Workplace Learning & Change:

The workplace as a learning environment

by

Robin Sefton
Peter Waterhouse
Richard Cooney

December 1995

This research was undertaken by Automotive Training Australia Ltd in partnership with Claridge Holden, Suspension Components Australia, Nissan Australia, Holden's Engine Company and Australian Manufacturing Workers' Union, Vehicle Division, on behalf of the Australian National Training Authority Research Advisory Council.
Publication has been assisted by the Commonwealth Government through the National Research Advisory Council of the Australian National Training Authority. This represents an independent piece of research conducted on behalf of the Board. The results do not necessarily reflect the opinions of the members of the Board or of the Board as a whole.
Workplace Learning & Change: The workplace as a learning environment

A report of a research project that was conducted by Automotive Training Australia Ltd on behalf of the Australian National Training Authority Research Advisory Council.

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Dr Gregor Ramsey
Chairman ANTA Research Advisory Council
PO Box 8888
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Dear Dr Ramsey

It is with great pleasure that I present this final report to you on behalf of the Board of Automotive Training Australia Ltd. *Workplace Learning and Change: The workplace as a learning environment* represents the report of the research that was funded by your Council and conducted by the Board during 1995.

The Board has carefully examined the Report and is happy with the methodology, content and findings of the Report. It has not, however, agreed to all the recommendations. It has been agreed by the Board that the Report as presented should be forwarded to your Council with the understanding that it may, on further consideration, wish to use the content and findings contained in the body of the report to propose additional and/or different recommendations to ANTA.

This research was conducted in partnership with four companies and the union within the automotive industry. I know that I speak on behalf of them, and of the Board, when I thank you for the opportunity to undertake this important piece of research.

It is the Board’s belief that such research is a prime role of an industry training board and it would welcome the opportunity to undertake further research of this nature.

Your sincerely

Joe Schneider
Chairman
Acknowledgments

The researchers would like to thank the companies who participated as partners in this research. We understand the difficulties for companies participating in research of this nature when they have a business to conduct, and wish to acknowledge the special efforts that each company made to ensure that this research was completed successfully.

Our thanks also to the academic staff from Monash and La Trobe Universities who made their time freely available to assist the researchers with valuable advice and constructive criticism. Also to other members of the Research Advisory Committee for their valuable contribution.

Finally a special thanks to all those individuals who participated through being interviewed. Without your assistance this report would never have been written.

R. Sefton, P. Waterhouse, & R. Cooney
Researchers

The Board of Automotive Australia would like to add their special appreciation of the contributions made to this research by the academic staff from Monash and La Trobe Universities, and to other members of the Project Advisory Committee.

Also the Board wishes to acknowledge the important role of the ANTA Research Advisory Council in supporting and funding this piece of research.

J. Schneider
Chairman
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Executive Summary

1. Research questions

This research investigated two interrelated questions: What is it that makes a workplace an effective (or ineffective) learning environment? and What role does training play in creating a workplace learning environment?

The study questioned some of the assumptions inherent in the literature, government statements and educational policies and attempted to find empirical evidence to clarify the degree to which claims regarding training could, or could not, be made. In recognition of the variety of aspirations, motives and views of different stakeholders in every workplace, perceptions of a range of people from across each workplace were sought on the issues investigated.

2. Background to the research

The study arose from a long-term relationship with the automotive industry by both the researchers and by the National Industry Training Board for the Automotive Industry, Automotive Training Australia Ltd, which auspiced the research. It is based on previous research conducted by the Board through its National Automotive Language and Literacy Unit (NALLCU). It was funded by the ANTA Research Advisory Council (ANTARAC) to address its research priority Learning in the workplace.

Focusing on the link between training and workplace change, the research looked at the role of training in assisting to establish a learning environment in an enterprise. Building on previous research in the automotive industry, it used a collaborative research methodology to facilitate four companies and the union (AMWU (Vehicle Division)), as active participants in the process, in analysing learning in the workplace.

The four companies reflected some of the range and diversity of the industry:

* Claridge Holden - franchised dealership (retail service & repair (RS&R) sector),
* Nissan National Parts Distribution Centre - importer of vehicles,
* Holden's Engine Company - large original component manufacturer, foundry operations,
* Suspension Components Australia - small component manufacturer

3. Methodology

A case study method was adopted, based on an interview schedule and a company profile questionnaire. The intention was to investigate the nature of the workplaces as sites of learning and to write the essentially qualitative data into descriptive case studies.
A wide ranging literature search was conducted and the review of this literature was used to develop a framework for investigating workplace learning and change in the companies. The framework distinguished four areas of workplace learning:

* Acquisition, transfer and use of knowledge,
* Links between workplace learning and change,
* Cultural factors, and
* Organisation of formal and informal workplace learning.

A set of indicators was developed from the literature to inform the investigation under each of the above headings (see Table 4.5, Page 62).

An industry forum was conducted to seek the participation of the companies and the union, who were partners in the research, in the framework design. The interview schedule was developed from the agreed framework.

In conducting the fieldwork, a purposive sample of people from across the workforce was selected for interviews. The data was analysed and included in the relevant case studies. It was also accumulated and re-analysed by categorising employee and staff responses across the four companies, allowing a comparative and accumulative analysis of the results across the following areas:

* a summary of company profiles,
* the focus and methods of creating change across the companies,
* the workplace learning cultures, including informal learning, and
* formal training activities.

4. Summary of results and conclusions

(i) The workplace as a learning environment

This research confirms the view of the literature on workplace learning, that the provision of a supportive learning environment in the workplace is critical to the success of training endeavours. Also that training needs to take account of the environment in which it is operating if it is to be effective in the workplace context.

(ii) How workplace learning differs from classroom learning

Results of this research demonstrate that both informal learning and formal training are important in the workplace. More important, however, are the links between the two. The role of the workplace educator is therefore different to a classroom teacher, in that learning needs to be facilitated, and generalisations drawn, from the workers and the workplace itself.

The links between workplace learning and change need to be consciously forged, they will not happen automatically. The literature places emphasis on
learning that is embedded in the technology, processes and practices of the workplace, a view supported by this research. Strategies that involve the multiple stakeholders and engage participants in real workplace issues are essential to build the links between workplace learning and change.

(iii) **Teaching skills in the workplace**

There are two interpretations to be noted here; both are important. The first places emphasis on the word *teaching* and the second suggests the importance of the *skills* to be taught.

The *teaching* role can and should be shared by many within the workplace - including the learners who may be teachers in one context and learners in another. The effective workplace learning environment is one in which support for learning is endemic. The skills required of workplace learning facilitators include (but are not restricted to) skills in:

- supporting innovation, experimentation and considered risk taking,
- demonstration, instruction and explanation,
- analysis, interpretation and problem solving,
- curriculum design, development and implementation,
- interpersonal relations and communication;
- design and application of assessment systems;
- responding to and managing change,
- ability to turn critical incidents, mistakes, etc into learning situations.

A critical consideration of workplace *skills* reveals how they are invariably embedded in situated and often quite complex understandings which are particular to the circumstances or context. Skills need to be contextualised, they need to be learned within a broader framework that provides a holistic perspective and there should be opportunities for practice and reflection.

(iv) **Workplace culture and ethos**

A workplace learning culture needs to include elements of trust, openness to new ideas, and encouragement to take risks, so that people feel able to try doing things a different way, to innovate and experiment. Creative classroom activities and strategies will be of limited value, and could even lead to cynicism and withdrawal by participants, if the culture of the workplace is not supportive of the learning and open to its application and transference.

(v) **Generic skills needed in the workplace**

This research confirms the importance of the key competencies. The critical aspect of these skills is that they are not just acquired by targeting them in modules, but they need to be developed over time and used over and over again to refine and extend them. In this sense they are never totally achieved.
but always developing

The literature, and a good deal of educational experience, suggests that people learn best by moving from the concrete to the abstract, and that learning in the workplace needs to be embedded in the realities of the workplace processes, systems and technologies. This research supports this stance.

In the literature, notions of generic and transferable skills (knowledge, curriculum) are considered problematic, even the concept of skills is contested. This research indicates that these concepts should be critically examined, and the results of such research reflected in changed VET practices, if the notions of developing learning cultures and linking training to change are to be seriously adopted by enterprises.

5. Implications for industry

(i) Enterprises

While some of the literature on learning organisations may not be very practical, this research has been able to develop from it a useful framework for looking at workplaces as learning environments and a set of characteristics and indicators that should assist companies to evaluate the links between workplace learning and change in their own enterprise.

(ii) Unions

The implications of this research for the unions range around issues of ensuring that employees are developing generic, transferable skills and that they are able to acquire nationally recognised portable qualifications through enterprise specific training and informal learning.

Linking learning to workplace change is part of the workplace reform agenda. However, the impression of employees is that change often creates more improvements for the company than for the employees. If the aim is to work smarter rather than harder, then changes to work practices, work organisation and workplace systems need to be understood and monitored in a critical manner.

These issues all have implications for shop steward training and the role of organisers.

6. Implications for ANTA policy development

(i) Curriculum development in VET

Some standard processes of accredited program development within the VET...
system are called into question by the results of this research. The accepted paradigm of separating out the various components of program development, with one group developing competencies, another developing these competencies into a curriculum document, still another group developing learning programs and yet another delivering training, may need to be revised. A more seamless approach to these tasks would appear to be preferable, with a recognition that contextualising curriculum to reflect the realities within each enterprise is a necessary step if the training program is to meet the sort of goals that are expressed in the Workplace Reform Agenda.

(ii) **Methodology for workplace training/learning**

This research highlights the importance of recognising and involving the appropriate stakeholders in those aspects of the learning program development and implementation which are most pertinent to their personal, social and work responsibilities. Failure to solicit this involvement and engagement positions the learners as passive recipients (of training and/or change) which erodes their capacity to act as active agents of change and workplace learning.

Recognising different points of view implies recognising different values and therefore accepting the principle that not everyone will be looking for the same outcomes from any given development (whether it is a formal training program or an initiative to promote informal workplace learning). This issue is fundamental in the analysis and development of an effective workplace learning environment.

(iii) **Infrastructure and support for workplace learning**

What has been thought of as training needs analysis might be more usefully considered as an analysis of the total learning design, considering not just the training needs, but the state of the workplace learning environment as a whole. Undertaking such analysis would also imply the need for ongoing monitoring and adjustment of the environment to facilitate learning.

(iv) **Trainer training and development**

The research findings also have implications for the role of workplace trainers and for their training and development. The trainer's role needs to be reconceptualised to reflect the trainer's importance as an agent of change and development. Trainers need an understanding of how training can be linked to, rather than merely located within, the workplace.

This suggests the need for a new generation of trainer training which moves beyond notions of pre-packaged learning and delivery towards more collaborative development processes based on dialogue, action learning and experiential methods.

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Executive Summary
(v) *Preparation and development of workplace teachers*

The role for workplace teachers similarly needs to be reconceptualised to place more focus on developing grounded theory and linking it to practice. The business of workplace teaching is one of applied adult education. The emphasis needs to be on how workplace learning programs may facilitate development processes in the workplace.

The implication is that professional development packages for teachers and trainers may be limited in their utility unless considerable attention is given to the way these packages are contextualised and directed towards the concerns of particular vocational educators in workplace situations.

(vi) *The link between training and productivity*

Some of the measures used by companies to gauge the effectiveness of their training activities include measures that are also used to measure productivity, such as absenteeism, number of injuries, reduction in scrap, etc. Anecdotal evidence suggests that there is a strong link between training and productivity, if the training is contextualised to the company. However, there has been little empirical research to support this claim and it would appear that this area could be targeted for future research.

7. **Lessons from the methodology**

(i) **Characteristics & indicators**

A major outcome of this research is confirmation of the utility of the framework of characteristics and indicators adopted for the fieldwork. The literature suggested the viability of this framework; its application in the field has shown that it is open to empirical inquiry. The indicators proved to be adequate to inform the research in the areas being studied.

The case study method highlighted the commonalities and the differences in the workplace learning environments across the sites. It enabled the holistic definition of workplace learning to be tested in actual workplaces.

(ii) **Collaborative approach**

The concept of multiple stakeholders which has underpinned the use of the collaborative case study method also suggests the importance of considering the outcomes from different points of view.

(iii) **Interdisciplinary research**

The research approach was also interdisciplinary in several respects. This was intended to capture the multiple complexities of real world experience.
work on the ground, in a way that actually affects what happens there, practitioners need flexible interdisciplinary approaches which, nevertheless, also need to be well considered, theoretically substantive, ethically sound and pragmatic

(iv) **Grounded theory and further research**

This research has shown how some theory can be linked to real work contexts. There is a continuing need for grounded research which brings a critical perspective to the understandings and assumptions underpinning day to day practice.

8. **Recommendations**

1. *That companies adopt a policy of undertaking a learning environment analysis, rather than a training needs analysis, to enable the identification of a range of strategies to improve opportunities for workplace learning as well as to target training so that it will meet long term goals.*

2. *That companies recognise that there are many opportunities for learning to occur in the workplace, and these opportunities need to be identified, grasped and used constructively for this purpose.*

3. *That companies pay attention to the development of all personnel so that workplace learning becomes habitual at all levels.*

4. *That companies look closely at the content of training offered to personnel at the different levels of their organisation and consider conducting training that brings together participants from these levels in some content areas.*

5. *That companies pay attention to consultative processes and involve their employees in decisions on training issues.*

6. *That companies look at ways of encouraging employees to look for career advancement within the company.*

7. *That unions recognise that the organisation of formal training for employees, while a necessary step, is insufficient of itself. Attention needs to be paid to issues such as:

* the way training is designed, developed and implemented;
* informal learning in workplace groups,
* job rotation for multi-skilling (not just multi-tasking);
* the relationship of training to workplace change.*

8. *That unions take account of needs of shop stewards and organisers to come to terms with the implications and demands of the workplace training agenda.*
and frame their training accordingly

9 That ANTA consider changing finding arrangements to reflect the need for more holistic approaches to the design, development and implementation of industry training programs

10 That curriculum frameworks be developed based on learning outcomes rather than a modular approach, to allow maximum flexibility in designing and implementing specific industry training programs

11 That the development, implementation and evaluation of workplace learning activities be organised on the principle of recognising multiple stakeholders and valuing multiple outcomes

12 That evaluation methods be developed to recognise differing outcomes

13 That the commonly understood notion of Training Needs Analysis (TNA) be superseded by a more holistic notion of learning environment analysis within the workplace, of which the TNA would be a part

14 That ANTA policy recognise the infrastructure for VET depends substantially upon people (the notion of "intellectual infrastructure"), and allocate the resources necessary to support people as agents for and managers of genuine workplace learning and change

15 That resource allocation (by Government agencies, Providers and enterprises) reflect the understanding that facilitating workplace learning and change requires effective time in-situ in order to effectively contextualise learning programs and engage the unique learning opportunities that the context provides.

16 That the allocation of resources be based on a principle of promoting the autonomy and capacity of the enterprise to sustain its learning culture/environment - this may necessitate funding on a sliding scale which recognises the developmental state/stage of enterprises and VET providers.

17. That funding criteria for VET programs take into account the need for change within the workplace.

18 That criteria for evaluating the effectiveness of VET programs include evidence of changes taking place within the workplace; and that such evaluation should consider the value of the changes (and the VET program) to all of the stakeholders

19. That approaches to trainer training and development be framed in terms of the trainer as an enterprise based change agent requiring active support in the development of
learning materials,
- training and change implementation strategies; and,
- evaluation methods.

20 That professional development and training for vocational educators (both teachers and trainers) embrace experiential and action learning strategies closely tied to the real world contexts and problems of actual workplaces.

21 That a policy be adopted that all enterprise-based training require the establishment of a tripartite steering committee on site to ensure that training meets the needs of all stakeholders and the requirements of the training agreement.

22 That the links between various types of training and productivity be the subject of further research.

23 That processes be developed for providing advice to small businesses to enable them to access available government funding and other forms of assistance and that the role of Industry Training Boards be strengthened to provide this service to small business.

24 That the utility and applicability of the framework of characteristics and indicators of workplace learning that were developed for this study be investigated in relation to other industries (such as service industries - banking or hospitality) which have quite different contexts.

25 That ANTARAC & ARC funds be made available to support research into workplace learning which:
(a) is collaborative in nature recognising the multiple stakeholders and acknowledging the diversity of perceptions represented in the workplace
(b) adopts flexible and multiple approaches including:
- fine-grained ethnographic methods which lead to rich descriptive accounts,
- qualitative and quantitative data collection,
- longitudinal studies of workplace learning and change,
- combinations of disciplinary perspectives (educational & social & political & economic etc)
(c) promotes critical examination of such concepts as skill, skill formation, transferable and/or generic skills, in order to facilitate more grounded theory which informs good practice.

26 That comparative studies be conducted to investigate the relative effectiveness of different kinds of training in relation to the creation and maintenance of effective workplace learning environments.
9. **Summary**

As noted earlier, this project asked two interrelated questions. What is it that makes a workplace an effective (or ineffective) learning environment? and What role does training play in creating a workplace learning environment? The research has shown that the answer to the first question is complex. There are many factors at work not least of which are subtle cultural factors which are difficult to measure but no less significant for all their difficulty.

The role of training is also shown to be less clear cut than might at first be supposed. First, it is apparent that training is only one of the many factors shaping the workplace, even in relation to workplace learning, training is not necessarily the most significant factor. Secondly, it is clear that training may contribute significantly to the growth of an effective workplace learning environment but whether it does so will be contingent on many factors. Thirdly, it is apparent that there is no automatic connection between workplace learning and change - whether learning in the workplace leads to meaningful change is a question of design and intention. If there is no commitment to workplace change and no design to facilitate it, there is no reason to assume that change will automatically follow.

On the other hand, where there is a commitment to connecting workplace learning to processes of change, this research shows there is potential to generate a meaningful synergy in which the change drives effective learning and the learning drives further changes and developments. Given the right circumstances there is the potential for this synergy to bring rewards to both employers and employees in the learning environment.
Chapter One
The Research Question

The focus upon issues of workplace learning and change within Australian industry is strategically important at this time. Industry in general, and the automotive sector in particular, is facing increasing pressure from overseas competition. Federal government policies (such as those relating to tariff reduction and to industrial relations reform) along with the economic forces of global markets have placed unprecedented demands upon both employers and unions. Workplace change has become mandatory.

As the result of a tripartite agreement between industry, unions and government, workplace change in Australia has been introduced within a broadly agreed agenda. A range of Accords and new legislation have changed the industrial relations emphasis on centralised wage fixing towards a system based on enterprise bargaining. Award restructuring has laid the foundation for the broadening of job categories, skill-based reward systems and increased training schemes. A National Training Reform Agenda was developed as a TAFE response to the workplace reform agenda, in particular to meet the demands made by linking wages to skills development and training. Based on competency standards, this movement has permeated the TAFE sector in Australia and is affecting all areas of vocational education and training. However, there has not been a substantial base of critical research underpinning these developments in Australia.

Workplaces are very complex and diverse places with systems and processes that may differ even when businesses are ostensibly very similar, such as warehouses, component manufacturers producing the same sorts of parts, or vehicle assemblers. Governments, employers and unions talk of workplaces as becoming sites of lifelong learning, where skills and knowledge are continually growing to keep pace with changes in technology, processes and work practices. However, the culture of most Australian workplaces, including those in this industry, has not traditionally been characterised as conducive to effective workplace learning.

Management literature abounds with advice on developing the company as a learning organisation, assuming that the enterprise can learn as an entity and instil and capture the desire and impetus for learning in all of its employees. However, much of the literature and many of the commonly held beliefs about workplace learning and its benefits are not based on empirical research. Advocacy for various methodologies flourishes and assumptions are made regarding benefits that may or may not arise from workplace learning. There is a recognised need for appropriate, industry based research to identify those factors and strategies which will support the industry stakeholders in transforming their workplaces into more effective working-learning environments.

This project investigates two interrelated questions. What is it that makes a workplace an effective (or ineffective) learning environment? and What role does training play in creating a workplace learning environment?
Each of these questions was treated as being problematic, as were some of the assumptions inherent in the rhetoric of the literature on learning organisations as well as government statements and educational policies. These assumptions include:

- the presumption that all the people, groups, and industrial parties in a workplace have the same reasons for engaging in training, learning activities, or change strategies, and that they have the same desired outcomes from those changes,

- claims that workers' skills are directly linked to productivity, profitability, and world competitiveness. This assumes that workers' skills are inadequate, not recognising that they may be working in an environment which does not encourage the use of the skills they already have. A more deep-set supposition is that skills can be defined in relation to particular tasks and therefore "taught",

- the notion that formal training is universally beneficial regardless of the content, context, or training methods. Linked to this belief is the assumption that formal training is the site of all learning in the workplace and that learning styles are the same for all of the participants,

- the arrogation that workplace change is necessarily beneficial for everyone. The question must be asked - beneficial for whom?

This study questioned these assumptions and attempted to find empirical evidence to clarify the degree to which such claims could, or could not, be made. In recognition of the variety of aspirations, motives, and views of different stakeholders in every workplace, perceptions of a range of people from across each workplace were sought on the issues investigated.

The study arose from a long-term relationship with the automotive industry by both the researchers and by the National Industry Training Board for the Automotive Industry, Automotive Training Australia Ltd, which auspiced the research. It is based on previous research conducted by the Board through its National Automotive Language and Literacy Unit (NALLCU). It was funded by the ANTA Research Advisory Council (ANTARAC) to address its research priority Learning in the workplace, which included:

* the workplace as a learning environment,
* how workplace learning differs from classroom learning,
* teaching skills in the workplace,
* workplace culture and ethos,
* generic skills needed in the workplace,
* workplace assessment

Focusing on the link between training and workplace change, the research looked at the role of training in assisting to establish a learning environment in an enterprise. Building on previous research in the automotive industry, it used a collaborative research methodology to facilitate four companies and the union (AMWU (Vehicle Division)), as active participants in the process, in analysing learning in the workplace.
The four companies represented the range and diversity of the industry with one of each of:

* franchised dealership - retail service & repair (RS&R) sector,
* national parts distributor - importer of vehicles;
* large original component manufacturer, foundry operations,
* small component manufacturer.

These companies ranged in size from 73 to 2,050 employees. Each had in common a commitment by management to developing a learning environment for the purpose of continuously improving the product/service they provide. However they differed in almost every other respect. In depth case studies explored these companies and their training, culture and workplace organisation. Perceptions, attitudes and experiences of individuals who were interviewed gave an insight into the particular features of each company.

In line with previous research, the conduct of this study was collaborative with the four companies and the union being willing participants in the study as partners rather than subjects. Thus they each had the opportunity to comment on the results of the literature search, to guide the methodology, to examine the results of the field work and to negotiate the way those results were represented in this final report. Outcomes were expected to assist them in their quest for more effective training and to discover ways in which to transform their working environments.

Although a small scale project, this research was expected to make a contribution to research in vocational education and training by providing a small component of a much broader picture. Whilst the study was case-study based it was anticipated that it would have wider implications for research, practice and policy in vocational education and training. In particular the project was expected to have a bearing upon policy development in relation to:

* curriculum development in VET. results of the research were expected to allow comments to be made on the effectiveness of curriculum development processes in VET in relation to workplace learning that is linked to change and the development of workplaces as effective learning environments;

* the methodology of workplace training/learning, the research analysed those factors, which in the experience of participating enterprises, support the development of a learning culture in the workplace;

* the infrastructure and support needed for effective workplace learning, the project documented the infrastructure and support provided for workplace learning at each enterprise and comments on ways this support could be improved;

* trainer training and development; the research considered the role of trainers and other workplace personnel in supporting workplace learning and assessed the training and development needs of these people;

* preparation and development of workplace teachers, the research was also expected to contribute to an understanding of the preparation and development needs of teachers.
practising in the workplace

Other areas of government policy that may be informed by this research include: the role of Training Agreements in processes of Enterprise Bargaining; work organisation and workplace reform; and the link between training and productivity.

It was anticipated that the research would provide some practical guidance to vocational educators and trainers with an interest in the how their programs may stimulate, contribute to, or support processes of critical reflection, continuous improvement and change within their workplaces. It was also expected to provide some evidence of the result when workplace teachers and trainers enter and practice within the workplace as facilitators of learning and change and the effects of learning programs that are developed through critical collaboration. Issues such as those of access and equity, and contextualising programs and assessment processes to the particular plant/enterprise whilst maintaining the standards necessary to ensure certification and transferability are expected to be addressed by the data from this project.

It was anticipated that comments would also be able to be made, within the limits of the research, on the following research priorities of ANTARAC:

Assurance of quality:
* the appropriateness of training provided in relation to client needs;
* the role of client and consumer in quality assurance;

Needs of small business:
* the extent to which skill demand differs in organisations of different size;
* effective training for people in small enterprises: the profile and detail needed to plan appropriate education and training;
* the impact of size and organisational structure;
* delivery mechanisms for providing skills to small business

The economic impact of VET:
* The role of VET in bringing about workplace change;
* The competitive advantage to enterprises of VET

An advisory committee, chaired by the Executive Director of the Board and with representatives from the industry and from the education faculties of two universities, Monash and La Trobe, supported and guided the project. Their individual and collective input and advice was invaluable to the researchers.

In order to capture the diversity and complexity of the environments of each workplace a case study methodology was adopted, using naturalistic methods to document the results of participant observation, field research and interviews. Extensive use was made of prior knowledge of and involvement at each of the companies, thus shortening and simplifying the project by reducing the need to gather this information. The ability to compare current situations with those encountered up to two years previously was an advantage and added to the richness of the data.

Chapter Two provides a context for this study, in particular describing the automotive industry

Chapter One 14 Research Question
in Australia and giving details of previous relevant research conducted by Automotive Training Australia. Chapter Three describes the research methodology utilised in the study and describes the conduct of the field work. Chapter Four reviews the literature and explains how this informed the development of a theoretical framework for examining the workplace as a learning environment. The results of the study are described in the four detailed case studies of Chapters Five to Eight respectively.

These results are analysed and compared in Chapter Nine. In particular the similarities and differences between the data from the four companies are explored and, where appropriate, some generalised data is discussed.

Finally some conclusions are reached in Chapter Ten and some recommendations put forward in relation to further research that might be undertaken as a result of this study. In addition the implications of this research to the relevant stakeholders in workplace training are discussed and, where appropriate, recommendations made in relation to the key issues mentioned above.
Chapter Two
Background to the Research

Recognising the need for workplace change several years ago, the vehicle manufacturing industry introduced a range of programs and initiatives directed at greater efficiency, productivity and quality. The Vehicle Industry Certificate (VIC) was one of the first accredited, industry based certificates for non-trades employees in Australian industry. It was developed by the industry, and accredited by TAFE, in recognition of the potential link between training and processes of workplace reform. As the VIC has been introduced across the industry, some enterprises have become particularly interested in how well the training is supporting their processes of change and continuous improvement.

2.1 The automotive industry in Australia

Since the closure of the Nissan manufacturing plant in 1992 there are now only four major manufacturers producing motor vehicles in Australia. These support a range of component manufacturers. In addition there are in excess of 40,000 small to medium sized retail, service and repair businesses. Total employment in the industry is approximately 300,000 [Automotive Training Australia (1995).27].

The Australian Government has established a policy for the automotive industry through to the year 2000 which involves a gradual decline in levels of assistance to the industry. The government’s plans for the industry, first announced in 1984, included:

* increased efficiency in the industry for international competitiveness;
* better quality products at reduced real prices,
* minimal disruption to production and employment whilst this restructuring takes place.

Strategies for implementing this plan involved:

* gradual reduction in tariff rates;
* economies of scale and better capacity utilisation through rationalisation, and
* productivity and quality improvements through:
  - new technology, including automation, for production,
  - new management practices, skills training and work organisation

Although this policy has been revised twice in the intervening years, the policy direction has remained essentially the same [Automotive Industry Authority (1994) 7-8].

Employment in the Passenger Motor Vehicle (PMV) manufacturing sector has declined since the beginning of the Car Plan. In the period between 1990 and December 1994, employment in the sector dropped by 30% to 22,606 in 1994. This was due to such factors as:
* the recession;
* a drop in market demand (13%),
* drop in production volume of 26%;
* loss of market share due to increased competition from imported vehicles;
* rationalisation of the number of models produced,
* the loss of Nissan as a manufacturer,
* the closure of Ford's Laser Plant in NSW,
* the relocation of Toyota's Corolla Plant to Altona,
* the adoption of efficiency and productivity measures

Some of these losses have been compensated for by a slight increase in employment at a number of companies to meet export demand [Department of Industry, Science and Technology (1995): 27]. However the remainder of the loss flowed from restructuring measures implemented by PMV producers in order to improve their efficiency and productivity [Automotive Industry Authority (1994): 66]

Component manufacturers were also subject to the same pressures as the PMV sector during this period. After shedding large numbers of employees during the early 1990's they have also been gradually increasing numbers in the last year or so to cope with increasing export demand. Total employment for all members of the Federation of Automotive Products Manufacturers in 1994 was 22,568 [Dept of Industry Science & Technology (1995): 28]

Employment by importers in the industry has remained fairly static at approximately 1,800. However, the majority of employment (approximately 250,000) in the industry is within the retail, service and repair (RS&R) sector of the industry where most employees work in small companies

The major challenges faced by manufacturers have not affected the RS&R sector of the industry to the same extent. The introduction of a new award and the need to implement training is starting to impact the sector now. Challenges faced by this sector of the industry remain the relatively small size of businesses and the difficulty of establishing a training culture in these environments. One of the sites for this project was within a retail automotive dealership.

The drive towards higher quality products and services has affected every sector of the industry as international standards are required for exporting of products and the quality of after-sales service affects sales and marketing

2.2 Previous research

The current research study relies on relationships established by the researchers over a number of years working within the automotive industry in Australia. For two of the researchers this association goes back to the start of 1991 and for the third researcher it was 1993. In order to place this research in context it is instructive to review the prior work and research activities that underpin the present study.
(i) **The Work Placed Education Project**

Auspiced by the Victorian Automotive Industry Training Board and funded by the Victorian Education Foundation, this project consisted of a random survey of the non-trades workforce in the vehicle manufacturing sector to determine the literacy and language needs of these employees in relation to the newly accredited Vehicle Industry Certificate (VIC). Two of the researchers in the current study were involved in this study (Sefton as coordinator of the project & Waterhouse in an advisory role). The report of this project [Sefton & O'Hara, 1992] recommended that integrated strategies should be adopted such that,

* all employees could gain immediate access to their accredited training which should be designed to accommodate their learning needs;
* the learning materials and activities should draw on the knowledge and experience of employees and use the language and technology of their workplaces.

Acting on these recommendations funding was sought from the Workplace English Language and Literacy (WELL) Program by the National Automotive Industry Training Board to establish a central coordinating unit, place site coordinators in large enterprises and to develop learning materials to meet the identified needs. This resulted in the establishment of the National Automotive Language & Literacy Coordination Unit (NALLCU) in mid-1992.

(ii) **National Automotive Language & Literacy Coordination Unit**

As part of its charter, NALLCU was expected to develop integrated learning strategies and materials for incorporation within the generic curriculum learning materials of the VIC. On further investigation it was discovered that there were no companies across Australia that were actually using these materials. Each company was customising the learning program and materials to meet their own corporate goals. It was thus necessary to develop an alternative way for NALLCU to introduce integrated strategies in the enterprises concerned.

Negotiations proceeded with the Manufacturer's Advisory Group (MAG) of the NAITB to allow an innovative approach to be developed and trialed in a number of enterprises. An action research approach was suggested, with a number of working examples of a model of integrated training being the expected outcome. Permission was received from MAG to approach companies with a view to conducting this action research.

The approach that was advocated differed fundamentally to previous work. Both the Work Placed Education Project and NALLCU had been established with a deficit model implicit in their methodology i.e. identifying learner needs and developing strategies, curriculum and learning experiences to meet these
The new approach came from a different mind set which shifted the emphasis away from looking at needs to analysing and using the strengths of workers to design training. This meant looking at performance criteria which were not necessarily related to correct English language and literacy. Also it meant shifting away from the concept of literacy and language classes to one of access, equity and quality educational processes in the development and implementation of mainstream vocational training.

Some difficulty was experienced in selling these concepts to enterprises. However, in the end six companies agreed to participate in the action research program and approximately one fifth of the WELL funding was used for this purpose.

(iii) Action research project (1993/4)

The field-work for this project was conducted in 1993. Each of the researchers involved in the current study was engaged on this action research. Sefton managed this project; Waterhouse was employed to interview the stakeholders in each enterprise and to document the processes and results in each of the six companies, and Cooney was one of the project officers employed to conduct the project in one of the enterprises.

The final agreed projects were:

* Foundry Elective at Holden's Engine Company (HEC),
* Warehousing Elective at Ford National Parts Distribution Centre (NPDC),
* The first part (Air Systems) of post-induction training for VIC (skills, knowledge and elective units across three levels) in Truck and Bus Assembly at Mercedes-Benz,
* The first part of an integrated program for the VIC targeted to the Hardware Manufacturing area of Mitsubishi,
* The first part of an integrated program (knowledge and elective units) for the VIC at Nissan National Parts Distribution Centre (NPDC),
* Level 2 modules of the VIC for the Press Shop at Toyota Altona

A full report of this major action research project, *Breathing Life Into Training: a model of integrated training*, including detailed case studies, was written and published by the NAITB (now ATA) in 1994 (Sefton et al, 1994).

The model that was developed provides a means of contextualising the generic curriculum into specific programs for workers in each different environment.
As Deakin describes it,

*the model was embedded in the specific context as a framework on which to construct a learning program which could respond to and reflect the dynamism of that workplace (Ibid. 31)*

The following principles are explicit in this model, that

- *the curriculum is able to respond to the diverse and changing needs of both the learners and their specific workplace,*
- *the process of continuously improving the curriculum, its implementation, learning activities, resources and assessment is the joint responsibility of all stakeholders,*
- *the strengths, potential and linguistic and cultural diversity of employees is valued;*
- *access and equity is achieved through the establishment of mixed ability, multi-ethnic and dedicated learning groups,*
- *the focus is on learning and the development of strategic competence which is underpinned by effective thinking, organisational, interpersonal, communicative and practical skills,*
- *the resources of the workplace, its unique language forms, people and networks, form an integral component of the program,*
- *the assessment of competence is holistic, contextual, relevant and ethical (Ibid. 28)*

A *systems analysis approach* was adopted to develop this model of training which was designed to integrate accredited VIC training into the workplace context. The model provided

*a conceptual framework with explicit collaborative processes, strategies, principles and philosophy for fostering the development of a learning culture in the workplace, to support the on-going learning of employees, and facilitate the development of the necessary skills, abilities and attributes for the modern workplace (Ibid 26)*

Key features of the processes of collaboration and consultation processes used for developing and implementing learning programs are identified in Figure 2.1. This methodology provided

*a means of involving all stakeholders in the process of determining what could or should be learnt, how and why It (also provided them with) the experience and strategies for continuously improving the learning program beyond the immediate project Last, but not least, it positioned learning about the workplace in the workplace, as part of a working-learning culture (Ibid 27)*
As Deakin (Ibid: 27-28) points out

This process of involving all stakeholders in determining the focus and content of the curriculum goes beyond the notion of simply customising generic curriculum. It is a process which

- focuses on developing an overview of the workplace and its key organisational elements so that the curriculum, and implementation models which evolve are enterprise specific, responsive to change and always relevant,
- helps connect together critical knowledge and resources which are often fragmented and dispersed throughout the workplace,
- fosters an understanding that real learning involves new insights, and changing one's mindset, a concept well beyond the notion of training as a process of transferring information into "empty vessels".

The collaborative process is intended to facilitate the development of a genuine learning culture and commitment to more realist, not just
rhetorical, strategies for continuous improvement in the workplace.

The development of a learning culture is shaped by the following explicit strategies:

- building a shared vision (common goals);
- developing an holistic perspective (of the enterprise in a local/global context);
- learning as a team;
- learning through enqiry and insight, and
- thinking systematically, so that all the elements of the learning culture are integrated into a coherent structure.

The model that was finally developed is illustrated in Figure 2.2 (Ibid.:29) It shows the process of contextualising the generic VIC curriculum and integrating the ideas, values and strategies of the educational framework with the work-life of the plant (Ibid. 28).

An example (see Figure 2.3 (Ibid.:308)) is given of how the integrated model facilitates the transition from the generic core VIC syllabus to specific organisational elements developed in the HEC foundry and at Ford NPDC (and in the other two plants included in the analysis). As Deakin explains:

\[\text{What is very obvious in the cases illustrated is the consistent generic theme of the organisational elements yet vast differences between these plants. If one takes into account the four plants the contrasts are even more obvious. Although Planning and Scheduling plant activities is a theme in each plant, the system used in each (PANDA [Ford], NAPS [Nissan], MRP2 [HEC] and KANBAN [Toyota]) is entirely different in every aspect, and each is underpinned by different organisational principles (Ibid.:308).}\]

This sophisticated understanding of the relationship between generic syllabus requirements and particular industry contexts was one of the key concepts highlighted by this project. It demonstrated that effective contextualising of the curriculum involves actively drawing from the particular context of each site, taking account of the full diversity of factors and circumstances shaping the work-life in that site.

The implication is that there is no automatic connection between workplace learning and change. The connections are not inherent in the learning simply because it happens to occur in a workplace. The links have to be built, the connections have to be made. Workplace learning will facilitate processes of change only if it is strategically designed to do so and implemented in ways that facilitate change processes in the workplace.
Educational Framework

**Concepts, Values, Strategies**
evolved from Educational Praxis & Critical Linguistics

**Holistic Perspective**
of Learners and Learning in the Work Context

<table>
<thead>
<tr>
<th>Values</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>People Involvement</td>
<td>developing Collaborative Inclusive Curriculum</td>
</tr>
<tr>
<td>Equity in Participation</td>
<td>participating in Mixed Ability, Multi Ethno &amp; Designated Learning Groups</td>
</tr>
<tr>
<td>Learning Culture</td>
<td>facilitating Collaborative Enquiry &amp; Experiential Learning</td>
</tr>
<tr>
<td>Technical &amp; Functional Elements of Work</td>
<td>respecting &amp; integrating Work Knowledge, Skill &amp; Function</td>
</tr>
<tr>
<td>Existing Strengths &amp; Potential</td>
<td>developing Strategic Competence</td>
</tr>
<tr>
<td>Conceptual Thinking</td>
<td>developing Reflective, Systemic, Analytical, &amp; Creative Thinking</td>
</tr>
<tr>
<td>Linguistic &amp; Cultural Diversity</td>
<td>using Workplace Language &amp; Critical Linguistics</td>
</tr>
<tr>
<td>Holistic Competence</td>
<td>using Holistic Assessment</td>
</tr>
</tbody>
</table>

Curriculum Framework of VIC

<table>
<thead>
<tr>
<th>Industry Competences &amp; Standards</th>
<th>General Knowledge</th>
<th>General Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>Core Skills</td>
<td>Stream</td>
</tr>
</tbody>
</table>

Enterprise Based, Stream Specific VIC

**Elements of Organisation**
- Customer Requirements
- Planning and Scheduling
- Organisation of - Material/Inventory  
  - Labour Resources  
  - Plant and Equipment
- Workplace Technology
- Production Process/Procedures
- Work Practices/Policy
- Workplace Environment & OHS
- Workplace Communications
- Relationships, Responsibilities, Authority
- Learning/Training, Career Options
- Quality Control and Quality Assessment
- Continuous Improvement, RAD

**Implementation Model**
Integration of Essential Content, Resources, Learning Experiences & Assessment in a Dynamic Learning Model

**Stages of Production**
An Overview of Holistic & Sequential Stages in Plant Specific Productive Activity

Source: *Breaking Life into Training* (Sefan et al 1994, p 23)
Assessment processes adopted as part of this model were holistic, contextualised and performance based and included:

- conferencing,
- investigative reports (oral and written);
- class presentations (formal and informal);
- oral assessment using genuine components, documents, etc.;
- practical problem solving, defect analysis;
- practical demonstration;
- practical exercises in statistical control (graphs, tables, charts, measurements),
- written assessment/notes/practical session records;
- group work/meetings/leadership;
- interpretation of documents,

The learning that resulted from these programs reflected the complexity and richness of the workplaces. As Deakin goes on to explain,

_The emphasis in each program was on learning; not learning about narrow vocational tasks or general ideas, but learning which was_
systemic and focused on developing strategic competence. The case studies reflected the development of deeper conceptual understanding in terms of cognition of problems, and of higher order analytical thinking. The curriculum dealt with the complexity of real life situations in each plant and provided holistic learning experiences to challenge learners. These experiences took them from the isolation of their past roles into new opportunities, relationships and situations. The learners became adept at predicting, recognising and constructing different scenarios and matrices of variables which impact on the workplace. 

In the current research study it was possible to re-visit two of the workplaces that provided the case studies in this action research project - the Foundry at Holden's Engine Company and Nissan NPDC. The detailed documentation, previous interviews and intimate knowledge of these workplaces were expected to add depth and perspective to the current research.

(iv) The Workplace Communications Project

A parallel and related project was also conducted in the Retail Service & Repair (RS&R) sector of the automotive industry also auspiced by the NAITB and funded by WELL. Four projects were conducted across Australia to trial different approaches to the implementation of training in this sector. All of these used a similar model of integrated training to the one described above. One of these projects was conducted at Claridge Holden in South Australia. Both the project coordinator and the particular project officer were employees of NALLCU during this period, and as such were in regular contact with the researchers. None of the researchers were involved in any real sense in this project, however two of them did visit this company shortly after the project's conclusion.

The report of the project [Virgona, 1994] contains a detailed case study of the Claridge Holden program, thus providing a measure of depth and perspective to the current research.

2.3 Other relevant work in the industry

As a result of the action research project conducted by NALLCU in 1993, many other companies within the automotive manufacturing industry were keen to implement the new model of integrated training that had been developed. Two of these are relevant to the current project.

(i) Nissan National Parts Distribution Centre (NPDC)

Work at Nissan NPDC continued after the completion of the pilot program conducted as part of the action research project. The same project officer is still working at the company where she has completed the design, development
and implementation of the whole of the VIC in an integrated, contextualised and customised program specific to Nissan NPDC.

The comprehensive set of learning materials and trainer notes which have been produced now form the basis of a program conducted by an industry trainer who was trained by the project officer. This training consisted of formal courses and a long-term mentoring program which is still on-going.

Current work by the project officer consists of re-writing the program to meet the needs of Nissan's interstate branches using distance technologies and flexible learning strategies, and represents another form of a contextualised, integrated program. Visits to interstate branches have ensured that the program will meet the specific needs of these branches where some processes and workplace practices differ.

The Nissan case study in this research takes account of these developments and the analysis of interviews reflects the long term nature of the relationship with this company.

(ii) **Suspension Components Australia (SCA)**

In 1994, after visiting the HEC Foundry to view the integrated training in practice, management and the union representatives from SCA opted to implement this model of integrated training in their Company. One of the researchers (Cooney) became the project officer in this company to design, develop and implement integrated VIC training for the whole of the non-trades workforce, based on the same model of integrated training as described above.

His involvement in the company became full-time and stretched over more than a year. As well as his work with the VIC, he assisted in setting up Continuous Improvement Groups and advised the company on workplace change.

While there has been no formal documentation of this project, the grounded and practical experience of this researcher with the company forms the basis of the current study and provides the same sort of depth and perspective as was possible in the other case studies. The case study for SCA reflects the in-depth knowledge and understanding of the Company that comes from such a long period of involvement.

2.4 **Partners in the research**

In selecting four companies as sites for this research, the following factors were taken into consideration:

* scale and range of operations;
* complexity of organisation, taking into account the internal and external
environments and the complexity of the processes which they undertake, diversity of workplace culture and ethos, skills requirements, including the range and diversity as well as the generic, work organisation.

In addition the following elements were also considered to be essential:

* commitment of management to creating a genuinely effective workplace learning environment,
* existence of training activities within the company, linked to workplace change;
* willingness to participate as partners in the research by allowing employees time off work for interviews and through demonstrating their preparedness to read critically, reflect on and respond to the.

- research methodology,
- literature review;
- documentation of their own case study;
- results, conclusions and recommendations of the research

* existence of a prior relationship with the researchers that would.

- obviate the need for prolonged periods of observation or the need to build basic understandings,
- give an element of a longitudinal study to the research by revisiting sites of previous work and/or research

The interest of these companies and the union in this research were key aspects of the project proposal. It was intended that they should be partners in the endeavour rather than passive subjects.

Academic partners in the research were also sought, in particular from Monash and LaTrobe universities, and letters of support from the education faculties of each are testimony to their preparedness to assist in achieving academic rigour by guiding the researchers and advising the Board of ATA.

Chapter Three details the methodology employed and elaborates on the roles of these partners in the research.

2.5 Summary

The model of integrated training that is briefly described above formed the framework and terms of reference for the researchers undertaking the current study. However, it should also be noted that whilst this model was part of the scene in each case, it was not the only factor influencing training, nor did it represent all the training occurring...
in each company. Also, it was not a particular focus of this research which considered
the place of training within the workplace learning environment, but did not seek to
assess the influence of the integrated model in particular.

Theoretical underpinnings of the model are discussed within the literature review in
Chapter 4. However it is important to note, as part of the background to the current
study, that the collaborative processes, strategies, principles and philosophy inherent
in this model describe the experience, practice and personal/professional stance of the
researchers in relation to the question of workplace learning and change.

Each of the companies taking part in the study have experienced some form of
integrated training and recognise its value in terms of linking workplace learning to
change. This factor was built into the project proposal and the design of the research.
Chapter Three
Methodology

3.1 Introduction

The research design was based on a number of factors. Firstly, the prior knowledge by the researchers of the companies that were to be the sites of the case studies was considered an important factor, obviating the need for extensive on-site observation and analysis to establish a full picture of each company. Secondly, the companies were to be partners in the research from the Project proposal to negotiating the outcomes and framing the conclusions and recommendations. Thirdly, each of the companies had demonstrated that they were attempting to develop a learning culture in their organisation and were interested in the factors that might assist them to achieve this goal. Finally, each company had been the site of a project that introduced a model of integrated training that was designed to help achieve workplace change and the development of a learning culture.

3.2 Case study method

Several key features need to be noted in relation to the choice of methodology. First, the research was proposed as case study based and essentially qualitative in style. The intention was to investigate the nature of the chosen workplaces as sites of learning and change. In this context, understandings about the culture of the workplaces were considered important as were the perceptions and attitudes of those involved in each workplace. Whilst it was expected there would be some elements which may be quantified (such as expenditure on training or hours of training provision) the intention was to not so much to measure as to describe.

It was hoped that the research would enable the construction of detailed descriptive accounts of particular sites where workplace learning and change processes were, at least to some extent, endemic and systemic in the enterprise. The investigation aimed to identify and clarify the qualities, or the nature of such workplaces. The depiction of such sites might then lead to generalisations about the nature of workplace learning and change in other places.

In commenting upon this type of research, Boud and Griffin (1987) note,

*Qualitative research is not easy; it has its own standards of rigour, and not everyone is capable of doing it. It requires not only research skills but also personal skills... like any research approach, it is suitable for exploring only some kinds of questions - the meaning people attribute to their experiences, how people perceive themselves and their worlds and how they communicate their understandings to others... the qualitative approach is the one which we believe is appropriate for an appreciation of learner's perspectives on the experience of learning.*
Indeed it was precisely questions about learners perspectives of learning in the workplace that the research set out to investigate, for these reasons qualitative methods were adopted. Secondly, as Boud and Griffin also highlight, a key feature of qualitative methodology is the role of the researcher(s) as 'instruments' within the study. The elements of human judgement involved in the research are not only acknowledged but valued. Guba and Lincoln (1981) list a range of characteristics of the researcher as the research instrument. They include responsiveness, adaptability, a holistic emphasis, appreciation of knowledge beyond what is explicitly stated, the capacity for processing information (data) immediately and so on. Schon (1987) similarly talks about reflection-in-action. Appreciation of these characteristics recognises and legitimises the capacity of the researcher(s) to engage with and contribute to the research process. It also recognises that the researchers carry certain attitudes, values and understandings about the nature of the phenomenon under investigation.

Mention has already been made of how the research grew out of previous contact and involvement with the companies. In this sense the selection of the sites was purposeful as described by Patton (1990), Lincoln and Guba (1985) and Caulley (1994).

*The logic and power of purposeful sampling lies in selecting information-rich cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the research* (Caulley, 1994: 7).

This sense of purposeful sampling was also carried through to the selection of persons to be interviewed. It was agreed from the outset that the companies participating in the study would enable access to a wide range of personnel within the workplace. It was intended that the interview sample should represent a vertical "slice" through the organisation so that views from the shop floor, middle management and senior management were represented. It was also important that shop stewards be included so that union views could be presented. This type of sampling can be described as *stratified purposeful sampling* (Ibid. 7).

This purposeful selection of interviewees was also consistent with accepted principles for establishing the trustworthiness of the data gathered. It would provide, in effect, a form of triangulation of the data, enabling comments and perceptions of different sub-groups within the workplace to be compared and cross checked. For instance, it was hoped that the views of management representatives on training policy and practices could be compared with views expressed by shop floor operators. Or comments from participants engaged in formal training programs might be compared with the views of people who had not participated in formal training.

Guba and Lincoln (1981: 107) note,

*Obviously the naturalistic investigator cannot place very much confidence in single observations or deductions. Each will contain its modicum of error, perhaps sufficient to cause suspension of belief if no other evidence is*
available. But when various bits of evidence all tend in one direction, that direction assumes far greater credibility.

The researchers' prior knowledge of the sites, gained over an extended period of time was also an important factor in the research design. The intention was to take advantage of and build upon this prior engagement with the companies. The limited scope of this project precludes use of the label 'ethnographic' for the research, however by building on the time spent previously with the companies and the understandings already held about them, it was hoped that the research would capture some sense of the particular cultures and day-to-day practices of each workplace. The longevity of engagement with the companies was consistent with accepted principles for trustworthiness in research of this nature.

In some ways the study represented a logical extension of work which was already underway. Although workers were to be interviewed for the research (and this would not normally happen in their routine work) the interviews would be conducted within their workplaces and scheduled to minimise disruption to their work as much as possible. The researchers were obliged to fit in with the routine production and work requirements of each site. The interviews themselves would be face-to-face, informal and conversational in style. As far as possible the research would be conducted within the normal day-to-day constraints of the work site.

The key points noted above are consistent with the notion that such research is naturalistic. Caulley (1994: 5) notes that the natural setting is one of the key features of what he describes as postpositivist interpretive enquiry. He contrasts this type of enquiry with experimental research.

*The setting is not contrived in contrast to the controlled, artificial, laboratory-type experiment or quasi-experiment which decontextualises the phenomenon being studied. In postpositivist interpretive enquiry phenomena are studied in context. The experiment studies a few variables whereas the postpositivist interpretive enquirer must consider all the factors and influences in the context being studied.* (Emphasis in original)

Two related points need to be noted here. The first is that the research design although planned, was not fixed. It was expected that adjustments would have to be made to accommodate the real-world contexts encountered in the research process. Unlike experimental research where the research domain may be controlled (as in laboratory work) this research was to be conducted in factories and work sites where people were going about their ordinary work - they would not be there for the research, they would have their own jobs to do. It was expected that adjustments would have to be made to the research design as it unfolded. Such a design is emergent in the sense described by Caulley (1994), Guba and Lincoln (1981, 1989) and Patton (1990).

The second point is that it was hoped the case studies would provide some basis for the development of grounded theory. Caulley (1994: 10-11) explains,
Grounded theory is theory that follows from data rather than preceding them. Grounded theory 'grows' out of the data, unlike positivist theory which cannot legitimately claim to be based on anything more tangible than the theorist's imagination. Grounded theory and emergent design are important to one another. Because grounded theory emerges during the process of the study, the design or plan of the study cannot be preplanned in advance in any great detail.

This notion of emergent design and grounded theory is consistent with accepted views on the advantages of case study method. Adelman et al. argue case studies can be strong in reality and down-to-earth; as such, the case study approach recognises the complexity and 'embeddedness' of social truths. They suggest such studies may provide:

- a sound basis for generalisations;
- rich descriptive material for reinterpretation;
- 'a step to action' and facilitate evaluation and policy making,
- data in publicly accessible forms serving multiple audiences.

(Adelman, Jenkins and Kemmis 1983: 8-9)

This research was directed towards such outcomes. The following section outlines how the process was expected to unfold.

3.3 Managing, advising and monitoring progress of the research

(i) Project management

The management of the Project was invested in the Board of ATA. This included financial management, final agreement on content of progress reports and the final report and monitoring progress through regular reports from the research team.

A list of Board members is included in Appendix 2

(ii) Formation of advisory committee

An advisory committee was established to monitor the project and provide advice and support to the research team. The Board of ATA nominated two representatives from industry, one employer and one union representative. In addition, one of the participating companies was represented on the Committee. Three academics with an interest in VET research were also approached to become members of the Committee and to contribute their particular expertise. The Executive Officer of ATA acted as chairperson and recommendations of the Committee and progress reports on the research were forwarded directly to the Board on the advice of the Committee.

The membership of this Committee is listed in Appendix 3
The role of the Committee was to advise the Board regarding the conduct and methodology of the research. Also to comment on findings, conclusions and recommendations, and in particular to ensure that the research was academically sound. The role also involved participating in the industry forums and understanding the stance of the companies and the union in relation to the research, and their collective role in framing the research, in drawing the conclusions and in making recommendations as a result of the outcomes of the research.

In undertaking this responsibility the respective members of the Committee attended meetings and the industry forum, and provided valuable advice, both collectively and individually, to the research team and to the Board.

3.3 The research sequence

It was planned that the research would occur in stages. Namely

1. Literature search
2. Characteristics of a workplace learning environment
3. First industry forum
4. The design and trial of the research instruments
5. Field work
6. Analysis of data
7. Negotiating outcomes
8. Drafting the final report
9. Wider (second) industry forum

(i) Literature review

It was apparent that a wide range of interdisciplinary literature and research might be relevant to the project. It was agreed that the literature search should be initiated early in the project and the results used to inform the data gathering and the case studies. It was also anticipated that the research process would provide some opportunities for the researchers to share insights and understandings from the literature with industry personnel.

A list of descriptors/key words was developed including adult learning, workplace learning, vocational education and training, skill formation, industrial reform, workplace change, industrial relations and organisational change. Various combinations of these descriptors were used to identify literature which would provide insights into the nature of workplace learning and change processes.

In the final event a series of computer based searches were conducted through the library at University of Melbourne. These searches covered the following sources:
In particular, cross searches were conducted using the following combined descriptors.

- workplace reform and learning
- workplace learning
- business and training
- training and productivity
- vehicle industry and training
- learning and organisations
- workplace and learning

Critical analysis of the resulting abstracts, several hundreds in number, led the team to review a wide range of Australian and overseas literature relating to the research questions. This literature review is contained in Chapter Four.

(ii) Characteristics of a workplace learning environment

As a result of the literature search and the subsequent critical analysis of the relevant literature, a set of descriptors was developed for describing, in practical terms, the characteristics of a learning environment in the workplace.

In addition a number of key indicators were developed from the literature on workplace learning. These indicators were then related back to the list of characteristics and the resulting table was included with the full draft of the literature review for discussion at the first industry forum.

The purpose of this exercise was to use the analysis of the literature, combined with practice, to develop the research instruments.

(iii) The first industry forum

The first forum with industry was intended to develop the collaborative nature of the research process and provide opportunities for the industry partners in the research to participate in the research design and development.

Members of the Project Advisory Committee were invited to attend along with representatives from the companies directly involved as sites for the case studies. The intention was to discuss the findings of the literature review and the proposed model of workplace learning and to reach some kind of consensus on a grounded definition and a set of descriptors for workplace learning which could be investigated in the companies.
The forum was attended by representatives from each of the companies involved in the study and the union. Several members of the Advisory Committee were also able to attend and made valuable contributions. The draft literature review was circulated prior to the meeting, allowing time for participants in the forum to read and absorb the contents. At the forum, the research team outlined key themes and issues emerging from the literature and presented the definition and set of key indicators as a basis for the fieldwork.

After wide ranging, challenging and valuable discussion, the key themes and issues were accepted and the definition and set of indicators, with some amendment and clarification, were adopted as the basis for the questionnaires to be used to collect data for the case studies. Notes of the industry forum are included as Appendix 4.

(iv) Development of the research instruments

Two separate questionnaires were developed. Firstly, a company profile was designed to provide information for the background in each case study. This was mostly factual and quantifiable information rather than interpretive or qualitative data. It was expected that this questionnaire would need to be directed to a key management person in each company. It was not considered necessary to repeat these questions with each interviewee. A Company Profile questionnaire was developed to meet this requirement and a manager involved in training in each company was asked to provide this information.

Additionally, the design of the research called for a number of face-to-face interviews to be conducted with a range of people across the four different companies. These interviews were to be the primary source of data for the case studies. Each of the three researchers were to be involved in conducting these interviews and it was agreed that an interview schedule should be developed to provide a common basis for the interviews across the sites. The schedule would be based upon those characteristics of a learning environment and the key indicators identified through the literature review and subsequently ratified by the advisory committee and the first industry forum. The intention was to move beyond theoretical or esoteric expressions of the learning organisation by focusing the investigation on practical examples, illustrations or consequences of workplace learning and change.

Both the Company Profile and the Interview Schedule that were developed in this process were trialed and modified. Nissan assisted in this regard by allowing the trial to be conducted at their site. The modifications required as a result of the trial were so minor as to allow the original interviews to be included in the final data collection, with the addition of another question in the Company Profile.

The original research design included reference to a survey to be conducted across the industry. The survey was to be based upon the questionnaires.
developed for the case studies and disseminated by post as part of the third stage of the research design. It was intended to gather data from a range of companies interested in workplace learning and the concept of the learning organisation. It was hoped that this industry-wide data might provide an industry-wide backdrop or contextual framework for the more grounded observations and insights of the four case studies.

As the project evolved, the practicalities of doing this effectively within the parameters of the project timelines and budget became increasingly apparent. This was the most significant area in which the emergent research design differed from the original plan. In the end, the team was forced to abandon the idea of the industry-wide survey. There were two main reasons for this decision.

First, the evolution of the interview schedule and the key indicators suggested the importance of investigating the qualitative elements in the workplace culture which help to shape learning in the workplace and the way workplaces, and the people in them, manage processes of change. The team believed that the questions they would want to ask would not be readily understood by companies that had not been involved in the earlier discussions.

Detailed questions about attitudes to learning, perceptions of change, conceptions of training and so on would be difficult for industry personnel to interpret if the questions were coming to them "cold" from outside the organisation, as would be the case in a postal survey. It was considered doubtful that an effective pen-and-paper instrument (as distinct from the human-instrument) could be developed to glean the information required. Then, even if this were possible, the application of such an instrument was also considered problematic.

The design of the project required responses not just from management representatives in each enterprise, but from a cross section of personnel from shop floor operators through to team leaders, supervisors and so on. The logistics of getting the surveys to the appropriate cross section of personnel and soliciting their responses were considered. The target population also included large numbers of people from non-English speaking backgrounds and previous research had established the limited amount of reading and writing (in English) undertaken by many of these people. Thus, a substantial survey document to be completed, in English, was seen to be inappropriate. On the other hand, an insubstantial document would be unlikely to address the qualitative aspects of the workplace which were of most interest to the team. All of these factors sowed substantial seeds of doubt about the earlier proposal for a postal survey.

The second reason the wider survey was abandoned was much simpler. An invitation for companies to participate in the research was included in Inside the Rmi, the newsletter produced by ATA for the automotive industry. This
newsletter is distributed widely throughout the automotive industry and was felt to be an efficient and effective way to reach potential participants. Delays, quite outside the control of the research team, occurred in the distribution of the newsletter to the point where project timelines would have been severely compromised if the survey was to go ahead. However, as it turned out, there were no responses to the invitation to participate. Subsequent informal feedback suggested there were some companies interested in the project. However, their production requirements and local priorities had made it difficult for them to commit themselves.

Thus, given the pressing project timelines, the perceived difficulties of implementing an effective postal survey and the apparent lack of interest, and after discussion with the Advisory Committee, the idea was abandoned.

(v) **Field Work**

Field work commenced in June, shortly after the second Advisory Committee meeting ratified the Interview Schedule. As planned, the primary means of enquiry was through the structured interviews each of about 45 minutes duration. In each case the list of respondents was negotiated with the company management on the understanding that a cross section of people was required.

The researchers were given free rein to talk to people but the selection, as noted above, was purposeful. Selection criteria which were considered in situ took into account such factors as the respondent's:

- position or role within the company;
- participation or non-participation in training (such as VIC);
- time with the company;
- involvement in any special projects, initiatives, change processes;
- union representation in the sample;
- gender balance in the sample.

An additional and important criteria which had to be taken into account, and which had to be managed on the spot, was the availability of respondents. On occasions a potential interview would become unavailable for reasons outside the researcher's control, and would have to be replaced by another. The researcher's task was to maintain the overall balance and purposive nature of the sample.

In one site some group interviews were conducted in the other three sites all interviews were one-to-one. The researcher invariably completed the Interview Schedule with the respondent usually seated by his side so that she or he could see what was being recorded. If there was any concern about the respondents capacity to read or interpret the Interview Schedule it was explained in clear terms. All interviews were conducted in English, no interpreters were used and there were no major problems in communication encountered. Respondents were encouraged to offer expansive or interpretive comments throughout the
interview and these were noted verbatim on the schedule. Tape recorders were not used except in the case of the group interviews.

In all, 76 interviews were conducted across the four enterprises. All three researchers were involved, with each of the team responsible for the interviews in one site and the three combining to complete the interviews at the fourth. There were some unavoidable delays in gaining access to some individuals for interviews, in the main these were due to the respondents' work commitments.

In each case the interviews were supplemented by some on site participant observation and researchers maintained field notes during their visits. The field work for one of the sites was delayed until mid October due to production requirements and the demands of some of the change processes, taking place within the company. Once access was possible the three researchers combined to conduct all of the required interviews on one day. This was another example of the emergent design differing from what was anticipated. In this case the number of interviews was also reduced, in response to the company's concerns about the amount of time which would be lost from production. It should be noted however that as with the other companies, this fieldwork was supplemented by an understanding of the company developed over a period of nearly three years.

The field work was completed by late October.

(vi) Analysis of data

Company profiles provided a good deal of information regarding each of the companies. Other data came from previous experience and knowledge of the companies, and extended interviews with individuals. This data was analysed individually and included in the case studies. Companies later had the opportunity to amend and change their profiles if they wished.

The quantitative data derived from the interview schedules was entered on a Microsoft Access, Version 2, database. The database allowed for cross referencing of the data for various questions. Thus, it was possible to examine data across companies to look for trends, interesting differences and similarities.

All the data was re-examined in terms of the descriptors 'employees' and 'staff', with managers, professionals, and para-professionals being described as staff and the remaining classifications being described as employees. This assisted in the analysis of the cumulative data and provided a different lens with which to view the data.

The qualitative data, including comments and statements made during the interviews, was analysed separately.
Negotiating outcomes

The fourth and final stage of the research design was based on the principle of negotiated outcomes.

By the phrase 'negotiated outcomes' is to imply that both the facts and interpretations that will ultimately find their way into the research report must be subjected to scrutiny by respondents who earlier acted as sources for that information, or by other persons who are like them. Of course, not all negotiations can end in agreement and one cannot expect an enquiry to produce findings that everyone could or would accept. But everyone does have the right to provide input on the subject of what are proper outcomes, and the enquirer has an obligation to attend to those inputs and to honour them so far as possible (Lincoln and Guba, 1985: 211).

This principle of negotiated outcomes was consistent with the idea that industry stakeholders involved in the research process would share 'ownership' of the results and the research report. It was hoped that the companies involved and the union would be prepared to endorse the case study representations of the work sites and help frame the recommendations for the final report.

The negotiation of the outcomes of the study involved several separate but related cycles of negotiation.

The stakeholders involved in each site were invited to consider their case study as a stand alone document. They were given the opportunity to make corrections, amendments, deletions and so on until such time as they were comfortable with the representation of their workplace. It should be noted here that this process involved more than the senior management personnel in each site. As far as possible the same range of stakeholders, if not the same individuals, that had contributed information in the first place were invited to make comment.

Once the individual case studies were negotiated and ratified the stakeholders then had the opportunity to consider the draft report in its entire form, with conclusions and recommendations drawn from comparative analysis of the four sites. Once again their comments were sought.

In a similar way the members of the project Advisory Committee were also invited to consider the draft report and make suggestions. In particular their interpretations were sought on the findings of the research and the possible wider implications for

- the automotive industry - manufacturing and repair, service and retail,
- other industries, and
- Vocational Education and Training - the system and its providers,
ANTA and VET policy directions; future research

When the draft report was ratified by the stakeholders involved at each enterprise and by the Advisory Committee it was finally presented to Automotive Training Australia. As the national training board for the automotive industry ATA gave its endorsement to the report.

The final report thus represents the collaborative work of the many individuals involved in these processes and a collective position endorsed by the automotive industry.

(viii) Drafting the final report

The draft literature review was used as the basis of discussion at the first industry forum. As a result of these discussions, further literature was obtained and included.

As each case study reached the first draft stage it was returned to the stakeholders in the companies for ratification. Alterations, additions and deletions were negotiated until the company and other stakeholders were comfortable with the document.

Results of the case studies were then analysed and compared to identify common threads, trends and/or differences. Subsequently a number of conclusions were drawn and recommendations made.

The first draft of the final report, including the introduction, background, methodology, literature review, analysis of accumulated results, conclusions and recommendations, was provided to the Advisory Committee for comment, suggestions and amendments. Changes were made before the second draft was sent to the companies for their ratification.

(ix) Second (wider) industry forum

It was expected that later in the project a wider industry forum would be conducted with the original forum participants and representation from other companies that had taken part in the postal survey. The purpose of this second gathering was to consider the findings of the research and solicit industry response. It was expected that this forum might also contribute to the development of recommendations to ANTA on behalf of the automotive industry.

At the third Advisory Committee meeting in September it was decided that the second of the proposed Industry Forums should be utilised to disseminate the findings of the research and launch the report.
This decision reflected the change in the research plan which saw the abandonment of the survey. The second forum was originally envisaged as an opportunity to bring together all of the players; those involved at the four sites for the case studies as well as those companies that participated in the survey. With the decision not to proceed with the survey the purpose of the second industry forum needed to be reconsidered.

It was decided that there would be more value in using the available funds to conduct a seminar for the industry to explain the nature of the research undertaken and its outcomes. The participating companies would contribute their perspectives on the research process and any recommendations emerging from the report could be canvassed with the industry.

At time of writing this forum/seminar is proposed for early 1996.
Chapter Four
Literature Review

4.1 Introduction

The importance of workplace learning that is linked to workplace change and development, has been identified by many different writers and researchers from many different disciplines. Economists see change that leads to innovation and productivity advance, as essential for economic development, management theorists see the need for more responsive, customer focused organisations, that are continually changing and learning; organisational sociologists identify the significance of internal labour markets and the development of career structures based on pay for skill and knowledge, and vocational education and training practitioners stress the need for the learning and development of individuals to underpin their participation in the workplace and the wider society.

Those directly involved in changing workplaces also have a diversity of perspectives on change. Companies see the need to develop new work practices to achieve higher productivity, structural efficiency and international competitiveness, and see training as assisting them to reach these goals. Unions want the skills of their members recognised, career paths established, portability of qualifications and access and equity in training. In examining the literature, these practicalities of the workplace need to be considered.

The literature highlights the importance of learning within organisations that are implementing or responding to change processes. Managing change is fundamental to notions of continuous improvement and development within organisations and is particularly relevant to the automotive industry in Australia. The ability of individuals within an organisation to learn and to subsequently change their ideas, attitudes and behaviours is centrally important in any change process.

There is virtually universal agreement on the importance of workplace learning and much advocacy and popular rhetoric (often quite colourful and imaginative) for learning within organisations and workplaces. However much of the literature is vague and ambiguous about precisely what kind of learning is desirable and how this learning can best be achieved.

The following review begins with an overview of the literature on organisational development and organisational learning. The views of various writers on these themes are considered and compared along with the concept of a learning organisation. In order to go beyond the advocacy literature, the features of a workplace learning environment are then identified in relation to change. A set of indicators of workplace learning is proposed to facilitate the investigation of learning in workplace settings. The final section of the review reframes the literature in relation to the characteristics of a workplace learning environment and the indicators which were adopted for the...
4.2 Organisational development and organisational learning

There is a large body of organisational development literature that advocates the development of a learning culture in enterprises [Senge (1993); Watkins & Marsick (1993); Macfarlane & Lomas (1994); Sharratt & Field (1993); McGill et al (1992)]. This literature stresses the necessity for organisations to transform the way they work and maintains that this has been precipitated by the need for international competitiveness. Mills & Friesen (1992.146) talk of the economic necessity of organisations transforming in ways that favor learning, responsiveness and innovation and the need for firms to consciously adopt such features, in a planned fashion.

Hodgetts, Luthans & Lee (1994:5) maintain that,

Successful organizations now drive quality up while pushing costs down, they make small production lots at the same cost per unit as long production runs; they focus increased attention on real-time strategy implementation; and they sidestep sequential work flow in favor of parallel work flow. Flexible, multi-skilled work forces break across the barriers formerly defined by rigid descriptors and functional departments.

Dodgson (1993:377) maintains that organisational learning encompasses both processes and outcomes. It can be described as the way firms build, supplement and organize knowledge and routines around their activities and within their cultures, and adapt and develop organizational efficiency by improving the use of the broad skills of their workforces and suggests that 'learning organizations' are those that purposefully construct structures and strategies so as to enhance and maximize organizational learning.

Much of this literature is however based on taken for granted assumptions (Smith, forthcoming 1995) that training and other human resource management measures, will enhance performance and productivity. Very little research has been done to back up these assumptions. Bandy et al (1985:5) note that productivity advance emerges as a result of social processes which govern our capacity to enhance the more proximate 'sources' of productivity but provide little indication of the nature of the social processes involved.

In one of the few studies of its type, Hage et al (1993) undertook a longitudinal study of 97 medium to large manufacturing firms to see how investments in knowledge effect plant survival. Their study (conducted between 1973-87) was based on an event-history analysis. They concluded that,

inadequate investment in knowledge is at the heart of the current problems of American competitiveness. Organizational leaders must reduce the costs of adaptiveness. To do this they need to invest heavily not just in research, but also in production system technologies and human capital, and to mobilise...
these investments by using more complex organizational forms (Hage, et al., 1993 243).

Garvin (1994-20) identifies the problem of a lack of operational concepts which relate learning, change and development to organisational adaptivity and productivity, and he raises the need for a

plausible, well-grounded definition of learning organisations...(that is) actionable and easy to apply (with) clearer guidelines for practice, filled with operational advice rather than high aspirations,...(and) better tools for assessing an organization's rate and level of learning.

His definition of a learning organisation is an organisation which is skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights (Ibid 20) He goes on to talk of the policies and practices that exist in a learning organisation for:

* systematic problem solving (using a scientific method, collecting data and using statistical tools);
* experimentation (searching and testing of new knowledge)
  - continuing series of small experiments (incremental gains); and
  - demonstration projects (holistic, system-wide changes at one site as a trial for possible wider application later);
* learning from experience (reflection on failures and successes);
* learning from others (systematic study of 'best-practice' organisations),
* transferring knowledge (variety of communication channels, job rotation, application of knowledge to practice on the shop floor),
* measuring learning (cognitive, behavioural and performance improvement) (Ibid.:21-27)

The first step, he maintains, is

to foster an environment that is conducive to learning . (with) ... time for reflection and analysis, to think about strategic plans, dissect customer needs, assess current work systems and invent new products open up boundaries and stimulate the exchange of ideas .(and) create learning forums (Ibid 28)

Garvin makes the link between continuous improvement and a commitment to learning, but says that, despite some progress, the topic in large part remains murky, confused and difficult to penetrate, maintaining that discussions of learning organizations have often been reverential and utopian, filled with near mystical terminology (Ibid 19)

Much of the literature on organisational learning and development is, as Garvin notes, long on the vision of 'the Learning Organisation' but short on such details as the kinds of investment in people, the type of production systems, work systems and technologies which will deliver the desired benefits of adaptivity and improved
Barriers to change and learning are often identified through the use of florid metaphor, but practical advice on the measures needed to promote learning is often lacking. Managements are confronted with new demands in the emerging paradigm of internal development for continuous change, but there is little practical advice available as to how to proceed.

Muller & Watts (1993 361-2) clearly separate vision and practice and identify two approaches to coping with the current period of accelerating change in business.

- **Modelling the world of imagination, vision, systems design, experimentation and using concepts.**
- **Muddling the world of learning, adapting and surviving and gradual improvement.**

They identify counter-productive responses to new management demands, such as:

* reducing costs which, they say, generally results in an increase in passivity in employees which remain towards any future survival strategies,
* restructuring (e.g. replacing senior management), but they note that senior management can be adept at using its power to protect itself,
* use of external 'saviours' in a centralised leadership approach,
* use of entrepreneurs to staff business units, an approach which, they say, can work if managers of adequate quality can be found, and if decentralisation is managed skilfully;
* use of better information technology which can disappoint as a result of undeveloped technology, over-complex systems or unimaginative management,
* quality control which is first a mentality and only second a capability and often dissatisfies as it may not reach the shop floor

Muller & Watts point out that alternative solutions to centralised leadership in bureaucratic hierarchies are being sought within organisations which combine capitalist thinking about production with a democratic distribution of power (Ibid 362) They talk of new ways of thinking for management with more emphasis on 'learning' as the focus for developing organisations (Ibid 363)

*More important than steering the course, or implementing the strategy, is knowing what the course or strategy should be. This means replacing the familiar notions of planning and controlling, staffing and steering with new concepts with chaos thinking, double-loop learning and self-organisation. These new concepts clearly imply new management methods (Ibid 362)*

Kofman & Senge (1993 8) identify three areas of cultural dysfunction in the current paradigm: fragmentation, competition and reactiveness, and maintain that,

*Redesigns that 'throw down the walls' between different functions may have little enduring effect unless they also change the fragmentary mental models that created the walls in the first place*
They lament the quick-fix mentality (that) makes us 'system blind' (and the consequent) lack of discipline needed for steady practice and deeper learning (and) the pervasiveness of a reactive stance in management evident in the fixation on problem solving (which leads to a) most pervasive leadership strategy in America -create a crisis, or at least a perception of crisis Crises can produce episodes of change. But they produce little learning (Ibid 10)

It is, they say, the triumph of reductionism and mechanical thinking (that) has given rise to a set of conditions for which they are no longer suited (Ibid 10) To counter these trends they advocate the collective building of 'learning organisations', which they perceive as a vision of a common system, noting however that there is no such thing as a learning organization (Ibid 16) as it is individuals and groups of individuals who learn

Other writers also advocate the notion of 'learning organisations' and have generated many and varied definitions (refer to Table 4.1) Many talk about the need for organisations to develop a culture where learning is inherent. For instance, Barham et al (1988, quoted in Edmonstone, 1990 252-3) defined learning organisations as

those where training and development had become intrinsic to the organisation, where learning was not restricted to discrete chunks of training activity (either fragmented or systematic) but where it had become a continuous process, where on-the-job learning had become a way of life. They were environments in which individuals would not only be empowered to learn new things, but also to learn about the process of learning itself

Edmonstone (1990 225) also notes that learning organisations must be inclusive in their approach to learning in order to be successful. He notes a
tension between 'self-development' and 'managerial' views of the learning organisation. The former is concerned with the development of all organisation members and tends to emphasise pay-offs to individuals. The latter tends to focus on managers (especially top managers) and emphasise pay-offs to the organisation

The learning organization concept, while not yet well-defined, seems to imply that organizations have strategies related to learning, that these strategies promote challenge to the status quo through the reframing process, and that this orientation is embedded in the cultures and structures of such organizations (Edmonstone, 1990 275)
Chapter Four

TABLE 4.1 Definitions of the 'Learning Organisation'

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
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<tbody>
<tr>
<td>An organization that is continually expanding its capacity to create its future. 'adaptive learning' must be joined by 'generative learning', learning that enhances our capacity to create. [Senge (1990)]</td>
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<td>An organisation grounded in three foundations (1) a culture based on transcendent human values of love, wonder, humility, and compassion; (2) a set of practices for generative conversation and coordinated action, and (3) a capacity to see and work with the flow of life as a system. [Kofman &amp; Senge (1993)]</td>
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<tr>
<td>Where training and development had become intrinsic to the organisation, where learning was not restricted to discrete chunks of training activity (either fragmented or systematic) but where it had become a continuous process; where on-the-job learning had become a way of life. They were environments in which individuals would not only be empowered to learn new things, but also to learn about the process of learning itself. [Barham et al (1988)]</td>
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<tr>
<td>Management teams change their shared mental models of their company, their markets, and their competitors. [DeGeuss (1988)]</td>
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<td>Where leaders develop employees who see their organization as a system, who can develop their own personal mastery, and who learn how to experiment and collaboratively reframe problems. [McGill, Slocum &amp; Lei (n.d.)]</td>
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<td>Where members of the organisation act as learning agents for the organisation, responding to changes in the internal and external environments of the organisation by detecting and correcting errors in organisational theories-in-use and embedding the results of their inquiry in private images and shared maps of organisation. [Argyris &amp; Schön (1978)]</td>
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<tr>
<td>An organisation which facilitates the learning of all its members and continuously transforms itself in order to meet its strategic goals. [Pedler et al (1988)]</td>
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<td>One that has embedded a continuous learning process and has an enhanced capacity to change or transform. This means that learning is a continuous, strategically-used process - integrated with, and running parallel to, work - that yields changes in perceptions, thinking, behaviours, attitudes, values, beliefs, mental models, systems, strategies, policies and procedures. [Watkins &amp; Marsick (1992)]</td>
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<td>True learning organizations are moving beyond the idea of competitive advantage toward collaborative advantage. You learn whenever, wherever and from whomever. [Flood (1993)]</td>
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<tr>
<td>An organisation which is skilled at creating, acquiring, and transferring knowledge, and at modifying its behavior to reflect new knowledge and insights. [Garvin (1994)]</td>
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<tr>
<td>Those that purposefully construct structures and strategies so as to enhance and maximize organizational learning - the way firms build, supplement and organize knowledge and routines around their activities and within their cultures, and adapt and develop organizational efficiency by improving the use of the broad skills of their workforces. [Dodgson (1993)]</td>
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<tr>
<td>Encompasses the capacity to create and break paradigms when they are no longer appropriate, and to look constantly towards a higher-order capability beyond the old. [West (1994)]</td>
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</table>
Discussing the link between organisational learning and organisational strategy, Pedler (1988) talked of the learning organisation concept as

*a vision of an organizational strategy to promote self development amongst the membership and to harness this development corporately by continuously transforming itself as part of the same process*

Pedler, Boydell & Burgess (1988.92) develop this point and define a learning organisation as *an organisation which facilitates the learning of all its members and continuously transforms itself in order to meet its strategic goals* and talk of the need to enhance problem-solving capacity through individual and organisational self-development. The Learning Company they say is one in which learning and working are synonymous.

Argyris & Schön (1978-29) take a psychological perspective on organisational defences which may inhibit learning and maintain that organisational learning occurs when

*members of the organisation act as learning agents for the organisation, responding to changes in the internal and external environments of the organisation by detecting and correcting errors in organisational theories-in-use and embedding the results of their inquiry in private images and shared maps of the organisation*

They suggest a gap between espoused theories and theories-in-use and use the concept of single-loop and double-loop learning which describes the difference between surface causes and governing variables. Double-loop learning implies a challenge to the assumptions and/or values, vision and even the mission of the organisation.

Garrett (1987) discussed the link between organisational learning and organisational structure and maintained that a learning organisation is characterised by:

- a 3-level hierarchy of policy, strategy and operations,
- a double loop of learning which allows multiple feedback from information flows, direction-giving and the monitoring of changes in the external and internal environments;
- a means of processing and integrating these information flows by positioning the direction-givers at the centre of the organisation's learning

Continuous improvement might imply a simple link with continuous learning but Meyer (1982) found that continuous learning strategies alone were not sufficient to create a learning organisation and believed that an organisation must also be able to transform itself. He maintained that the gap between values and actions can suppress learning and escalate use of control strategies (Argyris, Putman, Smith (1985)) and indicated that in his view a learning cycle can be triggered by:

1. jolt/surprise (Meyer (1982))
2. new experiences (March & Olsen (1988))
3. detection of error - mismatch between organisation's theories and theories-in-use (Agyris & Schon (1978))
4. gap between current reality and one's vision (Senge)
5. designing future scenarios

Attwood and Beer (1990) reflect upon the idea of continuous learning in their work with managers and health professionals in the UK. They emphasise the need to prepare managers for new roles and to ensure their commitment to and knowledge about necessary organizational change (Attwood and Beer, 1990: 235) and then to use them to draw non-managerial staff into learning organization thinking and practice (Attwood and Beer, 1990: 244). They talk of management creating a framework which gives individuals freedom to operate so that,

* make proposals,
* challenge more senior management,
* be heard;
* be allowed to learn and be seen to be learning,
* have responsibility for their own learning;
* identify their own learning needs and choose methods of meeting them;
* have differences between different parts of the organization as legitimate,
* hold views which are at variance with others in the organization, have these views debated freely, and at the end of the debate continue to hold them,
* make cross function/cross department/cross unit contacts without consulting more senior line management;
* receive feedback and have an open discussion about one's own performance with one's boss;
* give direct feedback about ways in which the boss's performance assists or constrains their own performance,
* be supported in the foregoing by their managers and the organization

Hodgetts et al (1994: 12) specifically discuss the link between continuous learning and continuous improvement. They discuss learning organisations in relation to TQM and talk about some companies that

* have moved from a total quality approach to a learning approach because they not only adapt to change, but they learn and stay ahead of change. They are not content simply to build products to meet quality expectations, they are continually increasing quality in order to exceed and anticipate customer demand (authors' emphasis)

They note that in a TQM setting, empowerment gives employees a means to serve customers better. In a learning organization, empowerment stimulates learning and
creativity (Ibid 12) and maintain that the key characteristics of a learning organisation are that members have.

* the intense desire to learn (overriding characteristic),
* a strong commitment to generating & transferring new knowledge and technology,
* openness to the external environment,
* developed values that emphasise shared vision and systems thinking

They note that systems thinking focuses attention on the interrelationships between causes and effects, thus avoiding short-term solutions that do not address long-term (systemic) problems (Ibid 13)

The specific techniques that they associate with learning organisations are identified as being

1. **Dialogue** - technique for helping individuals put aside basic differences
2. **Scenario analysis** - an exercise that forces managers to think through how they would respond under different possible future scenarios
3. **Process Reengineering** - organising operations by process rather than by function of individuals (what needs to be done rather than who needs to do it) (Ibid 13)

They maintain that it is necessary for companies to move beyond learning organisations and become world-class and that, to become world-class an organization must excel in most of the dimensions that are important in both total quality and learning organizations (Ibid 14) Their description of this type of organisation is summarised in Table 4.2

Continuous learning may be simply seen as a human resource management function, as the outcome of human resource management policies and strategies Several writers pursue this link Sharratt & Field (1993 139) look at the concept of a 'learning organisation' as an idealised goal and the notion of 'organizational learning' as the process of pursuing this goal They maintain that for too long training has been viewed as simply an 'input' with little interest in a holistic view of outcomes They envision a new role for HRD professionals in facilitating self-discovery and learning, a role that will demand a considerable shift in thinking (which) focuses on producing a more flexible and adaptable individual who can think independently and cope with high levels of ambiguity Clearly this approach is grounded in quite different thinking from that which produced the Training Guarantee Legislation and the present rush to competency-based training in Australia (Ibid 140) Unlike some other writers on the topic who concentrate solely on managers and leaders, they maintain that the process of moving towards the goal of a learning organisation will require involving the general workforce
<table>
<thead>
<tr>
<th>Table 4.2: World class organisations</th>
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</thead>
<tbody>
<tr>
<td><strong>Customer based focus</strong></td>
</tr>
<tr>
<td>- Shared vision for customer service</td>
</tr>
<tr>
<td>- Shared ownership of the customer service tasks and solutions</td>
</tr>
<tr>
<td>- Organisational structure processes, and jobs designed to serve the customer</td>
</tr>
<tr>
<td>- Empowered teams for generating new ideas and approaches to improve customer service</td>
</tr>
<tr>
<td>- Information systems designed to monitor and predict the changing needs of the customer</td>
</tr>
<tr>
<td>- Management systems that ensure prompt translation of the customers' requirements to organisational actions</td>
</tr>
<tr>
<td>- Compensation systems designed to reward employees for excellent service to customers</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Continuous improvement on a global scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Rapid improvement prototyping</td>
</tr>
<tr>
<td>- Benchmarking/best-in-class</td>
</tr>
<tr>
<td>- Business process reengineering</td>
</tr>
<tr>
<td>- Empowerment of employees</td>
</tr>
<tr>
<td>- Corporate strategies for knowledge asset expansion</td>
</tr>
<tr>
<td>- Outsourcing, rightsizing</td>
</tr>
<tr>
<td>- Innovation-based reward systems for employees</td>
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<tr>
<th>Fluid, flexible or &quot;virtual&quot; organisation</th>
</tr>
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<tbody>
<tr>
<td>- Virtual organisation (outside sourcing &amp; formation of temporary alliances)</td>
</tr>
<tr>
<td>- Modular organisation</td>
</tr>
<tr>
<td>- Matrix organisation</td>
</tr>
<tr>
<td>- Multi-functional teams</td>
</tr>
<tr>
<td>- Simultaneous processing of ideas</td>
</tr>
<tr>
<td>- Multiple skilled workers</td>
</tr>
<tr>
<td>- Empowered teams</td>
</tr>
<tr>
<td>- Cross-training, job rotation</td>
</tr>
<tr>
<td>- Innovative approaches to cycle time reduction</td>
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<tr>
<th>Creative human resource management</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Shared ownership of problems and solutions</td>
</tr>
<tr>
<td>- Intrapreneurship</td>
</tr>
<tr>
<td>- Constant training</td>
</tr>
<tr>
<td>- Experimentation, failure-based promotion</td>
</tr>
<tr>
<td>- Employee involvement/suggestions</td>
</tr>
<tr>
<td>- Multi-functional teams</td>
</tr>
<tr>
<td>- Empowered teams</td>
</tr>
<tr>
<td>- Effective recognition/reward systems, gainsharing</td>
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<tr>
<th>Egalitarian climate</th>
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<tbody>
<tr>
<td>- Shared vision/information</td>
</tr>
<tr>
<td>- Holistic view of employees</td>
</tr>
<tr>
<td>- Open communication</td>
</tr>
<tr>
<td>- Business ethics, community citizenship</td>
</tr>
<tr>
<td>- Environment-friendly systems</td>
</tr>
<tr>
<td>- Mentoring, coaching, buddy system</td>
</tr>
<tr>
<td>- Employee involvement/participation</td>
</tr>
<tr>
<td>- Sponsored community, wellness, and family programs</td>
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<table>
<thead>
<tr>
<th>Technical support</th>
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<tbody>
<tr>
<td>- Modern information/telecommunication systems</td>
</tr>
<tr>
<td>- Technology-human interface</td>
</tr>
<tr>
<td>- Distributed information/database system</td>
</tr>
<tr>
<td>- Shared ownership of information</td>
</tr>
<tr>
<td>- Pushing decision making down to the lowest level possible</td>
</tr>
<tr>
<td>- Continuous technical training</td>
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</table>

Watkins & Marsick (1992:118) see the learning organisation as a niche for human resource developers as it brings together the two primary foci for this field: learning and the workplace context in which it occurs. They believe that,

Organisations... learn through individuals, but only when that learning is socially constructed, shared, and used to make a difference in larger social units or subdivisions of the organisation, or...in the entire organisation.

They define a learning organisation as

one that has embedded a continuous learning process and has an enhanced capacity to change or transform. This means that learning is a continuous, strategically-used process - integrated with, and running parallel to, work - that yields changes in perceptions, thinking, behaviours, attitudes, values, beliefs, mental models, systems, strategies, policies and procedures (Ibid.:128).

Learning, they say, is both incremental and transformational, and that

Learning when to change, when not to; how to stabilise the organisation in turbulent times; and how to create a clear direction and aim towards it amidst a typhoon are as important as learning how to become a different organisation in order to respond to different times (Ibid.:125).

They warn that change efforts that do not become integrated into the fabric of daily life in the organization were probably not worth the original effort to set them in motion and advocate an incremental model, a kind of chipping away at obstacles that inhibit learning. The learning organisation they say is often accomplished in micro ways by helping individuals pursue their natural curiosity, by creating structures that permit learning, and by encouraging relationships that foster learning. (Watkins & Marsick,1993.277)

They examine a model for continuous learning and ask the question 'What will be different in the learning organisation?' In answer to this question they look at the indicators on the level of the individual, the team, the organisation and the society (Ibid..259) and then use these indicators as measures for auditing the learning organisation (Ibid .271-2). This is summarised in Table 4.3
### Table 4.3: Learning organizations

<table>
<thead>
<tr>
<th>Level</th>
<th>What is different in a learning organization?</th>
<th>Measures for auditing the learning organization</th>
</tr>
</thead>
</table>
| **Individual** | * learning, canned, sporadic & faddish  
* learning not coherently integrated or sequential  
* learning helplessness                                                                                      | * employee skills database,  
* developmental plans to build future skill threshold,  
* action learning that ties learning to work                                    |
|           | From                                                                                                    | To                                                                                                                                                  |
|           | * learning, focused on task accomplishment, no attention to process  
* rewards for individuals, not teams  
* compartmentalization                                                                                      | * problem solving skill,  
* collaborative skill,  
* diversity embraced,  
* blame, fear, reprisals for mistakes reduced,  
* partnering with customers internal, external, societal,  
* number, fluency, & uniqueness of team inventions, ideas, products, processes |
| **Team** | * learning superficial, unconnected to previous skills, truncated  
* learning through structural reorganizations without regard to learning barriers created, structural rigidity | * learning that builds over time on previous skill attainment  
* creation of flexible structures to enhance learning for everyone                                    |
|           | From                                                                                                    | To                                                                                                                                                  |
|           | * learning, focused on group development, building collaborative skills  
* rewards for teams, whole divisions  
* cross-functional, self-directed work teams                                                                     | * total employee involvement & a culture of empowerment,  
* systems to capture & share learning,  
* increases in percentage of knowledge workers reduced  
* cost per worker to upgrade knowledge level of entire workforce,  
* cost per patent,  
* time to market per patent,  
* number of patents increased,  
* increased percentage of organizational assets dedicated to the new economy |
| **Organization** | * unawareness of impact on society of policies, tunnel vision  
* attempts to control societal influence                                                                      | * global awareness & responsibility,  
* environmental index of public monitoring of accident rates, safety violations, EP violations, stress-related costs to employee benefits,  
* index of corporate social responsibility, increased quality of work life (family-friendly policies, long-term mutual commitments, wellness programs, professionalization of the workforce, total corporate spending for social benefit programs) |
|           | From                                                                                                    | To                                                                                                                                                  |
|           | * acknowledgment of interdependence & work to improve society generally  
* constant scanning & projecting of future trends while working to build a desirable future                  | * increased awareness & responsibility,  
* environmental index of public monitoring of accident rates, safety violations, EP violations, stress-related costs to employee benefits,  
* index of corporate social responsibility, increased quality of work life (family-friendly policies, long-term mutual commitments, wellness programs, professionalization of the workforce, total corporate spending for social benefit programs) |

Smith (forthcoming 1995 14) focuses specifically upon training practices and notes that training is a process that cannot work in isolation from its context at enterprise level. He adds,

To the extent (that) training is a result of an identified strategic need, complements the introduction of new technology, is accompanied by appropriate changes to work organisation, takes place in a climate of participation and trust and is linked to structured progression for employees, it will result in performance improvements for the enterprise. To the extent that one or more of these factors are not addressed as part of the training process, then the impact of training on the performance of the enterprise will be reduced.

Results of Smith's research show that,

Regardless of the quality of the training product in terms of design, delivery and evaluation, it is the relationship of the training to other factors in the enterprise that will ultimately determine its impact on performance (Ibid 24)

Other writers develop a global or systems view of the 'Learning Organisation'. Senge (1990.14) defines a 'learning organization' (as) an organization that is continually expanding its capacity to create its future 'adaptive learning' must be joined by 'generative learning', learning that enhances our capacity to create. He maintains that the disciplines of the learning organization have five new component technologies (Ibid 6-10).

1. Systems thinking - contemplating the whole, rather than individual parts,

2. Personal Mastery - continually clarifying and deepening personal vision, focusing energy, developing patience and seeing reality objectively,

3. Mental models - understanding and modifying the deeply ingrained assumptions, generalisations, etc that influence understanding of the world and what action is taken,

4. Building shared vision - a set of principles and guiding practices that form shared 'pictures of the future' that foster genuine commitment and enrollment rather than compliance, which starts with 'dialogue' and 'thinking together' Senge makes the comment that unless teams can learn, the organization cannot learn.

5. Team learning -

The fifth discipline in this set is systems thinking as it integrates the disciplines, fusing them into a coherent body of theory and practice. It continually reminds us that the
whole can exceed the sum of its parts (Ibid. 12) He quotes an example

Dividing an elephant in half does not produce two small elephants. Living systems have integrity Their character depends on the whole. The same is true for organizations, to understand the most challenging managerial issues requires seeing the whole system that generates the issues (Ibid. 66)

Learning, in the sense used by Senge, involves a fundamental shift of mind or metanoia He maintains that being in a supportive environment can help, but it does not obviate the need for choice Learning organizations can be built only by individuals who put their life spirit into the task (Ibid. 360)

Senge focuses his discussion around the role of managers/leaders and talks of the paradoxes of leadership in learning organizations - that it is both collective and highly individual (Ibid 360) Kofman & Senge (1993. 17-20) continue to focus on the role of key operational managers and talk of ideas such as servant leadership, integrating learning into work and transformational learning.

DeGeuss (1988:70) shares Senge’s vision-centred view of organisational learning and development and defines ‘institutional learning’ as the process whereby management teams change their shared mental models of their company, their markets, and their competitors

Adlam & Plumridge (1990:174-175) explore the relationship, and the tensions, between self-development and organisational effectiveness and conclude that, only by creating a caring, supportive culture will organizations be able to transform themselves into learning systems capable of innovation and constant self-renewal. They maintain that organisational leaders and managers need to adopt a stance which goes beyond the acquisition of skills and depends upon a value position which states ‘I can always learn to do things better and I can learn from anyone’ and ask the question -

(Do organisations). really have the values necessary for them to be truly committed to learning, development and support and do they have the skills to provide the environment to help constituent members derive learning from their work and life experience? (Ibid 175).

They also note that

the current debate in management circles around so-called competencies and their development is apt either to make assumptions about the values underpinning such competencies or to overlook them altogether (Ibid. 174)

For them the development of applied ethics represents a very real departure for the promotion of each organization’s health and effectiveness (Ibid 174)

Mills and Friesen (1992 147-8) describe three essential characteristics of a learning
organisation as being:

* a commitment to knowledge, that is to
  - learning, not just teaching,
  - research,
  - discussions/seminars
  - systematise what is learnt and make it accessible to others through practices and procedures and by publishing for outside others.

* a mechanism for renewal within itself:
  - power to abolish or transform
  - systematic method of identifying need to transform
  - established procedures for taking large scale action

* an openness to the outside world
  - responsiveness
  - access to new knowledge, new technology & processes
  - changing needs of customers & suppliers

They comment that All organizations learn but some don’t learn fast enough to survive (Ibid.155) and maintain that in order to become a learning organisation an organisation must teach its employees how to learn and reward them for their success in learning. Mechanisms for achieving these ends are, they say, to:

* adopt a flatter management structure
* introduce changes in roles and expectations of workers, executives and middle managers by:
  - empowering employees with autonomy that permits innovation to emerge
  - ensuring that executives make less rather than more decisions, and exert fewer controls over workers
  - changing the role of middle managers from supervision to facilitation (Ibid.:150)
* develop human resources policies and practices in areas of hiring, education and incentives to learn (Ibid.156)

McGill, Slocum & Lei (1992:16) believe that

building learning organizations requires that leaders develop employees who see their organization as a system, who can develop their own personal mastery, and who learn how to experiment and collaboratively reframe problems

They talk of the differences between adaptive and generative/transformative organisations and focus specifically on the management practices and behaviours in learning organisations.
The key ingredient lies in how organizations process their managerial experiences. Learning organizations/managers learn from their experiences rather than being bound by their past experiences. (They note that) ... adaptive organizations experience events only one at a time, and this exclusive focus limits learning to that level.

Management practices in generative learning organizations, however, focus on the process of learning (Ibid. 10) (authors’ emphasis). They identify five dimensions of management practices and behaviours in generative learning organizations (Ibid 11-16) which are summarised in Table 4.4.

Table 4.4: Management practices & behaviours

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Manager behaviour</th>
<th>Management practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Openness</td>
<td>* willingness to suspend control</td>
<td>* commitment to diversity in selection, development &amp; promotion</td>
</tr>
<tr>
<td></td>
<td>* cultural-functional humility</td>
<td>* multi-functional &amp; cross-functional work groups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* conflict-surfacing, conflict resolving skills</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* availability of all information to all members</td>
</tr>
<tr>
<td>Systemic thinking</td>
<td>* ability to see connections between issues, events &amp; data points - the whole rather than the parts</td>
<td>* sharing of accurate histories - sense of temporal continuity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* importance of relationships based in information, goods &amp; services exchanges, and feelings</td>
</tr>
<tr>
<td>Creativity</td>
<td>* personal flexibility</td>
<td>* long-term reward policies</td>
</tr>
<tr>
<td></td>
<td>* willingness to take risks</td>
<td>* mobility across divisions &amp; functions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* growth-oriented personal development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* a supportive 'clan' culture</td>
</tr>
<tr>
<td>Personal efficacy</td>
<td>* belief that they can and should significantly affect their world</td>
<td>* clear vision</td>
</tr>
<tr>
<td></td>
<td>* actively self-aware</td>
<td>* celebrating what people do that makes a difference</td>
</tr>
<tr>
<td></td>
<td>* proactive problem-solvers</td>
<td>* linking learning to action</td>
</tr>
<tr>
<td>Empathy</td>
<td>* sensitive</td>
<td>* strong sense of ethics in dealing with employees and customers/clients</td>
</tr>
<tr>
<td></td>
<td>* concerned for human nature</td>
<td>* active corporate citizenship</td>
</tr>
<tr>
<td></td>
<td>* interested in (and capable of)</td>
<td>* recognition and encouragement of employee contribution outside the workplace</td>
</tr>
<tr>
<td></td>
<td>repairing strained relationships</td>
<td>* willingness to take responsibility for relationships</td>
</tr>
</tbody>
</table>

They note that generative learning in many ways works against the experience and training of managers accustomed to reward systems and cultures that foster adaptive learning and warn that the process of 'un-learning' previous mindsets is a difficult task in itself. They conclude that inculcation of such organizational features as empathy, humility, and personal efficacy are vital first steps to help the firm move away from static, risk-averse patterns of behavior to proactive, risk-taking learning (Ibid 16).

Flood (1993) talks of learning organisations as those which
* empower people to take charge of their own careers and destinies
* encourage people to question and challenge outmoded assumptions
* release the tremendous potential latent in employee teams
* develop systemic processes to learn from mistakes
* instil a climate of trust, humility, innovation
* celebrate success
* look outwards - customer, supplier, other organisations - as opportunities for the mutual exchange of knowledge

True learning organizations are moving beyond the idea of competitive advantage toward collaborative advantage. You learn whenever, wherever and from whomever (Ibid '4)

Some writers sceptical of the systems view, note that the learning cultures of organisations exist within broader national cultures. These national cultures have important effects upon the way that learning is approached.

Muller & Watts (1993 363-364) note that the concept of 'learning organisation' is strongly influenced by the cultural assumptions of a country and cite examples from the US, Japan, Europe, Germany, France and the Netherlands. In US culture, they maintain, the individual is the 'hero', exploring new frontiers and learning by experience. This has led to approaches to learning processes such as Kolb's learning cycle, the Argyris learning loop, and Schon's concept of the reflective practitioner. Gaining credence in the US is Senge's concept of systemic thinking, with the stress on 'dialogue' and 'work in teams' as key processes for learning. There is also less well accepted work being carried out in the area of the management of diversity.

In Japan, where vocational education and lifelong learning is deeply rooted, self-discipline, and self-perfection are religiously based and easily combined with a work ethic of 'giving one's best'. They give an example taken from the Japanese approach to quality management which, is often described, in learning terms, as an incremental cyclical learning process (e.g. the 'Kat Zen' approach) which takes place strictly within given limits of stated goals, norms and cultural assumptions. There is room for manoeuvre within the boundaries but the boundaries cannot be shifted.

They note, however, that think tanks in Japan are now beginning to discuss concepts such as double-loop and transformational learning which they see are necessary for technical and organisational innovation.

The British were the first to focus on the concept of the learning organisation, but 'systems thinking' is not a feature of the literature to date and the UK is not strong on learning across boundaries like function and class. In Germany notions of the learning organisation appear to co-exist with cultural values like low power distance, team-work, self-
By way of contrast Muller & Watts talk of the French as basing learning on Cartesian logic and precision, but with post-modernism and 'open space learning' making progress, and the Dutch as favouring a pluralist approach which combines American and Japanese concepts of management with 'collective learning processes' and, more currently, entrepreneurship and self-development.

4.3 Workplace learning & change: workplaces as learning environments

In order to talk more accurately and meaningfully about learning in the workplace, an operational list of characteristics of a workplace learning environment has been crafted from the literature. The features of research work on the new forms of internal development in organisations (work on organisational learning, the development of internal organisational labour markets, and the development of organisational cultures) have been combined in this list. These characteristics have been grouped under the following headings

* The Acquisition, transfer and use of knowledge examines the way new knowledge is acquired and transferred across an organisation and the relationship of formal training to the introduction of new technology, the organisation of work, and the systems, technology and work practices that exist in that environment.

* Links between workplace learning and change are not accidental in workplaces which see training and the development of a learning culture as essential to their well being, this section explores the nature of the learning and the strategic links between workplace learning and change processes.

* The Workplace Culture looks at aspects of the climate or environment in the workplace, particularly as indicated by the degree of participation, trust, confidence and openness of the organisation.

* The Organisation of Formal and Informal Workplace Learning scrutinises the policies, formal agreements, procedures and opportunities for formal training and informal learning within the workplace and the career paths that exist within a company.

A set of indicators has also been developed. Use has been made of the concept of sets of opposites as introduced by Laur-Ernst (1993:42-43) in her discussion on the didactics of in company learning where she talks of the guidelines for designing learning situations which are oriented towards sets of opposites She goes on to describe five sets of opposites which emerge in a variety of strengths and permutations in complex real-life situations.
Proximity and distance: learners are immersed in real-life operations, directly involved in the technical and social processes taking place with the company and perceive themselves within this interrelational context. But they also need distance to appreciate the overall perspective, to find their bearings, to position themselves and their own work within the overall process.

Concreteness and abstractness: learners have to cope with the work situation and job assignments with which they are confronted, become familiar with a wide range of work problems, find out what certain work process involve, how to tackle the work, how the work is structured and organised. This company-specific experience and knowledge is abstracted step by step and to various degrees to single out the main features and their interrelations, i.e. its regularities and structures are made intelligible to them. It thus acquires an interdisciplinary, general significance and facilitates comparison, adaptation, transfer and change.

Routine and innovation: any occupational activity has some repetitive elements; learners gradually learn these routines, starting with simple skills and going on to execute complex tasks. Routine is mentally less strenuous, one no longer needs to think about how to execute these tasks. Alongside this, and apparently far more frequently than in the past, workers are confronted with new, unusual situations. These call for improvisation and innovative solutions because they defy familiar rules and the lessons of experience. They have to develop both the ability to handle routine work and the ability to be flexible and creative in coping with situation and tasks.

Action and reflection: learning within a work context means taking action, becoming actively involved in order to make a decision, to design, to process. Practical assignments are a challenge to act, the subsequent action is of differing quality depending on the stage of learning reached. Practised action has to be reflected on, reconsidered, analysed and evaluated with a view to its impacts, functionality and quality. This is something trainees also have to learn. This feeding-back of experience, this analysing of action procedures and their result, the comparing and contrasting of different approaches and strategies promotes action which is deliberate, well targeted and flexible.

Intentional and spontaneous learning: training is organised and learning processes are designed in such a manner that the goal targeted by the trainer is reached by as many learners as possible. The subject matter to be learned is not left to chance. Every trainee should attain at least the prescribed qualification standard. Alongside this intentional learning, a spontaneous, individual type of learning usually also takes place, a type of learning which is usually not - or only indirectly - subject to 'control'. Informal, unplanned learning is noticeable in open situation, when no one points the way to the answer, when the learner works out how to handle the problem.

In the same sense, the indicators that have been developed for this study are presented.
in pairs that are not intended to be mutually exclusive, nor is there necessarily any
direction between them These indicators are used heuristically to identify features of
the characteristics, which may be found in the case studies of actual workplaces
reported in this study. They are expected to provide a set of multiple and interrelated
lenses through which to view the workplace, and are expected to reveal patterns which
will help in the construction of rich descriptive case studies. They have been
developed from the literature, and are based upon concepts found in the literature.
They are listed in Table 4.5 and discussed within the framework of the characteristics
of a workplace learning environment in the following sections.

Within the table the indicators have been clustered alongside the characteristics of the
workplace learning environment to which they most apply. However some of the
indicators may refer to multiple groups of characteristics. For instance, evidence of
transformative learning might be most relevant to links between workplace learning
and change. However it may also indicate something about the culture of the
workplace or perhaps the way knowledge is acquired and transferred within the
environment. Thus the indicators do not necessarily correspond in direct one-to-one
relationships with the characteristics of workplace learning environments which are
identified in the table.

(i) Acquisition and use of knowledge

Several writers put stress upon the way that processes of internal change and
development require the redrawing of internal boundaries [Garvin (1994),
Hodgets, Luthans & Lee (1994) and Mills & Friesen (1992)]. Boundaries that
were established to support one model of organisation (eg an internal
bureaucracy managing an internally stable and unchanging environment) are
not suitable for managing other forms of organisation. Hodgets, Luthans & Lee
(1994, 16) list the various forms of organisation that have been attempted, to
deal with internal reform. These include, the Virtual Organisation, the Modular
Organisation, the Matrix Organisation, and the Multi-functional Team Based
Organisation.

Whatever structure they may adopt, internally dynamic enterprises become
skilled at internal reform, they have the capacity to reform boundaries to suit
new enterprise demands. Hendry (1990) and Hirschhorn & Mokray (1992) refer
to this process as changing the role structure of the enterprise. Management’s
role in the enterprise is to facilitate the creation of an appropriate role structure
so that work may be done, rather than to provide intensive and intrusive
supervision of employees. Concluding their study of workplace competency in
electronics manufacturing, Hirschhorn & Mokray (1992:28-9) state

In general, we found that direct personnel felt competent when the
wider system of work and organization supported rather than disrupted
their activities. By contrast, the indirect staff [felt competent]
when they could communicate information and ideas to help shape a
context that facilitated the direct personnel’s work. The context, the set
of relationships was their work.
### TABLE 4.5: A framework for investigating workplace learning and change

<table>
<thead>
<tr>
<th>Characteristics of a workplace learning environment</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acquisition, transfer &amp; use of knowledge</strong></td>
<td></td>
</tr>
</tbody>
</table>
| * groups and individuals are skilled at creating, acquiring and transferring knowledge, and at modifying their behaviour to reflect new knowledge and insights, *  
  * the transfer and application of new knowledge and insights in the workplace includes movements across and between organisational hierarchies, functional areas and traditional barriers (eg trade/non-trade). | reforming internal boundaries to facilitate knowledge transfer - learning within functional units with knowledge held by expert individuals  
monitoring & transfer of new learning into new practices - lack of interest in new learning |
| **Links between workplace learning & change**       |            |
| * employees at all levels have an understanding of their job in relation to the whole of the plant/company/enterprise/industry, *  
  * learning programs - complement the introduction of new technology;  
  * are linked to appropriate changes in work organisation,  
  * are contextualised to the workplace systems, technology, & work practices,  
  * provide enquiry-based experiential learning,  
  * promote reflection on practice,  
  * are developed collaboratively with all stakeholders,  
  * have holistic, performance-based assessment processes | transformative learning - accumulative learning  
holistic thinking - reductionist thinking  
embedded technical knowledge - task specific learning |
| **Cultural factors**                                |            |
| * a climate of participation and trust *  
  * tolerance of divergent views, *  
  * openness to new ideas from internal and external sources, *  
  * preparedness to share information and ideas (internally & externally) *  
  * valuing workplace knowledge, skills & experience | trust/confidence - distrust/suspicion  
maintenance & repair of relationships - lack of interest in relationships  
dissension tolerated - concurrence expected  
organisational openness - insularity  
collaboration/cooperation - running with separate/independent agendas |
| **Organisation of formal and informal workplace learning** |            |
| * company policies exist in terms of an internal labour market for promotion and higher skilled jobs, *  
  * recognised procedures exist for identifying existing skills and future skill requirements, *  
  * opportunities for formal and informal learning are created for all employees, *  
  * training - is the result of identified strategic needs, *  
  * is linked to structured progression for employees *  
  * occurs within agreed parameters and has agreed rewards and benefits for participants as well as for the enterprise, *  
  * is equally accessible to all employees, *  
  * is monitored in terms of productive outcomes for the company and the individual, *  
  * the above are formalised (eg a training agreement in an EBA, Company policies, Consultative Committee minutes), are part of accepted practice within the Company, and are understood by all employees | internal development of knowledge, skills & people - external acquisition of knowledge, skills & people  
formal career structures - informal career structure/progression  
development for all - development of selected individual  
identified strategic needs - reactive needs identification  
structured opportunities for learning - learning is informal & incidental  
time is available for employee participation/training - time is fully utilised on production/work |
Whilst Hendry (1990:39) says that *The proper (management) concern is with intersecting roles and labour markets, internal and external to the firm, not with a single focal skill group.*

The Australian Manufacturing Council (1988:13) agrees that internal reform and changing role relationships go together and comments that *Workforce commitment, group skills, less authoritarian supervision, and greater participation and self-motivation need to replace old directive relationships.*

Enabling learning environments, built upon an adequate structure of work roles, facilitate the transfer of knowledge across functional boundaries so that employees are aware of the up-stream and down-stream consequences of change. When the interdependencies of the production chain are brought to the fore a *dynamic complementarity* (Hirschhorn & Mokray 1992) of the knowledge and skills of different groups within the enterprise is established.

Mills & Friesen (1992) and Garvin (1994) discuss the importance of establishing expert groups, in order to deal with all the contingent interdependencies of the production chain. They posit that the knowledge transfer to groups (task forces, project teams, work groups, consultative committees, continuous improvement groups, etc.) can open up boundaries and so can be used to effectively plan and implement changes. Garvin (1994:28) says that

> opening up boundaries, with conferences, meetings, and project teams, which either cross organizational levels or link the company and its customers and suppliers, ensures a fresh flow of ideas and the chance to consider competing perspectives

The indicator, *reforming internal boundaries to facilitate knowledge transfer - learning within functional units with knowledge held by expert individuals* is intended to capture the development of flexible boundaries within the enterprise.

There are significant implications for workplace learning in the rise of internal enterprise development practices and changing enterprise role structures. Employees are likely to need a broader education, but one which is more closely aligned to the needs of the enterprise. Clegg (1990) and Campbell & Warner (1992) see the current system of ‘Trade’ formation disappearing in favour of the development of a new kind of advanced skilled worker. From their study of processes of skill formation in British firms, Campbell & Warner (1992:40) hypothesised that

> It is likely that high levels of technological change will be increasingly associated with hybrid (or mixed) skills where workers and managers will have less specialised training and broader ranges of taught capabilities to cope with the evolving technological challenges.
Whilst Clegg (1992 215) in his study of organisations found that

*In common is a process of enhanced and concentrated skill formation creating a new type of worker through greater training, one who is qualitatively different from the craftsperson ideal, by virtue of being far more tightly coupled into an overall structure of managerial control.*

The internal development of employees with advanced skills, is seen to be associated with the their acquisition of *embedded technical knowledge* rather than with task specific learning. Employees are likely to receive a broad technical training which is embedded in the technologies, work and production organisations of the enterprise - rather than training on the functional aspects of particular jobs Billett (1993, 1994) sees this process as being one of the development of an enterprise specific, *culture of practice* In his study of skill formation in Queensland coal mines, Billett (1994 41) reported that

*.. effective learning processes had to be pertinent to the activities, culture and social relations within a mine site. Instructional processes and instructors, lacking in these qualities, were likely to be disregarded.*

For Billett (1993, 1994), Garvin (1994), and (Sweet 1993a), learning embedded technical knowledge involves learning from experience and learning by doing For Billett *the nature of activities and their underlying concepts are revealed to learners as they engage in learning, situated within a culture of practice* Whilst according to Sweet (1993a 44)

*people can learn to think abstractly and manipulate symbols if they are taught and allowed to practice in particular contexts that mean something to them. In other words they move from the particular to the general rather than vice versa*

Billett (1993, 1994) and Garvin (1994) discuss the hierarchies of skill acquisition and skilled performance. Highly skilled work performance arises from a long and thorough engagement with the work. Solving problems, and learning from mentors in the workplace, are important aspects of highly skilled work performance

*Operating knowledge can be arrayed in a hierarchy, moving from limited understanding and the ability to make few distinctions to more complete understanding in which all contingencies are anticipated and controlled. In this context, experimentaiton and problem solving foster learning by pushing organizations up the hierarchy, from lower to higher stages of knowledge* (Garvin 1994.23).

The development of highly skilled employees based upon their acquisition of embedded technical knowledge is captured in the indicator *learning embedded*
technical knowledge - task specific learning.

Garvin (1994) also comments upon the importance of the internal monitoring of the development of knowledge and its transfer into new technologies, work and production organisations. He reports on previous measures of learning that have been used in organisations ('learning curves', 'experience curves' and 'half-life curves') but sees them as being inadequate for the measurement of the new workplace learning contexts. Garvin suggests that enterprises need to develop a range of indicators to measure the development of new knowledge, skill and production practices.

The measurement of workplace learning and change is an underdeveloped field and in the indicator monitoring and transfer of new learning into new practices - lack of interest in new learning is intended to establish that internal monitoring of the transfer of new learning does indeed occur.

(ii) Links between workplace learning and change

As noted earlier, the relationship between workplace learning and change is complex and multidimensional. Over simplifying this relationship does little to enhance understandings of the ways in which workplace change may be facilitated through learning processes of one sort or another. What is becoming increasingly clear is the danger of assuming a straightforward causal connection between training and change in the workplace.

The literature suggests that while workplace learning can act to facilitate change, it can also serve to reinforce the status quo. There is little evidence to suggest that learning in the workplace will spontaneously generate significant change. However, there is significant evidence to support the notion that, if there are to be substantial and significant connections, or even causal relationships between learning programs and change processes in the workplace, then these connections have to be made, the relationships have to be built.

Inglis (1985 47) highlights the notion that curriculum of any sort is bound to a particular culture and that it always carries, either implicitly or more overtly, a set of expectations about purposes. Curriculum, she notes, is embedded in a culture, and that culture reproduces and transforms itself such that to speak of its knowledge without asking what purposes and intentions that knowledge serves, or what questions the knowledge constituted answers to is to speak meaninglessly. A curriculum is not just a matter of what someone is supposed to know, but what they are supposed to do with it. It is, therefore an intentional structure.

If curriculum is considered as an intentional structure, it is pertinent to ask whose intentions is it serving and what sorts of purposes are intended. There may be a desire for change, or a yearning for continuity and stability. The
intentions, whether conscious or not, will shape the learning activities and their outcomes.

A number of theorists and researchers point to different types of learning which have implications for the types of learning behaviours displayed in the workplace. For instance, learning may be considered as a steady process of accumulation and acquisition. According to this view, learners steadily add more information to their existing knowledge, developing and broadening their understandings and their repertoire of skills. Significant learning, or growth can take place without significant change in the learner's basic understandings or assumptions.

Another view of learning suggests that questioning or reconsidering one's basic understandings and assumptions is fundamental to learning for meaningful change. The notion of transformation is central to this view of learning, suggesting a shift or movement which results in learners seeing things in a new light, or from a different point of view. Learning is thus seen not so much in terms of adding new information or skills (i.e., in quantitative changes), but in terms of shifting or altering understandings, perceptions or behaviours (i.e., qualitative changes).

These ideas are reflected in the literature on organisational learning in various ways. Kofman and Senge (1993) talk about the Galilean shift when referring to the importance of learning for quite new understandings or paradigm shifts. Argyris (1990) argues for the importance of double loop learning which involves questioning what he calls the governing values in order to produce productive reasoning. This he suggests is necessary to overcome defensive reasoning and resistance to change within organisations. Mezirow (1981) stresses the importance of transformative learning. Garvin (1994), O'Connor (1994), Ford (199) and others suggest the importance of employees learning not only what, when and how (to do) but also why. Learning why involves a deeper level of analysis and comprehension than merely learning what, when and how. Learning why often involves some kind of 'transformation', in thinking about the work, and subsequently in the learner's behaviour.

These understandings about learning have been summarised in an indicator which assesses the accumulative and/or transformative nature of the learning in the workplace.

Other theorists stress the importance of learning which embraces an holistic understanding of the enterprise and its multiple systems. This vision suggests that employees need to appreciate not only their own particular area(s) of responsibility but also have an understanding of how 'their' area fits into the whole. According to this view the interrelationships and interdependencies between departments, sections and personnel are crucial to the effective operation of the enterprise. Traditional Taylorist principles of work organisation have tended to produce divisional or departmental organisations.
with work stations where employees work in isolation from one another, as a consequence employees in one section may have relatively little understanding or appreciation of the work performed by their colleagues only a few metres away. However the success of the enterprise, and in particular, the quality of its products and services may depend upon effective coordination and cooperation between these different sections or work groups. Berggren (1994) for instance, talks of the need for both holistic manufacturing and workplace learning. He suggests that Taylorist tendencies towards fragmentalism and reductionism are ultimately counterproductive.

The tendency towards fragmentalism has also been noted in relation to curriculum development processes and the orthodox implementation of training - which has come to be thought of as mere "delivery". This conception is a corruption of effective teaching-learning interactions and does little to facilitate meaningful change processes for workplace teachers/trainers or learners. Stevenson and McKavanagh (1992) argue that fragmentation of learning into modules results in disaggregation of knowledge which in turn undermines the capacity for transfer of learning. In this sense workplace learning mitigates against change.

Gribble (1990) argues that if worker knowledge and skills are reduced to small, packaged, encyclopaedic, incremental and prefabricated bits, along the lines of Taylorism, there is a risk of ignoring the whole, the comprehensive, the conceptual, the broad knowledge of production and the knowledge of the social context of work.

Brown (1991) suggests that reductionist approaches to competency based training - based on narrow task analysis and fragmented (modular) curriculum - constitute a destructive new form of classroom Taylorism. He maintains that such approaches represent the antithesis of the kind of learning which seems to be required for effective change management.

Scott (199110) describes what he calls a manufacturing approach to worker education as,

rigid, standardised, "outside-in", pre-packaged, modularised and behaviourist (and which) may teach a stance and way of thinking which are the exact opposite of what we might seek in a clever worker.

Gee (1992) argues that the processes of analysis which break complex tasks down into their constituent parts are helpful for teaching and talking about the processes but such learning does little to enhance actual task or job performance (as distinct from talking about performance). It also does not challenge learners' assumptions and basic understandings. Gee distinguishes between such learning and what he calls acquisition which is more closely linked to actual performance. Acquisition he argues, cannot be gained through direct instruction or an analysis of the parts, but only through more holistic treatment.
processes of immersion, engagement and apprenticeship.

Sharratt and Field (1993) also stress the importance of an holistic approach, they characterise an effective learning organisation as one in which each part of the organisation encapsulates the whole with an emphasis on holistic thinking and planning and with structures which tend to be more fluid and interlacing. This vision is in contrast to more traditional bureaucratic or divisional structures.

Kofman and Senge (1993) are also critical of fragmentalism which they suggest is one of the principle causes of dysfunctions in modern organisations. Ford (1990 8-9) stresses the importance of skill formation as an holistic concept which embraces and integrates formal education, induction, continuous on-the-job learning recurrent off-the-job learning and personal development. The development of this concept he adds, further illustrates the blurring and fusing of traditional dichotomies and lines of demarcation.

These and other writers [such as Kazemak and Kazemak (1992), McFarlane and Lomas (1994), Marsick (1988)] suggest the value of an indicator which assesses the thinking encouraged in the workplace as holistic - reductionist thinking.

A related point concerns approaches to assessment in workplace learning. Much of the rhetoric of CBT places considerable emphasis upon the importance of demonstrable skills and tends to position assessment as the end point of training - or as the end point of each section or module. Hall (1994) argues that curriculum comprises far more than outcomes and that assessment should be part of the learning process. He rejects linear approaches (starting with objectives and ending with assessment) in favour of circular, interactive approach which integrates assessment with the learning process.

Field (1990) also notes that common approaches to assessment in CBT programs place too much emphasis on simple observable skills; those which he describes as above the surface, and little or no emphasis on the subtle, less visible and immeasurable skills which he describes as below the surface. Yet these latter skills, including the learner's strategic competence, are highly significant and may determine to a substantial extent the extent to which the learning may be applied in a new or different context.

It is the nature of the learning that appears to be decisive with experience suggesting that training needs to be specifically targeted to producing the required outcomes. That learning is a complex process is affirmed by Marginson (1995 105) who says that there is no definitive theory of learning. He maintains that, despite a number of achievements of the training reform agenda the educational paradigm at the heart of the reforms - (competency based education) - is fundamentally flawed, and needs to be replaced (Ibid..103) In particular he questions the assumption that skills are
automatically transferable and suggests that there is a need to concentrate on the acquisition of certain skills that are specific to transfer itself. These skills are generic and include an awareness of context, the capacity to move between different viewpoints, languages and systems of knowledge (which produces flexibility), self reflection (which encourages adaptability), self regulation, and learning how to learn (Ibid. 112).

Marginson is not alone in questioning the nature of skill formation and transferrability of skills and knowledge. A growing body of literature is suggesting the need for a fundamental reconceptualisation of the notion of skill itself. Wilson (1993 73) notes,

In other words, knowledge and learning do not easily transfer across contexts. Knowledge and learning have to be understood as inextricably integrated with the setting in which they occur. It is the interaction with the setting itself in relation to its social and tool dependent nature that determines the learning.

Lave & Wenger (1991) and Chaiklin & Lave (1993) have extended conceptions of situation and context to highlight the way learning is richly contextual, social and relational. They discuss the concept of situated learning, their work suggests that simple notions of transferrability and so called "generic skills" are highly problematic. Lave (1993 13) maintains,

Certainly, any simple assumption that transmission or transfer or internalisation are apt descriptors for the circulation of knowledge in society faces the difficulty that they imply uniformity of knowledge. They do not acknowledge the fundamental imprint of interested parties, multiple activities, and different goals and circumstances, on what constitutes "knowing" on a given occasion or across a multitude of interrelated events.

Darrah (1994) also challenges conventional understandings of skills, their acquisition, and the way they are utilised in the workplace. Like the writers noted above, he argues that the workplace itself, with all of its human, social and technical variables plays a fundamental role in creating and defining 'skills'. Yet he suggests, these processes are little understood. He challenges three commonly held tenets on skills. Namely that,

- jobs and their incumbents can be fully analysed by decomposing them into discrete skills,
- skills are 'required' in some direct obvious way,
- context is peripheral to skill.

Chapter Four

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Literature Review
Through detailed analysis and reference to grounded field work in actual workplaces he shows each of these tenets to be incomplete or untrue. He notes,

_in summary, the concept of skill requirements results in a discourse about work that replaces actual workers with typical ones. This simultaneously exaggerates our certainty about assumed skill deficiencies and their consequences while conceptualising the challenge to educators as difficult but at least unambiguous and manageable_ (Ibid 67)

The reality he suggests is much more interesting, complex and ambiguous, involving social and political judgements alongside technical measurements and observations. His research serves as a caution to policy makers who believe that enhancing skills is a simple, direct and efficient way to improve workplaces (Ibid 80).

The work of these and other writers stressing the importance of situated cognition and context in learning and skill formation,

(iii) **Workplace culture**

The development of distinctive workplace cultures, is another feature of the internal development of organisations that is identified by many writers. The mechanisms for workplace participation, and the affective climate that develops within an organisation, are all seen to have effects upon the development of workplace learning and the effectiveness of the implementation of workplace change.

The literature suggests the importance of considering the nature of the participation of the stakeholders in the workplace. Do the stakeholders work collaboratively and cooperatively or is participation characterised by individuals and groups operating more independently?

The process of creating internal business units in an enterprise, for example, can lead to divisions or sections seeing themselves in competition with one another (for resources, sales and 'attention' from the senior decision makers). In some circumstances this may mitigate against sharing information. Cooperation may be replaced by groups and/or individuals running with quite separate, even conflicting agendas. In the worst case scenario trust and confidence are eroded to the point where distrust and suspicion become the norm.

Kofman and Senge (1993 8) note for instance, _in business, fragmentation results in 'walls' or 'chimneys' that separate different functions into independent and often warring fiefdoms_. They provide examples of these unproductive relations with reference to product designers, those responsible for manufacturing and those involved with sales. Argyris (1990 157) makes
relations

Hendry (1990:31) comments that

.. frequently under-rated, however, is the way manpower, training, and job design policies over a period of time determine the skill structure of an organisation and thereby the scope for adopting new technology.

Frenkel (1989:6) sees such couplings of technology, skills and production systems leading to productivity growth through the creation of 'dynamic efficiency' within the enterprise.

The capacity of a firm to adapt successfully to a changing environment is referred to as dynamic efficiency, implying the maintenance of a high level of x-efficiency over time.

The indicator, internal development of knowledge, skills and people - external acquisition of knowledge, skills and people is designed to identify the extent to which sustained internal development is occurring.

The participation of the stakeholders is also framed, as noted above, by various political and industrial considerations. One of these is the nature of the career structure(s) or pathway(s) made available to the stakeholders. In some circumstances workplace learning is clearly and quite explicitly linked to career progression, promotion, increased pay, improved work conditions and so on. However, this is not always the case and even where such arrangements do exist, they may not serve all stakeholders equally.

The notion of a holistic or systemic analysis is again relevant here. As noted earlier, Smith (forthcoming 1995.24) cites research which shows that

...regardless of the training product in terms of design, delivery and evaluation, it is the relationship of the training to other factors in the enterprise that will ultimately determine its impact on performance.

The prevailing career structure is clearly one of the relevant factors. Gribble and Carter (1991) stress the need for an integrated model of work based learning which has at its heart a focus on the individual worker-learner. Within their model, the individual's on-the-job learning, off-the-job learning and structured workplace learning are developed within an individual development plan, this plan in turn is linked to broader enterprise development plans. With the prevailing discourse highlighting the notion of consensus and collaboration, writers such as Meyer (1991) and Newman (1994) stress the need for clarity about the stakeholders' various purposes and the desired outcomes. Meyer argues

the extent to which any new expression of co-operation is more
meaningful than in the past, depends on the degree to which those being asked to co-operate better understand the nature of the contradictions which characterise the real, long term relations between capital and labour (Meyer, 1991:40)

These concerns highlight the need to consider the political/industrial context for workplace learning. Have the stakeholders agreed on the place of learning within the enterprise? Has it been discussed explicitly, have agreements been reached and documented? Is there an Enterprise Bargaining Agreement with reference to learning opportunities and career progression? These and other related questions might be linked to an indicator assessing formal career structures/progression - informal progression/career structures.

Few would question the general proposition that people do in fact learn at and through their work. The challenge in this project is to clarify, and describe in much more precise ways, who is learning, what they are learning and how they are learning. Folkloric knowledge and anecdotal evidence suggests that many organisations develop structures which tend to contain and restrict learning in particular ways. Typically, access to learning opportunities is unevenly distributed. Learning becomes dependent upon being in the right place, for instance in the 'right' Department, section, office or division, there are inner and outer circles and those in the outer are less likely to be in-the-know. Career structures, enterprise agreements, training pathways, systems of work organisation and labour market policies within the enterprise also affect both structured and informal learning opportunities. The literature suggests that any analysis of workplaces as learning environments should consider who the stakeholders are and the nature of their participation.

A key criteria cited in the literature for the learning organisation, is the involvement of personnel at all levels. This is linked to the importance of holistic or systemic thinking as mentioned earlier and to concerns in relation to equity, access and social justice. Sharratt and Field (1993:131) note:

*For the establishment of a learning organisation, it is necessary for learning to be embedded at all levels of the organisation, and for group learning to be given considerable emphasis.*

Schein (1993:43) argues for a particular type of dialogue which emphasises

*getting in touch with assumptions (especially our own assumptions) that automatically determine when we choose to speak and what we choose to say.*

In particular Schein suggests such dialogue is important for cross cultural understanding and he stresses that *cross cultural* in the workplace context includes dialogue across *hierarchical sub-cultures*.
The literature also suggests the importance of recognising needs, values and interests of others, in particular the learners, those employees who are expected to become involved, even committed to the program. Only naivety would suggest that their needs will always be served by alignment with the needs of employers and the bureaucracy.

This theme has been addressed by Brookfield (1986, 1987) who has written widely on the need for critical thinking in adult education and argued for the link between critical thinking and democracy - a theme which Leyman (1987) takes up with particular reference to workplace learning.

The work of these and other writers suggests the need to consider the tendency of workplace learning environments to create dissention - concurrence.

The notion of openness and interest in divergent thinking, implied in the discussion above, is also relevant when considering an organisation's external relationships. To what extent is the organisation open to learning from its competitors, its customers and the environment within which it operates? To what extent is the organisation actively scanning its environment for learning opportunities? Is it open, receptive and looking to learn, or must the learning force its way into the company by default? If learning does take place is it in spite of the organisational culture or does the culture facilitate learning?

Pedler, Boydell and Burgess (1988-94) suggest that

*The Learning Company is one in which learning and work are synonymous, is peopled by colleagues and companions rather than bosses, subordinates and workers, where both inside and outside are continuously searched and examined for newness - new ideas, new problems, new opportunities for learning.*

Flood (1993.3) argues a similar line, suggesting that humility is one of the key features of a learning organisation,

*learning organisations are humble in the very best sense of the word. Indeed humility is the very soul of learning because in order to learn we have to admit to ourselves that we don't know everything.*

He suggests that some of the most effective learning organisations are shifting their thinking from an emphasis on honing the competitive edge to developing *collaborative advantage* (Ibid 4). He argues that there needs to be an openness to learning from all sources, including customers, a point which Garvin (1994) also emphasises.

Mc Gill, Slocum and Lei (1994) highlight the importance of humility and
empathy and Mills and Friesen (1992) stress the importance of openness to the outside world as a key criteria. Cohen and Levinthal (1990) describe what they call the organisation's absorptive capacity, that is, its capacity to take in, process, and exploit information. Sharratt and Field (1993) suggest that rigidity and resistance, particularly amongst management personnel, is a major barrier to generating a workplace learning culture.

These writers suggest the need to consider the openness - insularity of workplace learning environments.

(iv) Organisation of formal and informal learning

Australian enterprises have traditionally acquired the people with the knowledge and skills that they required, from the external labour market. The Australian system of Industrial Awards, the system of skill formation through the trades and the hiring practices of firms, have all been predicated upon high labour turnover and strict occupational differentiation. Rather than retrain and redeploy employees as skill and production requirements change, enterprises in Australia have usually opted to fire employees with redundant skills and hire those with the skills that they need. As Curtain (1987:35) comments however, this strategy may no longer be viable.

If a more flexible production process requires a new approach to the division of labour with its demand for a continuous upgrading and broadening of skills, then continued reliance on an external labour market strategy with its acceptance of a high labour turnover is likely to involve considerable costs to a firm in terms of competitiveness and efficiency.

The development of an internal labour market within the enterprise compliments other features of 'sustained internal innovation' (Mills & Friesen 1992) such as the:

- linking of work roles in work organisations that promote learning,
- provision of on-going, contextualised training
- introduction of new technologies and processes, and
- development of new kinds of supervisory and intra-enterprise relationships.

The Australian Manufacturing Council (1988), Ford (1990) and Hendry (1990) all comment upon these features of internal development. The AMC (1988:13) saw a need for the integration of training, innovation and work practices to develop the human resources of a company, whilst Ford (1990:5) saw internal development leading to the creation of

unique technocultures with new integrated, organisational specific technologies, work organisations, skill formation and employee
similar observations and states,

human beings show remarkable ingenuity for self protection They can create individual and organizational defences that are powerful and in which that power is largely in the service of poor to mediocre performance as well as of antilearning.

Isaacs (1993:27) describes dialogue between management and employee representatives in which the stakeholders came to the table with intractable differences ... they had maintained for more than 30 years. Schein (1993) highlights the existence of such organisational subcultures and stresses the importance of effective communication across these subcultural boundaries. In particular he stresses the importance of hierarchical subcultures

Functional and geographical subcultures are highly visible and therefore, easily noticed, hierarchical subcultures are harder to detect but very active .. organisational integration, coordination, and learning is hindered most by variations in the hierarchical subcultures (Schein,1993 49-50)

These indications in the literature suggest the importance of considering the stakeholders' perceptions of their workplace learning climate and the nature of their participation. An indicator which assesses activity in terms of collaboration and cooperation - running with separate or independent agendas would seem to be useful A related indicator considers trust and confidence - distrust and suspicion

The cognitive growth and development of employees, the development of their knowledge and skill (which is transformed into new learning and new work practices) is underpinned by the relationships built up between employees in the enterprise The literature suggests that the nature of the affective relationships built up between employees within different units of the enterprise, will enhance or limit the learning that occurs in the workplace Also that the effectiveness of learning groups, cross-functional groups etc. is influenced by the kinds of relationships that exist between the people in them. Hence the maintenance and repair of relationships - lack of interest in relationships emerges as an enabling factor for workplace learning

Another aspect of knowledge creation identified in the literature concerns the extent to which the workplace culture promotes experimentation and/or difference, including differing points of view and different ways of working Whilst standardised work practices may have the effect of eliminating error and producing uniform quality, they may also mitigate against experimentation, innovation and differences which might facilitate discovery, learning and improvement Similarly, a prevailing workplace culture which suggests appropriate values and behaviours for the organisation may also mitigate against other values and behaviours which seem to threaten or challenge the
Such a culture may serve (consciously or unconsciously) to oppress the kind of questioning, critical thinking and divergence which sustains learning.

Garvin (1994) has stressed the importance of active experimentation in the learning organisation. This implies doing things differently rather than consistently conforming to standardised procedures. Flood (1993) highlights the value of *creative contention* which is based upon a willingness to voice a different point of view and the capacity of the workplace to value *dissent*. Argyris (1990) has written extensively on the way organisations develop *organisational defensive routines* under which a discrepancy develops between what people say they are doing and what is actually happening. Often, he argues, the truth is subverted because it produces embarrassment or threat and a form of underground dynamics become established where important issues become undiscussable.

Calvert, Mobley and Marshall (1994) report the same phenomena, referring metaphorically to *the moose on the table* which everyone pretends is not there. They describe the learning organisation as one which: *exhibits little fear and defensiveness, rewards and learns from what goes wrong*. This idea is also stressed by Garvin (1994:24) who draws a distinction between *productive failure* and *unproductive success*. Discussion of productive failures (or unproductive successes) requires a climate which facilitates questioning of commonly held assumptions and open debate. Such a climate must, at the very least, offer protection for those who speak out. Some of the writers actually argue for rewards for such behaviour [McGill, Slocum and Lei (1994), Watkins and Marsick (1993), McFarlane and Lomas (1994), Isaacs (1993)]. Calvert et.al. (1994:41) also note that the learning organisation *depoliticizes learning* by not penalizing individuals or groups for sharing.

McFarlane and Lomas (1994) argue that competency based approaches to training promote conformity and an inward focus on the organisation, whilst discouraging reflection. A learning organisation, they argue, needs to promote debate, maintain an outward focus and encourage reflection. They state,

> Qualities which may be highly valued within learning organisations, such as 'creativity, 'quirkiness', or creative subversion' have no place within a regimented, competence based system. (McFarlane and Lomas, 1994:30).

Jackson (1993:14) maintains that competency based training is not intended to improve students' learning but rather to provide the infrastructure to determine *how and by whom educational goals will be set*.

> By adherence to behavioural principles, it constructs an objectified and objectifying organisation of social relations through which successive moments in the educational enterprise can be defined, measured and evaluated in the interests of employers, administrators and policy...
4.4 Summary

Workplace education in Australia, as in other parts of the world, is receiving a much higher profile than ever before. It would seem that the rapid movement to competency based training has been largely a management and administrative response which is targeted to making workplace education more manageable and accountable. It has little to do with the learning of workers and is not supported by educational research. Some educators and academics have resisted the major thrust of the training reform agenda and there is much debate in educational circles about the dichotomy between education and training. However, as Seddon (1994) says,

_What is at stake in the current education debate is not, therefore, the question of education versus training. The divide between educators and trainers is a consequence of an unrealistic and anachronistic hang-over from liberal meritocracy which only obscures how much they have in common. The issue is rather as Hodkinson (1991) argues, the question of progressivism versus conservatism on the terrain of vocationalism (p 79)_

Hopefully this research will add to the growing debate about the educational viability of the current application of the training reform agenda. The literature certainly indicates that learning in the workplace is a complex issue affected by many factors, not the least of which is the environment in which that learning takes place. If such learning is expected to affect positive change in the workplace, it is evident from the literature that new approaches will need to be developed that construct more deliberate and strategic links between vocational education and workplace change.
Chapter Five
Claridge Holden Case Study

5.1 Company profile

Claridge Holden is a family run automotive dealership located on busy Unley Road only fifteen minutes drive from the Adelaide central business district. Claridge employs approximately 70 people in the dealership which is the focus of our case study (a further 10 people work for the company in a separate franchise). The business was established in 1929 and is structured as a private company. The two joint managing directors of the dealership, Mike Claridge and Ross Fisher have both spent most of their working lives with the company, moving through to their present roles from junior positions.

The business comprises both new and used car sales, spare parts, repair and service operations, and a crash shop dealing with paint and panel repairs. The company prides itself on a high level of customer service and satisfaction generating repeat business. As one of the car sales personnel noted, *60% of our business is repeat business. I've had customers over the years that I've sold six or seven cars, they keep coming back.*

One of the managing Directors states, *We aim to be in the top ten in Australia and we are traditionally in that category.* There is a clear management commitment to training, principles of continuous improvement and customer satisfaction. There is no formal enterprise bargaining agreement or formal training plan within the company. Most of the workforce is non-unionised, with the Vehicle Division of the Australian Manufacturing Workers Union the only union represented on site.

The company's involvement in this research followed completion of an earlier training program which was directed towards *establishing an Occupational Health and Safety Committee to focus on increasing safe working practices within the company, while simultaneously promoting a culture of consultation.* Developing this "culture of consultation" is part of the company's focus for change.

The Occupational Health and Safety (OH&S) project was conducted within the company during 1994 as part of a national workplace communication project under the auspices of the National Automotive Industry Training Board. This work was documented in a comprehensive report on the project (Virgona & Railton, 1994). The perceived success of this project encouraged Mike Claridge to accept the invitation to participate in this research. It was hoped that revisiting the workplace some time after the OH&S project and investigating the workplace as a learning environment would enable us to discover and document the extent to which the earlier project had impacted on the workplace culture and practices.
aspects/areas of the company [they] did not know about before". At Claridge 72% of respondents said this was the case, citing a range of work related learning experiences.

It's an ongoing thing, you're learning from week to week.

Not a hell of a lot, but a little, about the Dealership and how things work over the road.

I've learned about Super[annuation], Workcover, [and] Payroll

I've learned lots, the way the dealership works. How the interaction with Claridge and GM works. How sales generate service and after sales work.

[I'm learning] just through being here over time, it's all informal learning. How the business operates, different areas ...

One respondent who had been with the company for less than a year noted:

Everything is new and there's less pressure here [compared with previous place of employment] You're left to your own devices more, your own decision making is not over ridden. You feel some degree of control over your own work.

In some cases the learning was directly related to changes in work responsibilities. One of the Sales workers noted: I'm seeing a different side of the business because of a change of position.

This respondent's comments highlighted the way, different work processes and work organisation create new and different pressures. Later in the interview she explained, Six months ago I could answer the 'phone, take the information and pass it on. Now I've got to do it myself.

Some management personnel also indicated they were continuing to learn about the business

Taking over responsibility for Parts, its a whole new field, inventory management, paperwork, stock orders, urgent orders etc.

Another management respondent noted,

[I'm learning] mainly through Ross and Mike about the general running of the business, getting information about profitability across the whole business, across Departments where earlier I wouldn't have had any idea at all. I asked the questions. They've got no qualms at all about telling you how it works.
Holistic & systemic learning

Several of the comments above, and those which follow, provide evidence of learning which was crossing perceived boundaries. These comments reflect a developing understanding of the Claridge Dealership as a system or network which involves groups of people, networks, relationships and interdependencies.

*I've been learning more about the financial side of the business; profit and loss, budgets, stock orders to HSPO*

Another respondent reported learning the need to learn about other people's jobs. This respondent went on to stress the importance of communication across the business. Realising the need to understand what happens in other Departments (and why) demonstrates important learning - even if, for the moment, the learning need has not been fully addressed. The points noted above about learning what happens "over the road" and "across the whole business" are salient here. The issue is the extent to which learning was systemic and holistic.

Responses on this issue were mixed, some indicating effective learning across departments or sections, others indicating the need for such learning. The following response is positive, suggesting a holistic or systemic perspective.

*[I've learned] the way a total deal is put together from woe to go. The whole story, who does what, where, when, how and why. I've learned through developing the computer system and asking questions, ... taking the initiative.*

A number of respondents noted the importance of the work which had been done on Occupational Health and Safety and its value in promoting interdepartmental communication and systemic learning.

*With the Occ. Health, with that you seem to be a bit more aware of what's going on around you. And you go out to the workshop sometimes, or Pre-delivery, or the Crash Shop, before there was no reason to do this.*

At least for this respondent, the O. H & S agenda gave a purpose and legitimacy to interdepartmental communications which had not previously existed. The following comment from one of the tradespersons echoes these sentiments.

*Occasionally [information is shared between departments], it's usually to do with O. H & S. There was never anything before that. That's been pretty important, it's changed a lot of things.*
coping with change is mandatory for Claridge to remain competitive.

We have got to recognise that within our business the market does certainly change. Certain products are more popular at times than others. The consumers' needs change. We've had to recognise that, for example, customers are now perhaps not quite as keen to come to our showroom as they once were. We have got to be prepared to take our vehicles out to them. We have customers that have purchased cars from us and have had them serviced with us for the last two years -- and they've never been here. [The changes] are hardly dramatic or earth shaking. They haven't necessitated us ripping the business apart and rebuilding it. All that we've had to do is recognise that there is a change happening there and having identified that change, decide how we are going to react.

Despite the sense of continuity within the business, the idea of workplace change was well recognised by interview respondents. The data clearly suggests that most respondents recognised significant changes taking place within the enterprise although few were prepared to suggest such changes were massive.

The following table summarises the interview responses which sought information on the current "focus of change for the company".

It can be seen that several interrelated factors were identified as foci for change. In particular the emphasis on quality was repeatedly cited. Developing new customers was mentioned repeatedly also, as might be expected in a retail/service business. The director of the company pointed out that as a service/retail business Claridge has little involvement in the development of new products per. ser. so the life success of the business is in identifying, cultivating and developing new customers and in providing quality services to customers.

<table>
<thead>
<tr>
<th>Focus of change identified</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality accreditation processes</td>
<td>15</td>
</tr>
<tr>
<td>Development of new products/business, new custom including;</td>
<td>14</td>
</tr>
<tr>
<td>market analysis &amp; responses</td>
<td></td>
</tr>
<tr>
<td>Introduction of new technology</td>
<td>13</td>
</tr>
<tr>
<td>Changes in work systems &amp; processes</td>
<td>9</td>
</tr>
<tr>
<td>New systems of training &amp; human resource management</td>
<td>8</td>
</tr>
<tr>
<td>Occupational health &amp; safety</td>
<td>4</td>
</tr>
<tr>
<td>Work experience programs with schools</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 5.6 Focus of change
Evidence was sought on the effects of change on the individuals within the enterprise. The responses show that 61% of those interviewed felt the changes had made a significant impact on their work - although only one respondent felt the effect was drastic. Six respondents (33%) indicated the changes had not greatly impacted on their day to day work-life.

When asked to consider whether the changes have been better for the company there was considerable support for the view that this was indeed the case. Of those interviewed 64.7% indicated the changes would be positive for the company, with the remainder opting for a non-committed position.

Responses to the following question however were more varied. Here information was sought on whether the changes were making working life better or worse for the respondent and his/her workmates. The largest single category was again the middle of the road position suggesting either that the changes were not making a great deal of difference one way or the other, or that individuals did not wish to commit themselves to a firm view either way. However two respondents suggested the changes were making their working life worse whilst seven responses came down on the positive side of the fence. Further analysis of the responses shows that the negative responses came from a tradesperson and a manager. The tradesperson noted; financially people are no better off, but there's more work, we're getting through more work. The manager commented; It's worse for me, it's given me some heartaches. I've picked up unexpected work and more paperwork.

On the more positive side people commented on improved equipment in the workplace, improvements in occupational health and safety, and improvements in morale. One of the more positive comments came from a management respondent who noted; employees have more job satisfaction, they are more in control of their own destiny. This comment was echoed by another from one of the tradespersons; A lot of the changes have been passed by the board [of Management] and are now being introduced. It lifts morale and everybody is very positive.

5.4 Characteristics of the workplace learning environment

(i) Acquisition & use of knowledge

The literature relating to workplace learning suggests that effective workplace learning environments are those in which employees at all levels are skilled at creating, acquiring and transferring knowledge, and at modifying their behaviour to reflect new knowledge and insights.

There was some evidence these characteristics at Claridge the following section reports on findings relating to issues of knowledge creation and its use.

New learning

Informants were asked if they had learned, in the past twelve months, "about
5.2 Profile of the interviewees

In all 18 people were interviewed to construct the Claridge case study. The profile of interview respondents (see Tables 5.1 - 5.5) included trades people, sales and service workers and management representatives as well as one of the co-managing directors. The interviewees were selected purposefully to gain a variety of respondents, taking account of the following factors:

- time with the company;
- representation from different departments/sections;
- representation from different levels of the organisation;
- gender balance;
- involvement in training activities previous.

This sample is roughly in line with the proportion of male/female employees within the Claridge dealership.

<table>
<thead>
<tr>
<th>Table 5.1 Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
</tbody>
</table>

Table 5.2 Occupational Classification

<table>
<thead>
<tr>
<th>Position</th>
<th>Number in Company</th>
<th>Number Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager/Administrator</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>32</td>
<td>9</td>
</tr>
<tr>
<td>Clerical</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Sales/service</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Labourers &amp; related workers</td>
<td>11</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 5.3 Age

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 - 24</td>
<td>2</td>
</tr>
<tr>
<td>25 - 34</td>
<td>7</td>
</tr>
<tr>
<td>35 - 44</td>
<td>4</td>
</tr>
<tr>
<td>45 - 54</td>
<td>2</td>
</tr>
<tr>
<td>&gt;55</td>
<td>3</td>
</tr>
</tbody>
</table>
All of the respondents were native English speakers.

### Table 5.4 Country of Origin

<table>
<thead>
<tr>
<th>Country of Origin</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>15</td>
</tr>
<tr>
<td>British India</td>
<td>1</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1</td>
</tr>
<tr>
<td>Unknown</td>
<td>1</td>
</tr>
</tbody>
</table>

5.3 **A context of continuity & change**

Claridge Holden is a relatively stable company. There are substantial numbers of people (almost 25%) who have worked with the company for more than ten years. Amongst the eighteen interview respondents there were ten people who had been with the company more than six years, four of these people had more than sixteen years service with Claridge. Several older members of staff reported recollections of the current managing directors as children. The nature of the business has not changed a great deal over the years. The business began its life selling cars and it is still selling cars. The stability of staff and the business (including return customers) provides a strong sense of continuity at Claridge.

In interview Ross Fisher highlighted this sense of continuity.

*We're a retail organisation which has to constantly seek customers through our own initiative. ... we're always looking for new customers, constantly. The methods we use to do that haven't really changed. Prospecting is prospecting, it is exactly the same. Twenty years ago I used cards in a little box as a file system, now it's done on the computer - but the principle is identical. ... We're dealing with the same people, their expectations might be a little higher in some areas and their demands might be a little greater in some other areas, but the basic principles are still exactly the same.*

Whilst Ross emphasised that some things stay the same he also acknowledged that
One of the management respondents also noted the importance of the OH&S project and the development of the Consultative Committee.

*That was a very worthwhile project because the culture of the place has changed as a direct result of that work ... With the establishment of the Consultative Committee we've got over the distrust, the belief that people won't be listened to.*

Whilst there was recognition and appreciation of changes within Claridge over the past twelve to eighteen months, there were also comments suggesting the need for further development.

*The problem is interdepartmental, there's not enough training and attention to interdepartmental relations.*

This issue is further addressed below in a consideration of the culture and communication networks across the company. Suffice to say here that some respondents were giving an indication of learning which was broader than their own particular area of responsibility. This tendency however did not emerge as a clear trend across the organisation.

**Transformatve learning**

Information was also sought on whether the learning was accumulative and or transformative. Respondents were asked, "Can you recall any learning which has changed your thinking about your work?"

*No. It's basically re-hashing stuff learnt over the years.*

*No, that's more likely in the first five years that you are working. After 20 years that's not going to happen.*

*No, apart from the safety side of things*

*It's a hard one, every paint system is different. I've learnt about the system and paint products here*

These respondents suggest that for them this learning was a process of accumulation; adding on new bits and pieces of information without substantially re-shaping basic understandings or ideas. However 61% of respondents responded affirmatively to the question about learning changing their thinking about work. Some of these responses were those indicating learning across the enterprise.

*I've gained a greater appreciation and understanding of other aspects of the business, not so much tunnel vision, more open minded. Also the OH&S stuff gave me a different point of view. It showed other people's*
problems

Another respondent also commented on OH & S issues in response to this question, noting a change in thinking in relation to workplace injuries.

*Probably [the change in thinking is] awareness of workplace injury and the costs of these. Also the costs of injuries travelling to and from work.*

Others noted changes in thinking as they learned more about the business finances, such as in the following comment:

*I'm still learning. I've realised it's a lot of money we've got to make [each month], what you have to do to make budget.*

Still other comments suggested learning which is closely related to individual's sense of themselves and their roles or identities as workers.

*Yes, I've learnt things about myself as I'm growing older - Over the longer term development from [being a] mechanic to being in Service Department [and now in] Sales. I have an understanding of different aspects of the business.*

*I used to get a lot of headaches because I'd get so worked up about things, it's not happening so much here because I'm not getting so personally involved. That stems from having a manager that backs up what you say.*

*Everything that I'm learning is affecting the professionalism of my job, it's very valuable to me now.*

*It's learning by experience, by 'seat of the pants' stuff and experimentation. It involves risk taking. If you fall over you dust yourself off and get going again. It's about being a calculated risk taker.*

These respondents suggest learning which is more transformative in nature, learning which carries the potential to support new mindsets or conceptions. This type of learning is consistent with the kind of revisioning and re-conceptualising which Ford (1990) argues is necessary for the successful workplaces of the future.

**Internal boundaries**

Another specific focus of the investigation was on evidence of internal boundaries being removed or reformed to facilitate knowledge transfer and greater efficiencies in operation. There was clear evidence of this process.
taking place at Claridge. Respondents spoke of both physical and organisational barriers being removed. Whilst not all of these changes had taken place within twelve months of the interviews they were noted as significant developments within the company in recent times.

Perhaps the most telling example was the reformation of the Parts and Service areas of the business. Claridge is the only Holden Dealership known to have a combined Parts & Service operation. These areas were formerly quite separate departments with walls in between them. They now operate in a more coordinated fashion under the one manager. The change has led to some cross-skilling of staff within these areas. Commenting on the removal of barriers, both physical, organisation and psychological, the manager noted the importance of three interrelated factors.

He stressed the importance of attention to individuals and their particular needs. Here he emphasised the need to recognise the personality variables which affect people’s responses to change. He noted how some people need support and reassurance, whilst others may need challenge and a higher level of responsibility. He cited examples of how the change processes was managed differently with different staff. In one instance an employee who identified herself as just the [delivery truck] driver was encouraged to see her position and responsibilities in a new light. She was given a brief case and increased responsibility for administrative processes associated with the deliveries. Her position was characterised as a professional task and the expectations were raised. With increased confidence and self-esteem the individual concerned is now regularly dealing with administrative and paper processes. She has responded to the challenge and is enjoying her increased responsibilities.

Secondly the manager cited the importance of attention to the geography and the physical layout of the place. Here attention was given to the design of the work space. People who had been separated in different rooms were placed together in an open working space. Workers were consulted about the facilities and their suggestions about ways to design things to make the work easier were taken on board. The manager noted, if they see you doing this, designing things to make the work easier, not more difficult, then it gives them more confidence in Management.

Thirdly the importance of improving communication was emphasised. This was achieved through promoting face-to-face contact in the new work area and encouraging informal sharing of ideas. The importance of consultative hands on approaches [was stressed] giving people ownership is very important. New ideas are routinely tried out with the involvement of the players. Again a particular example was cited. This involved the trial of new safety grates to cover the lubrication pits in the service area. The manager noted, if everyone is happy with them the other pits will be set up the same.

Interviews with other respondents, including personnel from the Parts and
Service area, tended to confirm the impressions given by this manager. The removal of barriers in other areas was also noted. In the crash shop for instance, staff referred to the importance of physical changes in their work environment, including the removal of walls. At least one respondent seemed to connect these physical changes with improvements in communication and general operation.

_We used to have horrendous [communication & operational] problems, even between Paint and Panel [shops], but now it's most harmonious._

The other evidence for movement across traditional lines of demarcation was in staffing practices. In one of the comments above a Salesperson noted his movement from being a mechanic on the shop floor, to working in the Service Department, then moving onto his current position as a vehicle salesperson. Other staff, including the delivery driver mentioned earlier, have experienced similar movements. As Ross Fisher noted,

_We do try, where possible to promote within the company and that's not always possible. But we generally have a history of taking, for example, mechanics and making them service advisers; service advisers became the service managers, new car salesmen became new car managers. ... We always do attempt to promote within the company._

These developments suggest Claridge is dissolving some of the traditional barriers which might have constrained learning and staff mobility within the organisation.

(ii) Cultural factors

The second cluster of indicators to be considered relate to the culture of the organisation and the internal dynamics of communication. Some reference has already been made to some of these factors in considering the acquisition and use of knowledge. We have seen for instance how there has been some learning and communication across traditional demarcation lines. Here we consider some of the cultural factors which are likely to affect the workplace as a learning environment. We also note the general confidence which employees have in the mechanisms for generating new ideas and the potential for their ideas to be carried through to implementation.

Experimentation & innovation

One such factor is the potential for risk taking and experimentation. Perceptions on this issue were investigated, in particular by asking; Have you had the opportunity to experiment innovate or do something differently? The great majority (83%) of respondents gave affirmative responses to this question and followed up with particular examples of their experimentation or innovation.
Several of the sales people commented on how coming up with fresh ideas is a routine part of their work. This is reflected in the following three comments, the first is from a Management respondent, those following are from salesworkers.

Yes, I can do anything I like, Sales promotions, trying new sales strategies, trying innovative ideas to move vehicles.

Yes, I innovate] to a certain extent, that's part of the sales job, to innovate, generate ideas re. sales, canvassing and follow up

We have systems in place [paperwork etc] but there is some capacity for variation

Another of the salespersons commented on this issue and noted the difference between Claridge and his previous employer (also a car dealership).

I spend a lot of time educating customers here, this didn't happen much at the other [previous] employer

However the notion of innovation was not restricted to comments from the sales people. One of the tradespersons commented:

Everytime I plug in the Tech I machine it's a sort of experiment, I see what else it can tell me because I haven't had formal training on that machine

On this issue other respondents noted:

You're doing that [experimenting or innovating] all the while, to make things easier or quicker. You're allowed to do that because you're doing the job, it's your responsibility.

We're encouraged to try things, to do things a different way, to look for a better alternative, quicker, more efficient methods.

Yeah, I experiment all of the time. We've just done a stocktake and each time we do a stocktake we're experimenting to work out the best way to do it.

Yes [I experiment with] how I go about doing the jobs - my personal preferences for work processes. We're allowed to use our own style and techniques to get the job done.

The opportunity [to experiment/innovate] is always there but I can't think of anything specific that I've suggested.
Another of the management respondents noted,

>You don't do things the way they always used to be done. You look for a more efficient and practical way. You can introduce new ideas - if you can show that it will work. There is an acceptance of new ideas and proposals for change.

Whilst the data suggest a general perception of openness and a climate conducive to innovation this perception was not universal. At least two respondents shared a different perception on this question.

>It's pretty cut and dried, there's not much scope for variation and the computer and the calendar set the boundaries

>No, there's not really any scope for that [innovation/experimentation] here.

Responsibility & control

Running alongside the theme of innovation and change in these comments is the notion of responsibility and control. Several of the comments above suggest that the respondents felt they had a considerable degree of control over, and responsibility for, their own work. The perception was not universal but it is apparent as a recurring theme in the data. This sense of responsibility for one's own work was summed up best by one of the salespeople who noted;

>Yeah, sometimes we just do it and worry about the consequences later. Sometimes I row my own boat and steer it as well. The way I see it it's my destiny out there. As long as it's within company policy and it's legal. .. [laughs] ... Sure I'm selling other people's cars but it's my income, my life.

There is a sense of vocation being expressed here, in the old fashioned sense of the word - a sense that this isn't just a job - but work which is personally meaningful and closely tied to one's purpose in life.

This comment is a more explicit articulation of a theme implicit in several of the earlier extracts. The culture of Claridge is one which does suggests individuals have a degree of autonomy in their day-to-day work.

In some cases this sense of autonomy and control extended to the development of career pathways. One of the tradespersons interpreted the question about innovation more broadly and spoke of his career development.

>I've come from the office back into the workshop to train myself in the latest technology - before (hopefully) going back into the office. I'm changing around every few years to keep in front of the next person I want to know both sides, the office and the shop floor.

This comment reflects earlier observations about the relatively fluid nature of
some perceived boundaries within the dealership.

New ideas, monitoring & implementation

Another consideration in this section relates to how the enterprise generates or promotes new ideas and then monitors and transfers learning into new practices. The research focus here was on the level of conscious attention to learning and its application. A number of interrelated interview questions sought information on the generation of new ideas and how ideas are implemented and monitored. In this area the responses suggest - as one might expect in a relatively small family based business - that informal development, implementation and monitoring strategies tend to predominate.

On the issue of generating new ideas a fairly clear picture emerges. The picture is one of ideas and suggestions coming forward predominantly through informal workplace dialogue and discussion. Most respondents noted that management is receptive to suggestions and is nondiscriminatory about the source of good ideas. Several respondents mentioned "Tool Box" meetings held in their departments on a periodic basis. (Note. The period varied, weekly in some cases, sometimes monthly, or on an "as needs" basis. Respondents reported that ideas from these gatherings can, and sometimes do go directly to management.)

We have meetings once a month, [to] make suggestions. They work quite well. It gives people a chance to say what they think, ideas for equipment and so on. People do put forward ideas. [Our supervisor] does as much as he can to get ideas up and running. He's not scared to spend a bit of money to update.

A tradesperson noted,

I'm always raising issues, questions, problems. I go directly to [my Supervisor] and talk to him. But a lot of people seem to lack the confidence - or the care - to do that.

One of the Salespersons noted that staff,

... can and do make suggestions to supervisor and management. ... like we implemented a "Hold Bin" system for parts. Worthwhile suggestions do get implemented if there's agreement on the benefits. Put it this way, if you walked in and said how about - [leaves sentence hanging] - You certainly don't get laughed at.

Another tradesperson comment suggested the need for the holistic learning noted above,

... shop floor ideas do get implemented if they are worthwhile, but sometimes people make suggestions without really understanding why things are done that way.
Another one of the salespersons said;

_They [management] look for initiative. I'm sure if people came up with good ideas the company would go for it._

As a final example, another respondent,

_.. we all can [put forward new ideas/suggestions] Anybody can put forward ideas._

The other avenue mentioned for generating and advocating new ideas was the more formal consultative committee. Mention has already been made of this development in terms of learning across the organisation. The emphasis here was on the value of the committee as a forum for airing proposals, particularly ideas coming from staff. The interview data suggests the general perception that suggestions coming through the committee do receive a sympathetic hearing from management and carry with them at least a reasonable possibility of implementation. As one respondent (a tradesperson) summed up;

Anything like that goes through our worker representative. The Consultative Committee now provides a forum for things to be addressed. Whereas before it was never acted on, it's on paper now, before it was not even mentioned. That's been a very big development.

The most frequently noted strategy for implementing new ideas was active experimentation. In other words if proposals seem reasonable they are given a trial and monitored, as was the case with the safety grids on the lubrication pits. The same strategy is applied to new ideas for sales promotion or customer service.

There is little sense of a paper based administrative culture at Claridge. A few respondents noted that memos or formal notices are sometimes circulated to provide staff with important information. However this is not a frequently used strategy. One respondent noted,

_I don't think I've seen one since I've been here. We don't need them. It's a more common sense organisation._

As Ross Fisher noted,

_We do communicate wherever possible with the guys verbally. It doesn't mean that they don't get stuff in writing. If it something that has some legal or some financial considerations attached to it, there should be a record... [but for day-to-day operations] I'm not going to go to the trouble of trooping down to the office, getting one of the girls to type a little memo, stick it on the photocopier and walk around and hand it to four blokes... I'll walk out and see them, and say, 'Hey...'_

Thus informal processes of observation and data collection are used routinely to monitor the implementation of new ideas. As another respondent noted,
We observe and see if it works

Whilst the predominant strategy is one of informal observation Ross Fisher noted that a range of performance indicators are also taken into account - although they might not all be formally identified as such

When I look down that list [on the interview schedule] I would look at all of those things as indicators as to how effective our training is, .. lost time, and we do look at that particular statistic in the workshop, injuries, staff turnover, .. employee participation, ... we consider all those sorts of things

Collaboration, communication & cooperation

Another aspect of the organisational culture investigated was the extent of communication and collaboration between departments and perceptions about interdepartmental relationships The interview schedule asked; Can you comment on the degree of cooperation or collaboration between various departments? Respondents were asked to rate their judgement on a scale and invited to make comment The Claridge scorecard on this issue is mixed The data suggests that some respondents saw considerable improvements being made in this area over recent times Comments included the following from a manager:

Its getting better ... The idea of the internal customer is growing and developing

And from another of the management respondent;

I think in the last twelve months or so it's improved. A year or so ago it would have been rating one or two. There's been significant change for the better.

However other comments suggested different perceptions which were less optimistic.

It's fairly ordinary. There's a reluctance between Departments to appreciate each others requirements. For instance, misconceptions towards the Sales area as an area that creates problems (work) for other Departments.

It depends on how relevant or important some thing is, that determines how much information gets passed on.

Some individuals perceive that the flow of information does not always reach them The following comments come from different tradespeople responding to this question.

As far as the shop floor is concerned there is virtually no communication between departments.
It's variable, it works OK across some areas but not others. We don't get to know about the company; how it runs, what's happening. We're kept in the dark. We'd like to know more.

People think they know what the other departments... (want) - but they don't! They presume they know, but they don't.

We're not informed on a lot of things that are actually happening to the company, things that affect the company. We always hear the bad but not so much the good. They say a horse works for sugar. Don't they? There's more communication needed.

A sales worker noted,

There's always room for improvement. There's just a simple lack of communication and understanding. We're all too caught up in our own little corners and don't always see the others point of view.

Another respondent noted;

There are personality issues involved, it's difficult to comment.

Indeed for some respondents, this question may have been too threatening or difficult to respond to openly. There were a few non-committal comments such as, we have hiccoughs sometimes, and perhaps significantly, three respondents made no comment at all on this question.

Two additional points need to be made relating to the data emerging from this question. First, some comments suggest a shared perception that the main road dividing the Claridge Dealership represents more than a physical barrier. One of the most graphic expressions of perceived divisions or barriers to interdepartmental learning and communication was encapsulated in references to the main road dividing the Claridge businesses. One person responded to the question about interdepartmental communication by saying,

It's not real clever, I raised this before the OH&S committee was established. This street might just as well be ten miles wide. ... half the time you feel like you're a scumbag. which can be very disheartening.

This respondent, a tradesperson, elaborated on the need for more effective communication with those over the road. Elsewhere he noted, It's irrelevant, there's nothing on the other side of the road that connects with here.

This tradesperson was not the only individual to make reference to the other side and the use of such language, in context, suggested the road has become a metaphor for a deeper and more significant division between the different sections of the business.

However, this observation needs to be considered in light of the realisation that
the Crash shop is, in effect, a separate business to the new and used car dealership operation. In interview Ross Fisher commented on differences between these two different sections of Claridge's business. Referring to the crash shop and its employees he noted;

...they are not like car sales, ... they get the work because they are a crash shop and they have relationships with lots of insurance companies. ... So they've got to go out and get their own business. Certainly the fact that they are associated with Claridge Holden and that we are promoting our crash shop to our customers is an added advantage ... [but] that road is, in every sense, a barrier, the crash shop is a different business.

Secondly, some respondents took the opportunity in answering this question, to comment on communication difficulties within departments. In some cases these internal difficulties were seen to be a greater concern than gaps between departments. One tradesperson commented:

My concern is about communication between workers within the Department. There are communication gaps .. like there's "Ties" and "Overalls"

A second respondent also highlighted "the simple lack of communication and understanding" saying; "we're all too caught up in our own little corners and don't always see the others point of view." This person particularly wanted to stress the importance of communication within departments and argued for the need to streamline internal communications "to avoid gaps and double handling".

**Interdepartmental projects & initiatives**

A follow up question exploring issues of interdepartmental collaboration and communication solicited comments about any "significant problem, project or new initiative which your department has worked on with other departments". The majority (72%) of respondents cited examples of interdepartmental collaboration of this type. Some respondents suggested such connections were a routine part of operations, others placed emphasis on new initiatives. The links cited included the following.

* links between the Service Department & the new Car Sales people to prepare 'special' value added sales/service packages for fleet customers
* collaboration between management personnel & workshop staff over O.H. & S issues - One of the tradespeople noted that this was a very good example of [interdepartmental communication and problem solving].
* working relationship between higher technicians and the lower grade technicians on quick service and repair work.
* discussion between Parts/Service Dept. and the Crash shop regarding Crash Shop Credits.
interdepartmental coordination for the company/customer Golf Day for promotion, marketing and customer liaison.

* interdepartmental initiatives to address profitability - One of the management respondents noted, *We all work together* [for a] *better flow of information, give mutual support. Teamwork is becoming more prevalent*

* collaboration between Departments on new car release activities/promotions

* joint training activities with both New & Used Car Sales personnel

* **routine liaison between Sales Department. & Service/Spare Parts.**

* liaison between Sales Dept. & Paint/Panel Shop.

The prevailing view on this question, was of significant and reasonably effective liaison and cooperative action over particular issues, problems or projects. This suggests Claridge is managing to avoid, to a significant extent, the problems of chimneys and interdepartmental gaps which are cited in the research literature. However, as some of the comments both above and below suggest, such difficulties are not entirely absent from the scene.

**Dissension & concurrence: a climate of organisational openness**

A related area of the investigation sought data on the Claridge climate, in particular the degree of tolerance for dissension and the capacity of the organisation to take on board new ideas, suggestions or work practices. Mention has already been made of some factors relating to this issue. Some tradespeople for instance have commented on their feeling of control over and responsibility for their work. Sales personnel have noted the expectation for innovation and changing strategies. These comments suggest an organisational climate which is relatively open and receptive. Such a climate is consistent with notions of a learning organisation.

Some questions in the interview schedule addressed this issue directly, in relation to participation in formal training. However there is virtually no formal training provided in-house at Claridge. Section 2.3 below considers the organisation of formal and informal learning. Suffice to note here that where individuals did make comments about opportunities to contribute to training sessions, and to disagree with the presenter/trainer they were generally positive. The message coming through was one which suggested individuals are invited to contribute and there is some capacity for disagreement.

This perception is reinforced by evidence of "significant problems/issues which are not being addressed". The intent of this question was to investigate the situation described in the research literature in which problems become "undiscussable" even though everyone knows they exist. None of the respondents at Claridge suggested there were Many problems not available for discussion. However, responses were split fifty fifty on whether there were None or Few such problems. Comments from those suggesting there were no undiscussable issues included the following comment from a Sales worker:
No, if we come up with a problem it's generally addressed once they [the management] know about it. Our "Boss" is not above us, he's one of us.

One of the Tradespersons responded,

No, I couldn't say that really. I do think they're really trying.

Another Tradesperson commented,

No. They're being addressed but it takes time.

On the other hand, some respondents felt there were a few issues which had, in effect, gone underground. One of the tradespersons noted:

There's not enough involvement or discussion between all concerned. Some are not involved and don't necessarily see things as a difficulty or problem. They're too worked up in what they're doing.

Another tradesperson noted,

We can always do better, there's always room for improvement.

One of the management respondents noted,

...we need to identify and get to the root causes of difficulties... the lack of understanding by the players.

This sentiment was echoed by another management respondent,

There's not many [problems/issues not being addressed]. It's getting better. The idea before was that there were five separate departments. Now we're not working against one another.

One of the Sales persons noted,

...lack of communication causes ignorance, stress and pressure. Internal communications and systems need to be streamlined to avoid gaps and double handling.

**Maintenance & repair of relationships**

A series of interrelated questions sought information on the levels of trust, confidence and cooperation prevailing at Claridge Analysis. Of the data suggests a fairly widespread perception of generally high levels on these indicators. The results are summarised in Table 5.7 below. On a related question regarding maintenance of relationships, 50% of respondents clearly indicated affirmative responses, suggesting efforts are made regularly to maintain relationships. Approximately 10% responded towards the negative end.
of the scale on this question whilst about 40% opted for the non-committed position

Table 5.7 Working relationships

<table>
<thead>
<tr>
<th>Position</th>
<th>Number having working relations with:</th>
<th>These working relationships are characterised by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Trust</td>
</tr>
<tr>
<td>Managers &amp; administrators</td>
<td>17</td>
<td>12</td>
</tr>
<tr>
<td>Professionals</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>18</td>
<td>12</td>
</tr>
<tr>
<td>Clerks</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Labourers &amp; related workers</td>
<td>9</td>
<td>7</td>
</tr>
</tbody>
</table>

*This table was created by aggregating the positive and negative responses to questions about trust, confidence and co-operation, on a 5 point Likert Scale. Neutral responses have been omitted

(iii) Organisation of formal & informal workplace learning

The interview schedule also sought information on whether respondents had participated in any formal training activities in the last twelve months. More than half of the respondents at Claridge (61%) replied positively to this question. The following table summarises responses on the content or focus of this training and indicates the number of respondents citing participation in such training.

Given the size of the Claridge business this is an impressive range of training activity. Ross Fisher clearly indicated the company's commitment to training during his interview. In particular, he stressed that training is made available to Claridge employees at all levels of the business from non-trades personnel through to clerical, trades and management staff.

Figures available for the business show that Claridge expenditure on training amounted to $33,200 in the financial year July 1994 to May 1995. This figure reflects the direct costs of training rather than a costing based upon "opportunity lost". The direct costs related to expenditure on training fees, consultants and employees' wages whilst participating in training.
The provision of government funds was not a factor in the provision of training at Claridge during this period - although, as noted elsewhere, some government funding had been available earlier to support the development of the consultative committee on occupational health and safety.

The second observation to be made about Table 5.8 is the number of respondents who identified the work relating to occupational health and safety in this context. Although strictly speaking some of the OH&S work had taken place more than twelve months earlier it was apparent that many people in the workplace identified this as a significant training initiative of recent times. The significance of this work has been noted earlier in relation to changes in the culture of the organisation.

The other key observation on Table 5.8 is the emphasis placed upon training in relation to new products. Several respondents highlighted the importance of various training programs offered by General Motors for Dealership personnel. Training on new products, which includes provision of detailed product information, is vital for the dealership business and programs offered by GM are invariably attended by Claridge personnel. As one of the interview respondents noted;

*All the time Any courses that pop up, they're always pushing people off to do things. They put your name down for courses, ... not only for*
This point was also reinforced by Ross Fisher who confirmed that sending people along to such training programs is considered essential; ... with any training that GM has, they automatically go off to those courses. A little later in the interview he noted;

the source of training that we pay particular attention to is the stuff that is particularly pertaining to our industry and our franchise, in other words, stuff that's conducted by Holden, the GM training.

The picture that emerges at Claridge is of a strong commitment to training and workplace learning in various forms. Formal training is generally accessed from outside sources; TAFE, private consultants on occasion, and in particular, General Motors Holden. As a member of the GM corporate family Claridge places great importance on the training and support available through GM. However as a dealership the organisation is constrained in the formal training it can offer under its own auspices. Consequently the enterprise based training tends be more informal and is conducted through on-the-job instruction, informal meetings and participation in workplace groups. In house training is written into job specifications for managers and supervisors.

Further evidence for this approach to workplace learning is shown by 55% of the respondents reporting they had worked on new tasks in the last twelve months with the majority of these respondents suggesting the new work facilitated learning of new knowledge and/or skills.

One particular focus for in house learning which was investigated was learning about the company's customers. Most respondents indicated some learning about the dealership's customers.

Not all Claridge personnel identify themselves very strongly with the company's customers One of the trades persons noted; Some of the boys hardly ever see a customer, they don't meet them. Another respondent noted; Well I don't really have customers ... she went on to explain how her role is at least one step removed from the customer interface. Other respondents recorded comments such as [I've learned] a little, but I have no real contact with customers... and I don't really have much to do with them

However on this issue one of the management respondents noted that he continued to learn about the customers even after many years in the automotive sales business. It's ongoing, all the time - that is my business. One of the sales workers echoed this comment;

You're always learning [about] the customers and the products, understanding where our customers are from, the demographic 'windows' [and] our company's situation in the market.

This theme of continuous learning was evident in several responses; For
instance from a sales/service worker,

you're learning about that all the time

... it keeps changing all the time, you're continually learning.

Another of the sales/service workers noted;

This is ongoing, it's happening all the time. Everyday you're meeting and creating new customers.

5.5 Conclusion

The learning culture at Claridge is inextricably linked to the two families upon which the business is based. The GM "Corporate Family" and the Claridge family which has owned and managed the business since its inception in 1929. Both influences are profound. The influence of the parent company is apparent not only in the obvious presence of gleaming new GM vehicles in the showroom but in the more subtle and pervasive ways GM shapes the dealership franchise. Through monitoring customer satisfaction, through executive training for the senior management, through new product launches and information sessions, and through a wide range of trade, technical and specialist training programs the parent company shapes the expectations and the performance of the Claridge personnel. Much of the formal training undertaken by Claridge people is provided by, or linked to GM in one way or another. The attention to customer satisfaction, principles of continuous improvement and the development of a learning culture at Claridge may be seen as responses to GM expectations.

However within the wider corporate family the dealership family generates and sustains its own learning culture. It is a culture which recognises and values individuals with ideas and initiative but the recognition and rewards are not built into formal structures. There is no formal training plan or career path and no training agreement within the enterprise. There is resistance to notions of bureaucracy and paperwork. There is little formal learning on-site, yet there is substantial evidence of workplace learning occurring through informal means; the consultative committee, the "Tool-Box" problem solving meetings, informal systems of mentoring and job rotation and so on. There is also evidence of an internal labour market which supports workplace learning, staff development and progression. Although predominantly informal in style there are commonly understood (even if unwritten or unstated) rules about communication which is predominantly face-to-face. The decision makers within the business are understood to be available at different levels and open to information and ideas. Issues may be taken up directly with the senior management if necessary, but an hierarchical and traditional structure operates in most circumstances.

Despite the apparent conservative nature of the structure at Claridge and the context of continuity and stability within the business a workplace learning culture has developed. It is based on the high value given to training and continuous improvement in services, a growing appreciation of the importance of effective communication and collaborative processes, and opportunities for informal on-the-job learning. Ongoing
learning is a feature of working life, there is a general expectation that Claridge employees will be interested in learning. This expectation is closely aligned with the principles of continuous improvement and customer satisfaction.

Although much of the learning is informal and relatively unstructured and despite not being overwhelmed by massive forces for change, there is considerable evidence to suggest that Claridge is demonstrating many of the features of a learning organisation.
Chapter Six

Suspension Components Australia Pty Ltd (SCA): Learning and Development in a Small Company

6.1 Introduction

(i) The company

Suspension Components Australia Pty. Ltd (SCA) is a manufacturer of hot forged components for passenger motor vehicle suspension systems. The company employs some 73 people at its North Melbourne premises.

The business of the company is wholly automotive and hence there is one union represented on site - the Australian Manufacturing Workers Union (Vehicle Division). The company negotiates with its industrial stakeholder through a site Consultative Committee. This Consultative Committee operates under the framework provided in the Enterprise Bargaining Agreement. This agreement includes a Training Agreement, and hence training is one of the matters that falls within the scope of responsibility of the Consultative Committee.

(ii) Formal training at SCA

The company employs a full-time Human Resource Manager who administers the training system and conducts training activities, alongside the other personnel duties involved with the position. The company has also trained two employees to carry out training functions, along with their regular production activities.

The company uses a variety of external providers to support its training activities. Over a 12 month period it had used, external consultants, industry associations, the industrial union, TAFE colleges and private training providers, to support its training efforts.

Employees at all levels of the company had received some training during the year. This consisted of:

1. on-site, company wide programs, such as training for International Standards & Quality Accreditation (ISO) and training for Product Liability awareness;

2. on-site training for the Vehicle Industry Certificate (VIC) for
production employees,

3. on-site training for specific needs, such as training in powder coating equipment; and

4. off-site training for specific individuals. Managers and staff typically attended off-site training in the form of 1/2 to 2 day seminars in the use of information technologies relevant to their job (e.g., training in Electronic Data Interchange (EDI) technology), whilst trade and technical employees attended post-trade training courses at a TAFE college.

The profile of those attending training is as follows:

Table 6.1 Number involved in training

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
<th>Number involved in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Professionals</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Clerks</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>37</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>45</td>
</tr>
</tbody>
</table>

The costs of providing this level of training were as follows:

Table 6.2 Costs of training

<table>
<thead>
<tr>
<th>Category of cost</th>
<th>Hours (rounded-off)</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release of employees to attend training</td>
<td>32,030</td>
<td>$80,000</td>
</tr>
<tr>
<td>Release of employees to participate in curriculum &amp; program development</td>
<td>1000</td>
<td>$25,000</td>
</tr>
<tr>
<td>Overhead costs (typing, photocopying, provision of on-site training facilities, etc.)</td>
<td></td>
<td>$6,000</td>
</tr>
<tr>
<td>Payment of consultants</td>
<td></td>
<td>$30,000</td>
</tr>
<tr>
<td>Payment of external providers</td>
<td></td>
<td>$15,000</td>
</tr>
<tr>
<td>Total</td>
<td>33,030</td>
<td>$156,000</td>
</tr>
</tbody>
</table>
These costs do not include funds provided by government for employee training. SCA received $35,000 of government funds during the year, for the delivery of the VIC; hence the total expenditure of the company on training was $191,000 made up of $156,000 company funds and $35,000 of government funds.

The availability of government funds was not seen as a key determining factor, in the development of training at SCA. The costs incurred by the company for the provision of training were a much more significant factor, when making decisions about training. Production Manager, Paul Fitzgerald commented that we wanted the training and said ‘hey is there any money around’. Paul did however see access to government funds as a key issue for small businesses. The companies lack of experience and expertise in training meant that it was dependent upon outside consultants for both initial program development and for information about the sources and availability of government funds. Paul commented that:

*You need an army to get government funds or a specialist who knows where to get funds. Small companies lack the resources and experience to find where to get government funds.*

(iii) **Effectiveness of training**

The company monitors the effectiveness of its training using such indicators as; improvement in quality measures (eg. scrap), employee participation in continuous improvement activities and the skill assessments of employees. Paul Fitzgerald stresses however that the company has a long way to go in the development of it’s training strategies and their effectiveness.

The company has just finalised a new career structure for non-trades employees, based upon their skill and knowledge progression, such structures do not yet exist for trades and post-trades (para-professional and technical) employees. There is as yet no training plan in place for those involved in the technical and managerial disciplines and the company has not yet identified the skills required for these employees. The company has not yet developed a strategy for skill formation for employees beyond production operators. *We haven’t sat down and put it together for those groups yet* Paul Fitzgerald said.

The underdevelopment of an internal labour market is reflected in the fact that the company still tends to look externally for the skilled workers that it requires. In the preceding 6 months the company had filled 19 vacancies, 4 internally through promotion and 15 externally through recruitment.

In the absence of a full strategic plan for skill formation and career development, the company has tended to focus upon tacit and implicit measures, to evaluate the effectiveness of it’s training programs. The desire of the company to break new ground, and provide a career structure and training...
for employees from non-trades through to post-trades, from production operator to para-professional technical workers; has meant that these tacit and implicit measures of effectiveness have been related to this strategic goal. Once the strategy has been formulated into a clear plan, then more concrete measures may emerge.

The tacit measures of effectiveness revolve around two key issues: a) to what extent is the training customised and clearly related to the enterprise, its culture and work processes, and b) to what extent is the training helping to change the enterprise culture from one based on a functional hierarchy of non-trades, trades, post-trades and staff, towards a culture based upon career progression and cross functional work.

Paul Fitzgerald discussed this issue at length, commenting that:

*We're trying to do new things appropriate for this company. We want effective training as opposed to training for the sake of training. We want value for money training appropriate for the enterprise. We are fighting to survive, and that doesn't leave time for some of these things. We have a good understanding of what we want to do but it is hard to realise it. The bums on seats concept of training and funding is poor. Funding needs to be more appropriate to needs as it currently makes companies fiddle the books. What we need is a flow through, an interlinked system, with the transfer of credits from level to level, VIC to AVC and beyond. Training has to be user friendly because Competency Based Training (CBT) is scary for some people.*

Paul felt that the emergent needs of small businesses like his, were not being adequately addressed by the training institutions with their traditional culture of off-the-job Trades training.

*Breaking down the culture of outside suppliers of training is important. Training institutions are not interested in companies, in the detail of their operations. Training institutions need to be geared more to the enterprise and be pro-active in selling their services, but also in helping companies to see what they need. Sometimes the customer doesn't really know what he wants. They are teaching-learning-training specialists, the enterprises are the product-service specialists.*

(iv) **The focus of change**

The development of a skill and knowledge based career structure for all employees, from production operator induction through to para-professional technical workers, is clearly a focus of change for the company. Alongside this change are other key changes occurring at SCA. These include:

1. The introduction of new forging technologies and the development of
new work processes;
2. The development of new products and new product lines;
3. The development of export business and the associated need for international quality accreditation; and
4. The development of joint ventures.

The impact of these changes is being felt at all levels of the business and the strategies used to support change include:

1. The development of multi-skilled employees
2. The involvement of employees in continuous improvement activities
3. The employment of new employees with required skills
4. The development of organisational systems through a review process
5. Increasing training activity

These changes have been the driving force behind the development of workplace learning at SCA and the formation of the workplace learning environment. Paul Fitzgerald commented that:

The training and development of skill and knowledge is very important, however the way it is done is more important. We want attitude change to be positive, we want people to be proactive in caring about their work and their workplace, while actively participating in the continuous improvement process. This is of major importance.

6.2 Characteristics of the workplace learning environment

The sample of those interviewed for this case study, was constructed as follows:

<table>
<thead>
<tr>
<th>Position</th>
<th>No in company</th>
<th>No. interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Professionals</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Clerks</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>39</td>
<td>12</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>73</strong></td>
<td><strong>17</strong></td>
</tr>
</tbody>
</table>
### Table 6.4 Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
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</tr>
<tr>
<td>Female</td>
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</tr>
</tbody>
</table>

### Table 6.5 Age

<table>
<thead>
<tr>
<th>Age</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24</td>
<td>1</td>
</tr>
<tr>
<td>25-34</td>
<td>7</td>
</tr>
<tr>
<td>35-44</td>
<td>8</td>
</tr>
<tr>
<td>45-54</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 6.6 Country of birth

<table>
<thead>
<tr>
<th>Country</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>5</td>
</tr>
<tr>
<td>Philippines</td>
<td>3</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1</td>
</tr>
<tr>
<td>Nigeria</td>
<td>1</td>
</tr>
<tr>
<td>Lebanon</td>
<td>1</td>
</tr>
<tr>
<td>Italy</td>
<td>1</td>
</tr>
<tr>
<td>Croatia</td>
<td>1</td>
</tr>
<tr>
<td>Germany</td>
<td>1</td>
</tr>
<tr>
<td>Poland</td>
<td>1</td>
</tr>
<tr>
<td>El Salvador</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 6.7 First language

<table>
<thead>
<tr>
<th>First Language</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>6</td>
</tr>
<tr>
<td>Tagalog</td>
<td>2</td>
</tr>
<tr>
<td>Tamil</td>
<td>1</td>
</tr>
<tr>
<td>Urdu</td>
<td>1</td>
</tr>
<tr>
<td>Ibo</td>
<td>1</td>
</tr>
<tr>
<td>Arabic</td>
<td>1</td>
</tr>
<tr>
<td>Croatian</td>
<td>1</td>
</tr>
<tr>
<td>Italian</td>
<td>1</td>
</tr>
<tr>
<td>German</td>
<td>1</td>
</tr>
<tr>
<td>Polish</td>
<td>1</td>
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<tr>
<td>Spanish</td>
<td>1</td>
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</tbody>
</table>
Table 6.8

<table>
<thead>
<tr>
<th>Qualification</th>
<th>No</th>
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</thead>
<tbody>
<tr>
<td>Post-graduate diploma</td>
<td>1</td>
</tr>
<tr>
<td>Bachelor degree</td>
<td>4</td>
</tr>
<tr>
<td>Undergraduate diploma</td>
<td>1</td>
</tr>
<tr>
<td>Associate diploma</td>
<td>1</td>
</tr>
<tr>
<td>Skilled vocational certificate</td>
<td>2</td>
</tr>
<tr>
<td>Basic vocational certificate</td>
<td>1</td>
</tr>
<tr>
<td>Licence</td>
<td>2</td>
</tr>
<tr>
<td>No formal qualifications</td>
<td>5</td>
</tr>
</tbody>
</table>

Table 6.9 Length of service

<table>
<thead>
<tr>
<th>Length of Service</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 12 months</td>
<td>1</td>
</tr>
<tr>
<td>1-5 Years</td>
<td>11</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>5</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>0</td>
</tr>
</tbody>
</table>

(i) Acquisition and use of knowledge

There was not a widespread perception of change among employees. Only 5 employees in the sample reported significant workplace change in the preceding 12 months. Greater numbers of employees, however, reported learning that had changed their attitudes towards their work. Altogether some 11 employees in the sample, reported learning that had changed their thinking about their work.

The perception of significant workplace change amongst employees, was related to major changes in work role. Two of the 5 employees reporting significant change, for example, came from the Quality Assurance Department, which was responsible for the development of new quality systems, for company quality accreditation. This department had also been involved in the development of training for these programs and the VIC. These employees commented upon the way their new responsibilities had changed their view of the workplace:

_The Trainer-Trainee course has given me a wider view of training and understanding of operator needs in skill development_

_I now see people taking ownership of their own areas of responsibility and how difficult it is for them to have the confidence to change poor_
existing practices

Production operators from different areas of the plant also reported significant change, and this was associated with major changes in work role as well - such as developing new products and new production processes. These employees commented:

*There is more commitment now and we are taking more responsibility for things on the job*

*Plenty of things need to be changed, now I give suggestions to make new jobs the easy way*

*We need to make quality good*

Other employees reported, not significant change, but learning that had changed their thinking about work. These employees comments reflect the effects of both new job tasks and of training itself, changing their view of work. The comments reflect both the development of broad understandings about systems and people, and new learning relating to particular concerns such as safety and quality.

*Involving the end-user of a system, whether it be change or innovations, can almost guarantee the success of an idea / project.*

*Now I understand better and pick up faults better*

*You learn a lot about the job and that is helping you in the long run.*

*Training has made it easier to do the job*

*I learn about safety fundamentals and following SOP's before starting job.*

*Yes, safety precautions on chemicals used, for example, coolant Knowing what sort of fires and the use of different extinguishers.*

These employees had all experienced *transformative learning*, learning which had significantly changed the way that they thought about their work. In some cases they had learned to view other people in a different light, in other cases they looked at the job itself differently, all as a result of learning. Those who did not report this transformative learning, still pointed to new learning that had taken place. These people reported accumulative learning or learning which had extended their stock of knowledge. These comments invariably reflected task related learning, learning which had extended their repertoire of on-the-job knowledge and skills:
I learned some technical information relating to machining, understanding machining centers, cutting tips, speeds, that sort of thing.

I have more experience reading gauges.

I have to develop communication skills for training new operators.

Some 13 employees in the sample, reported learning new things in the preceding 12 months, whilst only 2 employees could report no new learning. These latter two employees, also reported having undertaken no new jobs or tasks in the past 12 months. Learning at SCA was thus related to the expansion of the scope of responsibility of employees' jobs, and to the job rotation of employees.

Job rotation (that is multi-skilling as opposed to multi-tasking job rotation) was a widely reported stimulus for new learning, with 12 employees having rotated jobs in the previous 12 months. Seven employees reported significant learning from job rotation, whilst 2 reported that they had learned nothing from the experience. Learning to operate and set-up machines, was the most commonly reported learning from job rotation. Those who were equivocal about learning through job rotation, had usually been rotated into the jobs before, as the following comment illustrates:

I've done it before, it was really just refreshing my memory.

Eight of the 12 employees experiencing job rotation had rotated to jobs in another area or department, indicating that learning across functional boundaries was facilitated by job rotation within the enterprise.

New learning in existing jobs was reported by 13 employees. This learning reflects changes to the scope and responsibility of the work of these employees. New responsibilities reported by these employees included:

<table>
<thead>
<tr>
<th>New responsibility</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance tasks</td>
<td>4</td>
</tr>
<tr>
<td>Set-up tasks</td>
<td>5</td>
</tr>
<tr>
<td>Quality control tasks</td>
<td>5</td>
</tr>
<tr>
<td>Developing new procedures</td>
<td>4</td>
</tr>
<tr>
<td>New communicative tasks (e.g. training, customer liaison)</td>
<td>2</td>
</tr>
<tr>
<td>New managerial responsibilities</td>
<td>2</td>
</tr>
</tbody>
</table>
Twelve of the 13 employees experiencing job enlargement, reported significant new learning from their jobs, indicating that this process of learning through changed work responsibilities, was more likely to lead to new learning than that created by job rotation alone.

Contact with customers and suppliers and learning about the destination of company products, also emerged as a significant source of learning with 10 employees reporting significant learning about aspects of the business beyond the factory gates. Only 1 employee reported learning nothing about the linkages of the business beyond the plant. Organisational openness can thus be seen to generate significant learning.

Those reporting significant learning about aspects of the business beyond the factory tended to do so on the basis of their own experience. They had visited customers or suppliers workplaces and had received visits by customers and suppliers in their own workplace (7 of 10). Those who were equivocal about their learning concerning linkages of the business beyond the factory gates, tended not to have visited customers or suppliers (4 of 6).

Learning across internal and external boundaries, developing a holistic view of the enterprise and its business, can thus be seen to be related to employees perceptions of their learning, the more contact they have with customers and suppliers, the more they rotate jobs and take on new job responsibilities, then the more learning they are likely to engage in.

Organisational development at Suspension Components, highlights both the internal development of employees and the external recruitment of employees with particular skills. The company is moving towards extended internal development through its VIC training program and quality programs, but is also recruiting externally to cover its skill shortages during a period of expansion.

The internal development of employees, knowledge and skills, is being organised through, formal training for production operators, the development of new company procedures through the quality system and the introduction of a system for continuous improvement. One consequence of this extensive internal development is that training and learning activities for most employees occur on-site, on-the-job, in the classroom and in meetings such as the departmental continuous improvement meetings. Only 3 employees reported attending some training activities off-site.

The VIC training program for production employees was the most extensive training activity undertaken at SCA during the preceding 12 months. The program was highly customised to enterprise needs - it was based upon the policies, technologies and work systems of the company and was delivered through a combination of on-the-job skills training and on-site classroom knowledge training. Other training activities, such as the Quality Standards.
training and the workshop presentations by visiting experts, were also highly
customised to specific enterprise needs. The benefits of this training and
learning of *embedded technical knowledge* - knowledge which was based upon
the workplace, its people, procedures and technologies - can be seen in its
contribution to employee learning, and the positive response of employees to
training activities.

Fourteen of the 15 employees who had participated in the training programs
(predominantly the VIC program) rated the programs as highly relevant to their
daily work. When asked about the utility, learning potential and their
appreciation of the training methods they had been exposed to, employees in
the sample responded as follows:

<table>
<thead>
<tr>
<th>Training method</th>
<th>Number experiencing that method</th>
<th>Very useful</th>
<th>Learned a lot</th>
<th>Enjoyed very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussing work, knowledge &amp; experience in the classroom</td>
<td>14</td>
<td>14</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>Trainee's presentations</td>
<td>11</td>
<td>10</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Job related projects</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Expert presentations</td>
<td>7</td>
<td>6</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Computer based training</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Self-paced workbooks</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

The table indicates the extensive use made of experiential training methods at
SCA. The use of these methods drew upon employees' knowledge and experience
of the workplace and enabled employees to relate the training to their own work.
Training activities (e.g., projects) were also related to enterprise goals of quality
improvements and continuous improvement.

The training provided by the enterprise would appear to have been well received
by employees, and to have provided support for the creation of a workplace
learning culture.

The development of the Quality System and of a system for continuous
improvement at SCA also contributed to the development of the workplace
learning culture. This culture of learning and improvement was supported by
formal meetings and informal discussions. Production employees attended a
weekly, hour-long, Continuous Improvement Group Meeting at which problems
were raised and suggestions were made. Other employees attended departmental
or section meetings, which also dealt with suggestions for improvement. This spread of learning and improvement activities across all levels of the enterprise is reflected in employees’ perceptions about the origin of suggestions and the locus of decision making. When asked to indicate which groups in the enterprise put forward suggestions and which groups decided upon their implementation, employees responded:

<table>
<thead>
<tr>
<th>Position</th>
<th>Put forward suggestions</th>
<th>Decide on implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Professionals</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>15</td>
<td>7</td>
</tr>
<tr>
<td>Clerks</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>16</td>
<td>9</td>
</tr>
</tbody>
</table>

Ten employees reported that suggestions were regularly implemented, 6 that suggestions were sometimes implemented, and only 1 employee reported that they were rarely implemented.

Improvements were implemented using try-outs in the factory and via changes to standard operating procedures. Changes were monitored by observation and the use of statistical control techniques. Changes were reported via shift reports, project reports and feedback to departmental and continuous improvement group meetings.

The enterprise is thus evolving systems and procedures for the monitoring and transfer of new learning into new practices. These systems comprise formal elements (such as continuous improvement group meetings), ad hoc and as needed elements (such as project groups) and informal elements (such as on-the-job conversations).

(ii) Cultural factors

Employees in the enterprise also actively maintain and repair relationships between people and departments. Sixteen of the 17 employees in the sample reported that efforts were frequently made to maintain relationships, whilst none reported that efforts were rarely made. Ten employees rated the company highly as an employer, whilst only one employee rated it as a poor employer. Pay and the limited prospects for promotion in a small enterprise, were the major concerns of employees.
The inclusive nature of the internal development in the company was also associated with high levels of co-operation across all levels of the company. Few employees reported a lack of co-operation. This was also associated with high levels of trust and confidence in other groups within the enterprise. When asked for their views about the trust, confidence and co-operation that existed across the enterprise, employees responded as follows:

Table 6.13 Working relationships

<table>
<thead>
<tr>
<th>Position</th>
<th>Have working relations with</th>
<th>These working relationships are characterised by</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trust</td>
<td>Distrust</td>
</tr>
<tr>
<td>Managers &amp; administrators</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Professionals</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>17</td>
<td>13</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>16</td>
<td>11</td>
</tr>
<tr>
<td>Clerks</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>nil</td>
<td>na</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>16</td>
<td>12</td>
</tr>
</tbody>
</table>

* This table was created by aggregating the positive and negative responses to questions about trust, confidence and co-operation, on a 5 point Likert Scale. Neutral responses have been omitted.

The inclusive nature of internal development was complimented by the openness of the enterprise and its employees when confronting problems. Twelve employees reported that they frequently put forward their own opinions, and that they were able to disagree with presenters during training sessions, etc. One respondent commented that he always put forward his own opinion because

*People on the shopfloor know what is proper and how to make productivity improvements. Supervisors should listen to people on the shopfloor.*

Twelve employees reported that there were no undiscussable topics within the enterprise, whilst 5 considered that there were some. These undiscussable topics included other peoples salaries and wages, racial intolerance in the workplace, and restrictions on learning in the workplace. The last perhaps...
indicates that having been stimulated by learning about the workplace, employees are looking more critically at the barriers to learning that still exist. When asked what the undiscussable topics were, these employees commented.

*Not being eligible to learn some things because they belong to another department*

*The usage of mechanical equipment, I am not given the chance to learn about some things.*

(iii) **Organisation of formal and informal workplace learning.**

The enterprise provides many formal and informal opportunities for learning. Formal training, formal improvement groups, and so on, all provide *structured learning* times. Informal and incidental learning occurs through daily work and conversation on-the-job. The maintenance of good interpersonal relationships and the boundary crossing nature of many activities (e.g. project groups), also supports informal and incidental learning. Learning and information is shared informally and formally within the enterprise.

The *identification of strategic needs* for learning within the enterprise is only beginning to occur however. The development of formal training programs has begun to address the strategic need for internal development and a change of organisational culture, but the implementation of quality programs has to date been mainly driven by customer requirements. The current management of the enterprise has only been in place for 3 years, and strategies for the development of the enterprise are still evolving. The enterprise was previously focussed solely upon production for the domestic automotive market, but the new management has begun to develop a significant export focus. This new focus will shift enterprise strategy in new, and as yet unanticipated, directions.

Employees at all levels of the enterprise have the opportunity to participate in formal training activities and formal improvement activities. Formal training over the 12 month period was focused upon the VIC for the production operators, but other training activities have also been available for other groups of employees. The intention of the company is to build upon the training for the Production Workers, to provide training and a career path, from production to para-professional level, but this structure has not yet been put in place.

The lack of such a career structure and pathways for progression, was a clear concern for employees. Most employees felt that there were opportunities to gain new knowledge and skills within the company. Only 1 employee felt that there were no such opportunities. The opportunities to learn and develop were appreciated by employees and they looked forward to the development of further opportunities:

*I learn a lot of things I didn't know, safety, new machines, I would like
to learn more machines.

Learning is very good in this company.

When it came to opportunities for promotion however, employees were more sanguine, with 12 of them considering that opportunities were limited in a small company. Employees looked to management to provide opportunities. Comments such as the following were indicative:

There are opportunities to gain new knowledge, whether that gained knowledge can be applied to this organisation is restricted

There is no formal recognition system at the moment.

It depends upon management to create opportunities

6.3 Conclusion

The company has begun to develop a unique workplace learning culture focused around, formal training which is contextualised and based upon employees experience, and a quality system supporting continuous improvement. The strategy has been to develop this culture from the shopfloor and thence throughout the organisation

The strategic direction of the company is towards extensive internal development, via a clear career progression for employees from production operations to para-professional and technical work. Since this structure is not yet in place, there are significant employee concerns about the career opportunities available to them and the company still relies heavily upon the external labour market for the skilled employees that it requires during a period of expansion.

The learning culture is in place, but the formal mechanisms to recognise employees development of knowledge and skill, are not yet fully in place.
Chapter Seven

Nissan National Parts Distribution Centre:
Learning and Workplace Change in a Warehouse

7.1 The company

Nissan has become an importer of vehicles for sale in Australia since its manufacturing plant in Victoria closed in 1992. The company’s Head Office, its Castings Plant and the National Parts Distribution Centre (NPDC) are located in Victoria. Other smaller Parts Depots are situated in NSW, WA and Queensland.

The NPDC is the central depot which supplies parts and accessories to local customers via its dealership network as well as interstate to other Nissan depots. Efficient supply of parts is considered to be especially crucial now that the company no longer manufactures and assembles cars in Australia. The operations are supported by several administrative departments including parts logistics, accounts, parts procurement, sales and marketing and dealer development.

The distribution centre has two warehouses. The Receiving Warehouse is where parts are received and it also holds the reserve stocks in high rise storage. At 11,500 square metres, it is the smaller of the two storage areas. It has the capacity for 12,500 standard size pallets. Over 17,000 lines, totalling in excess of 700,000 pieces, are received here each month from Japan (NML) and local suppliers. The Despatch Warehouse is housed in the original building which is slightly larger. It incorporates the prime storage location and despatch area.

Routine orders, local and interstate, are despatched daily, supplying on average over 77,000 lines (totaling over 628,000 pieces) per month, excluding daily transfers to interstate depots. A local carrier collects urgent orders three times daily to service high priority requests from metropolitan dealers. The company’s 99 employees in the NPDC (office and warehouse) are responsible for the dispatch of goods worth approximately $10 million per month on the retail market. A great deal more is held in storage.

Two unions are represented on site (AMWU (Vehicle Division) and the ASU (Clerical)) and an enterprise industrial agreement that incorporates training exists. A VIC tripartite Training Committee guides the implementation of this training and a management level training committee also exists.

7.2 Characteristics of the sample interviewed

The sample of those interviewed for this case study, was constructed as shown in Tables 7.1 - 7.7 inclusive. The majority of respondents were born in Australia (Table 7.4) and only 18.5% came from a non-English speaking background (Table 7.5). This
reflects the relatively low (compared to manufacturing companies in this industry) number of non-English speaking migrants employed in warehouses

Of the 6 people who had no formal post-school qualification (Table 7.6), five respondents were part way through their VIC. A further 13 were also undertaking the VIC at the time of the interviews. Five people had completed their VIC and, in addition, several people were currently undertaking a higher level qualification.

Table 7.1 Occupations

<table>
<thead>
<tr>
<th>Position</th>
<th>No in company</th>
<th>No interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Professionals</td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>Para-professionals</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Tradespersons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>62</td>
<td>23</td>
</tr>
<tr>
<td>Labourers &amp; related workers*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>99</td>
<td>27</td>
</tr>
</tbody>
</table>

* Note that Nissan classifies all its warehouse workers in this category including those who drive forklifts, high-rise pickers, etc.

Table 7.2 Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>21</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 7.3 Age

<table>
<thead>
<tr>
<th>Age</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24</td>
<td>3</td>
</tr>
<tr>
<td>25-34</td>
<td>6</td>
</tr>
<tr>
<td>35-44</td>
<td>14</td>
</tr>
<tr>
<td>45-54</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 7.4 Country of birth

<table>
<thead>
<tr>
<th>Country</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>16</td>
</tr>
<tr>
<td>UK</td>
<td>6</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1</td>
</tr>
<tr>
<td>Malta</td>
<td>1</td>
</tr>
<tr>
<td>Mauritius</td>
<td>1</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1</td>
</tr>
</tbody>
</table>
### Table 7.5 First language

<table>
<thead>
<tr>
<th>First Language</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>22</td>
</tr>
<tr>
<td>Chinese</td>
<td>1</td>
</tr>
<tr>
<td>French</td>
<td>1</td>
</tr>
<tr>
<td>Italian</td>
<td>1</td>
</tr>
<tr>
<td>Maltese</td>
<td>1</td>
</tr>
<tr>
<td>Vietnamese</td>
<td>1</td>
</tr>
</tbody>
</table>

### Table 7.6 Highest educational qualification

<table>
<thead>
<tr>
<th>Qualification</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Degree</td>
<td>1</td>
</tr>
<tr>
<td>Post-Graduate Diploma</td>
<td></td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>1</td>
</tr>
<tr>
<td>Undergraduate Diploma</td>
<td></td>
</tr>
<tr>
<td>Associate Diploma</td>
<td></td>
</tr>
<tr>
<td>Skilled Vocational Certificate</td>
<td>5</td>
</tr>
<tr>
<td>Basic Vocational Certificate</td>
<td>3</td>
</tr>
<tr>
<td>Licence</td>
<td>11</td>
</tr>
<tr>
<td>No Formal Qualifications</td>
<td>6</td>
</tr>
</tbody>
</table>

### Table 7.7 Length of service

<table>
<thead>
<tr>
<th>Length of Service</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2 years</td>
<td>6</td>
</tr>
<tr>
<td>2-4 years</td>
<td>13</td>
</tr>
<tr>
<td>5-7 Years</td>
<td>4</td>
</tr>
<tr>
<td>8-10 Years</td>
<td>3</td>
</tr>
<tr>
<td>20 years</td>
<td>1</td>
</tr>
</tbody>
</table>

A substantial number of interviewees were interviewed within the context of their VIC class, owing to the difficulty of obtaining people from the workplace for interviews outside of this time. It should be mentioned that these groups were not the first wave of very enthusiastic VIC trainees who blazed the path for those that followed and who were the strongest advocates for workplace training. It was also a fairly early stage in their VIC training, so they had not experienced a lot of the activities that had enthused previous trainees.

### 7.3 The focus of change

Much of the change at Nissan NPDC has taken place as a result of the restructuring that occurred following the closure of the manufacturing plant in 1992. This created massive change within the Company as the workforce declined from approximately...
2,500 to 300 employees. The resultant decrease in market share in Australia (10% of market share down to about 4%) meant that the demand for parts and accessories also changed. This in turn led to other problems such as the sourcing of parts from Australian component manufacturers as much smaller quantities were required. Some companies insisted on one all-time-buy of certain parts, creating new storage requirements.

The other major change came with the introduction of a new computerised system of warehouse control - Nissan Automotive Parts System (NAPS) - in early 1993. NAPS initially created massive changes in work practices and organisation and continual smaller changes are constantly being made to the system to accommodate changes in types of parts, location of parts, key performance indicators and targets.

At the time of this study these changes were already incorporated into the life of the Company and were not necessarily the focus of change, although many employees still cited them as being significant.

*Work used to be very slow. The NAPS system changed everything. Many people took redundancy packages leaving fewer people to do the work. It is a more efficient system. For instance, stock orders improved, and the average turn around time for parts decreased from 2½ weeks to 3 - 4 days.*

Similar comments came from a number of interviewees regarding the changes that had occurred as a result of NAPS.

*The NAPS system was the major change. It affected everybody. We had to make many adjustments.*

Several cited the higher workload as a major change while others talked of the introduction of supervisors, changes to area layouts in the warehouse, their involvement in VIC training and the introduction of job rotation. However many employees did not see the changes that have taken place in the last year to eighteen months as being very significant compared to those that had come before that time. More than half (52%) rated the changes at the company as being moderate, 15% rated the changes as being slight while 30% perceived the changes as being much more significant, while only 2 individuals described the changes as massive. Some saw the changes being mainly in the people.

*People's attitudes to the work seems to have improved, I think to a degree because of the introduction of the NAPS system and the VIC courses.*

*After the VIC people are more responsible, more aware of quality work.*

Another spoke of the regular communication meetings where one can bring up any problems without fear of reprimand, while one employee simply stated *It (the change) is really good.*
The majority of responses (>75%) cited the major foci of change for the Company as being related to the development of new products (new car launch), changes in work systems and processes and new systems of training and human resource management. One third cited the introduction of new technology and 25% talked of the decline in business due to the closure of the manufacturing base in Australia.

When asked about the effects of recent changes on their own work, most people (59%) rated them as moderate with 26% perceiving the effects as being a lot more significant and two individuals rating them as drastic. At the other end of the scale, only one person saw the changes having no affect and three saw them as slight. However the majority of respondents (78%) perceived that the changes were better for the company, with the remainder rating them as neither better or worse. Nobody rated the changes as being worse for the company. In terms of whether the changes have been better for the respondent or their workmates, however, only a third rated them as being better and 22% as worse with the remaining 44% sitting on the fence, rating them as neither better or worse.

Apart from the issues noted above, parts, accessories and complete cars, imported from Japan have also been hit by the current high value of the Yen in terms of currency exchange. One of the ways that this is being addressed is to import some vehicles directly from the UK. Thus, from a company perspective, the current focus of change is basically one of achieving profitability for long term survival in the Australian market.

These changes have led directly to changes in work systems and processes and to the downsizing of the workforce, particularly at regional branches in other states. In addition the company has adopted new systems of human resource management and a more structured approach to training, with a formal training plan currently being developed.

Strategies adopted by the company to help to create change include:

* multi-skilling the workforce;
* adopting continuous improvement procedures including regular communication meetings to elicit suggestions and ideas;
* undertaking an organisational review and development;
* introducing new work systems/procedures;
* increasing training activities.

It should be noted that the initial groups of VIC trainees were not interviewed (apart from a few individuals) and their perceptions of workplace change could well have been different to the later groups that formed the major numbers of interviewees for this study.

7.4 Characteristics of the workplace learning environment

The literature on workplace learning suggests that a number of factors are important
to an organisation that is aiming to create an effective learning environment. These include the ways in which knowledge is acquired, transferred across the organisation and put to use; the links between workplace learning and change; cultural factors; and, the organisation of formal and informal workplace learning activities. In this section, each of these characteristics is examined in turn.

(i) Acquisition, transfer and use of knowledge

When asked if they had learned about any areas or aspects of the company that they did not previously know, 96% said that they had learned new aspects. Some related the new learning to job rotation, others to extra responsibilities that they had recently assumed, others to general learning through their VIC, the company as a whole, the operations of the office - Accounting, Finance, Sourcing.

"What happens with the stock when it arrives until it gets back out the door. Basically how the system works.

I have dabbled in quite a lot of areas I didn't know much about before, for instance 'hard-nils' (where there is no stock available in the warehouse) and 'soft-nils' (where stock is not in the bin but there is some in reserve).

Dealing and talking to office staff and other employees

I can now alter the parameters of computer data

One person mentioned being involved in organising the new product launch and how much they had learnt from this activity, including meeting new people and being involved in another aspect of the company.

Job rotation played a significant role in new learning of employees, with 74% of respondents being involved in working in new jobs within their own department (45%) and/or in other sections/departments (90%). Nearly all those who had experienced job rotation (95%) claimed to have learned new skills and knowledge from this activity. One person said he had learnt very little and all the others maintained they had learnt a moderate amount (25%), quite a lot (30%) or a lot (40%)

Of those interviewed, 48% maintained that they had been able to experiment or innovate by doing something in a different way. Some talked of addressing problems and coming up with alternative solutions. Other examples included,

We did experiment with different ways of unpacking crates.

I have been involved in the development of a more structured, formal
training plan for the company

...rationalise the layout of workstations, for instance terminals.

...introduced a recycling program.

Looking at work behaviour and moving people around so they suit the job they are asked to do (right to left, left to right, etc)

re-writing pricing systems (part of NAPS).

When asked if they had worked on new tasks in their current job 89% answered in the affirmative. Of these people, 62.5% said that the new tasks involved learning new skills and knowledge with the majority (52%) learning a lot and a further 30% learning a moderate amount from these new tasks A summary of the sort of new tasks mentioned by respondents is contained in Table 7.8.

<table>
<thead>
<tr>
<th>New Tasks</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using machinery (high-rise picking, forklifts, etc.)</td>
<td>7</td>
</tr>
<tr>
<td>New procedures</td>
<td>5</td>
</tr>
<tr>
<td>New managerial responsibilities</td>
<td>3</td>
</tr>
<tr>
<td>Quality checks</td>
<td>3</td>
</tr>
<tr>
<td>New communicative tasks</td>
<td>2</td>
</tr>
<tr>
<td>(eg. training, customer liaison)</td>
<td></td>
</tr>
<tr>
<td>Project control</td>
<td>1</td>
</tr>
<tr>
<td>Special projects</td>
<td>1</td>
</tr>
</tbody>
</table>

The knowledge of the company's customers was varied, with 30% claiming that they had learnt little or nothing about them in the last 12 months. However, nearly half felt that they had learnt a lot and a further 22% claiming they had learnt a moderate amount about their customers Over a quarter of respondents maintained that none of their customers had visited the workplace in the last twelve months, however most nominated a few (41%) and 22% claimed that many had visited However quite a large proportion had visited one of the company's suppliers (37%) with three people claiming to have visited a few and one individual had visited many.

These figures may be a little skewed as some of those currently undertaking their VIC had visited one supplier. As a normal part of their VIC program all participants will visit one supplier and at least one dealership during their program, and host a return visit to the warehouse. As the VIC program was in a fairly early stage, not all of this had happened at the time of the interviews For those who had completed their VIC these visits had proved to be a
valuable learning experience, one that transformed the thinking of many employees.

Another aspect of acquiring and transferring new knowledge that is frequently mentioned in the literature is the opportunity for sharing of information across the organisation. When asked to comment on the degree of collaboration and cooperation between departments, nearly half of the responses (48%) rated them as good. A further 22% pronounced the cooperation and collaboration as very good, with only one individual classifying them as excellent. However, 3 rated them as poor and 4 as fair. The comments, where offered, suggested that there has been significant improvements in recent times.

(The degree of cooperation or collaboration has)...improved out of all sight in the last couple of years. The "us" and "them" has gone.

However, a few people complained that they were only involved in communication meetings for their own area, and not at all with people from other areas. It was evident from some of the negative responses that a few personality clashes existed in the workplace.

When asked if they could give an example of a project, new initiative or significant problem that their department had worked on with other sections or departments, 63% were able to name at least one example. These included OH&S projects, cooperative use of NAPS system, suggestions that come out of communication meetings in each area, and a number of other work-related suggestions which cut across departments.

- **Heavy pick packs packing procedures**
- **The relocation of medium parts**
- **Methods of how parts are picked and delivered to packers**
- **Organising locations for the new Micra parts**
- **Pick packs, sort slot storage area**
- **Trying to put on rail guards so machine won't hit rack (involved maintenance and outside contractors)**
- **Accessory development (Engineering, Sales & Marketing Departments)**

A summary of contacts with people in other sections or departments to discuss problems or to work jointly on projects or new initiatives is contained in Table 7.9, and ways in which information is regularly shared between departments is summarised in Table 7.10.

As can be seen from Table 7.9 a large majority of respondents had the opportunity for interaction with their counterparts from other departments. Quite a number of these spent considerably more time on these activities than indicated from this table, with 4 people spending more than 2 hours a week on average in each category mentioned. Thus Nissan NPDC can be seen to be a relatively open organisation with opportunities for people to work together.
across departments to resolve mutual problems or to try out new initiatives

Table 7.9 Contact with people in other sections/departments to discuss problems, projects or initiatives

<table>
<thead>
<tr>
<th>Contact with people in other departments/sections for special purposes is through</th>
<th>Percentage of respondents having such contact</th>
<th>Average estimated time spent in last week on this type of contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal meetings</td>
<td>85.2%</td>
<td>16 minutes</td>
</tr>
<tr>
<td>Informal discussions</td>
<td>74.1%</td>
<td>27 minutes</td>
</tr>
<tr>
<td>On-job conversations</td>
<td>70.4%</td>
<td>33 minutes</td>
</tr>
</tbody>
</table>

Table 7.10 looks at the perceptions of respondents of the regular ways that have been established to share information across the company. In many instances it is perceived that this is achieved through written documentation (memos, documents and notices) and through informal discussions and conversations. A few respondents did not like the heavy reliance on the paper work, which they saw as one way communication. However, many respondents were happy with the quality of the information that is provided, with one person commenting that it gives a fair idea of how the company is going, profits, and so on. Another commented positively on the involvement of everyone in the new car that was recently launched in Australia. It is interesting to note that quite a number of people were aware of, and cited, regular interdepartmental meetings and/or supervisors meetings

Table 7.10 Regular across-company communication

<table>
<thead>
<tr>
<th>Regular across company communication is through</th>
<th>Respondents who cited method (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memos, documents, notices</td>
<td>96.3%</td>
</tr>
<tr>
<td>Informal discussions, conversations</td>
<td>77.8%</td>
</tr>
<tr>
<td>Supervisors meetings</td>
<td>66.7%</td>
</tr>
<tr>
<td>Interdepartmental meetings</td>
<td>55.6%</td>
</tr>
</tbody>
</table>

This formalisation of across company communication, and the recognition of personnel that it is happening, is important in opening the company up to new ideas and the transfer of knowledge. As one of the managers commented,

*The company is still going through a transition phase. The reduced staffing and flatter structure is threatening to some people and they are not giving away too much knowledge. There is still a problem with communication across departments but this is improving.*

One group talked of the flexible systems, maintaining that on the whole managers and supervisors were very approachable. However, they found that
some individuals were difficult to approach and lacking in manners. They were happy with their VIC training but felt that more could be done to train supervisors, leading hands and section leaders.

Important also was the perception of who can put forward ideas and suggestions and also who decides on the implementation of these ideas. The responses are summarised in Table 7.11. It is interesting to note that managers and administrators head both lists, however the next largest category of people putting forward new ideas and suggestions is that of the warehouse workers. Thus there is a perception that anyone can put forward ideas, but in most cases it is the managers and administrators who decide on the implementation of those ideas. Interestingly, 22% of respondents felt that warehouse workers could decide on the implementation of some suggestions themselves. It was the perception of some respondents that while management is open to new ideas, they felt that many suggestions were never implemented.

Table 7.11 Suggestions

<table>
<thead>
<tr>
<th>Position</th>
<th>Put forward suggestions</th>
<th>Decide on implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Professionals</td>
<td>14</td>
<td>9</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>13</td>
<td>5</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Clerks</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Labourers &amp; related workers</td>
<td>18</td>
<td>6</td>
</tr>
</tbody>
</table>

(ii) Links between workplace learning & change

The literature on workplace learning and change indicates that for learning to be linked to change it is necessary for employees to have a clear understanding of their job in relation to the whole of the plant/company/enterprise/industry. Also that learning programs promote reflection on practice, provide inquiry-based, contextualised and experiential learning experiences. They should complement changes in work systems and new technology.

The content and methods of training were therefore investigated. Table 7.12 summarises the content of training course at Nissan NPDC. As can be seen, the majority of the training needed to be enterprise specific to cover areas such as company policies, company work systems and processes, customers and suppliers of the company, new products and the introduction of new technology. It could be argued that other areas such as OH&S, rights and responsibilities of employees and formal communication systems, processes and skills might be dealt with using generic curriculum packages. However, at Nissan these areas have also been integrated into the contextualised curriculum for the VIC to become an integral part of the whole training program.
In addition a conscious effort was made within the company to ensure that training was linked to workplace change.

Table 7.12  Content of training programs

<table>
<thead>
<tr>
<th>Content</th>
<th>Number who had experienced this training</th>
<th>Percentage who had experienced this training</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Company policies</td>
<td>21</td>
<td>77.8%</td>
</tr>
<tr>
<td>* Informal communications, networks, systems &amp; relationships</td>
<td>21</td>
<td>77.8%</td>
</tr>
<tr>
<td>* OH&amp;S</td>
<td>21</td>
<td>77.8%</td>
</tr>
<tr>
<td>* Rights &amp; responsibilities of employees</td>
<td>20</td>
<td>74.1%</td>
</tr>
<tr>
<td>* Formal communication systems, processes, skills</td>
<td>20</td>
<td>74.1%</td>
</tr>
<tr>
<td>* Company work systems &amp; processes</td>
<td>19</td>
<td>70.4%</td>
</tr>
<tr>
<td>* Customers &amp; suppliers of the company</td>
<td>15</td>
<td>55.6%</td>
</tr>
<tr>
<td>* New products</td>
<td>15</td>
<td>55.6%</td>
</tr>
<tr>
<td>* Industry/business context</td>
<td>11</td>
<td>40.7%</td>
</tr>
<tr>
<td>* Introduction of new technology</td>
<td>8</td>
<td>29.6%</td>
</tr>
<tr>
<td>* Other</td>
<td>5</td>
<td>18.5%</td>
</tr>
</tbody>
</table>

Also important is the way in which the training was implemented. The great majority of respondents received on-site classroom training (74%), on-the-job instruction (52%) and/or participated in workplace committees (56%) with only five individuals undertaking off-site instruction at a training institution.

Methods of training are summarised in Table 7.13, along with the rating of respondents on how much they enjoyed different methods, how useful the training was and how much they learnt from the various types. As can be seen much of the training consisted of experiential learning and discussing and reflecting on their own work.

7.13  Training methods employed

<table>
<thead>
<tr>
<th>Training method</th>
<th>Number experiencing that method</th>
<th>Very useful</th>
<th>Learned a lot</th>
<th>Enjoyed very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Job related projects</td>
<td>22</td>
<td>13</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>* Discussing work, knowledge &amp; experience in the classroom</td>
<td>21</td>
<td>13</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>* Special (expert) presentations</td>
<td>21</td>
<td>13</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>* Trainee's presentations</td>
<td>15</td>
<td>8</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>* Lecturer &amp; question/answer</td>
<td>15</td>
<td>9</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>* Computer based training</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>* Self-paced workbooks</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>* Distance education</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>* other</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
It should be noted that computer based training at Nissan is mostly related to the NAPS computerised warehouse system, or to other computer applications, not general training that is conducted through use of computers. The areas that seemed to be both the most popular and the most useful were those that relate directly to what people were doing at work, and it was apparent that they enjoyed discussing and reflecting on that experience with their peers.

The special (expert) presentations in this instance related to workplace specialists and managers who came in to class to explain their role and to answer questions. For many trainees this opened up many new insights into their own jobs in relation to the whole of the company. It also helped to break down barriers between the office and the warehouse workers.

The VIC at Nissan was developed collaboratively as an integrated, contextualised program which encouraged trainees to think about their job holistically. The knowledge that is embedded in the workplace was integrated into the curriculum and on-the-job training covered the task specific learning. Thus people were involved in both task specific learning and training that embraced the embedded technical knowledge of the workplace.

When asked if they had experienced any learning which had changed the way that they thought about their job, 74% replied in the affirmative, indicating that they had experienced transformative learning as well as the accumulative learning that is inherent in on-the-job training. Examples given of learning which had changed the way they looked at their work included a number who mentioned particular safety projects they had been involved in, some specific courses (e.g. inventory control, human relations). However, the majority of respondents talked about the benefits of understanding their role in relation to others in the workplace,

.. because of what they call multi-skilling and rotation. When you get around the company and see what happens in other areas it changes your attitudes. If everyone is willing to work together it benefits everyone.

... to be more sure of my job and understanding of my fellow workers part in the warehouse.

The idea of having next and previous customers has probably changed the way I do some things.

...learning the next customer principle. If one person does the something wrong the wrong parts may go to the dealer.

A number of people talked of learning from one another and from the regular communication meetings,
communication meetings have helped me to learn more about the workers on the floor. I have never been involved in something like this before. You need to know all areas in order to understand the problems. There is a lot I can learn from other workers.

One warehouse worker had had the opportunity to work at the front desk in the office and considered that this had changed her thinking about the work.

In my current job I am at the front desk booking in parts onto the system and talking with people about problems regarding delivery, quantity, etc.

A manager mentioned that having to undertake a particular task had led him to realise the need to upgrade the office computer system.

Having to do the job caused me to learn about the needs of other employees. I developed a more educated empathy.

Other respondents found it difficult to pin point particular examples,

About 500 different ways - how to treat people, OH&S, and so on.

I find I am learning every day. In my job I am exposed to new things.

It was apparent that factors like opportunities to put forward ideas, feeling able to experiment with different ways of doing things and the existence of across company communication systems and networks were also important to the linking of workplace learning to change.

(iii) Cultural factors

Most of the literature on workplaces as learning organisations refers to the importance of the learning culture that exists within a company. This was gauged within a company using factors such as the climate of participation and trust, the degree of tolerance of divergent views; the preparedness to share information and ideas, and organisational openness to new ideas. Perceptions of employees on these issues are very important because ultimately, regardless of good intentions, it is the perceptions of employees that determine the success of the company in fostering an effective learning environment.

When asked if Nissan was a good company to work for, the majority of responses were in the very good (56%) to excellent (26%) range with only a few rating the company as low as good. No-one rated the company lower than good. The perception of most respondents was that people across the company make an effort to maintain good working relationships (85%) and 93% believed that the company's record in looking after its employees rated between good to excellent. One group interview gave very positive responses to this...
question, with comments such as:

We are not hounded to do our work with people looking over our shoulder all the time.

We are left to do our own work

This company is a lot better than other companies I have worked for.

There is more trust and caring... easier going.

An effort was made to gain an understanding of the working relationships that exist across the company, and the degree of confidence, trust and cooperation that characterised these working relations. Table 7.14 summarises the responses to these questions. As can be seen from this table, in which neutral responses have been omitted, the majority of relationships across the company were based on a fairly substantial level of trust, cooperation and confidence. Very few respondents gave a negative response, although quite a number decided on a neutral response (as can be derived from the figures missing from this table).

Table 7.14 Working relationships

<table>
<thead>
<tr>
<th>Position</th>
<th>Have working relations with</th>
<th>These working relationships are characterised by:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Trust</td>
</tr>
<tr>
<td>Managers &amp; administrators</td>
<td>20</td>
<td>12</td>
</tr>
<tr>
<td>Professionals</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>16</td>
<td>6</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>9</td>
<td>5</td>
</tr>
<tr>
<td>Clerks</td>
<td>10</td>
<td>5</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>22</td>
<td>13</td>
</tr>
<tr>
<td>Labourers &amp; related workers</td>
<td>21</td>
<td>12</td>
</tr>
</tbody>
</table>

* This table was created by aggregating the positive and negative responses to questions about trust, confidence and cooperation, on a 5 point Likert Scale. Neutral responses have been omitted.
When asked if there were significant problems in the workplace that were not being addressed, only one person said that there were many such problems, with 70% citing only a few and 19% saying that there were none. Thus there was a general perception that, although some problems existed, these were being dealt with over time.

It was evident that employees felt able to put forward their own opinions during training activities (92%) and that they felt able to disagree with their instructor if they wished (76%), though some mentioned that they had not had the need to do so. The great majority (93%) felt that there were no topics that could not be discussed. Thus the climate within the company, and in the training in particular, was one of openness, in which dissension was tolerated, all views were welcomed and no topics were taboo.

(iv) 

Organisation of formal and informal workplace learning.

The company employs a full time Human Resources Manager whose role incorporates that of managing the training function. In addition there is one part-time shop floor trainer who now implements the VIC classes on site.

Personnel at all levels of the company have received some formal training in the past year (see Table 7.15) The great majority of the training effort in the past two years has been for the VIC. This program is currently being re-written and implemented for interstate parts depots in a distance mode, using teleconference links for communication across sites with a teacher based in Melbourne.

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
<th>Number involved in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>Professionals</td>
<td>18</td>
<td>5</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Tradespersons</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>Labourers &amp; related workers*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>99</td>
<td>74</td>
</tr>
</tbody>
</table>

* Nissan classifies all warehouse staff under the generic code for labourers and related workers, including those that drive machinery.

Training and informal learning activities are actively promoted by the company at all levels. Individuals are encouraged to pursue tertiary studies and to attend professional development seminars. Formal training has been provided by universities, private consultants, an in-house trainer and the union. The company also uses interactive CD courses for some of its employees.
Employees at all levels have been involved in accredited vocational training, on-the-job training, informal learning activities through participation in groups and/or committees, and other professional development activities (both on and off site). Some have also been involved in off-site non-accredited vocational training.

Types of courses include:

* First aid courses
* Fire training seminars
* P C training
* Union training (shop steward training, OH&S)
* on-site training for the VIC
* Fork lift training
* Tertiary studies

Many comments were made about the organisation of the job rotation system in the warehouse, with some employees maintaining that too much responsibility is placed on the next person to train people, instead of the leading hand. People felt pressured to complete their own work as well as providing on-the-job training for others. One of the problems mentioned was that some leading hands work across areas and are not able to spend the time with individuals who have been rotated to a their area. Some people mentioned that the system of job rotation was relatively new and needed to be better organised.

*Job rotation is a good idea, but some people have missed out*

*Some people want more (job rotation)*

*We need people delegated to train others on job rotation*

However, as mentioned earlier, job rotation was seen as being a major way of learning new skills and knowledge.

Areas of additional training that some people mentioned they would like to undertake included:

- the microfiche system of parts identification;
- how the vehicle is assembled - where the parts are built into the car.

Costs of training

The costs of providing these training programs are summarised in Table 7.16. In addition to the costs listed in this table, Nissan was able to tap into an AVC pilot program for the professional development of their in-house trainer, as well as obtaining $30,000 from OTFE towards the cost of implementing the
VIC on-site, bringing the amount spent on training at Nissan to approximately $130,000 of which 71% was company money. The availability of some government funds was influential in the development of the company's training strategy.

Table 7.16 Costs of training (1994-5)

<table>
<thead>
<tr>
<th>Category of cost</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Release of employees to attend training</td>
<td>$35,000</td>
</tr>
<tr>
<td>• Provision of training facilities</td>
<td>$2,000</td>
</tr>
<tr>
<td>• Payment of consultants</td>
<td>$15,000</td>
</tr>
<tr>
<td>• Payment of fees (external provider)</td>
<td>$20,000</td>
</tr>
<tr>
<td>• Trainer (in-house) part-time</td>
<td>$15,000</td>
</tr>
<tr>
<td>• Stationery/P C.</td>
<td>$5,000</td>
</tr>
</tbody>
</table>

Total $92,000

Since the closure of its manufacturing plant in 1992, Nissan NPDC does not have a dedicated training department to call on for the conduct of training. Thus it has become more dependent on outside providers. The training of one in-house trainer has allowed some independence to be developed.

Effectiveness of training

The company uses a number of measures to indicate the effectiveness of its training activities. Records are kept on employee participation (which is seen to be a direct result of the VIC program); quality measures such as the number of errors and inventory levels, absenteeism; productivity; skills assessment, and level of industrial disputation. In addition the company conducts an annual employee attitude survey to attempt to quantify staff satisfaction to a broad number of issues. Lost time due to injuries and labour turnover are not considered an issue in this workplace.

Implementation of the VIC in the warehouse is seen by management as being very effective and to have provided quality training. David Lloyd, Human Resources Manager, explained that the VIC has helped a lot with employee attitudes but he sees it as only a start as there are still some misunderstandings and occasional industrial disputes. There is an understanding that the VIC will not be able to achieve all of these things on its own, but that there is a need for an infrastructure of support for employees so that they have a productive job and quality of worklife.

David mentioned that he sees that one of the areas where training could be improved is for the staff in the Parts Office. He sees the barriers to training experienced by the company as including the small size of their workforce, particularly in their regional warehouses where it is difficult and expensive to provide training and the system, with its state boundaries for funding, provides
no support. He also mentioned the lack of internal resources such as those that were previously provided by the dedicated training department that existed when Nissan was manufacturing in Australia

**Internal labour market**

The reduction in size and the adoption by the company of a very flat organisational structure has limited the availability of career moves that are possible within the company. Within the warehouse, a formal career structure is in place, linked to the VIC, with personnel able to progress to supervisory roles, clerical areas or training. They can move to head office or regional offices as parts specialists, zone managers or for fixed operations. These opportunities are not high in number.

Evidence of an internal labour market can be seen from the number of people who have been recruited internally (11, mainly people moving from part time to full time positions) compared to 4 who were recruited externally to fill vacancies.

The perception of those interviewed towards career options within the company varied. Most people recognised only a few opportunities for promotion (81%), while three people said that there were none and only one individual said that there were many such opportunities. Consequently only 5 people said that they would definitely be seeking promotion, 9 said possibly and 12 said that it was unlikely that they would be seeking any promotion within the company.

While it may be the policy of the company to seek to promote people within the company before seeking employees through the external labour market, the opportunities available through the company, since its operation has been curtailed, are not very high in number. Thus the career options are limited within the company. Nevertheless there is evidence of an internal labour market strategy in operation.

**7.5 Conclusion**

Even though the interview sample was a little skewed, there is a clear pattern of a learning organisation emerging from this workplace. Formal and informal opportunities for learning are in existence. People in general feel as if relationships matter and there is an effort being made to develop an effective learning culture. People are open to new ideas, employees at all levels of the organisation are accessing development, and communication networks that cut across the company are being encouraged. There is clear evidence that learning which transforms the way people think about their work sits alongside other training which is more of the accumulative type. Formal training is relevant to the participants, with much of it contextualised and company specific. A vision for training is currently being translated into a formal training plan, so that training needs are not reactive but designed to meet identified strategic needs. Finally, all of this sits within an enterprise specific industrial agreement.
Chapter Eight

Holden's Engine Company - Foundry

8.1 Company Profile

Holden's Engine Company (HEC) is one of the largest exporters of manufactured goods in Australia. The company produces engines and vehicle components, built to its own original designs, for both domestic and overseas markets. In May 1994 HEC exported its two millionth engine.

The Company was formed as a fully owned subsidiary of General Motors Corporation in 1986 on the original site, with all the existing employees transferring over to the new company. Prior to this time it was an integral part of the General Motors plant which was established at Fishermen's Bend in 1926. The current engine plant was installed in 1980.

HEC is currently expanding into new markets and investing heavily in new technology. The company officially achieved International Standards Certification ISO 9001 in 1993. A shift in customer destinations over the last few years, with the major market share now in Asia (not Europe) has created new opportunities and new challenges. Korea is now the largest customer. Other significant initiatives are on the drawing board for the Asian region.

The arrival of a new General Manager (Operations) in April 1994 has added impetus to initiatives to modernise work organisation and production systems. Cellular Manufacturing Systems employing the latest CNC machining technology are being introduced to the Machine Shop, whilst robotic handling equipment is being introduced to the Foundry.

At the time of this study synchronous work units were in the process of being formed across the Company. The Quality Network Synchronous system aims to bring about a 30% improvement in each of a number of key areas across the company including: Plant Layout, Work Station Design, Inventories, Labour Usage, Materials Movement and so on. It is a comprehensive and systematic approach to continuous improvement which places great emphasis upon the efficiency of operations, the principle of reducing non-value-added work activity and the importance of eliminating waste.

There are nine unions (and divisions of unions) represented at HEC. These include:

- Australian Manufacturing Workers Union (AMWU), [the Vehicle, Metals, and Technical/Supervisory divisions]
- Communication, Electronic, Energy, Information, Postal, Plumbing & Allied Services of Australia (CEPU) [the Electrical & Plumbing divisions]
- Federated Industry, Manufacturing & Engineering Employees (FIMEE)
Australasian Municipal, Administrative, Clerical & Services Union (ASU),
clerical & administrative branch;
Association of Professional Engineers, Scientists & Managers, Australia
(APESMA)
Construction, Forestry, Mining, Energy Union (CFMEU), [covering boiler
attendants]

The company's commitment to training is long standing. This has been reflected in the
 provision of informal, non-accredited process training for non-trades employees in
response to production needs and innovations in different plants. The company has a
full time manager of human resources who manages and coordinates a wide range of
training programs and initiatives across the company. He has responsibility for
approximately 80 shop floor personnel designated with significant training
responsibilities. The costs of providing training at HEC are summarised in Table 8.1

<table>
<thead>
<tr>
<th>Table 8.1 Costs of training (1994-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category of cost</td>
</tr>
<tr>
<td>Release of employees to attend training</td>
</tr>
<tr>
<td>Payment of External Providers</td>
</tr>
<tr>
<td>Dedicated trainers</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Training in various forms is written into the company's strategic plans and is seen as
being integral to the company's quality assurance and the maintenance of its
international quality ranking under the ISO9001 standard. There is also a training
component to the enterprise agreement between the company and the AMWU (Vehicle
Division). In addition to its internal training personnel, the company also has close
relationships with outside training providers, in particular, with RMIT and Box Hill
College of TAFE. The latter institution has established a campus within the company.
The company has recently become a TAFE private provider in its own right.

(i) Vehicle Industry Certificate (VIC) Training at HEC

The VIC was introduced to HEC in 1992. Under the industrial agreement
covering existing non-trade employees, both the on-the-job skills training and
the off-the-job knowledge training for the VIC were designed to facilitate
reclassification and wage progression. There is thus a formal link between the
VIC and the career path for non-trades employees.

When the VIC training commenced at HEC, some 230 employees from
different plants, including the Foundry, enrolled in the program. Many of these
employees were from a non-English speaking background (NESB) and had
been with the Company for up to 25 years, some held positions of leadership.
and responsibility in the Company. Prior to this time most of these employees had not had the opportunity to participate in any formal accredited training.

<table>
<thead>
<tr>
<th>Position</th>
<th>No in foundry</th>
<th>No involved in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Professionals</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>16</td>
<td>5</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>111</td>
<td>10</td>
</tr>
<tr>
<td>Clerks</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>328</td>
<td>328</td>
</tr>
<tr>
<td>Labourers &amp; related workers</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>482</strong></td>
<td><strong>365</strong></td>
</tr>
</tbody>
</table>

The importance of the training directed to plant and machine operators, is illustrated in Table 8.2 which provides a profile of foundry employees attending training.

(ii) **The Foundry**

The scope of this research did not enable investigation across the entire range of the company's plants and operations. It was decided to focus the investigation upon the foundry which had been the site of the earlier action research project conducted by NALLCU. HEC is one of the few engine plants in the world with a fully integrated foundry on site. The Foundry workforce is multicultural, with speakers of over 30 different languages. They produce grey and nodular iron castings including components developed for high temperature exhaust manifold applications. Whilst the range of components is extensive (over sixty different castings), they are produced in relatively short production runs, to precise technical specifications and within tight schedules.

*The demands for diversity and flexibility of production, to achieve schedules and customer specialisation in casting design, composition and performance, are increasing the pressure for new skill formation, that is multi-skilling and multi-functional competence, as well as organisational and cultural change in the Foundry (Deakin & Sims in Sefion et al. (eds) 1994 70)*

Since the 1993-4 project these pressures appear to have intensified rather than reduced. It was clear from data coming from managers, supervisors, and shop floor personnel that various change agendas are continuing to impact upon the work-life of HEC personnel. One manifestation of this was the impact of these pressures upon the field work for this project, this issue and the focus of the changes at HEC are taken up in following sections.
8.2 Profile of Interviewees

It should be noted here that the conduct of the field work for this case study was delayed. In large part the delays were attributed to the constant work pressures facing the HEC personnel required for the study. The research funds did not make provision for payment to the company to cover the time for interviews and consultations regarding the research. Accordingly the research team were entirely dependent upon the goodwill of the company and the individuals who agreed to participate.

It is important to stress that the company were supportive of the project and saw the benefits of documenting what was happening at HEC in terms of workplace learning and change. However the practical logistics of negotiating time to talk with the range of people required for the study proved difficult. In the final event the researchers submitted to the company a list of potential interviewees. This list was constructed purposively to try and capture a cross section of the foundry personnel and was based on the interviewees' positions within the foundry, involvement with training, and involvement with change processes within the foundry.

The list was reduced to a minimum number of people to reduce the amount of production time lost whilst still maintaining a viable representative group of foundry personnel. Had time, circumstances (and funding) been different, it would have been desirable to have a broader sample which addressed a wider range of criteria. However, although numerically small, the purposive nature of this sample allowed the researchers to glean information on those aspects of the foundry operations which were most pertinent to the research questions. It was also possible to draw on background information gained through a history of association and involvement with the company. This helped to mitigate against the small size of the sample and the limited time available for interviews. The sample of those interviewed for this case study, was constructed as follows.

<table>
<thead>
<tr>
<th>Age</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-24</td>
<td>1</td>
</tr>
<tr>
<td>25-34</td>
<td>4</td>
</tr>
<tr>
<td>35-44</td>
<td>3</td>
</tr>
<tr>
<td>45-54</td>
<td>3</td>
</tr>
<tr>
<td>55-64</td>
<td>3</td>
</tr>
</tbody>
</table>

All of those interviewed were male, reflecting the make up of the foundry workforce. (Available figures indicated only one female employee in the foundry.)
Table 8.4 Occupations

<table>
<thead>
<tr>
<th>Position</th>
<th>No in Foundry</th>
<th>No interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; Administrators</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Professionals</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>111</td>
<td>-</td>
</tr>
<tr>
<td>Clerks</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sales &amp; Service</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Plant &amp; Machine Operators</td>
<td>328</td>
<td>3</td>
</tr>
<tr>
<td>Labourers &amp; Related Workers</td>
<td>16</td>
<td>4</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>428</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

It should be noted that the small size and purposive nature of the sample meant that on this particular criteria the interview group was not as representative as it otherwise might have been.

Table 8.5 Country of birth

<table>
<thead>
<tr>
<th>Country</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>8</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1</td>
</tr>
<tr>
<td>East Timor</td>
<td>1</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1</td>
</tr>
<tr>
<td>Yugoslavia</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 8.6 First language

<table>
<thead>
<tr>
<th>First Language</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>11</td>
</tr>
<tr>
<td>Indonesian/Chinese</td>
<td>1</td>
</tr>
<tr>
<td>Urdu</td>
<td>1</td>
</tr>
<tr>
<td>Russian</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 8.7 Length of service

<table>
<thead>
<tr>
<th>Length of Service</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 12 months</td>
<td>1</td>
</tr>
<tr>
<td>1-4 years</td>
<td>3</td>
</tr>
<tr>
<td>5-10 Years</td>
<td>4</td>
</tr>
<tr>
<td>10-15 Years</td>
<td>-</td>
</tr>
<tr>
<td>15-20 Years</td>
<td>-</td>
</tr>
<tr>
<td>20 years or more</td>
<td>6</td>
</tr>
</tbody>
</table>

Several respondents reported more than 20 years of service with the company despite the fact that HEC was not created until 1986. These figures are due to employment...
with the parent company, General Motors, prior to HEC’s establishment as a separate corporate entity, they thus reflect continuity of employment for these respondents.

Table 8.8

<table>
<thead>
<tr>
<th>Qualification</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Degree</td>
<td>1</td>
</tr>
<tr>
<td>Post-Graduate Diploma</td>
<td>2</td>
</tr>
<tr>
<td>Bachelor Degree</td>
<td>3</td>
</tr>
<tr>
<td>Undergraduate Diploma</td>
<td>2</td>
</tr>
<tr>
<td>Associate Diploma</td>
<td>4</td>
</tr>
<tr>
<td>Skilled Vocational Certificate</td>
<td>7</td>
</tr>
<tr>
<td>Basic Vocational Certificate</td>
<td>9</td>
</tr>
<tr>
<td>Licence</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
</tbody>
</table>

8.3 The focus of change

The well established culture of the workplace, the entrenched work practices and the high proportion of long term employees meant there were well established histories and traditional ways of doing things, in some cases practices dating back to when the foundry was established in the 1960's. Many of the prevailing beliefs and practices were resistant to change. The relatively long history of the company is a significant factor to consider when considering issues of change and change management at HEC.

Change at HEC has been largely incremental in nature with few external shocks, such as loss of market share, inducing change. A large down-sizing program in the mid-1980's - managed through voluntary redundancies - has been the largest forced change in the enterprise. The need to become competitive at the highest international standards is currently driving change and the new company is now undergoing processes of transformative change from within. Established work processes are being transformed through QNS improvement activities and long standing employees are facing new challenges.

Table 8.9 Focus of change

<table>
<thead>
<tr>
<th>Perceived focus of change</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction of new technology</td>
<td>92.8%</td>
</tr>
<tr>
<td>Development of new product/business/customers</td>
<td>92.8%</td>
</tr>
<tr>
<td>Quality accreditation</td>
<td>71.4%</td>
</tr>
<tr>
<td>Changes in work systems and processes</td>
<td>57.1%</td>
</tr>
<tr>
<td>New systems of training &amp; human resource management</td>
<td>50%</td>
</tr>
<tr>
<td>QNS</td>
<td>42.8%</td>
</tr>
<tr>
<td>Other</td>
<td>14.2%</td>
</tr>
</tbody>
</table>
Perceptions on the current focus of change at HEC are summarised in Table 8.9. The highest ratings were related to the introduction of new technology and the development of new product/business and customers. These processes are linked as the new technology is being introduced to address both the increasing demand for sustained high levels of production and the maintenance of high quality standards. Of those interviewed, 43% also nominated changes associated with the QNS improvement activities, as being a significant focus of change.

Over the past twelve months or so the company has doubled production with virtually the same number of personnel. More recently the company has initiated a major recruitment program, employing approximately 400 additional employees, mostly younger people entering the workforce under NETFORCE traineeships. These developments have obviously had a significant impact upon the foundry operations.

Whilst foundry production is being sustained at unprecedented levels it is not merely an increase in volume which has been required. One of the management respondents noted that the changes affecting the foundry are far reaching, involving,

significant new projects, with new product and new technology. Investment of approximately $18 million means it will be virtually a completely new foundry. [and with these changes] there are changing work practices.

Another respondent, one of the plant operators, made reference to changing technology and work systems which have increased the efficiency of the plant.

They've cut down on time from when products are made to [when they are] stacked. They've changed a lot of procedures.

The increasing pace of production was graphically illustrated by another respondent who described part of the foundry process in which operators are required to handle casting cores at very high temperatures. He described how the increased volume of production means that operators are wearing out their gloves more quickly.

The guys are going through a pair of gloves in two days, before they used to last a week, because now the cores don't have time to cool down.

Several respondents also made reference to the new General Manager (Operations) as an agent of change, suggesting that the change agenda is being supported from the highest level of the company. A key factor in this change agenda is the introduction of QNS Training. One management respondent noted that this training, which is now being integrated with the VIC program at HEC, has changed everything. Whilst this might represent something of an overstatement it was clear from a number of respondents that the QNS initiatives were perceived to be having an impact around the company. However the full impact of this program is yet to be felt in the foundry, as one employee reported.

QNS is going to have the biggest impact. QNS is really going to start to bite.
in the next 12-18 months

One management respondent noted how the QNS system with training and associated meetings is driving the change processes. Whilst a shopfloor operator noted,

This [QNS] is getting shopfloor people involved in possible improvements - it's more intense than VIC Projects, more focused upon a specific area or task.

Despite the apparent rate of change, another respondent, a clerical worker, noted,

There's a will to change and changes are happening, there's a positive attitude to change, but it's not happening as fast as it should.

In addition to the perceptions of respondents on recent and current changes, it was also clear that more change is on the way at the foundry. Indeed, several respondents noted that the really significant changes which are affecting the company as a whole have not yet impacted on the foundry.

There's not many major changes in the foundry [in the last twelve months]... There will be changes coming after Christmas, with automatic machinery, computerised, on the Melt Deck.

And from another respondent, a plant operator,

[This year] it's been about the same, but next year will be different - a lot of change coming - all robots doing the pouring. I don't know much about what's going to happen. I will learn once it starts.

Some respondents drew attention to links between the company's initiatives in training and the changes taking place. One of the managers noted,

[There's been] massive changes with the introduction of the VIC. It's a brand new concept - guys off the shop floor doing training.

Another management respondent noted the recent impact of the VIC program in facilitating career pathways for foundry employees who traditionally had very limited opportunities for progressions.

The VIC is giving people a more level playing field, especially the younger guys coming through. They're getting interviews now for further promotion and training opportunities whereas they didn't before. They just didn't get the opportunities. The VIC is now generally a mandatory base line prerequisite for positions.

The same respondent went on to note how the new opportunities for employees are actually creating some management difficulties at the foundry.

This is creating some difficulties from the Foundry point of view because we're...
losing good people because the further pathways are being created

This same problem was also reported by other management respondents and by some shop floor operators who perceived that opportunities were being denied to some people from the foundry, perhaps because they were considered to be more valuable to the company in their present roles.

In summary, the impression at HEC is one of significant changes impacting across the company at a number of different levels and in virtually all areas of the company's operations.

### 8.4 The Impact of Change

Despite what may appear to be an overwhelming change agenda there was a clear consensus that the changes would be of value to the company. There were no responses indicating a contrary opinion. However, when asked whether the changes were better for themselves and their workmates, the respondents were much more equivocal; with 28.5% indicating the changes were better, whilst an equal number indicated the changes were making things worse. In the middle ground, 42.8% of respondents did not indicate an opinion either way.

One indication of the effect on production line workers has already been given with reference to operators wearing out their gloves whilst handling hot components. The same respondent noted,

*The work load is growing but you don't get any pat on the back for the [extra] things you're doing*

However, it was apparent that the pressure of the changes is being felt within the management structure at the foundry as well. One management respondent noted what he considered a trend towards downsizing in key areas, in particular, shortages in professional, technical and specialist support staff. He compared the relative ease of gaining approval for more people to work on the factory floor with the difficulty of putting on an extra engineer. He drew attention to the lean administrative and professional ranks within the foundry and cited this as a source of difficulties for the staff. This view was, at least in part supported by another management respondent who noted,

*there are times when we push our people too hard*  
The changes are involving more people in our business and in the change processes, there's an immense amount of work in the new projects and in keeping up Supervisors and so on are really feeling the pressure - but ultimately it will be better for everyone
8.5 Characteristics of the workplace learning environment

(i) Acquisition and use of knowledge

Given the amount of change at HEC and the apparent success of the company it would be reasonable to expect that substantial numbers of people were learning in the workplace. Indeed this does appear to be the case. One of the management respondents summed up the connections between change and learning processes,

_There's not a day in which I don't learn something - even if it's unlearning what I learnt the day before. I'm forever trying to challenge what we believe to be accepted practice._

Amongst interviewees, 71.4% reported learning about aspects of the company they did not know about before. This included

- the introduction of research & development principles,
- manufacturing operations in (a range of) different plants,
- how to operate new machines;
- quality assurance procedures,
- stock and materials movement processes,
- (various) computer software programs,
- work practices in other companies

One factor in this learning seems to be the opportunity to experiment or innovate on the job. Several respondents cited specific examples of their opportunities to experiment, innovate or do something differently. One of the plant and machine operators noted,

_When I started forklift driving I re-organised the factory - I got rid of all the rubbish._

Such an innovation might not spring to mind as an example of experimentation. However it is a clear indication of an employee taking some initiative to make changes which he perceived to be in the interests of more efficient operation. In all, 71.4% of respondents reported that they had been able to innovate, experiment or do something differently. Other specific instances which were reported included:

- changes in recruitment strategies,
- negotiating and negotiating a heat agreement,
- experimenting with a range of problem solving strategies in the core room,
- organising maintenance planning to involve shop floor people,
- adopting various Try-out procedures in the casting processes
Further comments relating to the theme of innovation and experimentation included the following:

_This is an on-going thing because of the job I’ve got I can change things at any time to get productivity improvements_.

[When] we come up with a good idea we'll implement it and then put the suggestion in [for instance] we experimented with moving the drilling station We experiment a lot, within reason, because you have to follow the specs to a degree.

[We experiment] continually, all of the time finding ways to improve productivity, as part of the continuous improvement/Try-out process it's routine [We have had] maybe 200 Try-outs over the years.

We're constantly trying to attain continuous improvement and there have been lots of Try-outs, new castings, research and development [It has been] extremely busy over the past six months, especially in relation to the automatic pour line being introduced.

Another factor related to the acquisition and use of knowledge is the opportunity given to employees to work on new tasks within their jobs. Once again, over 70% of the interview respondents indicated that they had worked on new tasks and that this contributed to their learning. Specific new tasks or responsibilities cited by respondents are listed in Table 8.10.

<table>
<thead>
<tr>
<th>New tasks/responsibilities</th>
<th>No employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production (&amp; pre-prod'n) for new products</td>
<td>3</td>
</tr>
<tr>
<td>Maintenance procedures</td>
<td>2</td>
</tr>
<tr>
<td>Operating production line</td>
<td>1</td>
</tr>
<tr>
<td>Re-working engine blocks</td>
<td>1</td>
</tr>
<tr>
<td>Operating new plant/machines</td>
<td>1</td>
</tr>
<tr>
<td>Research &amp; development</td>
<td>1</td>
</tr>
</tbody>
</table>

A related issue is that of job rotation. Amongst the HEC respondents 50% reported being involved in some form of job rotation within the past twelve months, either within their own department or section, or to a different area of the plant. Most significantly, only one of the respondents involved in job rotation indicated little or no new learning from this experience. The majority clearly indicated significant learning arising from job rotation.

Three further issues were investigated in relation to the acquisition and use of knowledge within the foundry, learning about the company's customers, the
issue of interdepartmental communications, and questions exploring where and by whom new ideas and innovations are generated. Learning about the company's customers was considered important for two reasons. First, it was considered to be one indication of the openness of the organisation. Secondly, it was also believed that such learning might reflect the extent to which individuals shared a broader understanding of the company and the place of their work in relation to the whole.

Only one individual reported that he had not learnt about the company's customers in the past twelve months, adding a comment,

*On afternoon shift you don't get any information about what's going on. We rely on others, [informally] to know what's going on.*

However all other respondents reported learning at least something about the customers. Whilst four individuals reported learning only *a little* about the customers the remaining individuals, (64%) reported more learning. This was also reflected in their comments

*We've developed a whole new customer base [for instance] - Isuzu in Japan. We're learning their work ethic and what we need to do to enthuse our customers.*

*[We've learned about our customers] in VIC classes.*

*I've learned a bit about the new customers we've got and where we're shipping to.*

*The new business that we're getting, we're learning about their requirements.*

*I have been given information about HEC expectations and plans for expansion of component sales into the Pacific region.*

*[There are] heaps of customers, Zimbabwe, Middle East, China, are new customers, plus Asia.*

*I will learn a lot when I go overseas, to Spain in November, to USA next year.*

This final comment, is not, as might be expected, from a management representative, but from a shop floor production worker. This individual, a graduate from the VIC program, has been promoted to a leading hand position and selected by the company to travel overseas in order to learn about the new technology being introduced to the foundry. His position is not typical, but nor is it unusual; there is an increasing expectation that some responsibilities will...
be passed down the hierarchy from senior levels towards the shop floor. The comments above come from shop floor operators and middle level staff as well as managers.

The issue of interdepartmental cooperation and communication was investigated as another illustration of the organisational openness and the nature of the workplace learning environment. No one interviewed at HEC reported that interdepartmental cooperation and collaboration was excellent. There was some evidence to suggest that this was perceived as a problem, albeit one that is changing over time.

Of those interviewed, 36% reported that interdepartmental communications were poor, with the comments,

*Abysmal - a problem with Australian industry*

*We don't know what really goes on until it's finished*

*Communication is only average, our relationship with our customers is reasonable but the way we are treated by others within the organisation is extremely ordinary*

More positive comments on this issue included.

*we talk to other sections and share labour when necessary*

*A lot of the barriers are gradually going with newer people coming in, they are helping the change QNS and the flattening of the organisation has changed things. You don't have the empire builders because there's no people to do that. You don't have the ivory towers and untouchables*

*A lot of the "them" and "us" barriers are being dissolved to enable better interaction between departments*

The largest number of responses (42.8%) were at 3 on the five point scale, i.e. neither poor nor excellent, or they were not committed to a firm view on this issue.

The findings on poor perceptions of communication between departments are reinforced by the fact that respondents also report using informal communication strategies to gain information. These were the most significant means of communicating with people in other departments and sharing information. In particular, the value of informal discussions and on-job conversations emerged as the most significant means of communication.

Contact between people is maintained through informal means. Informal work
discussions were reported by 64% of respondents who spent an average of 100 minutes per week in such discussions. On-job conversations were reported by 50%, with an average time of 44 minutes per week spent in conversations on-the-job. Only 43% of respondents cited formal meetings as a way of making contact with people in other sections or departments.

Similarly, interdepartmental meetings were reported by only 64% of respondents as a source of information. Whilst 86% reported use of memos, documents and notices, and 78.5% reported use of informal discussions and conversations. As the following comments illustrate, some employees felt left out of communication networks altogether.

Day shift have discussions, but we won't know about it unless we get a memo or something.

As far as we are concerned, we don't know nothing.

The informal communication networks were supported by the use of noticeboards, computer E-mail, walkie-talkies, and pagers.

Despite apparent difficulties with interdepartmental communication, half of the interviewees were able to report specific examples of problems, projects or new initiatives which their department had worked on with at least one other department or section. These included:

- working with OH&S officers on problems with ventilation and the extraction of gases;
- organising daily meetings between maintenance and production staff to improve up-time on the mould line;
- organising a 1 week workshop of machine shop and foundry trainers to achieve productivity improvement of the FII engine machining line;
- liaising between several departments to coordinate the manufacture of new products;
- convening multidisciplinary problem solving' groups from different sections;
- coordinating Try-outs between Melt Deck, Mould Line, Core Room and the Engineering Department.

These initiatives give some indication of the cross-sectional cooperation and collaboration taking place within the foundry. As such, they are indicative of the opportunities which employees have to learn about operations other than those in which they are directly engaged.

The issue of problems or issues not being addressed elicited 57% of respondents feeling there were only a few such issues, whilst 28.5% indicated there were none. Only one respondent indicated there were many issues not being addressed.
The origin of new ideas and innovations and the ways these are promoted or transferred throughout the organisation is linked to notions of systemic and organisational learning. It is apparent that suggestions come from all levels of the organisation. However there is a clear perception that managers and administrators are the decision makers (71% of respondents). The next category, professional staff, was cited by only 50% of respondents, with labourers and related workers cited by only 7.1% as being involved in decision making. Changing the decision making at the top of the organisation is part of the change process. Some comments suggested the old ways are still prevailing.

*People put in a recommendation but it's your managers who say yes or no.*

*Management, supervisors, engineers are involved in decision making processes rather than shop floor people.*

Other comments reflected changes and the difficulties of moving to a system with more devolved responsibilities.

*It depends on what it is, depending on the nature of the change being suggested. The old system, it was only management - with the new system supervisors can decide and implement ideas, depending on the cost.*

*The new suggestion scheme lacks ownership, there is a lot of work coming out of those groups, it's a matter of getting it implemented.*

Table 8.11 provides a summary of respondents perceptions about the people putting forward of new ideas and suggestions and those deciding upon their implementation.

<table>
<thead>
<tr>
<th>Position</th>
<th>Put forward suggestions</th>
<th>Decide on implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>Professionals</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Clerks</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Labourers &amp; related workers</td>
<td>11</td>
<td>1</td>
</tr>
</tbody>
</table>

A range of strategies were reported for the implementation and monitoring of new ideas and suggestions. These included Try-outs, (as previously mentioned)
alterations to standard operating procedures and memos or management directions. Monitoring of the changes involved direct observation by management, statistical processes and data collection, and routine shift reports. However several respondents reported informal mechanisms by which changes were implemented and monitored. These included verbal work orders and informal discussions with operators.

*Management direction is usually verbal [with monitoring and feedback through a] Chat with the operators to see how they're finding it*

It was also apparent, as indicated by an earlier comment regarding experimentation, that some changes are neither routine, nor formally monitored. In response to the question "How are changes routinely implemented?" one respondent noted, *Sometimes they're not - [there are] "unauthorised" changes.* Another interviewee reported that formal monitoring processes are used only *very rarely, unless its a big catastrophe and we hear about it.* One of the management respondents noted the need for more formal processes, *formal processes are required, not just verbal direction.* Whilst another noted that ISO accreditation has forced people to *write down the way they do things and documenting because they have to.*

Part of the change process at HEC obviously involves an increasing formalisation of processes and procedures. Systems of communication based on informal networks on the shopfloor and in middle management, are being challenged by the change imperatives of down-sizing and re-organisation.

(ii) **Cultural Factors**

The culture of the workplace has a substantial bearing upon its viability as a learning environment. Table 8.12 shows responses on questions relating to the levels of trust, confidence and cooperation which characterise working relationships at the foundry.

Perhaps the most significant point to be noted in relation to this table is the significance of the figures which have been omitted as non-committed responses. Looking at trust/distrust in relation to managers and administrators for instance, it is apparent that there were no respondents indicating distrust, whilst 5 indicated positive levels of trust. However these five respondents represent only 42% of those who reported working relationships with this group. Thus 58% of respondents were sitting on the fence, neither indicating trust, nor expressing distrust. This tendency is apparent across each indicator and in relation to most groups. Para-professional staff are those who appear to be held in highest esteem. Within the foundry such staff are predominantly in supervisory or technical roles.
Table 8.12 Working relationships

<table>
<thead>
<tr>
<th>Position</th>
<th>Have working relations with</th>
<th>Trust</th>
<th>Distrust</th>
<th>Confidence</th>
<th>Lack of confidence</th>
<th>Cooperation</th>
<th>No cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>12</td>
<td>5</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Professionals</td>
<td>10</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>13</td>
<td>12</td>
<td>0</td>
<td>11</td>
<td>0</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>13</td>
<td>9</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Clerks</td>
<td>10</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>13</td>
<td>8</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Labourers &amp; related workers</td>
<td>12</td>
<td>8</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>9</td>
<td>0</td>
</tr>
</tbody>
</table>

*This table was created by aggregating the positive and negative responses to questions about trust, confidence and co-operation, on a 5 point Likert Scale. Neutral responses have been omitted.

Overall however, the indicators of distrust, lack of confidence and lack of cooperation are low. Again the story seems to be, not too bad, but not too good either. In an environment of such massive change, this is a very good outcome. When asked whether people across the company make an effort to maintain working relationships, 64.3% indicated they generally do.

*We try our best to co-operate, although we have our limits - but we do try*

*There's been a big change in work co-operation, working together is more a way of life*

*Generally they endeavour to maintain good working relationships*

Some respondents pointed out that this is a difficult question on which to generalise, some people go out of their way to encourage and improve working relationships, others don't.

Follow up questions sought information on perceptions of the company as an
employer On the question of looking after the interests of employees 50% of those interviewed responded positively, they try to keep you here as long as they can. However nearly 43% of respondents took a fence sitting position on this question and some comments were much more equivocal, they reckon they do. I have my doubts

Overall however, the majority of respondents (78.5%) indicated clearly that the company is good to work for. This finding is related to the opportunities perceived for gaining new knowledge and skills and may also be related to perceptions about job security in an expanding company.

*Everyone will benefit by the introduction of QNS because of long-term commitment to company growth resulting in job security*

*It's got to be better because it's giving us stable job opportunities for a lot of people because of all this new work we've been getting*

Whilst one respondent indicated there were no opportunities for gaining new knowledge and skills, this was not the prevailing view. A few opportunities were cited by 35.7%, whilst 57.1% cited many opportunities for gaining new knowledge and skills

*There's a lot of changes being made and there's going to be a lot of chances to gain new skills*

*After 40 years there's still new technology, new things to learn*

*If the company continues on its planned objectives many opportunities will emerge by the end of the decade (hopefully for all employees).*

*The VIC is helping with new knowledge and skills*

Whilst the majority felt there were opportunities for learning the connection to promotion and career pathways was not so clear and could not be assumed. Interviewees reported few opportunities for promotion in 64.2% of cases, whilst 28.5% reported many opportunities

Respondents' comments reflect the development of the learning culture within the foundry, but also some frustration that it is rarely easy, and sometimes seemingly impossible to transform workplace learning into enhanced career opportunities

*[There are many opportunities] with attitude and application and formal training*

*VIC opened up a lot of opportunities for me That is what got me the Leading Hand job.*
I think the change is a very good process - we should be training people - and we should not give up regardless of the barriers we face.

It's a prerequisite - if you want to progress you have to be interested in learning and training etc. You need to demonstrate initiative.

It's all come a bit late - especially for the [non-trades] workforce, staff have had more opportunities but some of our guys have missed out for many years. But it's changing, the VIC is giving people a far better structure and opportunities for progression.

They should take people who know what they're doing and offer them a lot more chances. There should be a chance for blokes to work with supervisors, managers or QNS for a week and see what they're doing.

The industry is a trade industry and even though the VIC is a good idea it doesn't put the person on the same level as a trade. Once you've got your VIC in the foundry you can't go any further, you're limited. Some of the young guys have got their VIC and there's just nowhere for them to go at the moment.

This difficulty is also reflected in the 28.5% of respondents who indicated that it was unlikely they would be applying for promotion as a result of gaining new knowledge and skills. It should also be noted however that 50% of respondents indicated that they would definitely be seeking promotion as a result of gaining new knowledge and skills.

(iii) Formal Training.

Nine respondents, or 64% of the sample, reported receiving some formal training during the past 12 months. This training was predominately delivered on-site either in the classroom (55% of Trainees) or in Workplace Groups (55% of Trainees).

A significant number of Trainee's also attended specialised courses off-site (33%), examples being Union Training, a Masters Degree, and a specialist Certificate in Metallurgy.

Effectiveness of training

The training provided by the company was well received by the trainees, with 89% of them reporting that it was very relevant to their daily work. When asked about the training methods that they had been exposed to, employees responded positively to all the methods they had experienced.
## Training methods employed

<table>
<thead>
<tr>
<th>Training method</th>
<th>Number experiencing that method</th>
<th>Not useful</th>
<th>Very useful</th>
<th>Learned nothing</th>
<th>Learned a lot</th>
<th>Did not enjoy</th>
<th>Enjoy very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussing work, knowledge &amp; experience in the classroom</td>
<td>8</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Lecture</td>
<td>8</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Job Related Projects</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>1</td>
<td>6</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Expert Presentations</td>
<td>7</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Trainee's Presentations</td>
<td>5</td>
<td>1</td>
<td>5</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Self-Paced Workbooks</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

Training was seen by many respondents as having been instrumental in opening up pathways and career opportunities for employees in the Foundry.

The VIC and the way they are looking at the person on the floor now, they are giving them a chance even though they are not qualified in any trade. Before one guy spent 25 years in one job, now the old guys and the new guys are learning more jobs and getting a broader base. Some of the Leading Hands and Managers are changing their attitudes. Since the VIC came in there has been a change in relationships.

I become more skilled, I learn more jobs, more knowledge, by doing the VIC.

Before I work as a normal worker [through VIC] I get more chance to learn and be Leading Hand.

The VIC is having an impact. It's giving a level playing field. A lot more of my people are going for job interviews. I'm losing a lot of guys. Some of them are getting quite good jobs. It's opening up doors for them.

Not all perceptions of the VIC Training were positive however:

They're making us do the VIC. You can't get promoted unless you do the VIC.

Employee's in training found the experience an open one, 55% reported that
they were able to frequently disagree with the presenter, whilst only 11% felt that they were rarely able to disagree with the presenter. When asked about undiscussable or taboo topics 14% of employees considered that there were some, the remainder indicated there were no such topics.

Of employee's in the sample 64% reported having some influence on the development of Training Programs - 36% of them considering that they had a lot of influence

Interviewees were also asked about perceived barriers to training, 28% felt that there were some barriers. These included

- fear of going into training, especially for older employees,
- limited motivation to attend training aside from a small monetary gain, we don't have any reason for motivation - money is not the only factor. If you want people to be involved you have to show them how it will be better for them. Not just dollars, you can get dollars from overtime,
- limited resources of time, labour and limited availability of plant and equipment for training,
- supervisors who were reluctant to release employees for training, when we're flat out, Training goes out the window,
- family commitments and overtime work requirements tend to limit the availability of employees outside of work hours, and,
- difficulties with English language

The Training being provided at HEC (most especially the VIC and QNS Training) is clearly one of the factors supporting the processes of change through the introduction of new technology and the devolution of functions to the shopfloor, with the cutting of middle management and support staff

8.6 Conclusion

The environment at the HEC foundry is one rich with learning and change. People are being given some opportunities to experiment and do things differently, the implementation of new technology and some external imperatives are creating both pressures and opportunities. People are responding to these developments by creating informal networks for communication on the shop floor, in middle management and within professional groups. These informal networks are playing a significant role in the change processes

It would be a mistake to assume that these processes are necessarily comfortable - even when they are desirable. Change is messy and learning, even when actively sought, can be stressful. One of the shop floor respondents noted his frustration in trying to persuade some managers about the need for certain changes in production processes. Citing this as an important part of his workplace learning he noted the tendency of some managers to resist change
They're creating 'human barriers' [to change] I've learned some people believe figures rather than the practical knowledge and experience of the people on the floor They want a graph to believe

Speaking from a different perspective, and highlighting a different point, one of the management respondents made the following observation,

There is some difficulty with the changes, there are some reservations about how some supervisors take to the team concept, some are more used to working in an autocratic manner

Other respondents noted;

Down-sizing is making the job more difficult There aren't the people, the fat in the system any more. Everyone is stretched with new projects

Simply, we have to get better because customers are paying less for our products and services

However despite the problems and frustrations there is a recurring theme of optimism, a suggestion that things are slowly improving through the change processes affecting the company There is evidence that people believe their jobs are relatively secure within an expanding company

It's improved slightly A lot of the changed procedures have made it more bearable, a little bit easier, for some of the guys. It keeps the guys a bit happier

We have got flexibility with people moving from section to section Newer guys won't put up with doing one job, older guys owned a job We're getting the younger highly qualified guys with Year 12, rather than older guys off the boat Younger guys are bringing in change, they don't do it in the old way If you want something done they go and kick the doors down for you

Changes are involving more people in our business and in the change processes, but there is an immense amount of work, new projects, keeping up, supervisors etc are feeling the pressure, but ultimately it's better for everyone through enhanced job security

The learning environment in the Foundry is characterised by massive changes to the technology, work systems and processes Despite these changes and the rapidly increasing production volume, it is apparent that learning is still taking place and that the environment is sustaining that learning Formal training is significant, but more significant is the informal learning that occurs from experimentation, innovation and informal communication networks
Chapter Nine
Analysis of Results

9.1 Introduction

Detailed case studies have been presented in the previous four chapters. This chapter looks across the companies to identify similarities and differences between the four companies, with a view to seeking trends or correlations which could point to some generalisations in relation to the research questions. In order to look at the data more generally, the accumulated data across the four companies was re-analysed in terms of employees and staff. Staff were considered to be managers and administrators, professionals and para-professionals and the remaining employment classifications were amalgamated as employees. Although the data relates to a very small sample of the industry, it was considered that a comparative analysis would add an interesting and possibly illuminating dimension to the research, and perhaps point to possible areas for further research. It was not intended that the particular case studies, or the accumulated data, should be taken as representative of the industry, but rather their significance lies in what they show about learning and development in those companies. This fits with the purposive sampling of the interview process.

The data is analysed in four sections:
* a summary of the company profiles,
* the focus and methods of creating change across the companies,
* the workplace learning cultures, including informal learning, and
* formal training activities

9.2 Company profiles

As can be seen from the summary in Table 9.1, the companies are very different. Although Claridge Holden was one of the smaller companies included in the research, it is actually quite large, both for the RS&R sector of the industry and as a dealership. It operates from two sites and employs a total of 80 people. It is a family owned and operated GM dealership. Nissan NPDC is a medium-sized business, part of a larger operation in Australia which is involved in importing vehicles, and a wholly Japanese owned Company. Of the two manufacturing firms represented in this research, SCA is a medium-sized component manufacturer, but small relatively to HEC. It operates from one site and is totally Australian owned. On the other hand, Holden's Engine Company is a large company, wholly owned by GM. Both are experiencing rapid growth at the present time and both are involved with the export of products and expertise.

In terms of their major business operations, the spread is between manufacturing, a vehicle importer and one dealership. Both manufacturers have an major export focus, and both have a design function, one for the original components and the other for the production tooling required for their manufacturing processes.
<table>
<thead>
<tr>
<th>Name of company</th>
<th>Sector of industry</th>
<th>Branch/Plant of study</th>
<th>Major business</th>
<th>Unions on site</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clarendge Holden</td>
<td>Retail, service &amp; repair</td>
<td>Malvern, SA</td>
<td>Holden Dealership&lt;br&gt; * sales of new &amp; used cars&lt;br&gt; * service&lt;br&gt; * repair</td>
<td>AMWU (Vehicle Division)</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>Suspension Components</td>
<td>Small component manufacturer</td>
<td></td>
<td>* Manufacture of components for vehicle suspensions&lt;br&gt; * design of production&lt;br&gt; * Exports 70% of production&lt;br&gt; * Joint venture in China</td>
<td>AMWU (Vehicle Division)</td>
<td>73</td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>73</td>
</tr>
<tr>
<td>Nissan Australia</td>
<td>Importer of vehicles</td>
<td>National parts&lt;br&gt; distribution centre</td>
<td>* Warehousing, distribution of parts &amp; accessories</td>
<td>AMWU (Vehicle Division)&lt;br&gt; ASU, Clerical</td>
<td>290</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Holden's Engine</td>
<td>Original automotive parts&lt;br&gt; component manufacturer</td>
<td>Foundry</td>
<td>International products &amp; services&lt;br&gt; * engine design &amp; manufacture&lt;br&gt; * component design &amp; manufacture&lt;br&gt; * design &amp; development consultancy</td>
<td>AMWU&lt;br&gt; - Vehicle&lt;br&gt; - Metals&lt;br&gt; - Technical/Supervisory&lt;br&gt; CEPU(electrical &amp; plumbers)&lt;br&gt; ASU, Clerical&lt;br&gt; APESMA, Engineering&lt;br&gt; FIMEE, Mechanical&lt;br&gt; CFMEU, Boiler Attendants</td>
<td>2,050</td>
</tr>
<tr>
<td>Company</td>
<td></td>
<td></td>
<td>Largest exporter of manufactured components in Australia</td>
<td></td>
<td>482</td>
</tr>
</tbody>
</table>

Chapter Nine 159 Analysis of Results
The proportion of female workers, as in other parts of this industry, is relatively low. The 14.8% female component of the sample of employees who were interviewed (see Table 9.2) is in fact fairly representative of the proportion of female employees in the industry as a whole.

Two of the companies have only one union on site, while one has two unions and Holden's Engine Company has nine unions, or branches thereof, represented on site.

As can be seen from Table 9.3, each company spent a considerable amount on training in the 1994-5 financial year. Per capita, the highest expenditure was by SCA and it is significant from the SCA case study that it was this company that complained about the difficulty experienced by small companies in tapping into government funds for training. Claridge Holden had the close links with the GM inservice provision to assist its provision of training.

### Table 9.2 Interviewees by gender

<table>
<thead>
<tr>
<th>Company</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claridge Holden</td>
<td>14</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>SCA</td>
<td>16</td>
<td>1</td>
<td>17</td>
</tr>
<tr>
<td>Nissan NPDC</td>
<td>21</td>
<td>6</td>
<td>27</td>
</tr>
<tr>
<td>HEC</td>
<td>14</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>65</td>
<td>11</td>
<td>76</td>
</tr>
<tr>
<td><strong>Percentage</strong></td>
<td>85.5%</td>
<td>14.5%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 9.3 Estimated company expenditure on training, 1994-5 financial year

<table>
<thead>
<tr>
<th>Funds expended on</th>
<th>Claridge Holden</th>
<th>SCA</th>
<th>Nissan NPDC</th>
<th>HEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release of employees to attend training</td>
<td>$15,710</td>
<td>$80,000</td>
<td>$35,000</td>
<td>$600,000</td>
</tr>
<tr>
<td>Provision of training facilities</td>
<td>existing</td>
<td>existing</td>
<td>$2,000</td>
<td>existing</td>
</tr>
<tr>
<td>Payment of consultants</td>
<td>$3,000</td>
<td>$30,000</td>
<td>$15,000</td>
<td></td>
</tr>
<tr>
<td>Payment of fees (external provider)</td>
<td>$10,853</td>
<td>$15,000</td>
<td>$20,000</td>
<td>$13,120</td>
</tr>
<tr>
<td>Dedicated trainers</td>
<td></td>
<td>$15,000</td>
<td></td>
<td>$984,000</td>
</tr>
<tr>
<td>Overhead costs/stationery/etc/other</td>
<td>$3,693</td>
<td>$6,000</td>
<td>$5,000</td>
<td></td>
</tr>
<tr>
<td>Release of employees for curriculum &amp; program development</td>
<td></td>
<td>$25,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>$33,256</td>
<td>$156,000</td>
<td>$92,000</td>
<td>1,597,120</td>
</tr>
</tbody>
</table>
9.3 Focus of change

There were considerable variations in both the degree and focus of change across the four companies. In the case of Claridge Holden, a long-established family dealership, there was more a sense of continuity, rather than a high level of change. Perceptions of change were in the area of new products (cars) and new technology, with quality accreditation and training on new cars being conducted by GM. A pride in retaining customers and improving service was evident.

At Nissan the major changes took place some time ago, with the closure of their manufacturing plant in 1992 and the introduction of a new computerised control system for their warehousing function (NAPS) in 1993. The change from manufacturing to importing vehicles had huge ramifications for Nissan as their market share dropped to nearly one third of its former level, access to locally manufactured component parts became more limited, and downsizing the workforce became a necessity. The introduction of NAPS changed many aspects of work organisation and created a large training requirement in the Company. For many employees who had been at Nissan for a number of years these two major events still dominated their perceptions of change within the company. For newer employees changes were perceived to be more minimal. The effects of downsizing of the overall workforce was minimalised at the National Depot in Dandenong (the site of this research) as the rationalisation of the activities of the Company as a whole meant that many of the functions of interstate branches were centralised to this location. Other changes nominated by interviewees included the introduction of a flatter management structure, with many managers taking on additional responsibilities.

Suspension Components Australia were formed by management buy-out in 1991 when Henderson's Springs, a part of the Henderson's Automotive Group, was sold. SCA started with 50 employees and a business relying totally on the domestic market. They have developed into a thriving export-oriented company, exporting to major manufacturers in Japan (Toyota, Mazda) and Germany (Mercedes, VW Audi) with a market for making suspension parts and a niche market for designing and manufacturing the tooling required for their manufacture. In addition they have entered into a joint initiative with Chisca in Shanghai, China. They have built and tooled a factory to produce parts in China for the Chinese domestic market.

HEC was established as a separate company in 1986, following a major restructure. All the employees transferred over from the old company. Changes at HEC in the past year have been considerable as a new quality network synchronous (QNS) system is being introduced across the Company. In addition production has increased dramatically and the Company has employed hundreds of new employees, including some 400 trainees under the NETTFORCE Traineeship scheme. The introduction of new high technology plant and equipment is occurring in a number of areas, with a fully automated pouring line to be introduced to the foundry in 1996. Thus, while the synchronous work units are just in the process of being established throughout the Foundry, there is a widespread anticipation, if not immediate perception, of on-going massive changes.
Graph 9.1 illustrates the responses made by employees and staff in relation to their perception of the magnitude of the changes that have taken place in the last twelve months in their workplace. More than half (56%) of the employees rated the changes as moderate while a similar proportion (53%) of staff rated the changes at high to massive. It would seem that changes have had more impact on staff than on employees.

When asked about the focus of change in their respective workplaces, the development of new products, new business and/or new customers were perceived to be the major focus of change by both employees and staff (see Table 9.4) and across all companies (see Graph 9.2). However, significantly more staff perceived that new systems of training and HR management and the introduction of new technology were helping to drive the change than employees, while employees placed more emphasis on changes in work processes and quality assurance than staff. It should be noted that the question asked about the major focus of change, not the relative importance of different factors.

When responses from companies are compared (see Graph 9.2), it can be seen that there are considerable differences in the perceptions of people across companies, with only 7% of HEC's people citing changes in work systems and processes and 15% at Nissan NPDC citing quality assurance as being the major focus of change in their companies.

It is significant that at three of the companies, a new system of training, the VIC had been introduced recently for shop floor workers, while at Claridge Holden most of the training continued to be outsourced, mainly through GM. Additionally, the introduction of technology at Nissan warehouse had occurred some time previously, and was no longer such an issue at this site.

An interesting point to note is that quality assurance was a major factor at the two manufacturers as well as at the Holden dealership, which is connected to a major
manufacturer. For the component manufacturers in this study, quality assurance takes on more significance when it is noted that each manufactures parts for a range of major vehicle manufacturers and needs to conform to the quality standards of each of these separately. This often means a quality audit done by each customer (company) with stringent requirements, often involving shop floor participation, and many changes at shop floor level that are directly related to these audits. This could explain why employees in these companies placed more significance on this factor.

Table 9.4 Focus of change: Perceptions of employees & staff across companies

<table>
<thead>
<tr>
<th>Major areas of change</th>
<th>Employees</th>
<th>Staff</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of new products/business/customers</td>
<td>83%</td>
<td>88.2%</td>
<td>84.2%</td>
</tr>
<tr>
<td>New systems of training and human resource management</td>
<td>67.8%</td>
<td>88.2%</td>
<td>72.4%</td>
</tr>
<tr>
<td>Introduction of new technology</td>
<td>62.7%</td>
<td>52.9%</td>
<td>60.5%</td>
</tr>
<tr>
<td>Changes in work systems and processes</td>
<td>59.3%</td>
<td>47.1%</td>
<td>56.6%</td>
</tr>
<tr>
<td>Quality assurance</td>
<td>55.9%</td>
<td>70.6%</td>
<td>57.9%</td>
</tr>
</tbody>
</table>

Graph 9.2 Focus of change
Perceptions of respondents by company
The main methods used by companies to achieve changes would appear to be multi-skilling and continuous improvement (see Table 9.5) The responses were remarkably consistent and cited by the great majority of respondents, with both staff and employees rating these methods highest This is true across all the companies (see Graph 9.3) unlike some of the other methods where there are considerable variations between companies, reflecting the differences in their business focus and position within the industry

<table>
<thead>
<tr>
<th>Main methods used</th>
<th>Employees</th>
<th>Staff</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous improvement</td>
<td>95%</td>
<td>85%</td>
<td>93.4%</td>
</tr>
<tr>
<td>Multi-skilling</td>
<td>92%</td>
<td>88%</td>
<td>90.8%</td>
</tr>
<tr>
<td>Employing new people</td>
<td>64%</td>
<td>73%</td>
<td>64.5%</td>
</tr>
<tr>
<td>Increasing training</td>
<td>61%</td>
<td>73%</td>
<td>61.8%</td>
</tr>
<tr>
<td>Introduction of new work systems/procedures</td>
<td>53%</td>
<td>73%</td>
<td>55.3%</td>
</tr>
<tr>
<td>Organisational review/development</td>
<td>53%</td>
<td>73%</td>
<td>55.3%</td>
</tr>
</tbody>
</table>

Graph 9.3 Methods used by companies to create change
Perceptions of respondents by company
When asked to rate the effects of the changes in relation to their own work on a scale of 1-5 where 1 represented no effect and 5 represented a drastic effect, nearly half the employees rated the effects as only moderate, while nearly 60% of staff rated the changes to their work at 4, indicating that they saw the effects of company change on their work as being quite significant (See Graph 9.4)

The high number of staff who saw the changes as significantly affecting their work may relate to the trend to downsize middle management. The research revealed specific examples of this trend, such as amalgamating jobs if a manager leaves (Nissan); increasing the number of shop floor workers without increasing the number of managers or technical support staff (HEC Foundry), and the development of several new products and projects without much expansion of professional staff numbers due to difficulties recruiting people with suitable expertise (SCA).

The relatively high proportion of employees who selected a moderate level of change may be a reflection of the cynicism of shop floor workers to yet more changes, driven from the top down, which often do not impact directly on their job, which continues to occupy them fully during working hours.

However, when asked if these changes were, in their opinion, better or worse for the company, over 76% of employees and 82% of staff rated the changes as being better for the company (See Graph 9.5) On the other hand, when asked if the changes were better or worse for themselves and their workmates the responses were different (Graph 9.6) Nearly half of the employees (49%) rated the changes as neither better nor worse. However 2% rated them at 1 (much worse) and 5% at 5 (much better), while all of the staff responses clustered evenly around the 2-4 range, with more classifying them as better than worse, and less than a quarter choosing the middle ground (3)
Chapter Nine

9.4 The workplace learning cultures

There is a substantial body of evidence within the research data to support the view that these workplaces are functioning - to various degrees - as learning environments. For instance, 88% of employees and 76% of staff reported learning, in the past twelve months, about areas or aspects of the business which they did not know about before. These figures suggest the majority of employees are engaged in learning and thus, at least to some extent, it is endemic within these companies. The high figure for staff on this question also suggests that learning is not restricted to the shop floor but is taking place at higher levels within these organisations.

On the issue of experimentation, 53% of employees reported that they had experienced the opportunity to experiment, innovate or do something differently in their work, whilst 88% of staff also responded positively to this question. This question relates to the openness of the organisation and reflects its capacity and willingness to empower employees to learn through innovation, experimentation and non-routine behaviour. It is interesting to see that over half of the employee respondents felt free to learn in this way. The overwhelming majority of the staff also said they were able to experiment or innovate.

The figures on experimentation and innovation would be less compelling if the evidence suggested the learning was relatively inconsequential, but this is not the case. Of the employees interviewed 73% indicated that learning had changed their thinking about their work and they went on to give examples of these changes. The majority (65%) of staff similarly reported learning that was changing their thinking. This is significant evidence of transformational learning which facilitates the processes of change management.

The data across companies also shows that informal learning is perhaps as important as formal training. Among employees interviewed across the companies 74% indicated that they had worked on new tasks in the past twelve months. Of these respondents 73% indicated that this work involved learning new knowledge and skills. This suggests job rotation that leads to the development of new skills and work organisation systems as a powerful factor in the development of workplace learning.

Interestingly the pattern is similar for the staff from these companies. Some 76% of the staff reported working on new tasks, with 70% of these respondents citing new knowledge and skills as a consequence. The inference here is that the managers and staff are still learners - and at least in some respects are learning alongside their employees.

Analysis of the figures on job rotation of employees provides further support for the suggestion that these companies are creating effective learning environments with 66% reporting being involved in some form of job rotation, either within their own section or department or to another section/department. The overwhelming majority of these respondents (80% and 90% respectively) reported this experience as being very conducive to their learning.
Similarly, 74% of employees reported positively on learning about the company's customers. Here again the evidence suggests significant workplace learning taking place. The results for staff on this question also suggest significant learning, with 64% reporting learning a lot about the company's customers.

This is also reflected in the visits of customers to the workplace. The majority of both staff and employees reported customer visits to their workplace. Amongst employees, 43% reported many visitors and a further 46% reported a few. The comparative figures on this question show that Claridge has the highest rating with 59% of total responses indicating many customer visits. This is hardly surprising in a dealership based on retail sales of new and used vehicles. What may be more significant is that the responses from people at SCA and HEC are almost as high. These figures would suggest that most employees are at least seeing some customers in their workplace, which in turn suggests a degree of openness about these companies.

To some extent this openness is also evident in respondents reporting on their opportunities to visit their customers and/or suppliers. Amongst employees, 8% reported visiting a few customers, 27% reported one visit, and 10% reported visiting many—leaving over 50% who had not experienced this opportunity at all. Nevertheless, given the nature of these workplaces and the sample of people interviewed, these figures suggest some degree of openness within the business. As might be expected, these figures were even higher amongst staff, with 52% reporting at least a few visits and 17% reporting many. Only 23% of the staff had not visited a customer/supplier in the previous twelve months.

There was a general impression within these workplaces that people generally did make the effort to maintain effective working relationships. Amongst the employees interviewed, 66% gave clear positive indication on this issue whilst 70% of staff were inclined to the same view. The closeness of these percentage responses, which has also been evident in other questions noted above suggests that at least to some extent, the so-called "consensus" model of industrial relations is being reflected in these findings. On a number of these key issues of perception the staff and employees seem to share substantially the same view.

The data also shows that only a small minority feel there are many significant problems not being addressed in these companies. Indeed over one third (35%) of the employees interviewed in these companies felt there were no problems which were not being addressed and 56% felt there were only a few such problems. Amongst staff, 18% reported no problems, whilst 69% reported a few. There seems to be a common belief that problems, once identified, are addressed in some substantial and systematic manner—once again reflecting the idea that the organisation is learning from the individual and collective experiences of its personnel.

Looking across the companies, it is apparent that a range of methods are used actively to solicit new ideas or suggestions. Each of the four companies adopts a variety of strategies with the emphasis varying in each site. Graph 9.7 shows how production team or group meetings and informal workplace discussions were important in every
site Training groups such as the VIC were also identified as significant sources for new ideas in three of the four companies - the exception being Claridge which has no VIC program and little in-house formal training. Consultative committees also rated highly in three of the four sites.

![Graph 9.7 How new ideas/suggestions are put forward:](image-url)

This openness to different sources is also reflected in Graph 9.8 which shows personnel who put forward new ideas. At both SCA and HEC, for instance, just as many respondents cite plant and machine operators and drivers contributing ideas and suggestions as they do managers and administrators.
However, analysis of this data by staff and employee categories adds another dimension. It is apparent in every category that staff were consistently much more positive in claiming that others put forward new ideas and suggestions than were employees (see Graph 9.9). Nevertheless, even the more conservative responses from employees still provide clear evidence of openness within these organisations.

Graph 9.8 Personnel who put forward new ideas
Perceptions of respondents by company

Graph 9.9 Personnel who put forward new ideas:
Perceptions of staff and employees across companies
Whilst the respondents across the companies cited a wide range of personnel putting forward new ideas, the responses on decision making (see Graph 9.10) were more limited. However, there is still substantial evidence that it is not just managers and administrators making decisions on the implementation of new ideas.

The amalgamated data relating to perceptions of trust, confidence and cooperation (see Table 9.6) also suggests the way the cultures in these companies support an effective learning environment. The pattern of responses clearly demonstrates a majority of positive perceptions on these issues.

These various factors and figures suggest commonalities or similarities between businesses which are ostensibly quite different (although they are all part of the automotive industry). In their various ways each of the businesses demonstrated some of the characteristics of effective workplace learning environments. Within the cultures they each generated there was some scope for innovation and experimentation. There were opportunities, either formally structured or informally arranged, for people to work in different jobs, broadening their experience and facilitating skill development and the acquisition of new knowledge - often knowledge which provided a more systemic or holistic understanding of the enterprise. There was also some evidence, in each case, of attention to the human variables in processes to facilitate learning and change - a sense of people and relationships being valued, with some efforts being made to sustain them.
9.6 Working relationships

<table>
<thead>
<tr>
<th>Position</th>
<th>Number having working relations with</th>
<th>Trust</th>
<th>Distrust</th>
<th>Confidence</th>
<th>Lack of confidence</th>
<th>Cooperation</th>
<th>No cooperation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers &amp; administrators</td>
<td>58</td>
<td>56 9%</td>
<td>17%</td>
<td>77 6%</td>
<td>3 4%</td>
<td>58 6%</td>
<td>3 4%</td>
</tr>
<tr>
<td>Professionals</td>
<td>43</td>
<td>72 1%</td>
<td>2 3%</td>
<td>65 1%</td>
<td>7%</td>
<td>65 1%</td>
<td>4 7%</td>
</tr>
<tr>
<td>Para-professionals</td>
<td>54</td>
<td>64 8%</td>
<td>3 7%</td>
<td>59 3%</td>
<td>3 7%</td>
<td>66 7%</td>
<td>1 9%</td>
</tr>
<tr>
<td>Tradespersons</td>
<td>54</td>
<td>64 8%</td>
<td>1 9%</td>
<td>61 1%</td>
<td>1 9%</td>
<td>66 7%</td>
<td>5 6%</td>
</tr>
<tr>
<td>Clerks</td>
<td>44</td>
<td>61 4%</td>
<td>9 1%</td>
<td>54 5%</td>
<td>11 4%</td>
<td>61 4%</td>
<td>9 1%</td>
</tr>
<tr>
<td>Sales &amp; service</td>
<td>27</td>
<td>63%</td>
<td>1 1%</td>
<td>70 4%</td>
<td>11 1%</td>
<td>74 1%</td>
<td>7 4%</td>
</tr>
<tr>
<td>Plant &amp; machine operators</td>
<td>58</td>
<td>62 1%</td>
<td>0%</td>
<td>67 2%</td>
<td>0%</td>
<td>67 2%</td>
<td>1 7%</td>
</tr>
<tr>
<td>Labourers &amp; related workers</td>
<td>45</td>
<td>62 2%</td>
<td>0%</td>
<td>62 2%</td>
<td>2 2%</td>
<td>64 4%</td>
<td>2 2%</td>
</tr>
</tbody>
</table>

This table was created by aggregating the positive and negative responses to questions about trust, confidence and co-operation, on a 5 point Likert Scale. Neutral responses have been omitted.

It may be that in an effective workplace learning environment, the absence of distrust and suspicion is more significant than the presence of high levels of trust, cooperation and confidence. This is a phenomenon that might warrant further investigation.

9.5 Formal training

A high level of training provision was evident across all companies with 78% of employees and 82% of staff reporting that they had received some formal training during the preceding twelve months.

The content of the formal training was broadly similar across the two groups. Staff tended to report a wider spread of training with more specific and specialised training programs being undertaken, whilst among the employees there was a high concentration of people doing the VIC, and hence large numbers doing the same training program in each enterprise. Training content reported by more than one employee is given in Table 9.7, and ranked accordingly to the numbers of employees undertaking the training.

There are several clear implications that can be drawn from this table. Firstly there is a degree of common ground between staff and employees in terms of their training,
and there are several areas where it is feasible to conduct company-wide training, rather than training for specific groups in specific programs. Training in formal communications, company policies, occupational health and safety, and new products would appear to hold a lot in common for all groups.

Secondly, this table indicates that a lot of training goes into things that are highly enterprise specific, and hence one would want to question the rush towards generic, modularised curriculum packages for enterprise training. Training that is highly contextualised to a particular enterprise is required for such things as company policies, enterprise technology and equipment, company work systems, new enterprise products, customers and suppliers of the enterprise, and new technologies used in the enterprise.

<table>
<thead>
<tr>
<th>Training content</th>
<th>Percentage of employees in training</th>
<th>Percentage of staff in training</th>
<th>Percentage of total of personnel in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupational health &amp; safety</td>
<td>85%</td>
<td>43%</td>
<td>75%</td>
</tr>
<tr>
<td>Company policies</td>
<td>80%</td>
<td>43%</td>
<td>72%</td>
</tr>
<tr>
<td>Informal communications</td>
<td>80%</td>
<td>43%</td>
<td>72%</td>
</tr>
<tr>
<td>Formal communications</td>
<td>74%</td>
<td>50%</td>
<td>68%</td>
</tr>
<tr>
<td>Company work systems</td>
<td>74%</td>
<td>43%</td>
<td>67%</td>
</tr>
<tr>
<td>Enterprise machinery &amp; equip</td>
<td>74%</td>
<td>43%</td>
<td>67%</td>
</tr>
<tr>
<td>Rights &amp; responsibilities of employees</td>
<td>72%</td>
<td>29%</td>
<td>62%</td>
</tr>
<tr>
<td>New products</td>
<td>65%</td>
<td>36%</td>
<td>58%</td>
</tr>
<tr>
<td>Customers &amp; suppliers</td>
<td>61%</td>
<td>7%</td>
<td>48%</td>
</tr>
<tr>
<td>Industry or business context</td>
<td>54%</td>
<td>22%</td>
<td>47%</td>
</tr>
<tr>
<td>Introduction of new technology</td>
<td>39%</td>
<td>36%</td>
<td>38%</td>
</tr>
<tr>
<td>Specialised skills</td>
<td>4%</td>
<td>n a</td>
<td>3%</td>
</tr>
</tbody>
</table>

Some 'generic' training may be appropriate for those topics that involve broad social or legal understandings and responsibilities (for example, Occupational Health and Safety, Communications, Rights and Responsibilities for Employees, Industry or Business Context) but even here there is some need for contextualised training as these responsibilities are increasingly devolved to the enterprise (for example, through local OH&S Committees, Enterprise Bargaining Committees, etc.), and/or where contextualisation would add to the effectiveness of the training (for example, in workplace communications).

The findings on the content of the training across these enterprises, make a case for the reconsideration of the mix of generic versus contextualised training in accredited training programs such as the VIC, and for the funding priorities of the Australian Vocational Education and Training System (AVETS), in curriculum development. It may be that it is only prima facie cheaper to produce generic curriculum packages if these packages are in fact of little use to enterprises because they are not sufficiently contextualised, than the money spent on their development may in fact be money wasted rather than money effectively spent. This conclusion is further supported by.
the data on the training methods used across the companies. Experiential training methods dominated where generic curriculum materials are of little use.

Training across the companies was delivered overwhelmingly through the use of experiential methods. Group discussion of work, knowledge and experience facilitated by a Trainer or Group Facilitator, was the most widely used method for both employees and staff. The next most common method for staff, was attendance at a lecture. Training involving participants in work related projects and in-house presentations was also widely used. Both employees and staff had attended special presentations by experts, making this too, a frequently used training method.

**Table 9.8 Training methods used**

<table>
<thead>
<tr>
<th>Training method</th>
<th>Percentage of employees in training</th>
<th>Percentage of staff in training</th>
<th>Percentage of total personnel in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discussion of work, knowledge &amp; experience</td>
<td>94%</td>
<td>72%</td>
<td>89%</td>
</tr>
<tr>
<td>Job related projects</td>
<td>76%</td>
<td>57%</td>
<td>75%</td>
</tr>
<tr>
<td>Special presentations</td>
<td>76%</td>
<td>57%</td>
<td>72%</td>
</tr>
<tr>
<td>Trainee's presentations</td>
<td>61%</td>
<td>57%</td>
<td>63%</td>
</tr>
<tr>
<td>Lecture</td>
<td>56 5%</td>
<td>71%</td>
<td>60%</td>
</tr>
<tr>
<td>Computer based training</td>
<td>26%</td>
<td>36%</td>
<td>28%</td>
</tr>
<tr>
<td>Self-paced workbooks</td>
<td>17%</td>
<td>36%</td>
<td>22%</td>
</tr>
<tr>
<td>Distance education</td>
<td>4%</td>
<td>7%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Significantly, computer based training, self-paced workbooks and distance education, were all little used methods, despite the high profile of these methods within VET. The figures for the use of computer based training are in fact slightly distorted in this study, since there were a significant group of employees in the warehouse who undertook, not a generic computer-based training package, but rather, training on an enterprise specific computer system. This is to say that these employees trained on the computer because it was a tool of their work in the warehouse and they learned a proprietary computer system for parts handling. Self-paced workbooks were twice as likely to be used by staff as employees, possibly reinforcing the finding that the demands of a print based medium, make it unsuitable for all groups in an enterprise.

The findings on technology based training methods from these four case studies indicate that it is worth considering whether or not the development of curriculum programs using these methods is not out of proportion to the actual use of such methods. Given the amounts of government funding dedicated to computer based training programs and the related technology, it is pertinent to ask if in fact such technologically based training methods are frequently used, and where they are used, do they still require significant customisation and contextualisation? Unless there is a high frequency of use and little need for customisation and contextualisation, it may be prudent to reconsider funding priorities.

Where training is highly contextualised and strategically linked to continuous improvement processes in the workplace, the experiential training methods are bound
to dominate There is little need for high technology delivery strategies, when the context to be worked in and worked upon, is at hand and available to direct experience

The extensive use of experiential training methods within these enterprises - methods requiring active and collaborative work on the part of the trainees - is further underlined by the fact that these methods were frequently used together This is to say that those experiencing one experiential method, tended to experience it in combination with others These experiential methods were also valued highly by all personnel The training was both highly relevant to the daily work of the trainees and enjoyed by the trainee's (see Table 9.10)

Table 9.9 Use of experiential training methods

<table>
<thead>
<tr>
<th>Training method</th>
<th>Percentage of total personnel in training</th>
<th>Percentage of those exposed finding the method very relevant to their daily work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee discussion and Project</td>
<td>47%</td>
<td>89%</td>
</tr>
<tr>
<td>and Presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee discussion and Project</td>
<td>20%</td>
<td>87.5%</td>
</tr>
<tr>
<td>and Presentation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainee discussion and Presentation</td>
<td>12%</td>
<td>88.5%</td>
</tr>
<tr>
<td>Discussion only</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Total using one or more</td>
<td>89%</td>
<td>88.6%</td>
</tr>
<tr>
<td>experiential training methods</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 9.10 Appreciation of experiential training methods

<table>
<thead>
<tr>
<th>Training method</th>
<th>Percentage exposed finding the method very useful</th>
<th>Percentage exposed to method learned a lot</th>
<th>Percentage exposed enjoying the method very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee discussion</td>
<td>70%</td>
<td>60%</td>
<td>68%</td>
</tr>
<tr>
<td>Job related projects</td>
<td>63%</td>
<td>56%</td>
<td>49%</td>
</tr>
<tr>
<td>Trainee's presentation</td>
<td>69%</td>
<td>64%</td>
<td>72%</td>
</tr>
</tbody>
</table>

As well as the company, its systems and procedures being the focus of training, the enterprise was also the focus of training for many trainees Training tended to occur on-site, and significantly, more training occurred in workplace groups, than did, on-the-job The widespread use of workplace groups for training, learning and action on workplace problems, is thus a key finding

Companies that do not pursue training in isolation from strategic goals, such as continuous improvement, and companies that make use of experiential learning strategies to back up the achievement of these goals, seem to make great use of workplace groups for training purposes The VET system has traditionally focused
upon classroom and on-the-job delivery of training, and appears to have missed the opportunities available for training and learning that exist in workplace groups.

Once again, the point needs to be underlined, that such groups work on very specific, non-routine problems, and are ill served by generic curriculum Trainers, Enterprise Teachers and Group Facilitators, who are on-site and well versed in the operations of the company, are required in order to take advantage of the training, teaching and learning opportunities offered by such groups.

Finally, it should be noted, that off-site instruction was far more significant for staff than for employees. This perhaps reflects the more highly specialised kinds of training undertaken by staff, that was noted above.

<table>
<thead>
<tr>
<th>Form of training</th>
<th>Percentage of employees in training</th>
<th>Percentage of staff in training</th>
<th>Percentage of total of personnel in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-site classroom training</td>
<td>76%</td>
<td>57%</td>
<td>72%</td>
</tr>
<tr>
<td>Participation in Groups</td>
<td>59%</td>
<td>50%</td>
<td>57%</td>
</tr>
<tr>
<td>On-the-job instruction</td>
<td>59%</td>
<td>36%</td>
<td>53%</td>
</tr>
<tr>
<td>Off-site instruction</td>
<td>24%</td>
<td>57%</td>
<td>32%</td>
</tr>
</tbody>
</table>

The training experience of many employees was a positive one and few people felt that there were undiscussable topics (only 13.5% of employees and 6% of staff) whilst many of them reported having had some influence upon the development of training (44% of employees and 94% of staff), employees at all levels of these companies keenly felt the relevance of the experiential, workplace based training. They had a stake in the development of training, they were actively involved in the delivery of the training through the experiential training methods, and they saw the usefulness of the outcomes of the training, both for their own work and for their career development within the company. Such levels of commitment to training are arguably not so highly associated with generic training modules that are delivered off-the-shelf.

Most Trainees saw further opportunities for training and learning in their workplace (91.5% of employees and 94% of staff) and also saw promotional opportunities for those who had completed training (81% of employees and 82% staff). Significant numbers of people also indicated that they would be seeking opportunities as a result of their training (63% of employees and 64% of staff).

The positive view of training held by employees at all levels of these companies, and the opportunities for knowledge growth and skill development within the companies, may also be one of the factors associated with the positive perception of the companies by all employees. 59% of employees and 64% of staff considered that their companies looked after the interests of their employees, whilst 76% of employees and 82% of staff considered their company to be a good company to work for.
Chapter Ten
Conclusions, Implications & Recommendations

This chapter draws together the findings of the research in a number of conclusions, based on the ANTARAC research priority *Learning in the Workplace*. In particular each of the following areas are addressed:

* the workplace as a learning environment,
* how workplace learning differs from classroom learning;
* teaching skills in the workplace,
* workplace culture and ethos,
* generic skills needed in the workplace,
* workplace assessment.

The implications of the research are then related to industry and some specific recommendations are put forward for the consideration of enterprises and unions.

Implications of the research as it might affect ANTA policy development, in relation to the issues outlined in the project proposal and reiterated in Chapter One of this report, are commented on. These include:

* Curriculum development in VET,
* Methodology for workplace training/learning,
* Infrastructure and support for workplace learning,
* Trainer training and development,
* Preparation and development of workplace trainers.

Recommendations are offered, based on the findings of this research, for VET. Other areas commented on include the role of training agreements in processes of enterprise bargaining, work organisation and workplace reform, and the link between training and productivity.

A few comments are also offered, within the limits of this research, on some ANTARAC priority areas that lie outside the direct focus of this study. These include:

**Assurance of quality**

* Evaluation of the appropriateness of training in relation to client needs,
* The role of client and consumer in quality assurance,

**Needs of small business**

* The extent to which skill demand differs in organisations of different size,
* Effective training for people in small enterprises: the profile and detail needed to plan appropriate education and training;
* The impact of size and organisational structure,
* Delivery mechanisms for providing skills to small business.

**The economic impact of VET**
The role of VET in bringing about workplace change,
* The competitive advantage to enterprises of VET

Finally, the research methodology, and in particular the framework used for the research, is looked at in retrospect, to assess its value to this and other possible future research. Areas of further research as a result of this project are identified and some recommendations are made.

It should be noted that this research was limited in its scope. Comments and suggestions outside the direct scope of the project are offered only on those aspects where some conclusions can be drawn from the research results.

10.1 Learning in the workplace - Conclusions

(i) The workplace as a learning environment

This research confirms the view of the literature on workplace learning, that the provision of a supportive learning environment in the workplace is critical to the success of training endeavours. Also that training needs to take account of the environment in which it is operating if it is to be effective in the workplace.

The framework of characteristics and indicators that was developed for this research proved to be an effective tool for analysing and evaluating the workplace as a learning environment. However, it was only tested here in relation to one industry. Benefits could be obtained from testing this framework in other industries, and from extending and revising it through such tests.

Analyzing the environment

It is clear from this research that it is important to evaluate training in situ in the workplace context. To evaluate workplace training as a separate entity is to look at only one small part of a larger picture. It is change or transformation in both individuals (in their workplace setting) and in the workplace itself that provides the most useful and conclusive evidence of the effectiveness of training. Conversely, when training needs are being analysed in the first instance, it is relevant for enterprises to undertake a Learning Environment Analysis, of which the Training Needs Analysis forms only a part, and to identify their training needs within this larger picture and as part of a strategic plan for enterprise development.

Different points of view

A workplace contains many groups and this research indicates that an effective learning environment exists where there is room for these multiple stakeholders to have a voice. The diversity of points of view creates room for learning to...
occur, with people learning from, and with, one another. This was clearly evident in this research where the most valued and enjoyable type of training for respondents at all levels came from discussing their work with their peers. The involvement of all the stakeholders in elements of designing, developing and implementing training gave a clear sense of ownership and encouraged active participation in the programs. Thus the importance of consultative and collaborative processes was confirmed.

(ii) How workplace learning differs from classroom learning

Results of this research demonstrate clearly that both informal learning and formal training are important in the workplace. More important, however, are the links between the two. Workers have large amounts of knowledge and expertise located in the workplace and its processes, systems and practices. The role of the workplace educator is therefore different to a classroom teacher, in that learning needs to be facilitated and generalisations drawn from the workplace itself.

Work based learning

As this research suggests, learning does not occur solely in a classroom. The workplace is a source of a great deal of learning, and opportunities abound for both formal and informal learning to occur. Examples include using existing groups in the workplace as conscious sites of learning and the strategic use of job rotation to develop new skills. It is important to both recognise and grasp these opportunities to provide relevant and immediate learning experiences. Time for reflection and group discussion is critical as it helps to build a learning environment where people can engage in learning in all situations, and where they can learn to question and to think creatively about their work. Formal training can provide this space, but to do so effectively the teachers/trainers need to be immersed in the knowledge, processes, culture and practices of the workplace.

Whilst teachers may contribute to the content of workplace learning, they rarely have control over, or access to, those aspects of the workplace that should contribute significantly to the contextual reality of the learning. This flags one of the most significant differences between traditional classroom based learning and work based learning. Traditional classroom teachers generally constructed learning environments, framed the problems, developed the curriculum, learning strategies and resources and facilitated the learning. In the workplace, teachers have virtually no control over the processes, procedures, etc which drive production. Factors such as work organisation and work practices are made the focus of training only by negotiation between the industrial parties, taking account of a range of social, cultural and political variables. The implication is that workplace teachers need to negotiate the content and learning context within that paradigm in ways that are meaningful to the learners in that context. Their ability to bring the context into the...
training, negotiate the limits of that contextualisation and then shape the content into relevant learning strategies is critical to the success of work based learning.

The somewhat fragmented approach which characterises current CBT design, development and implementation of programs denies the context by producing standardised generic curriculum. This approach runs counter to the holistic approach to work based learning that is suggested by the literature and confirmed by this research.

**Strategies for linking learning to change**

The links between learning and change form a complex dialectic. External change can lead to learning, and learning can lead to change. However, this need not necessarily be the outcome. It is clear from this research that these links need to be consciously forged, they will not happen automatically. The literature gives examples of learning that linked to change being embedded in the technology, processes and practices of the workplace. This research supports this view. Strategies such as those discussed above that involve the multiple stakeholders and engage participants in real workplace issues are essential to build these links between workplace learning and change.

**Generic and contextualised curriculum**

Findings of this research on the content of training across these enterprises point to the need for a great deal of the training (on topics such as company policies, enterprise technology and equipment, company work systems, new enterprise products, customers and suppliers of the company and the introduction of new technologies into the workplace) to be highly contextualised and enterprise specific. However, there are some areas that could benefit from generic curriculum resource packages, such as occupational health and safety, rights and responsibilities of employees, industry or business context, etc. However much of this material would also need to be contextualised to the specific workplace. It would appear to be counter-productive to send people to class to learn generic curriculum if the aim is for the workplace to become an effective learning environment.

(iii) **Teaching skills in the workplace**

There are two interpretations to be noted here, both are important. The first places emphasis on the word *teaching*. This research suggests the importance of recognising that the teaching role can and should be shared by many within the workplace - including the learners who may be teachers in one context and learners in another. The effective workplace learning environment is one in which support for learning is endemic. The skills required of workplace learning facilitators include (but are not restricted to) skills in
supporting innovation, experimentation and considered risk taking,
demonstration, instruction and explanation,
analysis, interpretation and problem solving,
curriculum design, development and implementation,
interpersonal relations and communication,
design and application of assessment systems,
responding to and managing change,
ability to turn critical incidents, mistakes, etc into learning situations

These skills have never been the exclusive preserve of teachers, in schools, or workplaces. The development of effective workplace learning environments demands that they not be. The range of skills required also suggests the viability of collaborative team based approaches to learning support.

The second interpretation on teaching skills in the workplace suggests the importance of the skills to be taught. Elsewhere in this report it is suggested that the notion of skills is more open to question than is generally assumed. A critical consideration of workplace skills reveals how they are invariably embedded in situated and often quite complex understandings which are particular to the circumstances or context. The notion of stand alone skills to be taught separately from the knowledge and context is therefore highly problematic. Teaching skills in the workplace is no different to teaching anything else. Skills need to be contextualised, they need to be learned within a broader framework that provides an holistic perspective. There must be opportunities for practice and reflection and so on. The best people to make decisions on how skills are to be learned, practiced and assessed are those most intimately familiar with the skills concerned. This is generally those on the factory floor who are actively engaged in the processes. Once again, the importance of reconceptualising training and workplace learning is suggested.

(iv) Workplace culture and ethos

In order for people to feel free to learn, this research has demonstrated that a workplace learning culture needs to include elements of trust, openness to new ideas, and encouragement to take risks, so that people feel able to try doing things a different way, to innovate and experiment. This can be underpinned in formal training with experiential learning activities, workplace based projects with real outcomes and involvement of many people from different levels of the workplace in the design, development and implementation of training. However, these activities and strategies will be of limited value, and could even lead to cynicism and withdrawal by participants, if the culture of the workplace is not supportive of the learning.

(v) Generic skills needed in the workplace

This research suggests that the generic skills needed in the workplace are those of analytical thinking, collecting, analysing and organising data,
communicating, identifying, analysing and solving problems, working in groups, and so on, i.e. the key competencies. The critical aspect of these skills are that they are not just acquired by targeting them in modules, but they need to be developed over time and used over and over again to refine and extend them. In this sense, they are never totally achieved, but always developing.

The concepts of generic and transferable skills have gained widespread usage in recent times. The literature, and a good deal of educational experience, suggests that people learn best by moving from the concrete to the abstract, and that learning in the workplace needs to be embedded in the realities of the workplace processes, systems and technologies. This research supports this stance. Experience in integrated training programs (see Sefton et al., 1994) has shown that, from the sound basis of this grounded curriculum a relevant educational program can be developed in which the skills base of individuals is established and extended over time. However, curriculum development and program delivery policies, processes and practices in VET are premised on the notion that generic and transferable skills can be obtained from generic curriculum.

In the literature, all of these concepts are considered problematic - for instance, notions of generic and transferable (skills, knowledge, curriculum), even the concept of skills is contested. This research indicates that these concepts should be critically examined, and the results of such research reflected in changed VET practices, if the notions of developing learning cultures and linking training to change are to be seriously adopted by enterprises.

(vi) Workplace assessment

There are two aspects to workplace assessment. The first is that of assessing on-the-job workplace skills and the second is that of assessments relating to off-the-job workplace training programs. This research did not touch specifically on either aspect of assessment in the workplace. However, it is apparent that the same principles hold for the processes of assessing on-the-job skills as for any other aspects within a learning environment, that is, they need to occur in context, in situ, open to collaborative input from stakeholders in the processes, be fair and equitable, and open to review.

Similarly, assessments relating to off-the-job training also need to be appropriate to the content (i.e., multiple types, group work, flow charts, wall charts, presentations, etc.) and the workplace context of the training. They need to be negotiated with the stakeholders and not be dependent on literacy and language skills that are not required on the job. There is also a need to question the dichotomy between on and off-the-job assessment.

An argument could be mounted from the results of this study that there should be more holistic and integrated assessments that link knowledge and skills.
10.2 Implications for industry

(i) Enterprises

While some of the literature on learning organisations may not be very practical, this research has been able to develop from it a useful framework for looking at workplaces as learning environments and a set of characteristics and indicators that should assist companies to evaluate the links between workplace learning and change in their own enterprise.

Training has been promoted as an important issue for enterprises. It is an integral part of any quality audit and is considered to be critical to quality assurance processes. The culture of continuous improvement and multi-skilling is endemic to the industry scene. A great deal of money, both government and company, is expended on training activities. It is therefore important that training fulfils its role and that it has benefits for both employers and employees. Careful planning and the implementation of a range of strategies can assist companies to gain the maximum value from their training activities.

The research indicates clearly that opportunities for informal learning are numerous within workplaces. Grasping these opportunities and transforming them into learning implies that there are people within the organisation capable of both recognising and exploiting them in constructive ways.

As this research shows, career planning and the opening up of opportunities for employees to advance their careers within the company through a policy of developing an internal labour market strategy, provides clear incentives for employees to participate actively in learning opportunities. It also assists the development of a learning culture within the organisation.

The following suggestions represent ways in which companies can interpret and make use of the results of this piece of research.

Recommendations

1. That companies adopt a policy of undertaking a learning environment analysis, rather than a training needs analysis, to enable the identification of a range of strategies to improve opportunities for workplace learning as well as to target training so that it will meet long term goals.

2. That companies recognise that there are many opportunities for learning to occur in the workplace, and these opportunities need to be identified, grasped and used constructively for this purpose.

3. That companies pay attention to the development of all personnel so that workplace learning becomes habitual at all levels.
4 That companies look closely at the content of training offered to personnel at the different levels of their organisation and consider conducting training that brings together participants from these levels in some content areas.

5 That companies pay attention to consultative processes and involve their employees in decisions on training issues.

6 That companies look at ways of encouraging employees to look for career advancement within the company.

(ii) Unions

It is clear from this research that shop floor workers enjoy having their skills recognised and extended, and using these skills in the workplace. They like to have a genuine input to both the content and style of training. Within the training they like to be actively engaged in real workplace issues, and in discussing their ideas with their peers and others. This research shows that informal learning within the workplace plays a very significant role for employees. Job rotation that leads to the development of new skills is seen by employees to create good opportunities for learning and advancement.

The literature indicates that learning is more meaningful for employees when it is embedded in the realities of the workplace and this research confirms that view. Thus the implications for the unions range around issues of ensuring that employees are developing generic, transferable skills and that they are able to acquire nationally recognised portable qualifications through enterprise specific training and informal learning. These issues need to be addressed and monitored in each enterprise, implying a need to devolve to shop floor level the responsibility for monitoring and evaluating training and ensuring that job rotation, informal learning opportunities, etc. are equitably shared amongst employees.

Linking learning to workplace change is part of the workplace reform agenda. However, this research shows that the impression of employees is that change often creates more improvements for the company than for the employees. If the aim is to work smarter rather than harder, then changes to work practices, work organisation and workplace systems need to be understood and monitored in a critical manner.

These issues all have implications for shop steward training and the role of organisers.

Recommendations

7 That unions recognise that the organisation of formal training for employees, while a necessary step, is insufficient of itself.
needs to be paid to issues such as

- the way training is designed, developed and implemented;
- informal learning in workplace groups,
- job rotation for multi-skilling (not just multi-tasking),
- the relationship of training to workplace change

8 That unions take account of needs of shop stewards and organisers to come to terms with the implications and demands of the workplace training agenda, and frame their training accordingly

10.3 Implications for ANTA policy development

As indicated earlier, it was expected that the results of this research would have some implications for ANTA policy development. The following areas were nominated in the research proposal as those that would require comment.

(i) **Curriculum development in VET**

Standard processes of accredited program development within the VET system are called into question by the results of this research. The accepted paradigm of separating out the various components of program development, with one group developing competencies, another developing these competencies into a curriculum document, still another group developing learning programs and yet another delivering training, may need to be revised. A more seamless approach to these tasks would appear to be preferable, with a recognition that contextualising curriculum to reflect the realities within each enterprise is a necessary step if the training program is to meet the sort of goals that are expressed in the Workplace Reform Agenda

**Recommendations**

9 That ANTA consider changing funding arrangements to reflect the need for more holistic approaches to the design, development and implementation of industry training programs

10 That curriculum frameworks be developed based on learning outcomes rather than a modular approach, to allow maximum flexibility in designing and implementing specific industry training programs

(ii) **Methodology for workplace training/learning**

This research highlights the importance of recognising and involving the appropriate stakeholders in those aspects of the learning program development and implementation which are most pertinent to their personal, social and work responsibilities. For instance, programs directed towards shop floor operators must involve shop floor operators in the design and development phases prior...
to implementation Failure to solicit this involvement and engagement positions the learners as passive recipients (of training and /or change) which erodes their capacity to act as active agents of change and workplace learning.

Recognising different points of view implies recognising different values and therefore accepting the principle that not everyone will be looking for the same outcomes from any given development (whether it is a formal training program or an initiative to promote informal workplace learning) This issue is further addressed below but it is noted here because this principle is fundamental in the analysis and development of an effective workplace learning environment

Recommendations

11 That the development, implementation and evaluation of workplace learning activities be organised on the principle of recognising multiple stakeholders and valuing multiple outcomes

12 That evaluation methods be developed to recognise differing outcomes

(iii) Infrastructure and support for workplace learning

What has been thought of as training needs analysis might be more usefully considered as an analysis of the total learning design, considering not just the training needs, but the state of the workplace learning environment as a whole Undertaking such analysis would also imply the need for ongoing monitoring and adjustment of the environment to facilitate learning.

Recommendations

13 That the commonly understood notion of Training Needs Analysis (TNA) be superseded by a more holistic notion of learning environment analysis within the workplace, of which the TNA would be a part.

14. That ANTA policy recognise the infrastructure for VET depends substantially upon people (the notion of "intellectual infrastructure"), and allocate the resources necessary to support people as agents for and managers of genuine workplace learning and change

15 That resource allocation (by Government agencies, Providers and enterprises) reflect the understanding that facilitating workplace learning and change requires effective time in-situ in order to effectively contextualise learning programs and engage the unique learning opportunities that the context provides

16 That the allocation of resources be based on a principle of promoting the autonomy and capacity of the enterprise to sustain its learning culture/environment - this may necessitate funding on a sliding scale
which recognises the developmental state/stage of enterprises and VET providers

17 That funding criteria for VET programs take into account the need for change within the workplace

18 That criteria for evaluating the effectiveness of VET programs include evidence of changes taking place within the workplace, and that such evaluation should consider the value of the changes (and the VET program) to all of the stakeholders

(iv) **Trainer training and development**

The research findings also have implications for the role of workplace trainers and for their training and development. The trainer's role needs to be reconceptualised to reflect the trainer's importance as an agent of change and development. Trainers need an understanding of how training can be linked to, rather than merely located within, the workplace. They need to know how curriculum can be developed out of workplace technology, processes and practices. Even where generic curriculum packages are used, these skills need to be called upon to contextualise materials to the workplace context. Trainers need skills in change management and theoretical or conceptual frameworks to understand and reflect upon change processes. They also need opportunities to engage in this type of curriculum and learning materials development, with professional support as required.

This suggests the need for a new generation of trainer training which moves beyond notions of pre-packaged learning and delivery towards more collaborative development processes based on dialogue, action learning and experiential methods.

**Recommendation**

19. That approaches to trainer training and development be framed in terms of the trainer as an enterprise based change agent requiring active support in the development of

- learning materials,
- training and change implementation strategies, and,
- evaluation methods

(v) **Preparation and development of workplace teachers**

The role for workplace teachers similarly needs to be reconceptualised to place more focus on developing grounded theory and linking it to practice. The business of workplace teaching is one of applied adult education. The emphasis needs to be on how workplace learning programs may facilitate development.
processes in the workplace. It should be about making a difference - a difference which is valued by all of the stakeholders involved in the process.

The findings suggest that facilitating effective workplace learning is much more like orchestrating than delivering. Within the workplace learning environment there is a multitude of factors to consider and accommodate. Many of these are outside the teacher or trainers control - yet they may have critical impact upon the effectiveness of the workplace programs being promoted. It is also important to highlight the multiple stakeholders, and therefore values, operating within the workplace and to which learning programs must respond. Failure to recognise these values mitigates against the development of a learning environment which creates opportunities for all.

The strategic importance of informal learning and of an holistic approach to developing the workplace learning environment also suggests the need to reconsider the role of the workplace teacher. Given the importance of developing the workplace culture across the enterprise the teacher needs to adopt different roles according to circumstances. Even within the enterprise context there are micro-contexts so that in one department the teacher may be coaching a shop floor employee, in another acting as a mentor for a workplace trainer or team leader, in another setting acting as an advocate or catalyst for change, whilst in yet another supporting critical reflection or evaluation of developments. The diversity of needs suggests the value of the enterprise based teacher as a consultant whose task it is to support learning across the enterprise.

These training needs suggest the requirement for fundamental connections between preservice and professional development programs conducted by universities and VET providers on the one hand and the real world contexts of work in which the teachers (and trainers) are engaged on the other. The value of action-learning strategies and experiential methods for training teachers and trainers is suggested by this research.

The implication is that professional development packages for teachers and trainers may be limited in their utility unless considerable attention is given to the way these packages are contextualised and directed towards the concerns of particular vocational educators in workplace situations.

Recommendation

20 That professional development and training for vocational educators (both teachers and trainers) embrace experiential and action learning strategies closely tied to the real world contexts and problems of actual workplaces.
Three of the four companies studied in this research were operating within a training agreement that formed part of the enterprise bargaining process. The fourth utilised mainly external training. It is the experience of the researchers that the existence of a formal training agreement is always an advantage in order to allow collaborative design, development, implementation and evaluation of training. It also saves training becoming held up while industrial issues are sorted out. Clarifying the objectives and expected outcomes of training in a signed tripartite (company, union, provider) project brief for all industry training is highly recommended.

Recommendation

21 That a policy be adopted that all enterprise-based training require the establishment of a tripartite steering committee on site to ensure that training meets the needs of all stakeholders and the requirements of the training agreement.

Work organisation and workplace reform

This research indicates that for training to be meaningful in a workplace context it needs to be linked to processes of workplace change. This necessarily links it also to issues of work organisation and workplace reform. A cautionary note needs to be added, from the experience of the researchers, that such changes need to be within the bounds of any enterprise bargaining agreement that is in place in the company.

The link between training and productivity

As indicated earlier, this research points to the obvious fact that training is by no means the only factor involved in any workplace change agenda, and it is certainly not the only factor involved in increasing productivity. On the other hand, links to the learning environment in the workplace could be more substantial and would bear some further investigation. Some of the measures used by companies to gauge the effectiveness of their training activities include measures that are also used to measure productivity, such as absenteeism, number of injuries, reduction in scrap, etc.

Anecdotal evidence suggests that there is a strong link between training and productivity, if the training is contextualised to the company. However, there has been little empirical research to support this claim and it would appear that this area could be targeted for future research.

Recommendation

22 That the links between various types of training and productivity be the
10.4 Other ANTARAC priorities - some comments

In framing this research it was argued that the results may point to implications that relate to other areas designated by the ANTA Research Advisory Council as research priority areas. The following comments are offered on the areas that were identified.

It should be noted that these areas were not the major focus of this research, and the comments are offered as addenda. They should be seen therefore as pointers to future research rather than firm conclusions that can be drawn from the results of this project.

(i) Assurance of Quality

* Evaluating the appropriateness of training in relation to client needs

The question needs to be asked - Who is the client? If the client is considered to be the enterprise, then this research would suggest that training needs to be looked at holistically in the context of the working/learning environment and in relation to longer term strategic planning of the enterprise. On the other hand, if the client is considered to be the trainee, then training needs to be evaluated in terms of personal growth and development, whether or not it meets individual learning needs, and how it assists employees to access opportunities for career advancement and additional remuneration.

However, are these the only stakeholders in a training program? This research has demonstrated that there are many stakeholders - unions, committees, supervisors, managers, etc., quite apart from outside stakeholders such as governments, training providers and industry bodies, each with an agenda related to training. Thus it is important that any evaluation of the appropriateness of training needs to take account of all the complexities and variables within any given context, as well as the multiplicity of stakeholders, all of whose interests need to be acknowledged.

* The role of client and consumer in quality assurance

From this research it is clear that all the stakeholders in an enterprise training program have a role to play in all aspects of that program, including quality assurance, so that the outcomes for all those stakeholders are considered. This would include considering the ethical/professional standards of teaching/training practitioners and the contribution of the training to change and enterprise development.
(ii) **Needs of small business**

* The extent to which skill demand differs in organisations of different size

Results of this research indicate that size is only one factor that affects the skill demand in an enterprise. Enterprise forms of internal development could well be more significant. These would include issues of

- how work is organised (e.g., some small businesses may have strong demarcations between various occupations, others may encourage multi-skilling across areas of expertise),
- opportunities for multi-skilling (as opposed to simply multi-tasking),
- the range of technologies used in the workplace,
- training and employee relations policies, if any, that exist in a company (e.g., a policy of development for all employees versus development for some individuals, career planning),

An analysis of the working/learning environment could encourage maximising all opportunities for learning new skills that exist in any one workplace. Thus, the demand for skills could vary over time as attitudes and policies change.

* Effective training for people in small enterprises: the profile and detail needed to plan appropriate education and training

This research clearly shows that training should not be considered apart from its workplace context. What is important is that any learning occurs within an environment that supports that learning. Thus, even in a very small company, with an environment which is open to new ideas and where learning is encouraged and valued, it will be possible to learn from everyday experience, from mistakes, from successes, from examples in other companies, and from all members of the workforce. In such an environment, this research has shown that even learning which occurs away from the workplace can be effective. This is particularly true when there is a direct relevance of the training to the workplace (e.g., dealership training provided by the manufacturer on new products). Some training could well occur across the workforce, from management to the shop floor. The experience at Claridge Holden confirms the value of this type of approach. Given a supportive learning environment, such learning can become self-sustaining.

Small companies could well need assistance in developing a training plan which is linked to its business strategy. The results of this research suggest that an analysis of the workplace learning environment could
be of use in this regard. The resultant training plan would need to include processes to recognise the skills that people already have and also to recognise the opportunities that exist in the workplace to provide skill development and to promote learning activities. Effective training would need to be linked to this business strategy, provide opportunities within the design of the training to contextualise the program to the workplace context, and be flexible enough to incorporate the learning opportunities inherent in the specific workplace.

**The impact of size & organisational structure**

This research uncovered a need for small businesses to access information and assistance that will help them to make the best use of funding opportunities available to them to assist with the provision of training. Small companies mostly cannot afford to have a dedicated personnel or training manager. Thus they often remain oblivious to the funding avenues open to them. Difficulties experienced by these companies relate to releasing employees for training, the costs of training, and the relevance of the training to which they can get access.

**Delivery mechanism for providing skills to small business**

The fundamental point to note here concerns the conception of skill[s] which underpins this statement. It is a conception which presumes skill[s] to be readily identified, neatly parcelled and delivered - it is only the mechanism (and it is assumed there must be a mechanism) which is questioned. Thinking of skill[s] as something arriving on the back of a truck reinforces the idea that the learner is a passive recipient or consumer of the skills to be delivered. It suggests skills as essentially external - to be imported.

By contrast, this research suggests the importance of recognising, nurturing, and developing skills within the enterprise. It suggests the importance of recognising and grasping opportunities for learning and skill development which already exist. It suggests the strategic importance of skills within the enterprise which may not be recognised or appreciated. It also suggests the importance of a strategic internal development plan which recognises that skill formation takes place in a diversity of ways and will be affected by a range of factors including:

- opportunities for practice & reflection,
- availability & quality of instruction, coaching & support,
- (individual & enterprise) capacity for risk taking & experimentation

More specifically, the research suggests the importance of the
stakeholders within the enterprise as active change agents and learners rather than passive consumers or respondents to change. The implication of all of this, particularly for smaller businesses, is that they have just as great a potential to be so-called learning organisations as do larger businesses. However, with relatively fewer resources to allocate to workplace learning (whether formal or informal) smaller businesses may need help in developing strategic plans, in recognising their inherent learning opportunities, and in developing appropriate processes for the recognition and further development of workplace learning.

Recommendation

23 That processes be developed for providing advice to small business to enable them to access available government funding and other forms of assistance and that the role of Industry Training Boards be strengthened to provide this service to small business

(iii) The economic impact of VET

* The role of VET in bringing about changes in the workplace

This research clearly demonstrates the need for any training conducted by and for enterprises to be targeted to workplace change (within the bounds of industrial agreements). The training can directly affect those changes, it can facilitate learning which leads to change and it can assist the understandings of the workforce in relation to the need for change.

More generally, training can assist with the development of skills of communicating across the workforce. VET practitioners can help improve attitudes towards questioning, critical reflection and experimentation so that the application of these skills is encouraged. They can also play a positive role in identifying learning opportunities within the workplace which can be utilised effectively both within the formal training and as part of the informal learning. All of these factors will assist the enterprise to develop an effective learning culture in the workplace.

Training which does not address these issues could well become irrelevant in workplaces of the future. While there is always room for craft type skills for individuals, it their application in the workplace that is important to enterprises. Workers who do not learn to participate in continuous improvement activities in their training will surely have to be re-trained at some stage if training is to fulfil a useful role in work-based learning.
The competitive advantage to enterprises of VET

This research has shown that where the links are forged between work based learning and workplace change, there is a clear competitive advantage to enterprises of conducting VET programs. However, where this is not so, the advantage of training tends to be more tenuous and the arguments in favour harder to sustain. Also where training is part of a larger strategic plan for enterprise development and those links are clear, then companies can use a learning culture to extend the effects of training to their competitive advantage.

Anecdotal evidence within the automotive manufacturing environment suggests that many companies do consider their training strategy as a major part of their competitive advantage. If VET practitioners wish to ensure that their training programs meet this criteria, then they will need to contextualise them specifically for particular companies and ensure that they do meet this purpose.

10.5 The research methodology

(i) Characteristics & indicators

A major outcome of this research is confirmation of the utility of the framework of characteristics and indicators adopted for the fieldwork. The literature suggested the viability of this framework, its application in the field has shown that it is open to empirical inquiry. Each characteristic was found to make a significant contribution to the workplace learning environment and in each site all four characteristics were important. These characteristics define, perhaps not exhaustively, the nature of a workplace learning environment. The fact that they were all significant suggests the importance of an holistic definition and the importance of research and theory being grounded in real world experience. The indicators proved to be adequate to inform the research in the areas being studied.

The case study method highlighted the commonalities and the differences in the workplace learning environments across the sites. It enabled the holistic definition of workplace learning to be tested in actual workplaces.

(ii) Collaborative approach

The concept of multiple stakeholders which has underpinned the use of the collaborative case study method also suggests the importance of considering the outcomes from different points of view. The companies involved in the research have benefited through the production of detailed case studies. These have provided the research informants in each case with a picture of their enterprise. The researchers have gained insights into the nature of workplace learning and workplace learning environments. The research provides

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substantive data to assist policy formation for Automotive Training Australia and the automotive industry and at the national level for ANTA and other industries. More generally the VET sector may adopt or further develop the working definition of a workplace learning environment postulated in this project.

The characteristics and indicators may be further developed and refined through application in other settings. These multiple outcomes are a consequence of the research method which recognised the multiple stakeholders and utilised collaborative processes.

(iii) Interdisciplinary research

The research approach was also interdisciplinary in several respects. The literature review was wide-ranging and enabled a range of disciplines to inform the identification of the characteristics of a workplace learning environment and the development of the indicators. The research method also embraced a range of strategies to provide multiple perspectives, collaborative and participative processes, a combination of qualitative and quantitative data, structured interview methods as well as observation, the use of historical contact providing an element of longitudinal study and negotiation over outcomes. All of this was intended to capture the multiple complexities of real world experience. The real world "ground" isn't marked out in neat disciplinary blocks corresponding to the boundaries of academic discourse. No single theoretical perspective is likely to provide the basis for a comprehensive view of workplace learning. It is apparent that adult learning theory has something to offer in this field, but of itself it is insufficient, just as economic theory and organisational theory are also inadequate in their own right. To work on the ground, in a way that actually effects what happens there, practitioners need flexible interdisciplinary approaches which, nevertheless, also need to be well considered, theoretically substantive, ethically sound and pragmatic.

(iv) Grounded theory and further research

Effective research ought to contribute to more effective practice, and real world practice should inform research. This research has shown how some theory can be linked to real work contexts. The findings suggest that some taken for granted concepts are more problematic than is generally assumed. There is a continuing need for grounded research which brings a critical perspective to the understandings and assumptions underpinning day to day practice.

This research was premised on some previous action research that had been completed within the industry. The selection of companies who embraced, at least to some extent, the notion of integrated training as explained in Chapter Two of this report, has meant that an evaluation of the effectiveness of this style of training has not been possible within this study. It would appear that integrated training does support notions of the development of a learning
culture and the encouragement of workplace change. However, there is the need for a well-grounded, comparative, evaluative study to be done to confirm its relative effectiveness within this context.

Recommendations

24. That the utility and applicability of the framework of characteristics and indicators of workplace learning that were developed for this study be investigated in relation to other industries (such as service industries - banking or hospitality) which have quite different contexts.

25. That ANZARAC & Australian Research Council (ARC) funds be made available to support research into workplace learning which:
(a) is collaborative in nature recognising the multiple stakeholders and acknowledging the diversity of perceptions represented in the workplace,
(b) adopts flexible and multiple approaches including,
   - fine grained ethnographic method leading to rich descriptive accounts,
   - qualitative and quantitative data collection,
   - longitudinal studies of workplace learning and change,
   - combinations of disciplinary perspectives (educational & social & political & economic etc)
(c) promotes critical examination of such concepts as skill, skill formation, transferable and/or generic skills, in order to facilitate more grounded theory which informs good practice.

26. That comparative studies be conducted to investigate the relative effectiveness of different kinds of training in relation to the creation and maintenance of effective workplace learning environments.

10.6 A final word

This project set out to investigate two interrelated questions: What is it that makes a workplace an effective (or ineffective) learning environment? and What role does training play in creating a workplace learning environment? The research has shown that the answer to the first question is complex. There are many factors at work not least of which are subtle cultural factors which are difficult to measure but no less significant for all their difficulty.

The role of training is also shown to be less clear cut than might at first be supposed. First, it is apparent that training is only one of the many factors shaping the workplace, even in relation to workplace learning training is not necessarily the most significant factor. Secondly it is clear that training may contribute significantly to the growth of an effective workplace learning environment but whether it does so will be contingent on many factors. Thirdly it is apparent that there is no automatic connection between workplace learning and change - whether learning in the
workplace leads to meaningful change is a question of design and intention. If there is no commitment to workplace change and no design to facilitate it there is no reason to assume that it will automatically follow.

On the other hand, where there is a commitment to connecting workplace learning to processes of change, this research shows there is potential to generate a meaningful synergy in which the change drives effective learning and the learning drives further changes and developments. Given the right circumstances there is the potential for this to bring rewards to both employers and employees in the learning environment.
# Appendix 1

## List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAA</td>
<td>Australian Automotive Air</td>
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<tr>
<td>AIA</td>
<td>Automotive Industry Authority</td>
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<tr>
<td>AMC</td>
<td>Australian Council of Manufacturers</td>
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<tr>
<td>AMWU</td>
<td>Australian Manufacturing Workers' Union</td>
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<tr>
<td>ANTA</td>
<td>Australian National Training Authority</td>
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<tr>
<td>ANTARAC</td>
<td>ANTA Research Advisory Council</td>
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<tr>
<td>APESMA</td>
<td>Association of Professional Engineers, Scientists &amp; Managers, Australia (Professional Engineers Branch)</td>
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<tr>
<td>ARC</td>
<td>Australian Research Council</td>
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<tr>
<td>ASU</td>
<td>Australian Services Union</td>
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<td>ATA</td>
<td>Automotive Training Australia</td>
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<td>ATV</td>
<td>Automotive Training Victoria</td>
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<tr>
<td>AVC</td>
<td>Australian Vocational Certificate</td>
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<tr>
<td>AVETS</td>
<td>Australian Vocational Education &amp; Training System</td>
</tr>
<tr>
<td>CFMEU</td>
<td>Construction, Forestry, Mining &amp; Energy Union</td>
</tr>
<tr>
<td>CEPU</td>
<td>Communication, Electronic, Energy, Information, Postal, Plumbing and Allied Services of Australia (Electrical and Plumbing Divisions)</td>
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<tr>
<td>FIMEE</td>
<td>Federated Industry Manufacturing Engineering Employees</td>
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<tr>
<td>GM</td>
<td>General Motors</td>
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<tr>
<td>HEC</td>
<td>Holden's Engine Company</td>
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<tr>
<td>MAG</td>
<td>Manufacturers' Advisory Group</td>
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<tr>
<td>MRP2</td>
<td>Materials Requirements Planning (Model 2)</td>
</tr>
<tr>
<td>NAITB</td>
<td>National Automotive Industry Training Board (now ATA)</td>
</tr>
<tr>
<td>NALLCU</td>
<td>National Automotive Language &amp; Literacy Coordination Unit</td>
</tr>
<tr>
<td>NAPS</td>
<td>Nissan Automotive Parts System</td>
</tr>
<tr>
<td>NCVER</td>
<td>National Centre for Vocational Education Research</td>
</tr>
<tr>
<td>NML</td>
<td>Nissan Motor Company Ltd</td>
</tr>
<tr>
<td>NPDC</td>
<td>National Parts Distribution Centre</td>
</tr>
<tr>
<td>OTFE</td>
<td>Office of Training &amp; Further Education</td>
</tr>
<tr>
<td>PMV</td>
<td>Passenger Motor Vehicles</td>
</tr>
<tr>
<td>QNS</td>
<td>Quality Network Synchronous</td>
</tr>
<tr>
<td>RS&amp;R</td>
<td>Retail, Service &amp; Repair (Sector)</td>
</tr>
<tr>
<td>SCA</td>
<td>Suspension Components Australia</td>
</tr>
<tr>
<td>TAFE</td>
<td>Technical &amp; Further Education</td>
</tr>
<tr>
<td>TNA</td>
<td>Training Needs Analysis</td>
</tr>
<tr>
<td>TQM</td>
<td>Total Quality Management</td>
</tr>
<tr>
<td>UK</td>
<td>United Kingdom</td>
</tr>
<tr>
<td>VAITB</td>
<td>Victorian Automotive Industry Training Board (now ATV)</td>
</tr>
<tr>
<td>VET</td>
<td>Vocational Education &amp; Training</td>
</tr>
<tr>
<td>VIC</td>
<td>Vehicle Industry Certificate</td>
</tr>
<tr>
<td>VW</td>
<td>Volkswagen</td>
</tr>
<tr>
<td>WELL</td>
<td>Workplace English Language &amp; Literacy (Program)</td>
</tr>
</tbody>
</table>
## Membership of Project Advisory Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Braddy (Chair)</td>
<td>Executive Director, Automotive Training Australia Ltd</td>
</tr>
<tr>
<td>Dr Tern Seddon</td>
<td>Faculty of Education, Monash University</td>
</tr>
<tr>
<td>Professor Gerald Burke</td>
<td>Faculty of Education, Monash University</td>
</tr>
<tr>
<td>Dr Darrel Caulley</td>
<td>Graduate School of Education, La Trobe University</td>
</tr>
<tr>
<td>Shauna Henty</td>
<td>AMWU (Vehicle Division, Federal Office)</td>
</tr>
<tr>
<td>David Ablett</td>
<td>AMWU (Vehicle Division, State Office)</td>
</tr>
<tr>
<td>David Lloyd</td>
<td>Manager, Human Resources, Nissan Australia</td>
</tr>
<tr>
<td>Doug Rickarby</td>
<td>Human Resources Development Manager, Toyota Motor Corporation Australia Ltd</td>
</tr>
<tr>
<td>Robin Sefton</td>
<td>Researcher, Workplace Learning Initiatives Pty Ltd</td>
</tr>
<tr>
<td>Peter Waterhouse</td>
<td>Researcher, Workplace Learning Initiatives Pty Ltd</td>
</tr>
<tr>
<td>Richard Cooney</td>
<td>Researcher, Workplace Learning Initiatives Pty Ltd</td>
</tr>
</tbody>
</table>
Membership of Board of Automotive Training Australia Ltd

Members

Joe Shneider (Chairperson) - Managing Director, Fluidrive Corporation Pty Ltd
Ian Jones - National Secretary, AMWU (Vehicle Division, Federal Office)
Cliff Hall - National Industry Liaison Officer, DEET-VET Division
Peter Holland - General Manager, Human Resources, Toyota Motor Corporation Australia Ltd
Kel Luke - Snr Executive Personnel & Employee Relations, Mercedes-Benz (Australia) Pty Ltd
John Royle - National Organiser, AMWU (Vehicle Division, Federal) (NSW)
Michael Tyan - Managing Director, Tynan Motors

Observers

John Barlow (Former Chairperson) - Director, Personnel & Industrial Relations, GMHAL
John Braddy - Executive Director, Automotive Training Australia Ltd
Doug Rickarby - Human Resources Development Manager, Toyota Motor Corporation Australia Ltd
Malcolm Stewart - Director, FAPM
Geoff Gardner - Deputy Executive Director, MTAA
Greg Hatton - Industrial Relations & Training Manager, MTAA

Appendix 3
Notes from Industry Forum
held on Thursday 11 May 1995
at Automotive Training Australia Ltd. Doncaster.

Participants:
Mike Claridge, Claridge Holden (Adelaide)
Douglas Virgin, Holden’s Engine Company (Port Melbourne)
David Lloyd, Nissan Australia (Dandenong)
Paul Fitzgerald, Suspension Components Australia (North Melbourne)
Jennifer Warrick, Suspension Components Australia (North Melb)
Gerald Burke, Monash University
Aija Grauze, Monash University
John Braddy, Automotive Training Australia

Research Team:
Robin Sefton
Richard Cooney
Peter Waterhouse

Apologies:
Dr. Darrel Caulley, La Trobe University
Dr. Terri Seddon, Monash University
Shauna Herity, AMWU (Vehicle Division)

1. Opening and Welcome

John Braddy welcomed representatives from industry and academia and provided a brief background to Automotive Training Australia Ltd. and the research project. He congratulated the team on the success of the research proposal and the work completed to date. Participants introduced themselves to the group.

2. A Review of the Literature on Organisational Learning

Robin Sefton introduced the literature on organisational learning and the idea of the "learning organisation". She noted that much of the literature is couched in terms of advocacy and thin on empirical data to substantiate the claims being made. Much of the literature also reflects an orientation towards management concerns whilst relatively little consideration is given to learning further "down" the organisation. She noted that the team had shifted its emphasis to consider what the literature suggests about the characteristics of effective workplace learning environments.
Robin noted that the research will consider learning within the context of the enterprise. However the project will not attempt to document all of the many factors (outside workplace learning) which might impinge upon the success (or failure) of the enterprise.

Paul Fitzgerald noted that learning is such an important and integral part of working-life (and in particular, approaches to continuous improvement) that it affects virtually everything else in any case.

Richard Cooney noted that the research will focus on the practical or "grounded" application of theory. In this sense it is basic research which will contribute to the knowledge base about workplace learning, training and the management of change processes.

3. Development of the Indicators of Organisational Learning

Peter Waterhouse and Richard Cooney spoke about the proposed descriptors which have been drawn from the literature to identify key concepts in relation to workplace learning. Discussion of the proposed descriptors highlighted the following:

3.1 The descriptors are not necessarily intended to indicate desirable or undesirable states but rather to capture key concepts related to workplace learning. Thus they represent a scale or continuum to be investigated in the context of each particular workplace. The labelling "From - To" will not be adopted, since it suggests a clear preference or direction within each pair. The pairs might better be characterised by X "and/or" Y, rather than from X to Y.

3.2 The issue of "operational redundancy" and lean production systems was discussed. There was some confusion about the notion of "operational redundancy" and the origins of the term in systems theory were discussed.

John Braddy questioned the proposition that creation of a "learning organisation" might prove problematic for enterprises striving towards lean production. He drew a distinction between "pure leanness" which is ultimately counter productive, and lean continuous improvement systems which are expected to be conducive to workplace learning. The connections between workplace learning and continuous improvement were then taken up by several participants.

3.3 The reference to "space for learning" was questioned by Douglas Virgin. This was discussed in terms of psychological and/or political "space" for divergent views, experimentation and difference. The importance of questioning existing practices, assumptions and beliefs was stressed as part of the process of learning.

Doug also stressed how informal and incidental learning are important and how such learning may become more conscious and structured. He highlighted the need to bring the various types and areas of learning together to form more
coherent and comprehensive understandings.

3.4 Mike Claridge noted that the Retail Service & Repair (R.S. & R) sector of the automotive industry has a different history and training culture to that of the manufacturing sector. Whilst stressing the differences, he could still see the relevance and applicability of the concepts being discussed. David Lloyd noted parallels between warehousing and distribution services and the R.S.& R sector.

3.5 The issue of motivation for workplace learning was discussed. Various factors, including salary/wage increments, increased recognition (of employees/learners and their capabilities) and allocation of increased responsibility were noted as motivating factors for workplace learning. Paul Fitzgerald noted the importance of external pressures upon the company (eg. demands from major customers to reduce costs and improve quality) as motivation for change and learning. He stressed that such pressures can be viewed as opportunities to be harnessed.

3.6 It was noted that the processes of award restructuring and multi-skilling have focused training and change mainly on trades and non-trade employees. Given this emphasis, several participants questioned how much learning and change is occurring within staff and professional groups. The research, which includes sampling vertical slices through the participating organisations, may shed some light on this issue.

3.7 David Lloyd noted the importance of the cultural factors within companies which affect workplace learning. Whilst stressing the importance of these issues he commented on how difficult it is to measure these variables. His comments were noted and will be considered in the design of the survey.

3.8 Gerald Burke asked if the research would measure any perceived changes in productivity/profitability in relation to workplace learning. This concern also was noted and will be addressed in the design of the survey. However it was noted that the linking of learning and productivity is problematic as there are many other factors that also impinge on productivity.

Following these discussions, the summary table outlining "Characteristics of a Workplace Learning Environment" (along with the proposed descriptors) was accepted by the forum as the basis for the development of the survey.

4. Closure

John Braddy closed the forum, thanking the participants for their involvement.
Interview Schedule: Workplace Learning and Change

This interview schedule has been developed with enterprises and the Vehicle Division of the Australian Manufacturing Workers Union. The results of interviews will be compiled as part of a research project on Workplace Learning and Change.

You are not asked to identify yourself in this interview. Individual data will not be used in any way that could identify you.

Thank you for your help and participation.

PART A: INDIVIDUAL INFORMATION

1. Position (tick one box)  

Are you in charge of your area? 

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers and Administrators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Para-Professionals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tradesperson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salespersons &amp; Personal Service Workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant &amp; Machine Operators &amp; Drivers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labourers &amp; Related Workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Age  (please tick relevant box)

15-24 □ 25-34 □ 35-44 □ 45-54 □ 55-64 □ 65-74 □

3. Country of Birth  

4. First Language Spoken  

5. Qualifications  (tick relevant boxes)

<table>
<thead>
<tr>
<th>Type</th>
<th>Name (eg. Mental Health, Fork Lift, Crane)</th>
<th>Completed (Year/No)</th>
<th>Where you completed the course (country &amp; institute)</th>
<th>Is your qualification recognised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Degree (eg. M.B.A)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate Diploma (eg. Grad. Dip)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor Degree (eg. B.Sc)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate Diploma (eg. Dip Civil Engineering)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associate Diploma (eg. Assoc Dip Civil Engineering)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skilled Vocational Qualifications (eg Trade Certificate)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic Vocational Qualifications (eg V.C.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>License (eg. DLI, Car, Forklift)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Are you employed in a position based on your qualification(s)?

YES □ NO □

8. How long have you worked for this company?

Years  Months . . . . .

Appendix 5
PART B: WORKPLACE CHANGE

9. How would you rate the changes (if any) that have taken place in your workplace over the last twelve months?

<table>
<thead>
<tr>
<th>No Change</th>
<th>Massive Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Comment:

10. What do you think is the current focus of change for the Company?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Introduction of new technology
- Quality accreditation
- Development of new product/business, new customers
- Decline in business/contracts
- Changes in work systems and processes
- New systems of training and human resource management
- Other (please specify)

11. What means are being used by the Company to create changes?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Multi-skilling
- Continuous improvement
- Down sizing
- Employing new people
- Increasing training
- Organisational review & development
- Introduction of new work systems/procedures
- Other (please specify)

12. What has been the effect of changes for you and your work?

<table>
<thead>
<tr>
<th>No Effect</th>
<th>Drastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Comment:

- MCA & math
- Warning, Schedule
- Workplace learning & change
13 Have the changes that have occurred in the last year been better?

a) for the Company?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Comment: ..............................................................

b) for you and your workmates?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Comment: ..............................................................

14 Have you received any formal training in the last twelve months?

YES ☐ NO ☐

If NO, go to Question 22

If YES, answer questions 15-21

15 What was the training about?

<table>
<thead>
<tr>
<th>What was the training about?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company policies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machinery and equipment used in the company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction of new technology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Company work systems and processes (eg. stock control, ordering, inspection &amp; quality control processes)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer &amp; suppliers of the company</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New products</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry/business context (eg. the effect of tariff changes on the car market)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal communications, networks, systems &amp; relationships</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formal communication systems, processes, skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rights and responsibilities of employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational Health &amp; Safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the past twelve months have you experienced any of the following training methods?</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Computer based training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self paced work books</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job related projects/assignments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainer and trainer's discussing work knowledge/experience</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trainers' presentations/workshops</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special presentations/workshops (eg. visiting experts, engineers, technicians)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distance education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lectures and question/answer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### If YES (please indicate opinions by circling appropriate numbers)

<table>
<thead>
<tr>
<th>Was it useful?</th>
<th>How much did you learn that was new?</th>
<th>Did you enjoy the training?</th>
</tr>
</thead>
<tbody>
<tr>
<td>useless</td>
<td>very useful</td>
<td>nothing</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Outside of classroom training**

- Participation in groups (e.g. team-building exercises, OSH committees)
- Off-site work experience (e.g. TAFE)
- Other (please list)**
16 Are you allowed in these training activities, do you have the chance to put forward your own opinion?

<table>
<thead>
<tr>
<th>Never</th>
<th>Frequenty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Comment.

19 Are you able to disagree with the presenter/instructor/trainer/supervisor, during learning activities?

<table>
<thead>
<tr>
<th>Never</th>
<th>Frequenty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Comment.

20 Was the training relevant to your daily work?

<table>
<thead>
<tr>
<th>Not at all</th>
<th>Very Relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Comment.

21 Are there any topics that cannot be discussed?

YES □ NO □

If YES, please give an example.

22 Have you had any influence on the development of training program(s) in the past twelve months?

YES □ NO □

If YES, please indicate how much.

a little □ some □ quite a lot □

Comment.

23 Are there any barriers or problems which may prevent or discourage people from participating in the training activities?

YES □ NO □

If YES, please give an example.

...
PART D: LEARNING

Not all workplace learning takes place in formal training. Thinking more broadly about what you have learnt at work during the last twelve months, can you answer the following questions?

24 Have you learned about areas/aspects of the company that you did not know before?

YES ☐ NO ☐

If YES, please give an example

25 Have you had the opportunity to experiment/innovate or do something differently?

YES ☐ NO ☐

If YES, please give an example

26 Can you recall any learning which has changed your thinking about your work?

YES ☐ NO ☐

If YES, please give an example

27 Have you worked on new tasks in your current job in the last twelve months? (eg. routine maintenance, set-ups, quality checks)

YES ☐ NO ☐

If YES, please list

Did the new task involve learning new knowledge/skills?

YES ☐ NO ☐

If YES, please give an example

How much did you learn from doing these new tasks

Nothing ☐ 1 2 3 4 5 A lot

28 Have you rotated jobs in the past twelve months?

YES ☐ NO ☐

If YES, was this (a) within your section/department YES ☐ NO ☐

(b) to other sections/departments YES ☐ NO ☐
Did the job rotation involve learning new skills/knowledge

YES  □  NO  □

If YES, please give an example:

How much have you learnt from job rotation

Nothing  □  A lot  □

1  2  3  4  5

29 How much have you learned about the company's customers and the destination of its products in the last twelve months?

Nothing  □  A lot  □

1  2  3  4  5

Comment:

30 Over the past twelve months, how many of your customers have visited your workplace?

None  □  One  □  A Few  □  Many  □

Comment:

31 How many of your customers/suppliers or other workplaces have you visited in the last twelve months?

None  □  One  □  A Few  □  Many  □

Comment:
PART E: COMMUNICATING ACROSS THE ENTERPRISE

Part of our interest in workplace learning is in the way new knowledge, ideas or information are passed through the organisation. In thinking about the communication networks currently operating within your organisation...

32 Can you comment on the degree of cooperation or collaboration between various departments/sections?

<table>
<thead>
<tr>
<th>Poor</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Excellent</th>
<th>5</th>
</tr>
</thead>
</table>

Comment

33 Are there significant problems/issues which are not being addressed?

None [ ] A Few [ ] Many [ ]

Comment

34 Can you give an example of a significant problem, project or new initiative which your department/section has worked on with other sections/departments?

YES [ ] NO [ ]

If YES, please give an example

35 If YES, how much time do you usually spend per week on these activities? If YES, please give an example

<table>
<thead>
<tr>
<th>Activity</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal meetings, eg staff meetings, quality groups etc</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal discussions, eg lunch time or brew breaks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-job conversations, eg whilst in another department collecting or delivering goods</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel time, eg to/from work in car</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comment

36 Is information shared between departments/sections using any of the following methods?

YES | NO

- Informal discussions, conversations
- Interdepartmental Meetings
- Supervisors Meetings
- Memos, Documents, Notices
- Other (please specify)

Comment
### Who puts forward new ideas/suggestions?

<table>
<thead>
<tr>
<th>Role</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers and Administrators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Para-Professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tradesperson</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salespersons &amp; Personal Service Workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant &amp; Machine Operators &amp; Drivers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labourers &amp; Related Workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How do new ideas/suggestions get put forward?

<table>
<thead>
<tr>
<th>Method</th>
<th>YES</th>
<th>NO</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggestion Scheme</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultative Committee (eg OH&amp;S)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management/Meetings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production Team/Group Meetings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project/Continuous Improvement Groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change Notices -Memos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Groups/Classes (eg VIC)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal Discussions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Are new ideas/suggestions or solutions implemented?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>YES</th>
<th>NO</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rarely</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regularly</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Who decides on the implementation of new ideas, suggestions etc?

<table>
<thead>
<tr>
<th>Role</th>
<th>YES</th>
<th>NO</th>
<th>N/A</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers and Administrators</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Para-Professionals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tradesperson</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salespersons &amp; Personal Service Workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant &amp; Machine Operators &amp; Drivers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labourers &amp; Related Workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are they characterised by</td>
<td>Trust</td>
<td>Confidence</td>
<td>Cooperation</td>
<td></td>
</tr>
<tr>
<td>--------------------------</td>
<td>-------</td>
<td>------------</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>Do you have working relationships with</td>
<td>Y/N or NA</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Manager &amp; Administrators (eg. Production Manager, Purchasing Administrator etc.)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Professionals (eg. accountants, engineers etc.)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Para-Professionals (eg. inspectors, supervisors etc.)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Tradespersons (eg. maintenance fitter, electrician etc.)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Clerks (eg. receptionist, pay clerk etc.)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Salespersons &amp; Personal Service Workers (eg. vehicle salesperson)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Plant &amp; Machine Operators, &amp; Drivers (eg. fork lift, press operator etc.)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Labourers &amp; Related Workers (eg. cleaners, canteen hands etc)</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
45. Do people across the company make an effort to maintain working relationships?

<table>
<thead>
<tr>
<th>Rarely</th>
<th>Frequently</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 3 4 5</td>
</tr>
</tbody>
</table>

Comment:

46. Do you see opportunities in this company to gain new knowledge/skills?

<table>
<thead>
<tr>
<th>None</th>
<th>Few</th>
<th>Many</th>
</tr>
</thead>
</table>

Comment:

47. Are there opportunities for promotion within the company for people who have completed training and gained new knowledge or skills?

<table>
<thead>
<tr>
<th>None</th>
<th>Few</th>
<th>Many</th>
</tr>
</thead>
</table>

Comment:

48. Will you be seeking promotion as a result of gaining new knowledge/skills?

<table>
<thead>
<tr>
<th>Unlikely</th>
<th>Possibly</th>
<th>Definitely</th>
</tr>
</thead>
</table>

Comment:

49. Is this a good company to work for?

<table>
<thead>
<tr>
<th>Poor</th>
<th>Excellent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 3 4 5</td>
</tr>
</tbody>
</table>

Comment:

Final Comment:
Appendix 6

ANTA Research Project

Workplace Learning and Change:
The Workplace as a Learning Environment

COMPANY PROFILE

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Company</td>
</tr>
<tr>
<td>2</td>
<td>Address</td>
</tr>
<tr>
<td>3</td>
<td>Contact Person</td>
</tr>
<tr>
<td>4</td>
<td>Main business of Company</td>
</tr>
<tr>
<td>5</td>
<td>Total number of employees in Company</td>
</tr>
<tr>
<td>6</td>
<td>What unions are represented on site?</td>
</tr>
<tr>
<td>7</td>
<td>Does the Company have a documented training plan?</td>
</tr>
<tr>
<td>8</td>
<td>Has the Company any current formal enterprise bargaining agreements?</td>
</tr>
<tr>
<td>9</td>
<td>Is there a formal training committee?</td>
</tr>
<tr>
<td>10</td>
<td>Does the Company have:</td>
</tr>
<tr>
<td>11</td>
<td>If only one section/division of the Company is to be surveyed (only applicable to Companies with over 100 employees), what is the main business of that section/division?</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How is the committee constituted?</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management representatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Union Representatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Employee Representatives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does the Company have:</th>
<th>YES</th>
<th>NO</th>
<th>Number</th>
<th>Full Time</th>
<th>Part Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resource Manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Manager</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shop Floor Trainers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of employees in section/division</th>
<th></th>
</tr>
</thead>
</table>

Comment
NOTE: The remaining questions refer to the whole Company if the number of employees is less than 100 and the particular section/division if applicable.

<table>
<thead>
<tr>
<th>Position</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers and Administrators</td>
<td></td>
</tr>
<tr>
<td>Professionals</td>
<td></td>
</tr>
<tr>
<td>Para-Professionals</td>
<td></td>
</tr>
<tr>
<td>Tradesperson</td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td></td>
</tr>
<tr>
<td>Salespersons &amp; Personal Service Workers</td>
<td></td>
</tr>
<tr>
<td>Plant &amp; Machine Operators, &amp; Drivers</td>
<td></td>
</tr>
<tr>
<td>Labourers &amp; Related Workers</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

13 In the last twelve months training has been provided for:

<table>
<thead>
<tr>
<th></th>
<th>YES</th>
<th>NO</th>
<th>IF YES,</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Trained</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Comments (eg short course, one day seminar, regular weekly training etc)</td>
</tr>
<tr>
<td>Managers and Administrators</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professionals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Para-Professionals</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tradesperson</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clerks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salespersons &amp; Personal Service Workers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant &amp; Machine Operators, &amp; Drivers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labourers &amp; Related Workers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14 POSITION

This training has been provided by means of:

- Professional Development
- Accredited Vocational Training
- Non-Accredited Vocational Training
- On-the-Job
- Informal Training (eg participation in groups/committees)
- Other (please specify)

Comment

...
### Who provided the training?

<table>
<thead>
<tr>
<th>Position</th>
<th>University</th>
<th>TAFE College</th>
<th>Private Consultant</th>
<th>In-house Trainers</th>
<th>Industry Association</th>
<th>Unions</th>
<th>Other (please specify)</th>
</tr>
</thead>
</table>

### Comment:

... 

### Is there a formal recognised career structure for employees in the Company?

**YES □ NO □**

### Comment:

... 

### How many job vacancies in the last six months have been filled?

<table>
<thead>
<tr>
<th>Number</th>
<th>Internally</th>
<th>Externally</th>
</tr>
</thead>
</table>

### What is the current focus of change for the Company?

<table>
<thead>
<tr>
<th>YES NO</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES NO</td>
<td></td>
</tr>
</tbody>
</table>

- **Introduction of new technology**
- **Quality accreditation**
- **Development of new product/business, new customers**
- **Decline in business/contracts**
- **Changes in work systems & processes**
- **New systems of training & human resource management**
- **Other (please specify)**
<table>
<thead>
<tr>
<th>What means are being used by the Company to create changes?</th>
<th>YES</th>
<th>NO</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-skilling</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous Improvement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Down sizing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employing new people</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increasing training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational review &amp; development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction of new work systems/ procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How does the company measure the effectiveness of its training?</th>
<th>YES</th>
<th>NO</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lost time (injuries)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour turnover</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee participation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(eg. % of suggestions made)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour hours/unit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality measures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(eg. % of defect rate)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absenteeism</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased Productivity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Attitudes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills Assessments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
21. How effective are the Company's training strategies?

<table>
<thead>
<tr>
<th>Not Effective</th>
<th>Very Effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Comment:

22. How would you rate the quality of the training provided by the Company?

<table>
<thead>
<tr>
<th>Low Quality</th>
<th>High Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Comment:

23. Has the Company received any funds from outside Company to support training?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Source of Funds</th>
<th>Approx value in last year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(0 State, Federal)</td>
<td></td>
</tr>
</tbody>
</table>

- Apprentice Subsidies
- Trainee subsidies (e.g., NETTFORCE)
- Curriculum development
- Delivery of accredited training
- TASK/ATFIC
- Other (please specify)

24. Were the availability of government funds influential in the development of the Company's training strategies?

<table>
<thead>
<tr>
<th>Not Influential</th>
<th>Very Influential</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Comment:

25. What are the barriers to training experienced by your Company?

<table>
<thead>
<tr>
<th>YES</th>
<th>NO</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Costs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lack of experience/expertise in training</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Size of Company/range of required skills (indoors, non-technical, office, sales, etc.)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other (please specify)</td>
</tr>
</tbody>
</table>

Comment:
<table>
<thead>
<tr>
<th>What has the Company invested their money in?</th>
<th>Approx amount in 1994/95 financial year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release of employees to attend training</td>
<td></td>
</tr>
<tr>
<td>Provision of training facilities</td>
<td></td>
</tr>
<tr>
<td>Payment of consultants</td>
<td></td>
</tr>
<tr>
<td>(TMA, skills audit, curriculum development, delivery)</td>
<td></td>
</tr>
<tr>
<td>Payment of fees (external provider) private provider status</td>
<td></td>
</tr>
<tr>
<td>Dedicated trainees (wages and training)</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
</tbody>
</table>

27 Does the Company have a policy on the development of a learning culture?

YES ☐ NO ☐

Comment

28 Final Comment

...
Appendix 7

References


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Appendix 7


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