senior TAFE bureaucrats across the nation was, there was a firm shadow-side belief that economic rationalism and not educational values dominated the thinking of those TAFE executives.
Story No. 2: The Third Wave or Keep Restructuring When You Can’t Think of What Else To Do

Since the late 1980s NSW TAFE has been restructured three times. This passion for restructuring implies that the politicians who have used TAFE as a political football believe that you don’t leave good alone but rather that you use the new broom just to be seen to be doing something. Often the decision to use a new broom comes with a change of government. In the case of NSW TAFE, the first wave of restructuring came as a result of the release of the report by a special committee to review the effectiveness of NSW TAFE’s management practices (Scott Report, 1988).

Most of the changes were radical. For example, many senior bureaucrats either had their positions declared redundant or found themselves with almost no warning now reporting to people who had once been their subordinates. In particular, dramatic changes occurred at TAFE’s top management level. New faces were brought in and old ones relocated in less powerful or prominent places in the system’s hierarchy. Below top management level, a few people whose political affiliations were known to be unsympathetic to the prevailing government were moved to entirely different public sector departments.

While all this hurting was going on and people were reeling from the shock of the First Wave, the existing CEO’s job contract was due to expire. Wanting a second term of office to see through his vision, he reapplied but was unsuccessful in gaining reappointment. Thus, a brilliant leader with a distinguished record as an educator in the tertiary sector was replaced by an administrator with no professional background or experience in educational systems. Many people in TAFE saw the appointment of the new CEO as a symbolic act. To them, TAFE had lost its autonomy and had correspondingly become the political pawn of the powerbrokers in government. However, as it happened, the new CEO held a precarious position for what seemed to be a relatively short time - something like less than two years - before another educational leader took over.

With the new CEO came the Second Wave of restructuring. The time between the First and Second Waves seemed like only a few months but was probably between one and two years. So, while members of the NSW TAFE system were still trying to adjust to the effects of the First Wave, they were hit with a new set of big changes. Confusion and anguish were evident in many of the stories I heard from those either directly or indirectly affected. By ‘indirectly’ I mean those whose jobs were not threatened but whose duties trebled or even quadrupled because other people in the system had been relocated or outplaced.

Perhaps the most noticeable symbolic transformation from the First to the Second wave was the reconceptualised image of NSW TAFE. What was once seen essentially from an educational focus was now being perceived and promoted as a business enterprise. What were once ‘Schools’ now became ‘Industry Divisions.’ College principals were renamed ‘campus managers’ no longer reporting to regional directors but now to ‘institute directors.’ Nine institutes consisting of several campuses (formerly colleges) were created. To add to the confusion, some of these institutes became ‘institutes of technology’ while others remained ‘institutes of TAFE.’ (It was fortunate that TAFE did not rename its administrative departments, as did some hospitals, as ‘business units’ under the control of ‘business unit managers’ affectionately known as ‘BUMS.’)

Some of the tragic stories were about individuals learning to adjust to new roles given to them in the First Wave only to find these roles taken away from them in the Second Wave. Several regional directors appointed in the First Wave were not translated to positions of institute director and had to settle for demotions or even loss of permanency. One former college principal was obliged to relocate his home and family hundreds of miles away in order to become a campus manager. Many individuals throughout TAFE decided to take early voluntary retirement. They had simply ‘had enough.’

The Third Wave began this year with the dismissal of NSW TAFE’s CEO as a result of a change in State Government. Again, another person who was well known for his contributions
to higher education and who was thus seen as someone with a sound understanding of
temporary educational issues and developments, was replaced by a senior administrator
with no experience or background in education. As the Third Wave has only just begun, there
is no certainty as to what shape any possible new restructuring, if any, could take. The only
sure thing was that the continuing ‘meanker and leaner’ policy being perpetuated, regardless of
which government was in power, meant further cuts to jobs - probably several hundred.

Although the official story of the Third wave is only beginning to unfold, many unofficial
stories have started to circulate. Some individuals have told me, in an apparent attempt to
reassure themselves, that their positions were secure but that they were concerned about some
of their administrative colleagues. Another common story relates to the stance of the teachers’
industrial union. According to some whose stories I have heard the union is not disturbed by
this downsizing of TAFE’s central administration because the money so saved will be dedicated
to the recruitment of more teachers. The most likely (rumoured) story, however, is that NSW
TAFE’s central administration will cease to have any more than titular significance since the
institutes will correspondingly gain more autonomy as did institutes in Victoria.

There has been only one story I have heard about the implications of the Third Wave for the
future of vocational teacher education. I have heard this both from senior managers in TAFE
and from my university teacher education colleagues. This is the story: TAFE will take over
the basic training of its new full-time teachers. The basic training might take a few weeks, say
ten. After this, TAFE teachers could choose to complete a degree or diploma at any university
either building on the basic teacher training or in the specialised fields of study/teaching (e.g.
applied sciences, engineering, business etc.) There are currently no speculations about whether
doing these degrees and diplomas will count toward promotion in the TAFE institutes.
Significantly, there have been no stories about TAFE teacher education in NSW staying as it is
now. Because change seems to be the only constant in the succession of waves NSW TAFE
has been experiencing, a new order is not only being rumoured but also realistically expected.

How well have the various sectors communicated about these waves crashing on TAFE in
NSW? The new labor state government has in typical fashion imposed its intentions without
any serious consultation with those targeted or their industrial union. According to one or two
stories people told me, the first inkling of the downsizing was in a leaked statement in a Sydney
newspaper. Because of the suddenness of the Third Wave, staff within the NSW TAFE system
had little time to adjust to the announcement of the devastating new developments. I’m not even
sure if TAFE’s CEO was in office long enough to communicate to members of the system the
State labor government’s intentions. One thing is certain: changes to NSW TAFE have rarely
been done for educational reasons but almost always for political reasons. This seems to be a
recurrent storyline in the succession of sagas which make up NSW TAFE’s mythologies.

Story No. 3: The Rise and Fall of the Bachelor of Teaching at UTS or What’s in a Name?
During the past eight years, the fluctuating fortunes of the Bachelor of Teaching for vocational
teachers have assumed epic proportions. As a university Head of School, I first comunicated
to my colleagues my vision of a vocational teacher workforce whose qualifications were equal
to any other in the entire teaching sector. By 1988, trainee primary schoolteachers were
enrolling in a Bachelor of Teaching which now superseded the lesser qualification, the Diploma
of Teaching. It did not take me long, however, to discover that my vision was neither
understood nor being enthusiastically supported by the majority of my colleagues or other
stakeholders like NSW TAFE.

Some of my senior colleagues suggested that I convene a special seminar on vocational teaching
and teacher education in the 1990s. As it happened the speakers were all from TAFE. One was
a senior bureaucrat, another a human resources manager and the others were head teachers. Each
of these speakers communicated their ‘visions’ to the entire staff of my School. Without
exception, these ‘visions’ were of the parenthood, flavour-of-the-month kind, sprinkled
liberally with all the politically correct and current rhetoric. So, there were frequent allusions to
‘flexible modes of delivery’ including distance education and open learning, access and equity
for disadvantaged students, quality provision of on-the-job performance assessment and a
teacher education curriculum that ensured the acquisition of practical classroom skills right from the outset. Keep in mind that 1988 was prior to the release of such documents as the Finn (1991) and Meyer (1992) Reports which highlighted the importance of 'key' or generic higher-order competencies like interpersonal communication, critical thinking and problem-solving. In the 1988 seminar, therefore, none of the speakers had suggested that teacher education as a form of higher education should help students to develop abilities like communicative competence or critical thinking.

We need to keep firmly in mind the fact that people don’t learn to be good communicators or critical thinkers by undertaking a curriculum jam-packed with how-to-do-it studies. The existing Diploma of Teaching was very much a how-to-do-it course and these seminar presenters all seemed to be telling the same story of how to preserve that practical orientation. All the surrounding politically correct rhetoric was mere window-dressing. Nevertheless, the idea of a basic degree qualification for vocational teachers was very much alive in other parts of Australia. Indeed, while some States seemed to be fighting for the preservation of the status quo, others were trying to go one better by developing undergraduate degree courses as the basic professional qualifications for vocational teachers.

At the second of these national workshops, there was a majority mood swing toward a national undergraduate degree qualification for the professional development of non-degreed TAFE teachers although some participants still feared the switch to a degree would compromise the practical utility of the existing diploma qualification. Those harbouring these suspicions were predominantly from the ‘old brigade’ in TAFE and now almost without exception retired. Eventually, they succumbed to the majority view and so the idea of a Bachelor of Teaching zoomed to the top of the collective stakeholders’ educational reform agenda. Within the next two to three years, nearly every university vocational teacher education provider had established such a degree.

Since then, the swing of the pendulum from practical utility to academic rigour has started to become extreme. At UTS, for example, two years after the introduction of the Bachelor of Teaching work commenced on the design and implementation of a Bachelor of Education to replace it. The story of the new B Ed is that it will have pathways to an honours year. Implicit here is the notion that such a university qualification should not only have practical utility but that it should also provide opportunities for students to engage in lifelong learning. If we were to be completely honest, the honours year was essentially created to identify potential doctoral students who would ultimately form a pool of eligible university staff. From a university perspective, this is both reasonable and essential. My guess is, however, that employing authorities like TAFE will only have a marginal interest in such upgraded opportunities in our universities.

To cut this long story short, the rise of the Bachelor of Teaching was painfully drawn out but its demise, at least in one university, was comparatively swift. In the current exercise of developing the B Ed, stakeholders from other sectors (e.g. TAFE) had relatively little input, it seemed to me, by comparison with their involvement in developing the B Teach. Perhaps, I am wrong but the stories I have been hearing both from worried university colleagues and puzzled teacher education coordinators from TAFE suggest that communicative ties across the sectors have slackened to some extent. The familiar slogans about TAFE and the university ‘working in partnership’ for the good of vocational teachers seems to be reiterated less in stories I’ve been privy to lately.

My personal conclusion is that the change of degree has involved more than a change of name. For me, what this change has symbolised is a new ethos of self-determination and self-identity for university providers. It is an ethos of self-assertion and of disclaiming any obligation to legitimate the dictates of the paying customer. The implications for cross-sectoral communication are serious and challenging. As in George Orwell’s imagined world of 1984, we may well see the rise of independent superpowers in the vocational and university sectors. I sense that, in future, reforms to vocational teacher education may not necessarily be the result of stories voiced in unison but rather pronouncements from one dominant voice or two.
The universities become more than a grain of independent ones. This may be an unwarranted pessimistic opinion and I sincerely hope that it is. The B Teach rise and fall story, however, leads me to believe that my prediction may have more than a grain of truth in it. A likely scenario is that employing authorities like TAFE will become more directly involved in a nuts-and-bolts type of vocational teacher training while the universities will be performing a follow-up play on an academic stage in a different theatre.

**Conclusion**

The three stories I have presented seem to indicate rather forcefully that ‘the times are a-changing,’ particularly with reference to the future shape of vocational teacher education. Once again, vocational teacher education is evidently at a cross-roads. The potential is there to take it to heights it has never reached before. Equally, there is the danger that vocational teacher education will go ‘back to the future’ if the economic rationalists insist on a reversion to basic teacher training leading to no awards, as was the case until the mid-70s. Perhaps, the opposition of the industrial union will be too strong for this to happen. Only time will tell. The choice sectoral representatives will have is either to move with the times or fight a rearguard action to keep things as they are.

However, the important lesson to emerge from these stories is that strengthening communication across the sectors is likely to make the choice less painful. Communication is the foundation of consensus just as consensus obviates the likelihood of cross-sectoral conflict. I believe people from each stakeholder sector should occasionally visit each other’s theatres and, as audience members and sometimes co-producers, experience the performances on different stages. To date, too little of this has been happening. I am not suggesting that more communication entails living in each other’s pockets. It is only through open, honest and frequent dialogue that mutual understanding and empathy will become synonymous with communication across the sectors with a vested interest in vocational teacher education. In this way, stakeholder representatives may be able, through the productive sharing of stories, to shape their systems as ‘learning organisations.’

**References**


COMMUNICATING WITH FARMERS: THE ROLE OF TRAINING IN CHANGES TO FARM MANAGEMENT PRACTICES

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Abstract
Training evaluation should include a strong emphasis on outcomes, particularly changes to practice which are influenced by the training. ‘Learning events’ such as training courses impact on the decision making process, as do information, advice and support provided by experts, peers and family. This paper examines the role played by three agricultural courses in changes to farming practice.

The courses are influential in the decision to make a change to practice for two thirds of course participants surveyed, and are in fact the trigger for the change for almost half of these. Twenty per cent of all those who attended one of the courses became aware at the course of a new strategy or practice which they subsequently implemented. The course-related changes have or are expected to improve the profitability, long term viability or safety of the farm.

Farm businesses which make a change to management practice influenced by a course are more profitable than those where the course does not result in a change to behaviour.

How do we assess the effectiveness of the training we deliver?
There is a considerable literature of training, education and other program evaluation. Evaluation models which are referred to most often in contemporary works owe much to Stufflebeam (1987) and Kirkpatrick (1975).

Stufflebeam’s CIPP model advocates evaluation of Context, Inputs, Processes and Products. Kirkpatrick’s model, used extensively in Human Resource Development, evaluates Reaction, Learning Behaviour and Results. Guba and Lincoln (1989) stress the importance of constructs, values and involving stakeholders in the evaluation. They emphasis that evaluations depend on the individual’s particular contexts (physical, social, psychological and cultural) and the individual’s values.

In the area of agricultural extension programs, Bennett (1980) has proposed a seven level hierarchy which ranges from inputs (level 1) through reactions (level 4), knowledge, attitudes, skills and aspirations (level 5), and practice change (level 6) to end results (level 7, for example financial results, including “side effects”).
A simplified summary of program evaluation suggests that a full evaluation should encompass aspects ranging from inputs into the program, through the process which occurs within the program, to its outcomes, not forgetting the external environment in which the program operates and the values and contexts of the individuals involved. Figure 2 describes factors to be considered in program evaluation.

The most important outcome from any evaluation process is the information that it generates. This information should be analysed and then become an input into future program offerings (see Figure 3 Program evaluation with feedback loop).
Many evaluations confine themselves to the inputs and processes, or to reactions and knowledge. Data on these aspects are easy to collect, for example by participant questionnaires or interviews and by tests or other forms of assessment during or at the conclusion of a program. This is fine if the purpose of the evaluation is monitoring, or delivery improvement.

Funding bodies, policy makers and other stakeholders such as future training participants, employers and trade unions are interested in the 'higher' levels of evaluation of a program. That is, they want to know about in the program's outcomes in terms of changes to behaviour of participants and the end results or outcomes such as improved profits, a better standard of living or more environmentally friendly practices.

Behavioral changes and outcomes are more difficult to measure than reactions. Data must be collected some time after the program has finished to ensure that changes to behaviour have become established. End results are difficult to isolate in the 'real world' because there are frequently many influences apart from training on measures such as profit, production, or environmental quality. For example, is higher production of frozen potato chips due to employee training, or is it because the last load of potatoes had less bruises? Is the increased farm profit because of better pasture management, or is it because the rainfall was more evenly spread throughout the year?

The approach taken here is to examine changes to farm management practice which are reported to be influenced by attending one of three agricultural courses in Tasmania. The role of the courses in the change process is considered, with some reference to the role of other 'learning events' in the decision to make a change. The relationship between changed behaviour following the courses and farm profit is briefly examined. The paper concludes by discussing the need for more research into why some course participants do not make changes to their behaviour or practice following a course.

_Tasmanian agricultural courses_

The results used here are from a 1994 survey of 65 Tasmanian farmers, 45 of whom had completed one of three courses in the previous three years. The three courses are:
• Farm Chemical Accreditation (offered by TAFE)
• Dairy Farm Management (offered by TAFE)
• Intensive Pasture Management (offered by the Tasmanian Department of Primary Industries and Fisheries).

The courses are described in the Appendix.

**Making the decision to change a practice**
Several things need to occur before a new practice is implemented or adopted.

• First, the farmer or farm management team must be aware of the new practice (or the innovation).
• Second, there is a process of information gathering from experts and acquaintances, such as fellow farmers.
• Third, there is a 'sounding out' of the idea with peers (other farmers again), close friends and family (this may also happen immediately after awareness). This process provides support in making the change.
• Finally, resources required to implement the change must be available.

Only if the potential change to practice successfully passes through all these stages will adoption or change occur.

The model shown in Figure 4 illustrates the first three steps in the process. The model is informed by models of farmer decision making such as Hollick (1990), Phillips (1987), Salmon (1981) and Underwood and Salmon (1980).

The decision maker could become aware of the possibility of making a change from any one of the sources - from 'learning events', from other farmers, from family and friends or from experts, such as accountants or agricultural field officers, either directly or through the media. 'Learning events' could be formal courses, field days or seminars.

Sometimes steps are skipped, for example information is sought only from fellow farmers and not from experts. The more major the decision the more likely it is that information and advice are sought from several sources. Some may be consulted more than once, for example fellow farmers could be consulted early in the process and again just before the decision is made.

It is frequently difficult to distinguish advice and support. Support can be emotional or social support from family, friends and peers or technical support from experts. Learning events provide opportunities for both categories of support via fellow participants and facilitators or instructors.

The elliptical lines in Figure 4 represent distance from the decision maker. Note that the decision maker is often a team, the farm management team for the purposes of this paper.
Tasmanian agricultural courses and changes to practice

*Changes to practice influenced by the courses*

Is a change to practice on the farm an outcome from the three courses? The survey suggests that it is often, but not always.

Almost two-thirds of course participants report making at least one change to their farming practice as a result of attending one of the courses. Changes are planned on two other farms. All but two of the farmers believe that these changes have or will improve the profitability or long term viability of the farm. (One of the exceptions made a change for safety reasons, the other for legal reasons. It is possible that both changes could have a positive impact on the farm in the long term.)

One quarter of the course-related changes were rated the most or second most important change made on the farm over the past three years.

The types of change made as a result of the Dairy Farm Management and Intensive Pasture Management courses are largely changes to pasture planning or land management (85% of all changes from the two courses). Not surprisingly most of the changes as a result of the Farm Chemical Accreditation course were to chemical usage (56%).

The fact that one third of course participants who did not make a change to their behaviour as a result of the course raises the question, why? This issues is addressed later in this paper.
How did these three courses impact on the adoption process?

Table 1 Changes to practice influenced by courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Dairy %</th>
<th>Pasture %</th>
<th>Chemical %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participants</td>
<td>13</td>
<td>16</td>
<td>16</td>
<td>45</td>
</tr>
<tr>
<td>Made a change influenced by course</td>
<td>8</td>
<td>62%</td>
<td>12</td>
<td>75%</td>
</tr>
<tr>
<td>Became aware of the change at course</td>
<td>2</td>
<td>15%</td>
<td>5</td>
<td>31%</td>
</tr>
<tr>
<td>Course was trigger for change</td>
<td>4</td>
<td>31%</td>
<td>5</td>
<td>31%</td>
</tr>
<tr>
<td>Change was one of two most important</td>
<td>3</td>
<td>23%</td>
<td>3</td>
<td>19%</td>
</tr>
</tbody>
</table>

Twenty per cent of all the farmers who attended one of the courses became aware of a new practice or management strategy at the course and subsequently implemented that practice or management strategy.

The most common sources of awareness for the other changes which were influenced by a course are peers (other farmers) and other learning events.

Figure 5 Sources of awareness for changes influenced by courses

![Pie chart showing sources of awareness]

Table 2 Source of awareness of course influenced changes

<table>
<thead>
<tr>
<th>Source of influence</th>
<th>Number</th>
<th>Percent of course influenced changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasture course</td>
<td>5</td>
<td>19%</td>
</tr>
<tr>
<td>Dairy course</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Chemical course</td>
<td>2</td>
<td>7%</td>
</tr>
<tr>
<td>Another course</td>
<td>3</td>
<td>11%</td>
</tr>
<tr>
<td>Total course</td>
<td>12</td>
<td>44%</td>
</tr>
<tr>
<td>Field days</td>
<td>3</td>
<td>11%</td>
</tr>
<tr>
<td>Total learning event</td>
<td>15</td>
<td>56%</td>
</tr>
<tr>
<td>Other farmers</td>
<td>6</td>
<td>22%</td>
</tr>
<tr>
<td>Expert or the media</td>
<td>4</td>
<td>15%</td>
</tr>
<tr>
<td>Family</td>
<td>1</td>
<td>4%</td>
</tr>
<tr>
<td>Always known about it</td>
<td>1</td>
<td>4%</td>
</tr>
</tbody>
</table>

n=27

Non-course influences on the decision to change
The other influences, apart from the course, on the decision to make a change include both the sources of information and advice from Figure 4 Use of sources of awareness, information and support in making a decision regarding change to practice, and financial and other external factors. Costs, a desire for a larger income, higher productivity or a reduced workload are external to the decision making process, yet are often critical influences on the decision to change.

**Figure 6 Other influences on the decision to make a change**

<table>
<thead>
<tr>
<th>Influence</th>
<th>Number of Times Used, all changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experts and the media</td>
<td>16</td>
</tr>
<tr>
<td>Fellow farmers</td>
<td>12</td>
</tr>
<tr>
<td>Learning events</td>
<td>14</td>
</tr>
<tr>
<td>Costs or more income</td>
<td>10</td>
</tr>
<tr>
<td>Other factors</td>
<td>0</td>
</tr>
</tbody>
</table>

**Figure 7 Trigger or critical factors**

- Fellow farmers and staff: 11%
- Costs or more income: 37%
- Other: 4%
- Courses: 48%

n=27

A course was the trigger, or the critical factor in the decision to make the change in almost half of the changes.
Sources of support

Figure 8 Sources of support in making a change influenced by a course

The sources of support used by the farm management teams reflect those in the above model, Figure 4 Use of sources of awareness, information and support in making a decision regarding change to practice. The experts who provided support included consultants and government and private company field and extension officers. The chronological sequence on which the sources are used varied.

In only two of the cases where the farm management team cites no source of support is the change one of the two most important made on the farm in the past three years. The range of types of change with 'nil' support is similar to the range for the sample as a whole (see above).

Changes and profit
The highest level of course evaluation goes beyond changes to behaviour or practice as a result of the course, and considers the results of the changed behaviour on variables such as profit and economic and environmental sustainability of the farm business.

It is difficult to make conclusive statements about the impact of the courses on economic or sustainability outcomes on farms because of the difficulty of finding a control group that exactly matches the course sample, and because many things other than the three courses will impact on the profitability and sustainability of farms. There is, however, evidence that those who do make changes to their behaviour or practice following a course have more profitable farms.

Financial information was collected from thirty-six of the forty-five farm businesses in the survey. The profit, measured by the gross operating surplus of the farm business in full the financial year before the survey, is significantly higher for farms which make a change to practice.

<table>
<thead>
<tr>
<th>Table 3 Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Change</td>
</tr>
<tr>
<td>No change</td>
</tr>
</tbody>
</table>

*Significant at the 90% level.  
#Nine farms did not respond.
Although it is not possible to say that the higher profit is caused by the course-related change, there is some suggestion that those whose behaviour is altered as a result of a course may benefit financially.

*Reasons for not making a change as a result of attending a course*

All those associated with training are involved because they expect the training to produce Products (Stufflebeam), Results (Kirkpatrick) or End results (Bennett). This expectation applies to those funding, running, facilitating and participating in the training or course. A change to behaviour, or practice, is a precondition for Products, Results or End results.

The most frequently reported reason for not making a change is that the course reinforced the appropriateness of existing practices (especially the chemical course). Three people gave reasons related to the way the course is delivered, while two cited insufficient resources (see Figure 4).

**Figure 9 Reasons for making no change following a course**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Number giving reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Too soon, changes planned</td>
<td>2</td>
</tr>
<tr>
<td>Not enough capital to implement</td>
<td>3</td>
</tr>
<tr>
<td>Prefer existing way of doing things</td>
<td>6</td>
</tr>
<tr>
<td>Reinforced existing knowledge</td>
<td>7</td>
</tr>
</tbody>
</table>

\(n = 16\), some gave more than one reason.

Without very detailed information about individual farms and the practices on those farms it is impossible to make a judgment about whether existing practices are more suitable for the farm than those espoused by the courses, or indeed the same as those espoused by the courses. As well, new practices need to fit with the individual’s beliefs and values (Guba and Lincoln 1989).

Innovations are generally adapted as they are adopted (see for example Nowak 1982 and Russell 1990). New practices are usually trailed before being fully implemented. The trailing process allows the practice to be adapted to the particular farm situation, that is to the individual’s context (Guba and Lincoln 1989). There is no reason to suppose that any change to practice is any different to the ‘adoption’ of an innovation, that is changes to practice are adaptations, rather than adoptions, of practices as they occur elsewhere.

Failure to make a change to practice could be because there has not been an opportunity to trial the practice (it could be too expensive or financially risky to trial for example). It could be because it does not fit with the beliefs, values and context of the individual farm; the course has not caused the change of attitude necessary for a change of behaviour (Bennett 1980).
Further research is needed to discover more about why training does not more frequently result in a change to practice or behaviour.

Conclusion
Learning events such as formal and informal training courses play an important role in making farmers aware of new management strategies and practices and in influencing the adoption of practices of which the farm management team was already aware. In all, around two thirds of Tasmanian agricultural course participants made a change to practice which was influenced by the course. Thus there is evidence that the courses generate higher level outcomes in terms of changes to behaviour.

More research is needed into why some course participants do not put into action the knowledge gained on the course.

References


Appendix

The Courses

The three courses are each run by a different body, see below. They were chosen by the farmer, educational and development bodies which sponsored this project as being courses which were designed to meet identified training needs.

Intensive Pasture Management course

This course is targeted at dairy farmers. It consists of a three day course with a half day follow up nine months later. It has been run in several locations in north and north-western Tasmania. Some funding is provided by milk processing companies. All dairy farmers who receive low interest loans from Tasmania Development and Resources, the state government development body are expected to attend this course. The course aims are:

- To optimise farmer participation in a three day course on pasture management.
- To increase participants knowledge and understanding of the pasture/animal/productivity/management system.
- To observe increased farmer confidence in decision-making and change in farming practices toward increased productivity. (Nettle 1992)

A list of participants in this course since 1990 was provided by the course provider, the Department of Primary Industries and Fisheries. The population size (number of farm management units which had attended the course since 1990) is 122.

Farm Chemical Accreditation course

This course is offered by TAFE and facilitated by the Tasmanian Rural Industries Training Board. Successful completion of the course and its final examination is expected to become a requirement for purchase and use of certain chemicals. The course aims are to reduce chemical waste and incorrect use and storage of chemicals.

A list of participants in this course since 1990 was provided by the course provider, the Tasmanian Rural Industries Training Board. Many participants in this course are not farmers, but rather are local government employees or employees of large rural businesses. These people are excluded from the sample. The population size is 441.

Dairy Farm Management course

This course was run by TAFE at two locations in the North West of the state and one in the North East in the relevant time period. It consists of weekly sessions, each on a different topic of relevance to dairy farmers.

A list of participants in this course since 1992 was provided by the course provider, the North West Institute of TAFE. The course did not run in 1990 or 1991.

A sample size of 15 was desired. The population size is 18 farm management units when numbers are adjusted for multiple course attendees from one farm.
IN SEARCH OF CONTINUOUS LEARNING

Robert O’Sullivan
Marketing, Training and Employment Co-ordinator
Sunshine Coast Group Training, Maroochydore, Queensland

Introduction
No matter where it is gained, the ultimate education outcome must be a national culture of continuous learning.

This requires a three-way interaction between educators at all levels, the people they need to reach and industry in the broadest context. What Australia must have is a well-trained, highly skilled and mobile workforce. Flexibility in training and work practice is the cornerstone.

Some will argue at this point that the first problems to be addressed should be those of producing a stable economy, job creation for people disadvantaged by unemployment and other pressing social equity issues brought about by extended recessionary conditions. However, experience from the mid-seventies onward has shown that economic solutions exclusively based on job creation and equity programs are usually transitory.

The major cause of long-term unemployment is that those who are displaced by technology or industry restructure are either unskilled in the work environment or possess a limited skills base. In many cases these people either do not want to retrain or have lost so much personal esteem in a seemingly never-ending job search that training lacks relevance.

We have to face the unpalatable fact that Australia is close to having nearly two generations who have not had a career path. Equally serious is the statistic that about 50% of our current workforce has no post-school qualifications and is in very real adding to the unemployed if technology removes the position they occupy. That was the prime reason why the school-to-work program which is the principal subject of this paper was developed. In a particular case a way had to be found to break the cycle in a large number of families where school exit was the start of unemployment.

The philosophy on which the program is based has its origins in the overall Training Reform Agenda underpinned by personal experience of delivering more than 200 seminars on training reform around Queensland to educators, parent groups, industry representatives, small business and the general community through its various service organisations. Thus it is relevant to discuss this broad philosophy as it is informed by extensive reading and interaction with these diverse groups during the seminar process.

Towards the New Culture
By the year 2000 Australia must have a culture of continuous learning to provide a skills base for new forms of work organisation which are an integral part of technological development. This skills base must provide the foundation for lifetime career development which will allow people to change occupations without massive social or personal upheaval when their present careers are overtaken by the Technology Revolution.

Along with this skills base development there is a social obligation placed on the whole community to raise the self-esteem of people whose lives have been disrupted by long term unemployment. A detailed discussion of Australia’s social duty is outside the scope of this paper. However, it must be noted and recognised. It is also essential to point out that
training on its own should not be used as yet another palliative to ease the mental stresses of unemployment.

To develop the culture of lifelong learning will require a very honest evaluation of their place in the skilling package by government, educators, business, industry and unions. No group is exempt and the time for blaming each other about previous failures is past. Educators from primary school up and the broad business/industry sector must be involved in curriculum development. For its part industry must stop being hyper-critical of educators, recognise the difficulties they face and work with them to solve training problems.

The delivery of education must cease to be a series of monopolies dependent on government funding. There should be acknowledged, open competition between training providers with course delivery geared to meet individual and enterprise requirements, particularly in the provision of initial training to trade or basic professional levels.

There must be a move away from the imposed supply of inflexible courses and a positive response to demand. This will require many education planners to break the mould of the perceived "ideal" course structure, replacing some of the recondite conceptual elements with practicalities which are taught in a way to encourage the student to extra private work in consolidating a deeper theoretical base.

Education planners at all levels in moving away from the ideal courses just mentioned, will also have to be flexible enough to respond quickly as unexpected events occur which require a rapid re-skilling of a workforce component.

Governments, industry and unions must realise that although the human resource is the most prolific element it is also the most delicate. We all know of managers who see their workforce as another commodity. Equally there are examples of unions who use their members as weapons in a giant power game to the detriment of all concerned.

There must be room within industry to allow people a "second chance education" as technology makes them directly redundant or alters business priorities which involuntarily shift individual career paths. The easy way out is to "down size" or whatever the politically correct word is for "dismiss". However if there is a culture of continuous learning within industry, staff stability and personal esteem can be maintained as retraining programs provide new work skills before technology over takes a position. The excuse that an industry was "caught" by a rapid technological advance shows either a lack of planning or little pastoral care for the worker. Governments have a right to express delight with "the figures" when a program or policy succeeds. However, we still see the situation where the figures come first and overshadow some of the more pressing social equity issues which are not being addressed: issues such as preventing the net numbers from growing as school leavers add to the numbers and others leave the employment market.

The workforce is not relieved of its obligation to take a thoughtful part in this cultural shift towards continuous learning. As a minimum there must be a recognition that skills which used to remain current for many years -- if not a lifetime -- now require regular up-dating. One statistical prediction highlights this point: that by the time today's Year 12 students reach the nominal pension age of 65, they will have changed their career totally up to ten times.

Finally, as a community we are faced with a responsibility that makes the culture of continuous learning an essential ecological consideration. It is predicted that by 2025 there will be a 50% increase in world population. There will be an even greater scarcity of resources brought about by the sheer numbers alone. Total reliance on government safety nets may not be possible. Social responsibility will call for more and more effective
measures to protect what little remains of an environment which is not renewing itself quickly enough because of man-made pressures imposed on it.

We as a nation and tenants of this planet may have to be flexible enough to change our lifestyle in less than a generation. This cannot be done by relying on the so-called "steep learning curve".

Education and Training
All of what we have covered points to a need for a convergence between general education and its vocational element which builds specific skills. This will require many of us to change the way we define "education".

In Australia education and training are often seen as two entirely different things. Under this premise the intellectually more adept go to university because they are capable of coping with theoretical concepts, while vocational training is for the less able. This shows a lack of knowledge about education history and is also elitist.

The world's so-called "foundation" universities at Bologna, Montpellier and Paris trained for vocations, graduating lawyers, doctors and the clergy. Australia's oldest universities at Sydney (1851) and Melbourne (1857) provided doctors, teachers and engineers for the infant colonies.

Education has always been vocational. Education and training are the same, except that there may be a different initial or base course emphasis. Thus the lawyer may learn about legal history and precedent, but will eventually be required to use the theory during articles or in the moot court. On the other hand, the carpenter will learn the rudiments of construction on the job and may later decide to add to the Block Release Theory at TAFE with post-apprentice engineering studies.

The elitist notion that vocational training is not as intellectually rigorous as a university course has led to a loss of productivity and personal potential. Tertiary education at university requires self-discipline and effective time management. Vocational training requires a commitment during the on-the-job component in addition to the management of learning during TAFE Block Release. In general a first degree and trade qualification require equal amounts of intellectual endeavour, except that the way the learning is undertaken differs.

The Essential Partnership
To develop lifelong education, there must be an accurate on-going identification of industry skills requirements so that the training response accurately reflects contemporary needs. This requires a partnership between industry and educators at all levels. It was intended that The Training Reform Agenda would stimulate this partnership. Sadly in many cases it appears to have done the exact opposite. The major problem with training reform is that people who should know about it do not and others who know the basic theory resist the change it suggests without investigating the underlying reasons for reform. In Queensland, educators at high school and TAFE levels show more than a 60% ignorance rate about training reform. This ignorance factor rises to nearly 90% in some business and industrial communities where training reform will have its greatest impact. The Queensland Government is so concerned by this lack of knowledge that funding has been made available to conduct awareness programs for educators, industry and small business about training reform and its key component, The Australian Vocational Training System.

Added to the general ignorance, there is also a lack of clear direction from the planners about the final shape of the package itself. What has happened to date is that training reform for many remains a concept, backed by a series of pilot projects designed to validate small parts of the total conceptual framework. We are told that The Australian
Vocational Training System operates from January 1995, yet many of the pilot projects to test its component validity have not been assessed or are still being completed.

A new bureaucracy of training reform design and administration has blossomed. Training reform is being imposed largely from above with industry and educators called upon to react instead of shaping the process. This approach has strengthened the resolve of some industries and unions to hold out against the reforms, stating quite clearly that they will not accept dictated changes. In addition, imposition of training as a means to solve the socio-economic problem of not enough jobs has removed training from the realm of education and lessened the impact of training reform. Many people now see training as an obligatory pre-requisite to continued safety net assistance.

For example educators on the Sunshine Coast complain that they have little or no input in the referral or selection process and that many people who fill valuable training places do not want to be there and gain no lasting benefit from the training given. These educators do their best with a group that is becoming known pejoratively as "the rugged and the buggered". Recently Sunshine Coast Group Training, with immediate vacancies for chef apprentices, approached one TAFE College in the region which was about to graduate pre-vocational chef trainees. Less than 10% showed any interest in employment. The rest were going on to further training, which the hospitality industry and educators could see of little benefit without direct industry experience. Training in these cases had become a time-filler in the unemployment maze. While these examples are localised, it is still fair to comment that a resort to almost ad-hoc training will produce a minimum education result in the true sense and will do little to promote a culture of continuous learning. In many cases it will do the exact opposite, going the way of the job creation programs mentioned earlier, unless the training is seen as necessary by the recipient.

A related problem to perceived the central imposition of training is that the Industry Training Advisory Bodies -- the ITAB's -- have concentrated on their specific generic structure and have not paid sufficient attention to small business, the largest employer in the nation.

**It's Not All Gloom**

Training reform has produced a number of positive results, although they are in danger of being over-shadowed by a negative response to non-risk-taking reports, the number of industries which have resisted change and the factors just discussed. Training reform has helped create a broad view of the skills needed in the modern workplace and has produced a climate of change towards more efficient industry practice. There are now improved industrial relations in many industries, resulting in working union/industry partnerships. Skills recognition across state boundaries is more flexible and the promotion of credit transfer between TAFE and university has allowed a career progression for many talented people.

For training reform to be effective there must be local partnerships between schools, industry and training providers within the broad framework of the reform process. An essential outcome of these partnerships is that they develop networks to advise the bureaucracy of local and regional needs. Through these avenues, training reform can develop local ownership and become relevant.

**Enter The Group Training Movement**

There is no need to establish another bureaucracy to develop the partnership. There already exists an active national network with a strong local base able to link education from secondary school with post-compulsory vocational training and industry. It is known as The Group Training Movement which is a network of about 120 individual companies, employing nearly 18,000 apprentices and trainees in a $600 million industry link with about 30,000 small business operators around the nation.
Group Training is a uniquely Australian concept which evolved out of the recession pressures of the late seventies and early eighties when many apprentices were out of work and appeared to have little hope of completing their vocational education. The social roots of the Group Training Movement can be found in the soldier-settler repatriation schemes which appeared after the First and Second World Wars, where labour and resources were exchanged. In essence, group training is the sharing of an apprentice’s skills and on-the-job training.

Host trainers supply this training for the group trainer who is the principal employer and responsible for administration, TAFE trade instruction arrangements, workers’ compensation, holidays and other employee entitlements. Group Training is not a government training authority, a surrogate CES or Skillshare under a different name. These organisations focus primarily on those entering the workforce after initial training, the unemployed or the disadvantaged. A group training company works with its host trainers and industry to create lasting employment through the sharing arrangement. These positions which work through a number of host trainers are real jobs and additional to what the market would have normally employed if the job creation was reliant on one employer. In the past 12 months the number of these extra positions has increased by 22.5% overall, accounting for about a 28% increase in male apprentice/trainee positions and Group Training is far ahead of many other employers by increasing the number of women employed in non-traditional female occupations by nearly 22%.

With about 60% of all group companies working in regional or specific areas in larger centres and the rest being industry-based, they are at the grass-roots level, allowing a unique input into the local community or industry sector, with an ability to respond quickly to specific needs.

In most locations outside major centres -- and often there too -- Group Training is the largest private employer of youth and knows the structure of the employment market. It is constantly being made aware of areas where the lack of vocational skills could cause a problem, how training is failing to meet employer requirement and importantly what skills are expected of young people entering the workforce. Group Training has a vital stake in the continuous learning process which we have indicated is pivotal to Australia’s development into the next century. A partnership between group training and educators at all levels is valuable in both seeking out solutions to regional training problems and also in developing a recruitment network for potential apprentices or trainees.

The Partnership In Operation
However chronic unemployment occurs, its effects are insidious. We have already mentioned that Australia is facing the prospect of two generations who have never had a solid career path. The social implications of this are evident in our whole community as people have been forced to adapt to welfare dependence or have developed a lifestyle in which a career plays little or no part.

Last year a school in the Sunshine Coast Group Training Company region contacted us with a request for assistance which led to the development of the specialised school-to-work education program. The innovation is now integrated into a partnership funding application with the Queensland Education Department under the National Professional Development Program.

The curriculum master had one problem which was apparently insoluble. Students in middle secondary school -- Years Eight to Ten -- of a somewhat depressed area wanted to know more about employment and why it was so necessary, because about 80% had never seen a parent or sibling in constant work. They asked their master to find someone who could answer their questions and advise them on future career options. In effect they were interested in continuous education.
It was decided that the program would be the core of a general work/education course, designed so that it could be built upon year-by-year or could stand alone for any one year. The concept is simple: a series of informal lessons are presented away from the usual classroom so that the didactic element is replaced with a chance for interaction with the presenter. Under Queensland Education Regulations, a teacher is present, but plays a watching role. The material is presented over three weeks looking at the personal and economic reasons why we work, what types of employment are available, qualifications necessary, subjects which will be needed in the post-compulsory school years and kindred topics. For students in Year 10, instruction is also provided about job search techniques from resume preparation to gathering feedback after an interview.

In all cases research "homework" is set so that there can be informed discussion in the second and third contact weeks and all students are shown video material about the way training reform and The Australian Vocational Training System in particular will impact on their post-school education. Use is also made of TAFE and university literature as a resource.

Since informality without disruption is the key-note, discussions are usually lively and can be directed to answer needs of students in different areas without having to design a separate core program. The stand-alone aspects allow a reach into schools with specific needs. The work of the local teacher is re-inforced because an outside person is delivering a similar but condensed message to the class teacher working into a broad general curriculum.

We could say that the material "is generally well-received", which is a polite way of saying that the students didn’t make too much noise. Actual results are difficult to quantify at this early stage. Students would have to be traced through the school and post-school education systems to see if continuous learning became evident. However, the program is now in its second year, with bookings to the end of the 1995 from both the public and private sectors. The material is being refined as part of the National Professional Development Program and Sunshine Coast Group Training will be pleased if it becomes part of a broader curriculum element.

**Conclusion**
The Training Reform Agenda promised to make Australia more competitive on world markets by increasing skills and realising the potential of those people for whom an exclusively theoretical education held no interest. It promised a partnership between educators and industry as a cornerstone in bringing the reform about.

In many instances the wild cards were not considered. Australia is still a federation with all that implies when it comes to someone else telling a state what to do with its fundamental training system. There is always resistance to change and in this case the necessity for change has not been promoted sufficiently to gain support across the broad education, industry and community sectors.

An understanding of The Australian Vocational Training System is essential in all these sectors as schools gear to teach more and more entry level trade courses, leaving TAFE’s and other providers in the vocational education market deliver advanced instruction.

Partnerships between school, industry and employers are crucial because the school system will eventually become the major recruiting arena as vocationally-oriented pathways are coupled with theoretical and cultural education subjects. This is education in the real sense: providing a career base in a well-read individual. Development of education partnerships similar to the one described in this paper provides a valuable resource where training reform has largely failed to penetrate -- at the local and regional level.

The ultimate destination of all partnerships in training reform must be continuous learning. Group Training is one body working towards that goal.
Background Papers and General Reading
As noted in the text, the genesis of this paper is the seminal reports of Carmichael, Deveson, Finn and Mayer, which led what we now call "The Training Reform Agenda", as well as personal experience in delivering seminars on training reform and The Australian Vocational Training System, plus interacting with people at those seminars.

While not exhaustive the list below is an excellent starting point to follow up aspects of reform or the theory of continuous learning. The many ideas synthesised in the text have not been specifically referenced, because at this stage they are all really in the public discussion domain.

Sweet, R. (1993) Vocational Education and Training: Beyond The Federalist Settlement (A paper presented at The Third National Workshop on Vocational Teacher Education in October)
Abstract
The last decade has witnessed great changes in the Vocational Education and Training (VET) arena. A National Training Reform Agenda (NTRA) is gradually making its mark on all types of training providers: Senior secondary schools, TAFE colleges, private training providers and universities, as well as other players in the training world.

An increased emphasis on VET generates some vital questions. Who decides what comprises VET? How is it ensured that vocational education is truly vocational?

Relevant stakeholders in the VET sector throughout Australia were asked to articulate their perception of the relationships between players in the VET team. They were specifically asked to indicate their opinions of industry training boards as the principle voices of industry on VET.

The existence of an efficient communication network in some areas of the VET sector is illustrated. The importance of communication between all sectors is identified as a key factor in ensuring the provision of quality and relevant vocational education and training. The findings generate discussion on how to continue our progression towards achievement of the goals of the training reforms.

Introduction
"A skilled and adaptable workforce is needed to improve our international competitiveness" (Keating, 1994a). A communicative, industry-driven VET team is needed to achieve this. Training reforms (collectively known as the National Training Reform Agenda) are being implemented and so far have been focused on issues such as the development of national competency standards for industry, competency based training (CBT), flexible delivery of training and recognition of prior learning (RPL). As the National Training Reform Agenda (NTRA) evolves, additional issues are added. Initiatives identified by the Australian National Training Authority (ANTA) in their National Strategy for Vocational Education and Training (1994), include greater responsiveness, enhanced qualifications, improved accessibility and increased efficiency.

The players in the VET game may be seen as integral players in a team, all working towards a common goal: an equitable and effective system of VET which prepares highly skilled workers. These include TAFE, industry training boards, VET bureaucrats, unions, professional associations, employer organisations and private training providers. Universities and schools (primarily years 11 and 12) are relatively new players in the game, particularly in light of recent initiatives to increase participation in education and training.

Each have their own specific roles to play. Here we look particularly at the roles of industry training boards as industries' voices on training. Industry training boards are a key link in the essential communication chain between these players and are recognised by the state and federal governments as the principle voice of industry on training issues.

In order to meet the emerging challenges accompanying the training reforms, vocational education and training must be conducted in a planned and structured way. As Hyland (1994)
notes, it is important for industry to have input into the learning processes and structure of training as well as content. Communication between all sectors should be established and maintained and, in turn, the benefits of the training reforms must be promoted to players in the VET game as well as the general community. As Butterworth (1994) claims, “only through an holistic approach will we truly render the system its maximum effectiveness”. The crucial factors in the VET game are teamwork and communication. The strength of the game lies in the ability of the players to interact efficiently at all levels.

This research investigates perceptions of the NTRA, with specific reference to communication and who is involved in making the reforms come alive.

The results of a national survey of players in the VET game across Australia form the basis of the paper. Perceptions of communication in the VET sector in particular are investigated along with opinions of the roles of industry training boards as the voice of industry, and as the vital link between industry and VET providers.

Method
A total of 621 surveys were distributed throughout Australia to organisations representing the following sectors: employer organisations, industry training boards, private providers, senior secondary schools, TAFE colleges, unions, universities, VET administrators.

The survey requested information about the following issues:
- type of organisation, industry area, state/territory of respondents
- who currently decides what vocational education and training courses are offered
- who should decide what vocational education and training courses are offered
- A list of VET issues were provided to survey respondents. They were asked to suggest the most appropriate source of advice on the listed issues, which included: accreditation and registration; training needs; industry demand; assessment; articulation; career pathways; training funds; professional development; training development and curriculum; recognition of prior learning; training policy; access and equity; flexible delivery; competency based training; certification/qualification; and training agreements.
- awareness of the role of industry training boards
- the role of industry training boards
- whether or not industry training boards fulfil their roles
- how best to ensure that VET meets its goals?

A total of 169 responses were received, representing a 27% response rate. A state/territory breakdown reveals a national distribution of respondents: ACT (11%), NSW (12%), NT (9%), QLD (14%), SA (11%), TAS (17%), VIC (11%) and WA (9%).

Response rates of type of organisation follows: employer organisation (31% response rate), industry training boards (36%), private providers (25%), senior secondary colleges (30%), TAFE colleges (35%), unions (15%), universities (15%), VET administration (15%).

Six percent of respondents did not identify organisation type or state/territory.

The most frequently identified industry area of respondents was Education (61/169 respondents). The manufacturing industry was the second most frequent (18) with Building coming in third at 13 respondents.

Results
1. Who decides what VET is offered, who should decide, and how to ensure it meets industry need?
Response to the issue of who should be deciding VET in senior secondary, TAFE, private providers and universities, compared with who is deciding, suggests that a combination of
players should be involved, and to a greater extent than is currently occurring. Respondents from all VET sectors concurred on this issue.

While a clear majority of respondents stated that a combination of parties should decide the content and structure of VET, further examination of the results shows a marked increase in the preferred input of industry. For all VET sectors, over 60% of respondents believed that industry should play some sort of role in decision making in VET, compared with 37% who claim that industry currently have a role.

2. VET Advice: Where from?
Over 78% of training providers said they would consult with organisations other than training providers on issues such as accreditation, training needs, industry demand, training funds, qualifications, training agreements, training policy and access and equity. The majority of respondents (over 60%) nominated training providers as the most appropriate source of advice on competency based training, flexible delivery, recognition of prior learning, training development and curriculum. 

Over 50% of respondents said they would consult with industry training boards on training needs, industry demand, career pathways, training development and competency based training.

Less than 35% of respondents indicated that they would seek advice from Industry Training Boards on matters such as training agreements, accreditation, professional development, access and equity and flexible delivery. These areas were seen as the domain of State Training Authorities and training providers.

3. Role of Industry Training Boards
A majority of respondents (83%) are aware of the roles of industry training boards, while 13% are not. (Four percent of respondents did not respond to the question). More Senior Secondary Colleges than any other group (36%) did not respond to this question.

When asked to specify the role of industry training boards, two general areas are specified: to advise governments on industry-related training needs; and to facilitate links between industry and training providers. A number of specific objectives of industry training boards were highlighted. These focused on an industry training board’s responsibility to identify current and future training needs and to develop, promote, monitor and co-ordinate training within a specific industry. Other responses alluded to the development of competency standards, the evaluation of curriculum, contribution to the accreditation process and the preparation of training plans to reflect industry need.

Forty one percent of respondents stated that industry training boards fulfil their roles and are:

- very responsive;
- supportive and
- effective in addressing industry training needs.
(Not surprisingly, almost half these respondents were Industry Training Boards themselves).

Thirty six percent of respondents (mainly representing TAFEs, private providers and industry training boards) believe that Industry Training Boards only partly fulfil their roles:

- many industry training boards are unsure of their role;
- some falter because industry itself has difficulty articulating what it wants;
- the majority are under-resourced, and
- the focus of an industry training board often lies with its particular members and that sometimes this does not accurately reflect the industry.
Twenty three percent of respondents (mainly employers’ representatives, TAFEs and private providers) believe that industry training boards do not fulfil their role because they are:

- too bureaucratic;
- too narrowly focused, and
- tend to concentrate on large businesses at the expense of small businesses.

The findings illustrate some state/territory differences on the issue of whether or not industry training boards are seen to be fulfilling their roles. All respondents from ACT and Queensland claim that Industry Training Boards fulfil their roles, either partly or fully. Seventy-five percent of respondents from Tasmania state that industry training boards fulfil their roles, partly or fully. However, less than 50% of respondents from New South Wales maintain that industry training boards fulfil their roles. Responses from Northern Territory, South Australia, Victoria and Western Australia tended to be equally divided on this issue.

**Discussion**

Communication across the nation, the industries, the education and training providers and the government policy makers is the key to the success of vocational education and training (VET) and training reform.

Response to our survey tended to be highest from those areas with a history of involvement in VET, such as TAFE authorities and industry training boards. Senior secondary schools, while only relatively recently becoming involved in VET, also responded well. This may be due to the fact that senior secondary schools are increasingly becoming involved in the provision of VET as part of the nationwide push to retain students in the education and training system. The relatively low response rates from universities, VET administrators and unions may indicate either a lack of willingness to ‘play the game’, or that these players only perceive themselves as minor players in the team. While they may be minor players in many sectors their involvement is crucial for the development of a flexible VET system.

The results of our research and recent VET papers and policy documents specifically state that industry should be active in the decision making for VET content and structure. In all education and training sectors the majority of people responding to our survey say that industry should play a role in decision making but in most sectors less than one third of members actually believe it is happening now.

An awareness of the existence of industry training boards appears to be well established throughout the VET sector. A sound knowledge of the reasons industry training boards were established is apparent (as the link between industry and training providers) as well as the areas in which they believe Industry Training Boards should be involved (the identification of training needs, the development and monitoring of appropriate courses and the provision of industry-related training advice to relevant bodies). All the areas identified match the stated objectives of Industry Training Boards as outlined in ANTA’s National Strategy for Vocational Education and Training (1994).

What of the performance of industry training boards? A number of difficulties faced by industry training boards have been identified through this research which can be resolved with effort from the VET team. It is clear that industry training boards must ensure that their composition and consultation processes do represent their industries. Industry training boards must take on the responsibility for establishing and maintaining the confidence of their industries and training providers, and promote awareness and understanding of VET to industry. Additionally, if industry training boards are to fulfil their roles, the funding bodies need to ensure that industry training boards are provided with adequate funds to achieve their goals.

The differences across the states/territories with regard to industry training board performance raises some important points. Most respondents from NSW clearly believe that Industry Training Boards are not fulfilling their roles. Simple population size may be the major issue here. Ensuring state-wide representation on a Board in NSW is conceivably a difficult task.
However, it is one thing to identify these difficulties in a survey and yet quite another to resolve them and progress the training reforms in a productive and efficient way.

Two major contributors to the research have been the manufacturing and building industries. These areas have a tradition of involvement in VET through their trades, and as such a strong relationship has developed between training providers and industry, forming a training 'culture'. It is apparent that a training culture is emerging in other industries, the training for which has either been non-existent or not traditionally vocational.

As training cultures expand into areas outside the traditional trades, a broader spectrum of players join the team. This is what we are seeing occurring in our results. Communication is the basis of achieving an excellent VET system, but there is also a need for greater motivation and involvement from all players in the team.

Just as industries are dynamic, constantly developing new technologies and approaches to work, VET must maintain its momentum. For VET to achieve its goals it needs to keep pace with industry and consider new and innovative training methodologies which move with the industries' requirements.

A difficulty for industry training boards, identified in the research, is that of having the capacity to have a thorough understanding of both the needs of the industry as well as of the plethora of training reforms. Both our research and many VET papers acknowledge that the National Training Reform Agenda is ambitious and that there are too many reforms to be achieved by yesterday. Both industry training boards and training providers admit that we need time to properly establish and make efficient the major training reforms that have been introduced over the last ten years. There is an urgent need for a period of consolidation of these on behalf of industry and training providers alike.

It is clear that the link between industry and training providers is vital, and that industry training boards are this link. The newer players in the VET game need attention and encouragement. A lack of knowledge and information may indeed explain the responses this research has obtained from the senior secondary and university sectors.

Keating (1994b) informs us that "we need to find the means by which the different education sectors can be effectively linked with each other and with the worlds of work and culture. We need to make the system more responsive to economic and cultural change". We have the means: industry training boards. The key issue here is the reference to responding to change. Change is continuous in the training world. Industry training boards need to be aware of this and have knowledge of both their industry and training. They need to maintain the confidence of training providers and industry in order to be in a position to prioritise which reforms need to be considered by their particular industry. For industry training boards to achieve this aim all VET players must play the game.

References


Automotive Services Traineeship

Frank Trappes
Netforce Industry Training Consultant
Automotive Engineering & Manufacturing 1tb

Background

Australian Traineeship System
Entry level training for the Automotive Industry in Tasmania has taken a giant leap forward in the last two months with the introduction of the new Automotive Services Traineeship. Prior to this there was a Driveway Attendant Traineeship that was offered to the industry from 1993. This Traineeship suffered from some major drawbacks. The Traineeship was offered under the Australian Traineeship System (ATS) guidelines that existed for all Traineeships at that time. These guidelines imposed restrictions that made the acceptance of this form of training by industry difficult to promote and to participate in. Some of these restrictions were,

1. Rigid delivery system
2. Start and end dates that were quite often changed for various reasons
3. Age restrictions 15 to 19
4. The training was run in one centre of the State so making it hard for employers to access the training without considerable inconvenience. This was a result of Government policy at that time.
5. The training had to be delivered over a thirteen week period.
6. No allowance or consideration for those students who were capable of completing the training in a shorter time, or for that matter the reverse situation.
7. The wage structure also took into account the thirteen week off-the-job component.
8. Students were expected to complete the whole scheme of training even though some of them had completed some subjects on previous courses wasting every ones time and more importantly losing the enthusiasm of the student by boring them.

Career Start Traineeship
The next development in Traineeships was Career Start Traineeships (CST). These differed from the ATS Traineeships in four ways;

1. They allowed for adults to participate in the Traineeships
2. Allowance was made for the Recognition of Prior Learning (RPL).
3. Wage Rates.
4. Off the job Training designed to meet the needs of the course

The first point was accomplished with little disruption and employers were encouraged to consider adults for their vacancies. The wage structure made it difficult to convince adults especially those with family commitments to participate. However the numbers slowly grew and those in training attested to the value of the opportunity of participating.
The second point (RPL) was harder to effectively implement because student numbers were not static and student centred course packages were not available. It was envisaged that extra training would be offered to make up the time, the reality was that because of the way funding was allocated for courses and staff it was hard for the training provider to offer this. Attempts were made in various Traineeships to circumvent this situation with mixed success.
Because of the negative aspects already mentioned the Driveway Attendant Traineeship was staggering along with small classes.
It was not alone in this and one must avoid the inclination to say it would have been difficult for it to survive but the last class was deferred with little hope of running. It was at this point that national events started to influence the future direction that Automotive Training in Tasmania would take.

National Development of Automotive Training
The Automotive Industry started looking at entry level training on a national basis at about the same time Tasmania started the Driveway Attendant Traineeship. This lengthy process involved intense consultation with individual State Industry Associations, Training Boards, Employee Organisations and Employer Bodies, as a result a number of entry level Traineeships were developed. The modules that these are comprised of were registered on the National Framework for the Recognition of Training (NFROT) register.
At the same time co-incidentally as this work was nearing completion the Federal Government released the Working Nation Document (erroneously referred to as the White Paper as any one who understands parliamentary procedure will appreciate) which incorporated as part of the reforms the National Training Wage initiative.

National Training Wage
The National Training Wage allowed for the flexibility that had been needed for some years particularly in the Traineeship area. The wage structure being an award wage in its own right paved the way for RPL in the true sense. As discussed previously Trainees could not return to work because to do so would have meant being underpaid. The new award meant that Trainees are paid the same irrespective of whether they are at work or at Training. Therefore if they have completed the course they can return to work without causing any industrial ramifications. This is an advantage when selling the concept of training to prospective employers.

With the new training concept in place and with NETTFORCE Companies being set up to help promote the new approach to existing training and to promote new initiatives Automotive Training Australia applied to form a NETTFORCE Co. to help further the development of the new Automotive Traineeships specifically in the individual states. This was approved and Tasmania was given the approval to employ a DEET seconde in mid February, 1995.

Nationally at this time fourteen Traineeships had been developed these were;

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<td>Panel Beating</td>
<td>Automotive Sales</td>
<td>Brake and Underbody</td>
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<td>Automotive Clerical</td>
<td>Automotive Paint Services</td>
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Current Status

State Development
The Automotive Industry Training Board decided to apply to Dept. of Industrial Relations Vocational Education and Training (DIRVET) for approval to run nine of the Traineeships on this list. The reason for this choice lies in the make up of the Traineeships themselves. The Traineeship in this state consists of two groups of Modules, the Common Core, consisting of ten Modules and approximately 200 hours nominal delivery time and the Vocational Specific Modules, again approximately 200 hours nominal delivery time. This gives a total nominal delivery time for the Traineeship of 400 hours.
In making this application the AITB also decided that it would apply to have one Traineeship with nine vocational outcomes registered. This served a double purpose;

1. It reduced the approval cost for the Traineeships
2. It allowed more flexibility for the delivery of extension modules at a later date.
State Development Cont.
Having negotiated the convoluted approval process the Traineeship was approved as a Scheme of Training in Tasmania on 28th March 1995. The next step was to secure the services of an appropriate training provider. Some preliminary discussions had already taken place with the Institutes of TAFE in Hobart, Launceston and Burnie these now proceeded on a more official basis with the Institutes showing great interest in the concepts that we were proposing. The willingness of TAFE as a whole to take on board the new Traineeship and to find solutions to the programming and delivery difficulties presented by the new initiatives was a pleasure to be associated with. The whole operation was entered into with a spirit of co-operation that was engendered and fostered by the ITB. We convened combined meetings with all parties and also held discussions with individual Colleges.

Traineeship Commencement
The Traineeship commenced in the three centres around the state on Tuesday the 18th of July 1995. The Trainees have come from varied backgrounds and with a diverse range of experience and skills. The numbers entering training were lower than we had hoped to start with, due in part to delays in the approval process that resulted in some employers who had expressed interest from the initial promotion communication being delayed to the extent that they lost interest, employed people under other schemes, or employed casual labour to cover their needs. The smaller numbers did however allow TAFE to feel its way to a certain extent with the new style of delivery and will in due course be beneficial to those Trainees who enter the training at a later date. The initial numbers were 10 in Hobart, 7 in Launceston and 6 in Burnie. This total of 23 in any other Traineeship run on block release in one centre would be an enormous success, but as already pointed out the style of delivery etc. with individual centres makes the numbers less impressive to the uninformed. However with rolling intakes the numbers have grown steadily to the point where there are now 40 trainees state wide, as of 14th September 1995, with two classes running in Hobart on Tuesdays and Wednesdays. The end result is a programme that is developing and being developed by all participants including the trainees.

Delivery Problems
Before looking at some of the delivery problems associated with the Traineeship it is pertinent to say that nothing has occurred that wasn’t foreseen. However it was decided to go ahead with the training while at the same developing those modules not already existing and changing those that need it.
Because the training packages were developed and written for the Northern Territory there are some problems adapting them for other states. They refer to videos, computer packages, and in some cases legislation that is only relevant to that state. This seems to be more prevalent in the Common Core Modules and we have been looking at other Modules that exist with the same learning outcomes that are of a more generic nature. TAFE are also utilising other faculties within their organisation to deliver those Modules ie the Business Area to deliver Workplace Team Effectiveness, Writing Skills for Work, and Workplace Communication. This is a change away from the concept that an Automotive course had to be delivered in the Automotive area by Automotive Teachers irrespective of the course content. This approach is working well but there are teething problems with the Self Paced concept. The packages are written to suit self paced delivery but there are on occasions provision for class discussion. This caused some consternation recently when the facilitator didn’t pick up on this provision. It was a relatively minor problem but one which caused some out of proportion repercussions between the students and staff. It is fair to say that there were some other issues that also surfaced at the same time ie. the Northern Territory issues already mentioned and the combined effect resulted in the staff and myself having a discussion with the students. The end result was that steps have been taken to vet the material more thoroughly and all parties are now back on an even keel. The lesson learnt was a valuable one for all concerned.
Another more serious problem that has arisen has been the very poor Literacy and Numeracy skills of some of the Trainees. This is a major drawback considering the self paced premise of the delivery of the training. Obviously a teaching difficulty is created if the student has a comprehension deficiency. This problem is a perennial one that many training deliverers have.

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There is no easy answer to it once the Trainee has been signed up and started on the course. We are going to start testing new Trainees at the start of their training to ascertain their level of skill. This will allow the teachers to offer remedial help early in the course if necessary. If the problem continues it may be necessary to have some form of assessment prior to students being signed up. This action would allow the CES and other agencies to put the prospective trainee through appropriate training prior to commencing the course. The best solution of course is that more attention is paid to these basic skills in the school system.

Automotive Training Australia have now put a national working party in place to look at the content of the Traineeship and to gather the learning resources from round the country. This mapping exercise is under way now and has a short time frame. A representative from Tasmania is on this working party and it is expected that it will have immediate repercussions for the delivery of the training in this state ie. we are aware of modules from other colleges that could be used to deliver some of the training with a more generic approach. This will greatly assist the teachers in this state in that they can concentrate of developing and modifying only those modules that aren’t in existence elsewhere or those that need to relate to specific Tasmanian conditions and awards.

Review Process
As previously mentioned this Traineeship is designed for and has the capacity to deliver the training that industry needs. Therefore the process of modification and change is an integral part of the development process that is ongoing with this Traineeship. A review process has been commissioned and the working party is in place to set the parameters of the review. A Tasmanian TAFE Teacher is on this working party. The Traineeship has only been in existence for one year so it is plain from this the importance placed by Automotive Training Australia and the Industry Training Board in this State on the Quality and Relevance of the training being offered.

Conclusion
It is also obvious from the uptake of the Traineeship by Industry that the Training Board in Tasmania has been very successful in gauging the mix of training to work and promoting those aspects of the training that will best suit the employers. These are

1. Day Release.
2. Training in three centres round the State ie. Hobart, Launceston and Burnie.
3. Rolling Intakes.
4. Tuesday as the initial training day.
5. Student centred module based training packages.
6. Strong emphasis on R.P.L.
7. Training on 48 weeks of the year.
8. Module delivery can be varied within the class.

This is a growing area for training, as in many cases this Traineeship represents the only formal training and certificate available to those areas of the industry ie. Glazing, Radiator Services, Exhaust Services, Detailing, Accessory Fitting etc. As the new traineeships come on line early in the new year this list will grow with Specific training in Automotive Sales (new and used) Automotive Clerical being two areas that have no specific training available now. With these developments and the continued support of industry we look forward to this Traineeship continuing to lead the way in Innovation, Relevance and Quality of Training.
AN INTEGRATED CROSS SECTORAL TRAINING PROGRAMME: AGRICULTURAL EDUCATION IN TASMANIA

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DEVELOPMENT OF A RURAL CAREER PATH - TASMANIA 1985 - 1995
In 1985, any student completing their education at either year 10 or year 12 had limited opportunities to undertake further study in areas of agricultural education. Tasmania offered a four (4) year Farm Apprenticeship or four (4) year Bachelor of Agricultural Science. If these two areas did not appeal to the student, then many of them considered interstate courses offered at Marcus Oldham, Orange Agriculture College, Longerong College of TAFE or even went overseas and undertook study at Lincoln University in New Zealand.

Ten (10) years later this scenario no longer applies. As a result of strong industry, vocational and university endeavours, it is now possible for any post-secondary student to participate in a range of accredited training packages in Agricultural Education and training. This development is the direct result of a number of Federal Government initiatives, which the rural sector, through its industry body, Tasmanian Farmers and Graziers and its training arm the Tasmanian Rural Industry Training Board, were able to use as a means of improving the availability of agricultural education in this State. Some of these initiatives were the Kirby Report into students leaving school at year 10 which lead to the development of Traineeships, the development of the ASF levels and subsequently the AQF levels; CBT and the resulting CBT curriculum; assessment; RPL; credit transfer; the enquiry into agricultural training at Australian Universities and the subsequent threat to close Tasmania's faculty etc. galvanised industry to grasp these opportunities to provide better agricultural training and improve the skills base of Tasmanian rural employers and their workers.

Tasmania has achieved a "best practice" model for the provision of agricultural education and training. It is a multi entry, multi exit model which provides outcomes at all AQF levels from 1 - 6. It has been acknowledged by our peers in other States as the ideal world and one which industry will try to achieve.

It may be demonstrated in the following manner.

ASF 1

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<th>Labour Market Programmes</th>
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<td>- New Work Opportunities</td>
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Training where applicable based on Rural Traineeship and Amenity Horticultural Traineeship modules.

Desired outcome is RPL in some part for completed modules into Rural Traineeship.
Rural Traineeship

One year course - 13 weeks "off-the-job" and 39 weeks "on-the-job". No academic qualifications - increasingly more students who have completed year 11/12.

Curriculum based on industry expectations through the TRITB, Rural Industry Working Group and Industry Validation meetings.

Curriculum consists on a set of core modules and then a number of industry specific modules.

1992 Traineeship survey indicated problems with Traineeship - these were:

1. small amounts of articulation into Farm Apprenticeship - approx 3 weeks out of a first 8 weeks in year 1
2. off-the-job hours of 390 for 13 weeks did not represent industry working conditions
3. did not provide an opportunity for more advanced students to be challenged and obtain credits into farm apprenticeship if they wished to continue in the industry - this reflected the increasing numbers of students who were undertaking the Rural Traineeship who had successfully completed year 11 or year 12.

To overcome this the industrial parties

1. increased Traineeship hours "off-the-job" to 520
2. introduced the concept of A and B modules e.g. fencing

Fencing

| A = 32 hours | B = 4 hours |

This allowed:

1. Students able to complete 70% of A & B modules given automatic RPL into 2nd year of the Farm Apprenticeship
2. Students who did only A modules received Rural Traineeship and 3 weeks RPL in first year of Farm Apprenticeship.

This can be represented diagrammatically
Rural Traineeship

1st Year Farm Apprenticeship

2nd Year Farm Apprenticeship

3rd Year Farm Apprenticeship

and has the advantage of meeting base criteria in the training reform agenda.

ASF 3

Farm Apprenticeship

Three year course - 8 weeks per year "off-the-year", balance with employer
- common first year
- industry specialization 2/3 year
  - grazing
  - dairy
  - cropping
  - fruit growing

Minimum entry requirements

either successful completion - Rural Traineeship

or minimum academic standards set by industry at year 10

or pass Certificate Vocational Studies - Farm Stream

This will also be complemented with an Adult Certificate at ASF level 3 to be known as Certificate of Farming
Name: Certificate of Farming with an outcome at ASF level 3 building on the National Rural Skills Traineeship with an outcome ASF level 2.

Content:
(1) Compulsory - 100 hours of core subjects
(2) Elective - A minimum number of 5 subjects having a total number of training hours in excess of 100

Subjects:
(1) Compulsory
Risk Management for Rural Holders 20
First Aid 20
Farm Business Management
- Record Keeping 24
- Cash Flow Budgeting
- Financial Records
Agricultural Chemicals
- Farm Chemical Accreditation Course 12
Soil Management 24

(2) Electives
Will be based on subjects provided in second/third year of Tasmanian Farm Apprenticeship as shown in the attachment which have outcomes at ASF level 3.

Each unit will have a course fee paid for by the participant.

ASF 4/5

Associate Diploma In Applied Science (Agriculture)

2 year full time
Entry requirements are either completion of Farm Apprenticeship
or
Completion of year 12 with 5 TCE satisfactory achievements.

ASF 4 (Proposed 1996)

Advanced Certificate In Farming

1 year full-time course
Entry requirements are either completion of Farm Apprenticeship/Certificate of Farming
or
Completion of year 12 with 5 TCE satisfactory achievements
Aimed at advancing students farming skills.
ASF 5 (Proposed 1996)

**Associate Diploma in Applied Science (Agriculture)**

1 year full-time course

Entry requirements completion of Advanced Certificate in Farming

Aimed at developing middle management skills.

Should a student wish to proceed to the next step, they may have dual enrolment in TAFE/University which guarantees them a place at the University in the Bachelor of Applied Science Degree as long as the University is advised by 15th October in the final year of Associate Diploma.

ASF 6

**Bachelor of Applied Science (Agriculture)**

3 year full-time degree course

Entry requirements either University minimum entry requirements for TCE or

Completion of Associate Diploma Applied Science (Agriculture)

Students coming by way of Associate Diploma receive 1 year's credit in the 3 year degree.

ASF 6

**BACHELOR OF AGRICULTURAL SCIENCE**

4 year full-time course

Entry requirements either University minimum entry requirements for TCE or

Completion of Bachelor of Applied Science (Agriculture).

From here the next step is either to enter the workforce or undertake higher degrees - Masters/PhD.
Tasmania - through the co-operation of industry, TAFE and the University has created what is colloquially known as the

"Stairway to Heaven".

In 1995 the number of students entering formal agricultural education and training was

<table>
<thead>
<tr>
<th>Course</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>Rural Traineeship</td>
<td>72</td>
</tr>
<tr>
<td>Farm Apprenticeship</td>
<td>12</td>
</tr>
<tr>
<td>Associate Diploma</td>
<td>15</td>
</tr>
<tr>
<td>Bachelor or Applied Science</td>
<td>22</td>
</tr>
<tr>
<td>Bachelor of Agricultural Science</td>
<td>24</td>
</tr>
</tbody>
</table>

A total of 145 new entrants.

The outcome you have viewed has not been created without a lot of hard work from a large number of people. The most important ingredient in the success of our model is the trust and co-operation that occurred between all parties involved - industry, vocational training, unions, university and both arms of government - State and Federal. This co-operation and trust allows the parties to sit down, seek evaluation of the various points, modify, alter, review and continually monitor our outcomes. Two important bodies which facilitate this process are:

The **TRITB** - where industry expresses its concerns, needs, improvements to industry training. Being a tripartite body the TRITB is able to provide informed advice to the appropriate bodies to ensure that agricultural education is meaningful and meets the needs of industry.

The **Tasmanian Board of Agricultural Education** which seeks to ensure that the advice offered by industry, or problems perceived by industry or educators are addressed to ensure the continued agreed outcomes of training for the rural sector.
DISCUSSION GROUPS

Workshop delegates had the opportunity to break into small groups to discuss future directions in the training of vocational educators. The discussion groups provided a less structured and more interactive process for formalising the questions, issues and concerns raised in the following statements.

The Question
What factors need to be taken into account in the training (pre-service and in-service) of vocational educators?

There is a national climate in which vocational educators are increasingly being required to encroach on what would previously have been regarded as 'other territory'. There is as a result a number of newly emerging skills, knowledge and attitudes which need to be accounted for in the armoury of vocational educators.

If our pre-service and in-service education and training programs for vocational educators are to be kept current, relevant and useful, these changes need to be somehow integrated into these programs.

The Group Responses
Changes identified which impact on the role of vocational educators included:
- the introduction of training modules into the school system,
- industry demands for flexible and sometimes highly specific training.

Changes within the delivery of vocational education
- a polarisation of skills toward 'program designer' on one hand and 'training technician' on the other,
- more contract and casual teachers/trainers,
- an increasingly complex environment which requires new skills (outlined below),
- a wider variety of training delivery environments and methods (off-campus, self-paced packages and in the workplace),
- teachers and trainers now come from a wider range of backgrounds,
- provision of programs on a fee for service basis.

New skills required of vocational educators
- teaching off-campus, including in the workplace,
- developing flexible delivery packages,
- using new technologies,
- facilitation skills,
- developing training strategies,
- marketing vocational education services,
- consulting skills in the workplace,
- project management,
- policy development,
- being a change agent,
- research skills,
- communication skills for working with a diverse client group.
Pressures on vocational educators

- The fast pace of change in industry and the need to be up-to-date with training content.
- Continual change in teaching methods and requirements.
- Lack of knowledge about the 'big picture', and of available options. For example lack of knowledge about industrial relations issues in industry training.

Recommendations

- Regular exchanges between vocational educators and industry staff. This would assist educators in keeping up to date with skills and other factors relevant to the workplace. Vocational education institutions and their students would benefit from the presence of industry personnel.
- Regular visits by vocational educators to industry.
- Establishment of vocational educator competencies, particularly for higher level skills.
- Mentoring and 'support teams' of new trainers be used as ways of training and inducting new vocational educators. Teams working to develop programs for industry should include at least one new vocational educator.
- Training programs for vocational educators should not distinguish between formal and informal learning, and there should be a sharing of education and training skills between sectors.
- There be two levels of training for vocational teacher educators - basic technical teaching skills and higher level skills including program development and training in industry as an outside provider.
- There be an education program about training reform directed toward vocational educators.
- That these recommendations be forwarded to government/training authorities.
5th National Workshop on Vocational Teacher Education

Borrower's name

DATE

TO: TAS 44-05

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