Learning in the Workplace

A Study of Three Enterprises

Margaret Taylor
with
Lyndall Jones, Sue Meredith and Maree Wheelens
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The research and writing team comprised:
Margaret Taylor, Margaret Taylor & Associates Pty Ltd
with
Lyndall Jones, Lyndall Jones & Associates
Sue Meredith, Sandd Research Pty Ltd
Maree Wheelens, Western Melbourne Institute of TAFE

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Research advisers
Dr Terri Seddon, Senior Lecturer, School of Graduate Studies, Faculty of Education, Monash University
Dr Lesley Farrell, Lecturer, School of Graduate Studies, Faculty of Education, Monash University

Steering committee
Allan Ballagh, Associate Director, Education and Training Services, Western Melbourne Institute of TAFE
Dr Lesley Farrell, Lecturer, School of Graduate Studies, Faculty of Education, Monash University
John Rudolph, Deputy Director, Western Melbourne Institute of TAFE
Dr Terri Seddon, Senior Lecturer, School of Graduate Studies, Faculty of Education, Monash University
Rob Stowell, Head of Centre, Centre for Curriculum Innovation and Development, Western Melbourne Institute of TAFE

Consultants
Margaret Taylor, Margaret Taylor & Associates Pty Ltd
Sue Meredith, Sandd Research Pty Ltd

Project officer
Maree Wheelens, Western Melbourne Institute of TAFE
Sources
John Barton, Senior Lecturer, Department of Business Management, Monash University
Mike Brown, Lecturer, School of Graduate Studies, Faculty of Education, Monash University
Fern Marriott, Lecturer, Department of Business Management, Monash University
Niamh McCal, Director, Billiecart Clothing
Jeff McLean, Senior Lecturer, Department of Business Management, Monash University
Michael Morrison, Lecturer, Department of Business Management, Monash University
Robyn Merchant, Human Resources Development Manager, Fuji Xerox Australia Pty Ltd
Patricia Morrigan, Consultant: Building Learning Organisations, PhD candidate, Melbourne Business School, The University of Melbourne
Helen Smith, Assistant Director, Programs and Resources, Office of the Secretary, Department of Education, Victoria

Editor
Marion Russell, Marion Russell & Associates

Secretarial support
Jan Morgan, Williamstown Secretarial Service

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Sally Newcombe, The Big Duck and Fish Company. Reprinted with permission.
Executive Summary

To meet the demands of economic, social and technological change, businesses are increasingly using learning as a means of developing competitive and productive capability.

Learning Organisation theory suggests that through developing shared values and vision, teamwork, personal mastery and systems thinking, companies learn how to expand both individual and collective capacity for obtaining continuous improvement and business renewal.

National training initiatives are encouraging the expansion of workplace learning through national industry-based competency standards and credentials, linked to career paths and pay structures. However, current schemes appear to attach insufficient importance to workplace context, cognitive style and the blend of the two.

By examining three commercially successful companies that are committed to workplace learning, this study explores the value of Learning Organisation theory for understanding important characteristics of effective workplace learning. It states implications for the formal vocational education and training system.

Case studies

1. The Big Duck & Fish Company is a small ceramic tableware firm that operates successfully in a niche market.
2. Nicholas Dattner & Company is a manufacturing retailer of quality furniture made from recycled Australian timber.
3. Huntsman Chemical Company Australia, a producer of petrochemical products, is a large subsidiary of a United States multinational corporation.

Findings

- Learning Organisation theory is valuable for understanding workplace learning. Some characteristics of the Learning Organisation, shared by all companies, were realised differently in each company.
• Learning Organisation theory appears problematic, however, in that it:
  - assumes an homogeneous workforce that shares views and values
  - oversimplifies the complexities of power and authority in organisations,
    especially those undergoing rapid change
  - assumes a high level of commitment by individuals to the company.
• The size of an organisation appears to affect how easily it can exhibit the
  characteristics of a Learning Organisation. Within smaller work environments,
  it is easier for employees to comprehend the entire business, acquire
  information about core activities and become members of a socially integrated
  group.
• Within all three companies people learnt:
  - skills and knowledge to perform their job
  - contextual knowledge about the business
  - interpersonal skills
  - intrapersonal skills and knowledge.
• In all three organisations, job, interpersonal and intrapersonal skills and
  knowledge were learnt in an holistic manner.
• In all three organisations learning occurred in a multiplicity of ways,
  including:
  - individual demonstration and instruction in the task at hand (particularly
    for technical skills)
  - explanation of why tasks and processes are conducted in a particular way
  - observation of colleagues, especially in cases where production is strongly
    influenced by aesthetic considerations
  - drawing on the knowledge and skills of experts
  - solving specific problems, sometimes through improvisation
  - process improvement
  - formal and informal group activities
  - training programs.
• The effectiveness of learning is mediated by a range of environmental and
  cultural factors, especially employment conditions, the nature of relationships
  in the workplace and common values.
• A shared company vision provides a context for work and learning.
• Learning appears to be most effective when people have the opportunity and
  authority to implement or apply what they have learned.
• The nature of learning may be influenced by the nature of the company
  product. At The Big Duck & Fish Company and Nicholas Dattner &
  Company, employees have direct sensory contact with the raw material and are
  fully engaged with the aesthetics of the product whereas, at Huntsman
  Chemical Company Australia Limited, the work is directed at primary
  production of materials for later processing.
• In order to participate effectively in organisational learning, employees need to
  know how to:
  - learn how to learn
  - think critically
  - reflect on experience
Executive Summary

- think in a systems framework
- work and learn collaboratively
- understand the business.

- Coaches, teachers or trainers need to be experts in their field in core areas of the business.
- Although vocational education and training programs can play a significant role in a company, organisations can exhibit the features of Learning Organisations without actively participating in the vocational education and training system.

Implications for vocational education and training system

- Competency frameworks should be associated with an understanding of the contextual uniqueness of enterprises and the full repertoire of cognitive, interpersonal and intrapersonal capabilities required for effective participation in workplace learning.
- Education and training delivery needs to recognise:
  - contexts of learning
  - learning processes
  - creation of environments conducive to learning.
- A set of principles about teaching and learning should locate learning and cognition at the centre of curriculum development.
1.

Introduction

The study

This study examines the adequacy of Learning Organisation theory for illuminating the culture and activities of enterprises, the nature of the learning that occurs there, and the implications of both for the vocational education and training system.

The key questions were:
- How useful is Learning Organisation theory for understanding the nature of learning in enterprises?
- Under what conditions does learning occur within the workplace?
- What is the relationship between formal training and workplace learning?

Rationale

Technological and social forces are reshaping organisational environments and creating conditions of change that require business enterprises to re-assess their business practices. These forces include:
- rapid and continuous introduction of radical new technologies
- globalisation of the economy
- internationalism of industry
- new worldwide trading blocs
- commercialisation and privatisation of industry
- restructuring, downsizing and re-engineering of workforces.

Field & Ford 1995

Businesses are increasingly focusing on learning as a means of developing their competitive and productive capabilities. It is argued that organisations must continually be in a state of learning. This will lead to 'an enhanced capacity to change or transform' which in turn '... yields changes in perception, thinking, behaviours, attitudes, values, beliefs, mental models, systems, strategies, policies and procedures' (Watkins & Marsick 1992). Such a transformational or 'learning'
organisation will be able to deal with current economic, social and technological challenges and become more productive and profitable.

In Australia the concept of the Learning Organisation is popular in management training and development. Conferences, seminars, Learning Organisation networks and management texts advocate transformation of the organisation through learning. Philosophy, psychology and management theory are blended with systems theory and new sciences in texts written mainly by consultants to the corporate sector at the management level. Few texts are grounded in empirical research and rarely do they make use of educational research or learning theory.

Commonwealth Government strategies to improve Australia’s economic competitiveness have included enhancing industry productivity through reform of the formal vocational education and training system. This ‘national training reform agenda’ aims to encourage the development of learning in the workplace by expanding the provision of formal training linked to industry competency standards, increasing industry control of the training system, opening access to credentialled training and re-organising provision of training as a competitive open marketplace. The national training reform agenda has been strongly supported by the Australian trade union movement as a means of increasing the skills of their members through access to accredited training linked to a pay structure and career paths.

The national training reform agenda, largely driven by national imperatives of tariff reduction, industry restructure and industrial relations reform, has focused on training for award employees. Learning Organisation methodology, arising from the imperative to manage organisational change within enterprises, has provided tools and strategies for management. The two are now converging. Competency standards are being developed for team leaders and managers. TAFE institutes are developing their own managers as ‘transformational leaders’ and adopting other principles of the Learning Organisation. Vocational education and training practitioners and human resource managers, engaged in similar tasks of exploring the potential of Learning Organisation theory for workplace learning, are meeting each other at conferences concerned with the issue.

The companies examined in this study have a strong commitment to enterprise learning. The two small businesses have developed this commitment without the support of the vocational education and training system and do not present themselves as ‘Learning Organisations’. The third and largest company consciously applies Learning Organisation theory and also uses the products and services of vocational education and training providers.
2. The Contexts

Vocational education and training policy

The vocational education and training policies of the Commonwealth Government, in particular what has become known as the national training reform agenda, provide the policy context for research into workplace learning. The companies in this research are shaped by this policy context to varying degrees.

- Huntsman Chemical Company Australia is an active participant in the vocational education and training system with three levels of accredited chemical operator training offered on site. Its Employee Development Manager sits on the Victorian Allied Industries Training Board.
- Nicholas Dattner & Company participates to a lesser extent and employs apprentice cabinet makers.
- For The Big Duck & Fish Company, the national training reform agenda is almost irrelevant, although in 1992 they were one of a number of case studies in a research project on the needs of small manufacturing enterprises, funded by the Office of Training and Further Education, Victoria.

The origins of the various policy initiatives which make up the national training reform agenda lie within a government/employer/union consensus that the Australian economy of the late 1980s needed to be restructured. Changes to the vocational education and training sector paralleled radical reform to the higher education sector, the catch cry being the need for Australia to become a ‘clever country’.

The Commonwealth Government articulated its vision for the vocational education and training system in Skills for Australia (Department of Employment, Education and Training, 1987) which stated that education and training ‘should play an active role in responding to the major economic challenges now facing Australia’ (p. iii). In April 1989, a paper circulated by the Minister for Employment, Education and Training, emphasised how urgently training reform
was needed especially as award restructuring was well underway. It identified the following pressures on the education and training system:

- new demands for training and skills development at all levels of the workforce;
- an increased emphasis on demonstrated competence rather than time served;
- more flexible, broadly based and modular approaches to training;
- greater national consistency in training standards and certification arrangements;
- improved access to training for disadvantaged groups; and
- better articulation between different forms and levels of education and training.

Department of Employment, Education and Training 1989, p. iii

The proponents of training reform couched their arguments in sometimes dramatically negative views of the Australian economy. There was a 'crisis', problems were 'deep seated' and included a 'vicious external debt trap, poor trading performance and low productivity, and a weak manufacturing sector'. Economic and social action was required urgently and training reform was an imperative (Carter & Gribble 1991, p. 3). Training reform was viewed as 'part of a large national strategy to change the country in fundamental ways' and although 'changes have been painful ... they are essential' (Hall 1995, p. 6).

Vocational education and training was linked with economic and workplace reform to deliver a productive workplace, modernised industry, export expansion and import replacement (Short 1990, p. 2). Increased skills were assumed to lead to increased productivity which in turn would lead to an increase in wages, a process of economic reform attractive to government, employers and unions. Training became the linchpin of economic transformation. Fitzgerald (1994, pp. 18-19) identified eight elements of this national training reform agenda:

- competency based training
- competency standards
- national recognition of training
- curriculum, delivery and assessment
- entry-level training
- training market
- access and equity
- funding for training.

The metals and engineering industry showed how training could become strategically located within an industrial award system. A series of decisions adopted by the Australian Arbitration and Conciliation Commission in 1987 and the re-named Australian Industrial Relations Commission in 1988 and 1989 linked four key components of workplace reform — industrial relations, work organisation, technology and skills formation — into a process for award restructuring. In 1988-89, award restructuring in the metals and engineering
industry reclassified 311 jobs into 14 levels that required employees to perform a wider range of duties (‘multiskilling’).

In 1990, variations to the award included the development and implementation of training programs at the enterprise level. Skill, competency and training requirements were specified. A ‘ladder’ of skill levels would define both career paths and wage levels for employees. Through training, employees could satisfy skill and competency standards for each level and thus move up the career and wage ladder. Companies would benefit from job re-design, increased labour flexibility and productivity gains, and the industry as a whole would be modernised. (Metal Trades Industry Association 1990, pp. 2–6)

The role of education and training within this reform agenda was welcomed within vocational education and training systems. The TAFE system had been languishing in a period of higher education expansion, during which an economic recession had also reduced the intake of apprentices, TAFE’s traditional client group.

The opportunities arise from the role that TAFE can play in the industry restructuring process, lending its expertise and authority to the elaboration of new systems of training and skills formation, skills audits, training needs analyses, tailored courses, ‘train the trainer’ services, as well as broad questions of curriculum development and restructuring of accreditation, recognition and articulation (or linkage) arrangements. This all represents a series of one-off opportunities for TAFE.

_Award Restructuring_ 1989, p. 2

In 1989, the committee of commonwealth and state ministers of education and training committed all states to the development of a training system with competency based standards, to be implemented through a National Training Board which would be responsible for the development of standards in each industry. In the following year, the ministers agreed to adopt a nationally consistent approach to the recognition of skills, a decision which lead to the formation of a National Framework for the Recognition of Training for standardising procedures for accreditation, credit transfer, assessment, registration of training providers and recognition of skill (Smith 1995, p. 15). Within that Framework, course nomenclature, accreditation and recognition of prior learning were standardised through the Australian Qualifications Framework.

In 1991, the National Training Board established the Australian Standards Framework – a set of eight competency levels to ‘form a bridge between the competency requirements of work … and the vocational education and training and certification system’. Work, training and qualifications would be related through competency levels (National Training Board 1992, p. 16).

Until 1992 vocational education and training was coordinated nationally by an alliance of committees and boards. In July 1992, the Australian National Training
Authority was established by an Act of Parliament to ‘advise state and commonwealth ministers on appropriate policies and mechanisms to move towards a more national focus for vocational education and training’. One of the new Authority’s first actions was to review the outcomes of the national training reform agenda, ‘the commencement of the systemisation of reforms into a permanent operational structure’ (Smith 1995, p. 45). The Australian National Training Authority produced a blueprint for a national vocational education and training system built on the previous years of reform, but recognising further needs of industry. The Australian National Training Authority also claimed management of the new system in the interests of clients (enterprises and individuals). Reform rhetoric switched from ‘national consistency’ to the ‘client’ and the ‘training market’. (Smith 1995, p. 62)

Competency based training

A competency based system of training, with learning constructed as a series of outcomes, became the centrepiece of training reform. Competency based training shifted the emphasis of vocational education from inputs to outputs.

‘Learning outcomes link the learning process with industry-specified competency standards ... Each learning outcome should relate to a unit of competency’ (User’s Guide to Course Design 1992, pp. 1–6). A learning outcome was defined as a unit of skill or knowledge. Each learning outcome would be split into component parts, each of which would be measurable against assessment criteria. Once a trainee could demonstrate performance to the standard stated in the criteria, they would satisfy requirements for that unit of skill or knowledge. The emphasis was on describing outcomes in measurable terms and assessing the achievement of these outcomes.

The focus on outputs rather than inputs meant that learners need no longer be restricted to specific time periods for learning and that previously acquired skills and knowledge could be recognised. Workplace learning could take place over any period of time and in a manner to suit the trainee or the enterprise.

Competencies were to be identified through occupational or training needs analyses in which work roles are split into component skills and performance criteria are identified for each skill. These performance criteria form the basis of competency based industry standards which define ‘what is expected of an employee in the workplace ... and embodies the ability to transfer and apply skills and knowledge to new situations and environments’. Competency was intended to be ‘a broad concept that includes all aspects of work performance and not only narrow skills’ (National Training Board 1992, p. 11). Competency development would become the proper aim of employee assessment or training programs.

A major aim of the competency based training system was to develop national, standardised, accredited curricula. Curriculum documents prepared for accrediting authorities had to provide detailed statements of learning outcomes and assessment criteria. In order to ensure standardisation and compliance with national training policies, a curriculum template was developed for writers which
framed the way in which training curricula were expressed. Within this template, learning is modular with ‘specific learning segment(s), (each one) complete in itself (dealing) with one or a number of aspects of vocational education at a given level of understanding or skill performance’ (*User’s Guide to Course Design* 1992, pp. 1–5). Skills and knowledge are to be stated in short sentences beginning with a finite verb expressing measurability. Verbs such as ‘appreciate’, ‘deduce’ and ‘appraise’ are inappropriate for describing a learning outcome, but ‘explain’, ‘apply’ and ‘discriminate’ are, because it is assumed they can be measured (*User’s Guide to Course Design* 1992, pp. 1–9).

This level of precision may well be justified when attempting to identify competencies for specific operational skills. Such precision has a wide appeal to industry, as does the ‘striving for universality’, but:

... the measures of competencies tend to become highly detailed, providing atomised lists of tasks and functions, or else to become highly abstracted. In the case of the former the sum of the parts rarely if ever represents the totality of good practice ... In the case of the latter it is difficult if not impossible to provide an operational account of a disposition or ability that does not rest solely on situational judgement.

Marginson 1993, p. 164

In an attempt to articulate vocational training with the more process-oriented school education, two review committees chaired by Finn and Mayer respectively, developed generic competencies to frame some aspects of school curriculum. These were also incorporated into vocational education and training curriculum as competencies ‘essential for effective participation in work’ (Mayer 1992, p. 5). Their universality makes them difficult to measure and it has been questioned how useful they are when the application and learning of skills such as problem-solving and use of technology are so ‘highly context sensitive’ (Marginson 1993, p. 161).

Implicit in the competency based training literature is the assumption that skills and knowledge can be transferred from one situation to another. If a person learns how to ‘follow safe work practices’ or ‘report an accident’ in one enterprise or industry it is assumed they would be able to transfer this skill to another workplace. This ignores contextual considerations. Specific work practices can make learning these skills quite different from one enterprise to the next.

Competency based training is focused on the formulation and assessment of outputs rather than the learning process; learning theory and teaching methodologies are absent from accredited training curriculum. It is assumed that learning will occur when training is modular, expressed in measurable outcomes, assessed against performance criteria and supported by resource materials all of which are delivered to the trainee.

Competency based approaches downplay the importance of individual workers and the workplace itself ... This view is in
contrast to the one (which recognises) that the context of work
(relationships, conflict, culture, the way work is organised,
technology and information) has an enormous bearing on what
employees do.

Field & Ford 1995, p. 101

In Competency Based Training – Guidelines 1992, p. 1, it is recognised that
‘effective learning can take place in a range of environments according to the
learner’s needs’. However, the flexible delivery modes to meet these needs are
defined in terms of places and times of learning (such as ‘on- and off-the-job
training’ or ‘part-time’), rather than a diversity of teaching or training methods.
The term ‘learning styles’ is used not to refer to cognitive styles but skill levels
(such as literacy and numeracy) which require support in terms of varied
scheduling, tutorials, mentoring and counselling. Complexities of learning styles
and processes are often ignored in a focus on delivery of training.

Workplace training

In delivering competency based training in the workplace, teachers and trainers,
often far removed from the familiar routines of the TAFE classroom, developed a
new workplace pedagogy that took into account principles of adult learning and
that recognised the importance of the learning context. An early attempt at
delivering training in the workplace stated the following learning principles:

A training environment should be built upon some basic
principles of how adults learn:
• Adults learn at different rates based on a strong and varied
store of experience.
• Adults have preferred learning styles.
• Adults need active participation.
• Adults want to know why they need to learn something.
• Adults need frequent and useful feedback.

Therefore a workplace training environment should include:
• opportunities for self-paced work
• a range of training activities and delivery modes
• opportunities for project and group work
• scope to choose the sequence of topics
• clear training objectives linked to relevant workplace
practices
• opportunities for ongoing feedback
• regular access to trainer/tutor support.

Ballagh & Spark 1991, p. 35

Such an approach to industry training drew upon a range of teaching
methodologies and open learning theory and practice to frame the delivery of
training. In an attempt to contextualise the learning, outcomes were customised to
suit enterprise needs and work based activities and assessments were included. In some cases, curriculum and training methods became context-specific to meet the particular cultural and business needs of enterprises. A number of research and evaluation reports indicated that successful delivery of training required more than a trainee and training resources. Attention needed to be paid to the enterprise’s business directions and its workplace systems and culture in order to create an environment conducive to learning (Ballagh et al. 1994; Sefton et al. 1994; Taylor 1992; Taylor 1994).

Tension developed between developing and delivering competency based training and the complex learning needs of enterprises.

In a work culture that values learning, the fragmented approach associated with competency based training is often inappropriate. Competency based training is weak in the areas most valued in a learning organisation – adaptability, flexibility, responsiveness, synergy, a holistic focus, improvement and innovation, critical thinking. Its focus is on uniformity and minimum acceptable standards rather than on competition and striving for excellence.

Field & Ford 1995, p. 101

In summary, neither the national training reform agenda nor the official guidelines for competency based curriculum development and assessment addressed teaching methodology or learning theory. These were left to practitioners grappling with the contextual realities of workplace training delivery. Against this backdrop, the concept of the Learning Organisation is considered.

‘Learning Organisation’ theory

The concept of the Learning Organisation, like the national training reform agenda, is a response to perceived need for organisations to become more productive and competitive and to be able to respond more quickly to the demands of rapid social and economic change. Whereas the national training reform agenda arose from the Australian Government’s industry and industrial relations reforms, Learning Organisation theory has evolved out of human resource management and organisational development, chiefly originating in the United States.

Until 1980, the topic (of learning) did not receive much attention from practitioners of organisational intervention, and hardly any from operating managers. However with the decline of some well established firms, the diminishing competitive power of many companies in a burgeoning world market, and the need for organisational renewal and transformation, interest has become widespread. As organisations have recognised the need for
continuous improvement, it became clear that the capability for learning is crucial.

Nevis et al. 1993, p. 1

Most writers link four major contextual issues with the Learning Organisation:

- Modern capitalism has a global future in which the Learning Organisation ‘is heralded as the optimum organisational form for this stage of capitalism’.
- The Learning Organisation is the key to economic survival and renewal of business in the West.
- The Learning Organisation is the key for effectively managing the organisational change necessary in the current economic climate.
- The Learning Organisation is linked to the overall social change processes: ‘economic transformation will bring about an epiphany within the larger society’.

Morrigan 1996a, pp. 6–7

This link to a perceived stage of capitalism distinguishes the literature on Learning Organisations from that of organisational learning in general; the latter is most often used to describe individual learning in organisations ...

It is also evident that the Learning Organisation is framed within a particular world view which is based on free market economics. The Learning Organisation is an adjunct or vehicle for better management of organisations subject to market forces ... The Learning Organisation literature may be seen as framed within a particular ideological position.

Morrigan 1996a, p. 7

It is useful to distinguish between organisational learning and the Learning Organisation.

Organisational learning is at the heart of all human resources practices and is not a new phenomenon. Mostly organisational learning has occurred within a sub-system of the whole organisation. With the need for continuous change, the status of this particular sub-system has gained more prominence over the last decade ... Enhanced capacity for organisational learning should not be confused with the Learning Organisation which is
not a sub-system of the whole — it is the whole. Knowledge creation (or organisational learning) is as much a product of the learning organisation as the goods and services that any company produces.

Morrigan 1996b, p. 26

Within this context learning is seen as a tradeable commodity and a key sustainable competitive advantage (Kocham & Useem, 1992; Pedlar et al 1989; Senge 1994).

The Learning Organisation literature argues that existing organisational theory does not adequately capture the complexities of organisational development and responses to rapid social and economic change. There is wide ranging interest in the Learning Organisation as a key factor in industry transformation as evidenced by numerous publications, conferences and reports. Morrigan (1996a) identified over 500 journal articles published between 1987 and 1994 on learning in organisations.

**Key characteristics of the Learning Organisation**

The major and formative writer on the Learning Organisation is Peter Senge, Director of the Centre for Organisational Learning at Massachusetts Institute of Technology’s Sloan School of Management, who defines Learning Organisations as:

... organisations where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together.

Senge 1994, p. 3

Within his model there are five key characteristics or ‘disciplines’, all of them inter-related:

- Personal mastery – for individuals, learning to expand personal capacities and for the organisation, creating an environment conducive to personal development of its members
- Mental models – reflecting, clarifying and improving our world view and understanding how such views shape actions and decisions
- Shared vision – building commitment by developing shared images of the future and the principles and guiding practices to achieve the vision
• Team learning – transforming conversational and collective thinking skills to the point where the intelligence and ability of the group is greater than the sum of the individuals in it
• Systems thinking – a way of thinking about the forces and interrelationships that shape a whole system.

Senge et al. 1995, pp. 6-7

Learning is central to the Learning Organisation and is transformational:

The Learning Organisation is one that learns continuously and transforms itself. Learning takes place for individuals, teams, the organisation and even the communities with which the organisation interacts. Learning is a continuous, strategically used process – integrated with, and running parallel to, work. Learning results in changes in knowledge, beliefs, and behaviours. Learning also enhances organisational capacity for innovation and growth. The Learning Organisation has embedded systems to capture and share learning.

Watkins & Marsick 1993, pp. 8-9

There are six action imperatives for Learning Organisations:

• Create continuous learning opportunities.
• Promote inquiry and dialogue.
• Encourage collaboration and team learning.
• Establish systems to capture and share learning.
• Empower people toward a collective vision.
• Connect the organisation to its environment.

Watkins & Marsick 1993, p. 11

Other definitions of the Learning Organisation emphasise shared organisational values, welcoming of diversity, personal growth and development, transformational leadership and continuous development of individuals, teams and the organisation. Sometimes the writing borders on the evangelical with the ideal organisation being 'a community of commitment ... with people invoking aspiration and wonder' (Kofman & Senge 1993, p. 22) and creating and sharing meaning. Other writers, such as Garvin (1993), call for a clearer definition of the Learning Organisation, one that is 'actionable and easy to apply ... (with) clear guidelines for practice, filled with operational advice rather than high aspirations'.

Morrigan summarises four aspects of the Learning Organisation:

• The nature of the learning process: the development of a new and appropriate learning process and the possibility of 'unlearning' practices that are not considered useful.
• The remaking of the self: for some writers, the development of a particular personality, identity, ethics, morals, values,
The Contexts

beliefs and attitudes for the individual learner; for others, changes in ways of thinking and world view or a shift in understanding of self.

- Social integration and team learning: development of social integration through team learning which is vital for the effectiveness of organisations ... the team is the main work group.
- A holistic learning system: development of system integration and system change as the major objectives; thus relations of power, relations of order and system maintenance are paramount.

Morrigan 1996a

Teams

The major organising structure and ‘learning unit’ (Senge 1994, p. 10) of the Learning Organisation is the team. Work and learning are collective and collaborative activities. Senge compares an effective team to a jazz ensemble who are ‘aligned’. The values and vision of the team members are complementary and the individual will sacrifice personal interests and vision for those of the team. The team will then ‘play as one’ (Senge 1994, pp. 234–5). He identifies three critical dimensions to teams:

- insightful thinking about complex issues and tapping the potential of all members of the team
- innovative coordinated action
- fostering of one learning team by another team.

Senge 1994, pp. 236–7

The key team skills for Senge are dialogue and discussion. These skills assume sophisticated levels of communication and shared cultural norms which support such interaction.

Teams are seen as evolving through the following levels of maturity:
- initially fragmented state
- creating pooled activity
- synergistic effort
- an ongoing, continuous capacity to work collectively.

This ability to work collectively enables the organisation to achieve unified action on common goals (Watkins & Marsick 1993, p. 14).

A feature of the literature about Learning Organisations is the assumption of a homogeneous workforce. While the importance of disputation and disagreement is affirmed as integral to the dynamic functioning of teams, the significance of social and cultural difference (in gender, ethnicity or generation, for instance) is minimised or ignored. For the purposes of the argument an all-purpose ‘worker’
(or team member) is assumed, a person who can be expected to share the basic views and values of the other members of the group.

**Leadership**

Senge argues that the Learning Organisation requires a new type of leader who is responsible for building organisations where people continually expand their capacities to understand complexity, clarify vision, and improve shared mental models — that is, they are responsible for learning. He identifies three roles for such leaders: designer, teacher and steward. As a designer, the leader develops vision, values, mission and learning processes. As a teacher, the leader fosters learning for everyone. In the role of steward, the leader is personally committed to the organisation’s vision and engages others to further develop the vision. Leaders are responsible for the vision, but it is not their own (Senge 1994, pp. 340–56).

Such leadership takes place within a participatory workplace in which:

> everyone has an idea of what the whole picture looks like,
> knows how to get something done in the organisation, has a budget with which to take action, and has knowledge of how to influence or work with people. Everyone has access to information about how to plan learning and how to assess their needs in relation to the needs of the organisation.

Watkins & Marsick 1993, p. 17

The concept of collectivity is also applied to leadership. Organisations are warned to avoid the trap of the individualistic hero leader, a myth which can prevent the rise of teams as leaders. However it is not made clear how collective leadership would work, especially in large organisations with hierarchical management structures. It is acknowledged that there may be clashes between collective leadership and hierarchical leadership. Although issues of control are identified there are no suggestions as to how to change leaders other than to suspend their need for control and for them to regard their own values, background, and experiences as equal to others in the organisation (Kofman & Senge 1993, p. 18; McGill et al. 1992, p. 11).

Other writers stress the importance of leaders being ‘hands on’, walking the shop floor, modelling behaviour that is consistent with the company’s vision and values, being readily available to all employees and engaging in conversations with all levels of employees on a regular basis (Nevis et al. 1993, p. 13).

**Vision and values**

Shared vision is seen as an imperative for the Learning Organisation. Vision is viewed not as an abstract purpose such as ‘excellence’ but as something specific and concrete, like breaking the four-minute mile (Senge 1993, p. 149). It ‘uplifts people’s aspirations’ because it focuses on the organisation’s ‘larger’ or ‘higher’ purpose. A company does not simply aim to make excellent cars, but ‘promotes freedom of movement through the personal automobile’. This shared vision
provides the ‘focus and energy for learning’. Unless the vision is shared by all employees in the company it will command, at best, compliance rather than commitment (Senge 1993, pp. 206–8).

If the organisation produces steel pipes, the commitment to steel pipe making must be solid throughout the enterprise. We’ve heard reports of a trash collector and junk dealer on the West Coast whose office is filled with things that remind him of trash. Even the ash trays and lamps are in the shape of garbage cans.

Kofman & Senge 1993, p. 161

It is understood by most writers that within a Learning Organisation values are also shared. When an organisation engages in developing shared vision it is also ‘building shared meaning ... a collective sense of what is important, and why’ (Senge et al. 1995, p. 99). In the Learning Organisation the personal becomes linked to the corporate. Employees will ‘think in terms of a personal future that is related to the future of the organisation. The evolution of a shared vision ... must involve the total personality of each member of the group ... At stake are personal feelings and values, opinions about how things should be, and territorial imperatives’. It is argued that negotiation on this basis will result in synergy rather than consensus, the latter leading to mediocrity and group thinking (Kline & Saunders 1993, p. 158–60).

These principles give rise to seemingly irresolvable, and potentially destructive, contradictions. In some respects the goal of the Learning Organisation is to forge new identities for workers; identities in which personal and organisational values converge. This complete commitment to the values of the organisation – at its most extreme a remaking of the self – occurs in a context in which job security is increasingly rare. A successful employee must simultaneously remain entirely committed to the organisation and poised to leave it. While difference is not only tolerated but acknowledged as generative and essential to innovation, difference can only occur within certain parameters. Conflict on some crucial issues will threaten the effectiveness of the collective; and these issues, which reveal covert core values, cannot always be predicted in advance.

Learning

Watkins and Marsick sum up the process of learning within a Learning Organisation. It is perceived as a process through which individuals in organisations build consensus and commonality:

Learning takes place at successively more complex, collective learning levels in organisations: individuals, groups and teams, larger business units and networks, the organisation itself, its network of customers and suppliers, and other societal groups.
Learning in the learning organisation is highly social. People learn as they work together toward the achievement of clear goals that they help to create. Individuals help other individuals to learn. Groups learn in an almost randomly interactive fashion so that people build on one another's insights. One individual may start the chain reaction by what he or she says or does, but others quickly respond, and then others react to this reaction. All group members make meaning of the events in initially disparate ways, but as they communicate with one another, they gradually build consensus.

People's knowledge can be radically transformed by this experience. At the organisational level, learning occurs quickly through complex interactions ... For example, the organisation might communicate new values and visions. Hundreds of individuals make sense of those values and visions based on their own unique views of the world. Yet members of organisations gradually begin to share meanings and create a common vision.

Watkins & Marsick 1993, p. 9

**Incremental and transformational learning**

The writers distinguish between incremental and transformational learning. Incremental learning focuses on refining current strategy whereas transformational learning recreates strategy because 'people understand the organisation or its work in new, fundamentally different ways' (Watkins & Marsick, p. 11).

In order to meet current social and economic challenges it would appear that organisations must be constantly engaged in transformational learning. Watkins and Marsick agree with Senge on the importance of 'systems thinking' in this process, that is, being able to see structures underlying complexities and to focus on the whole system rather than just the component parts. It is a shift from linear ways of thinking of processes as chains of events, to seeing feedback processes and systems. 'Systemic becomes a way of thinking (almost a way of being) and not just a problem solving methodology' (Senge 1994, p. 69).

Management practices which encourage systems thinking are:

- sharing of accurate organisational histories to promote a sense of temporal continuity
- recognising the importance of relationships based on information, goods and services exchange, and feelings, in addition to traditional line authority-based relationships
- removing the artificial distinction between line and staff
- explicit attention to the interrelationships between actions across all organisation and external forces.

McGill et al. 1992, p. 12
Generative learning

As well as personal commitment to organisational values and vision, members of organisations are expected to take a ‘shift of mind’ approach to learning: ‘at a personal level learners are asked to make deep changes’ to their mental models or ‘unconscious models of thinking’ (Morrigan 1996a, pp. 20–1). Such learning is generative.

The key to generative learning is that it requires shifts in thinking away from deeply ingrained assumptions that no longer support our progress, and the expansion of our perception of ourselves and the world. Action learning for example, is only as good as our perception or ‘mental model’ of the action allows. A multiplicity of learning loops is available to the generative learner.

Morrigan 1996b, p. 27

Personal mastery

Learning also takes the form of personal mastery – the cornerstone of the Learning Organisation (Senge 1994). Personal mastery is the discipline of ‘continually deepening our personal vision, of focusing our energies, of developing patience and seeing reality objectively’ (Senge 1994, p. 7). Organisations have a responsibility to create an environment which supports personal mastery.

... organisations should endeavour to create a climate supportive of personal growth, of individuals who have the inner strength to inquire and to question the current reality as it relates to their own contribution to creating it. In other words, a climate which promotes systems thinking. In an environment of participative management, personal mastery is a key ingredient as participation becomes an important vehicle for learning.

Day 1994, p. 22

Double loop learning

Many of the Learning Organisation writers draw on the works of Argyris and in particular the concept of double loop learning, a term borrowed from electrical engineering and cybernetics. Both single and double loop learning have their place in an organisation, but double loop learning is transformational.

When an error is detected and corrected without questioning or altering the underlying values of the system (be it individual, group, intergroup, organisational or international), the learning is
single loop ... Double loop learning occurs when mismatches (between intention and actuality) are corrected by first examining and altering the governing variables and then the actions (that lead to the error).

Argyris 1994, pp. 8–9

It is argued that double loop learning and systems thinking go beyond conventional problem-solving because they force people to focus on the sources of problems and recognise that ‘the roots of these difficulties lie in how we think and how we interact’ (Kofman & Senge 1993, p. 20). They lead people into ‘deeper’ learning.

Field and Ford (1995) contrast double loop learning with haphazard learning where people have the freedom to question and do tasks differently, but where the learning is limited because it ‘takes place without the benefit of ... a frame of reference that goals can provide’. The first step along the continuum from haphazard learning to double loop learning is to set goals such as quotas, skills, targets, company vision and project plans. Employees attempt to achieve the goals and receive feedback on their progress. This is equivalent to single loop learning. Double loop learning revisits the goals with critical questioning such as ‘that objective isn’t realistic because ... ’ or ‘this would work much better if ... ’ (pp. 11–18).

Personal learning

Some writers, arguing that learning for productivity cannot be separated from personal learning, differentiate three domains of learning: instrumental, dialogic and self-reflective. Instrumental learning is usually job focused and task related. It aims to improve skills and knowledge and is based on the individual’s deficit or need. Dialogic learning is interpretive and occurs when individuals work in groups or teams. The group may interpret cultural or group norms or organisational policies, procedures, goals and objectives. This learning requires ‘deep’ listening skills and a degree of objectivity. Self-reflective learning occurs when an individual critically reflects on their own identity and their contribution to the group (Duignan 1995, p. 8).

Self-reflective learning (or learning to learn) ‘raises learning issues during everyday work’ and occurs when individuals ask questions about their approaches to work and their underlying assumptions. Such learning leads to further experimentation and innovation (Field & Ford 1995, pp. 20–1).

Learning vs training

The role of training within the Learning Organisation is recognised as an important one, but it is not the distinguishing feature of a Learning Organisation. Whereas training is easily identifiable, ‘learning is closely entwined with daily work activities, and as a result, it may not stand out as separate from effective individual or organisational practices’ (Watkins & Marsick 1993, p. 7). The writers suggest that training programs should reflect principles of adult learning.
and emphasise the importance of learning and practising skills in an enterprise context. It is assumed that there are opportunities for members of organisations to learn how to learn and to engage in reflection and critical questioning about how they learn as well as what they learn (Watkins & Marsick 1993; Field & Ford 1995).

Learning is occurring all the time, although some individuals are better at it than others, and some environments are more conducive than others.

Field & Ford 1995, p. 95

The case studies presented in this report provide compelling testimony to the complexity of the role of learning in organisations. They demonstrate that, in important respects, 'context is all'. While theories about learning in organisations are sometimes illuminating, they cannot capture the organic qualities of learning as it is played out in specific contexts.
3.

Research Methodology

Literature and consultation

The study addressed three questions:

- How useful is Learning Organisation theory for understanding the nature of learning in enterprises?
- Under what conditions does learning occur within the workplace?
- What is the relationship between formal training and workplace learning?

A range of literature concerned with work organisation in the context of Learning Organisations, workplace change, and the policy and practice of adult and vocational education and training in Australia was reviewed. The following experts in the field were consulted:

Jeff McLean, Fern Marriott, John Barton and Michael Morrison, Systems Cluster, Department of Business Management, Monash University
Robyn Merchant, Human Resources Development Manager, Fuji Xerox Australia Pty Ltd
Helen Smith, Assistant Secretary, Programs and Information Technology, Office of the Secretary, Department of Education, Victoria
Patricia Morrigan, Consultant: Building Learning Organisations, PhD candidate, Melbourne Business School, The University of Melbourne

The literature and the consultants raised significant issues about variation in business practices. It was noted, for instance, that participation in Australia's national training reform agenda was far higher in large enterprises than in small or medium sized enterprises. The research team concluded that a case study approach could most effectively illuminate learning practices in a range of enterprises. The team decided to base the case studies on extended interviews and observation, gaining as many perspectives as possible within each site. Interviewees were to include managers, supervisors and a range of workers, all of whom were to be asked the same broad questions. Transcripts of these interviews would provide the basis for each case study, drafts of which would be taken back to the enterprises to check for response and perceived accuracy.
Selection of research sites

The case study enterprises were selected because they were recognised as successful organisations and because they were committed to learning. The enterprises selected did not necessarily identify themselves as ‘learning organisations’, but they were considered by the research team to conform to some of the perceived features and characteristics of a Learning Organisation gathered from the literature review.

Initially, nominations of suitable case studies were invited from the research partners and from external organisations and consultancies. It became clear through discussions with these agencies and consultancies that many organisations declared themselves to be learning organisations or on the path to becoming a learning organisation, but that what this actually meant in terms of company practice depended entirely on which definition of a learning organisation was being used.

In selecting the three enterprises for a case study, the research team decided to exclude organisations with more than 500 employees. Any meaningful study of these enterprises would have involved more interviews than could have been conducted within the timeframe. Selecting companies with which the research partners already had a relationship expedited the agreement to participate. Prior knowledge of the company also helped in the comparison of characteristics of the case companies with characteristics gleaned from the literature review.

The enterprises selected for study were The Big Duck & Fish Company, a small ceramic tableware firm operating in a highly successful niche market; Nicholas Dattner & Company, a manufacturing retailer of quality furniture made from recycled Australian timber; and Huntsman Chemical Company Australia, a large subsidiary of an American corporation, producing petrochemical products.

Selection of interviewees

The selected companies were approached, initially by telephone, with a request to participate in the research. They were told that participation would involve in-depth interviews with owner-managers and a cross-section of employees, and that the researchers would need access to company documentation. All the companies approached agreed to the proposal. The people to be interviewed (see Attachment 1) were then chosen in the following ways.

In the case of Big Duck & Fish, both of the owner-managers and each of the employees were interviewed (eight in total). The interviews at Big Duck & Fish were conducted by Margaret Taylor and Maree Wheelens.

The interviews at Nicholas Dattner & Company were conducted by Sue Meredith and Maree Wheelens. Nicholas Dattner, an owner-director and seven of the
twenty-one staff were selected by the research team, ensuring a mix of gender, length of employment and representation from each department.

At Huntsman Chemical Company, which employs about 500 people, the interviewee selection process was significantly different. The human resources director, employee relations manager and employee development manager were selected for interview by the researchers, as they had each played important leadership roles during a company change process. One group interview with a work team was conducted. The utilities team was selected for the group interview because they had progressed further as a self-managing team than had most of the other work groups on the site. Other interviewees were selected by the company’s learning development coordinator on the grounds of their work-related learning experiences and to ensure a mix of gender and work roles. The interviews at Huntsman Chemical Company were shared across the three members of the research team – Margaret Taylor, Sue Meredith and Maree Wheelens.

Collecting the data

Documents: Data on the history and profile of each organisation was collected from company documentation as well as from interviews with the owners and managers.

Observation: On the initial visit to each company first impressions were noted by the member of the research team who had not had any prior association with, or knowledge of, the company. These first impressions included the style and ambience of the location and the workplace environment; for example noises, smells, layout and appearance of work and rest areas, notices, displays, artwork and the demeanour of staff – their mobility and interactions. These impressions are reported in each case study within the section on Setting.

Preliminary interviews were held with management representatives, to clarify the objectives and requirements of the projects and to obtain formal consent. They were then asked to talk about the philosophy and beliefs which had led them to initiate or support their company’s particular work and learning practices.

From the literature review, consultations with other researchers, organisations and consultants, and meetings of the project partnership, a framework for interview questions had been developed. Key elements included:

- What place does learning have in the enterprise?
- What kinds of learning occur?
- Is all learning equally valued?
- What is the effect of valuing learning?
- What has encouraged or limited an orientation to learning?
- What place does formal training have?
- How could informal training be made more appropriate?
From this framework a set of questions (see Attachment 2) was developed to provide an interview schedule. The interviews, not confined to this set of questions, in most cases ranged widely, with the focus on the interviewee’s perceptions.

Subsequent interviews at each company were conducted by more than one member of the research team, to allow for checking and discussion of the interviews and the report. The interviews, lasting between fifty and ninety minutes, were tape recorded (apart from four interviews at Nicholas Dattner & Company). All the taped interviews were transcribed verbatim. Interviewees were assured of complete confidentiality until they had read and validated the transcripts and formally agreed for them to be used in the case studies. In some instances there was a shorter second interview to clarify or expand issues of particular interest, or to clarify significant differences in views of the same event or issue between one interviewee and another.

From those second-stage interviews with owners, managers and others in leadership roles, there was opportunity to build on previous interviews with other people within each company; for example, owners and managers were asked to comment on, or verify, information provided by employees.

Case study analysis

The first draft of each case study was constructed around the interview schedule (see Attachment 2). The themes arising from these first drafts were discussed in project workshops and the focus of the study redrafted around the emerging themes of:

- Team approach
- Leadership
- Vision and values
- Learning.

The Big Duck & Fish report was written by Margaret Taylor who had prior involvement with the company through a research project for the Office of Training and Further Education. The Huntsman Chemical Company case study was written by Margaret Taylor. The case study of Nicholas Dattner & Company was written by Sue Meredith who, since 1988, has been closely associated with both Nicholas Dattner and his sister Fabian, through involvement with the Second Chance Business Register. Maree Wheelens also contributed to the writing of the Dattner case study.
The Big Duck & Fish Company

Setting

The Big Duck & Fish Company, a small manufacturing enterprise producing decorated ceramic tableware, is located in a renovated factory in St Georges Road, North Fitzroy. The modernised facade is emblazoned with a leaping fish mosaic. The building adjoins a row of Victorian-era shops, not far from the trendy bustle of Brunswick Street, Fitzroy, with its alternative cafes, designer studios and bookshops.

On entering the ground floor studio-shop you are likely to be greeted by young employees Karen and Sally, who sit at a workbench towards the back of the shop decorating plates, or perhaps by Virginia, one of the owner-managers. The women apply blue, green, yellow and orange colours to the square, rectangular and oval plates with easy, confident brushstrokes. They talk cheerfully to each other or engage in conversation with customers who wander in to inspect the shelves of stock. Sales are transacted at a table which doubles as a counter. Sunflowers glow in vases placed on the table and on the staircase leading to the factory upstairs.

The Big Duck & Fish Company is a noisy place, but not from the sound of equipment and machinery. It hums with the sounds of human activity – talking, laughing and calling out – against a background of popular music from the radio. The atmosphere is busy but not frenetic. It is lively, youthful and energetic.

Upstairs in the factory area everything seems to be covered in a layer of white dust. Plates, stacked on trolleys, are at various stages of pressing and firing. Young men, dressed casually in jeans and T-shirts are sanding the undersides of plates or attending to the kilns.

Beyond this area is a kitchen and communal eating area with a large table. An office, backing onto the kitchen, is open to the dust. Postcards and notes are stuck on its walls. Both the desk and the in-tray are piled with papers. Despite the
apparent disorder, business documents are easily located when required. It is clear that time is spent making ceramics, not on office work!

Staff

The owner-managers

Virginia Mayweld is 35 years old. Tim Dolan is 36. Tim and Virginia are cousins. Virginia has a Bachelor of Design (Ceramics) while Tim has a Diploma in Applied Science (Natural Resource Management) and a Diploma of Education. Tim taught sciences and mathematics at Murray Bridge High School for five years. Virginia once lectured at the South Australian School of Art for six months and has taught some adult education classes.

The employees

There are now six full-time employees and one part-time employee. The full-time staff of two women and four men, all of Anglo-Australian origin, range in age from 21 to 25 years and have the following formal education qualifications:

Karen (Kaz): Year 12
Sally: part completed Year 12
Anthony (Beaker): Year 12 and B Class Electrician Certificate
Sam: Bachelor of Education (Visual Arts) with a major in ceramics
Dusty: part completed Year 11
James: Year 12 (and currently studying environmental science at RMIT)

Both owner-managers and all the employees were interviewed for this case study.

Background to the company

The Big Duck & Fish Company has been operating for eight years, owned and managed by Virginia Mayweld and Tim Dolan. The firm developed from a ceramics studio established by Virginia in the artists’ community at Northcote Pottery. The company spent its first six years at Northcote Pottery where it received the following kinds of support, seen by Tim and Virginia as critical to their success:

- Factory space and facilities
- Free rent and no overheads (until Virginia and Tim insisted on paying)
- Friendship and guidance
- Business advice
- Financial management assistance
- Credit account for raw materials
- Retailing opportunities.
At the end of 1994, The Big Duck & Fish Company shifted to larger premises in North Fitzroy. The two storey building of 10,000 square feet, had a shop front and had factory space upstairs and at the back.

The shift to new premises in North Fitzroy has been a dramatically important phase in the life of the company. All the employees commented on the expansion of the work space and its effect on their activity and performance. Sam stresses how much safer and healthier the new workplace is and sums up the effect on productivity:

... imagine how much more we’re producing now than we were twelve months ago ... Practically every single process has been upgraded or improved ... Through our new ... work environment we’ve been able to dramatically refine our processes to be a lot more efficient ... We’ve now got two more kilns ... and they’re twice as big as the other ones we’ve had, so our firing capacity has increased dramatically. We’ve since purchased a press (we have two presses operating) which is responsible for a lot of the stuff we (make) now. The decorating bench ... is larger and more open ... (They’re) able to produce and ... see where (they’re) at and work better together. (Here it’s) a lot more open and free ... It’s become much more of a business and it’s certainly shown in the way we operate ... the actual flowing of this building (process and scheduling) is a lot more ... in accordance with ... normal business practice ... I personally feel almost more professional here.

Sam

Product and manufacturing process

The tableware is produced chiefly for commercial rather than domestic use. The product range consists of large oval platters, square and rectangular dining plates, large and medium sized bowls, vases and mugs.

All production is done on site at North Fitzroy. It takes about four days to turn clay into finished items. The shaping and firing takes place upstairs. Currently the decorating function operates downstairs along with the retail outlet, but there are plans to convert all the downstairs space to a shop and move decoration upstairs with the rest of manufacturing.

The manufacturing process consists of:
- delivery of clay
- pressing of clay either by machine, or thrown by hand or on a potter’s wheel
- drying
- fettling (sanding) and cleaning ready for decorating
- decorating
- glazing
• firing
• inspection
• sanding the undersides of plates
• packing and dispatch.

Hand pressing is a ‘fringe’ area, added only at specific customer request, while fettling is being eliminated as much as possible because it is such an unpleasant job.

Turnover
The Big Duck & Fish Company has grown in response to an increasing demand for its products. It has also had to budget for increasing costs arising from the shift to Fitzroy. Turnover has increased from $300,000 in 1993 to $323,000 in 1995, a difficult year because the shift took virtually two months out of production. The company has budgeted for $400,000 in 1996 and, in February, was slightly ahead of target.

Customers
The company does not advertise. Through word of mouth and networking, it has expanded its customer base to include:
• Daimaru
• Spotless Catering
• AVS Catering
• Gardner Merchant Catering
• Crown Casino
• Hilton chain of hotels
• Southcorp Wines.

As a general trend, wholesaling to retailers has fallen, while selling directly to hotels and large catering companies has increased. Retailing has increased through the Fitzroy shop.

Employment practices

Selection and induction
The company’s recruitment practices appear to be informal and unstructured in the conventional sense, but a pattern is discernible. Tim and Virginia have used their employees’ networks to recruit young people mainly from rural areas and, in particular, from the Victorian country town of Colac.
Karen, their first employee, came from Colac, referred by her sister who was doing part-time work for Tim and Virginia at Northcote Pottery. Karen had just completed Year 12 (including Art) and was given a week’s trial before she was employed.

Sally, also from Colac, was employed through a phone call to Colac High School to ask if there was anyone interested in working at Big Duck & Fish, painting plates. Sally had a week’s trial, went back to school, and then received a call to say that she had the job.

James, an employee of four years, was referred by a mutual friend of Tim’s. When he arrived to look over the business he was immediately given a job to do because they were so busy! At the end of the day, James said he was told, ‘Look, if you come back tomorrow we’d love to put you on’.

All but one of the employees joined the company untrained in ceramics. They are trained in the Big Duck & Fish way of doing things. All employees have what both Tim and Virginia referred to as a county work ethic: ‘no one hands you life on a plate’ (Virginia). Tim says that all employees ‘must be intelligent’.

The company has therefore consciously acquired a homogeneous workforce which Virginia and Tim can develop to suit the skill and knowledge requirements of the enterprise. Virginia is also consciously rescuing some young country people from the ‘scrap heap ... The future in a small country town is fairly bleak, especially for girls’. She recalls her own experience of a country town where a lot of talent was wasted. Acknowledging her altruism, she also stresses that she gets the sort of people she wants to work with: ‘I know these sorts of people ... and ... can relate to their country town experience’.

While the company can continue to find suitable people through their own networks they will not advertise for staff. Tim is less committed to this recruitment strategy than is Virginia. Although he believes that country people have a strong work ethic and that the company’s recruitment practices have worked for them up until now, he also acknowledges that employing exclusively from the country could limit their options. He cites Dusty as a successful city employee.

Dusty’s selection process was different from the others. He is a ‘city boy’ and first worked with the company while obtaining work experience at Northcote Pottery when he was a 15 year old school student. He wandered upstairs, painted a plate with Tim and Virginia and ‘got to know them’. Tim and Virginia employed him after school hours on a casual basis, but then Dusty decided to ‘knuckle down and concentrate on school’. However, he left school during Year 11 and was unemployed for six months during which time:

I could honestly say I didn’t go looking for a job ... I did my own thing ... painted canvases, wall painting, shop fronts, vans,
community centres and things like that ... getting paid for the odd bit here and there.

Dusty

He dropped in to Big Duck & Fish one day. A while later Tim rang him to ask him what he was doing. When Dusty said 'I’m sleeping', Tim said 'Do you want a job?'. Dusty said 'I suppose' and Tim replied 'You’d better come in then'. Dusty qualified for a Jobstart subsidy and started full-time work in April 1994.

Dusty believes that the homogeneous workforce is critical. His passion about this is interesting, given his own selection experience.

I think the main thing that runs this business so well and keeps everybody happy is the people in the business. They’ve chosen the right people. They just don’t go and get any old blanking, bloody college student ... who’s had their brain bloody brainwashed by all these silly art teachers. (We have) people with open minds, people who get on well with each other ... (We) ... run the business because we’re all happy to do what we do and then we don’t argue with each other. It really runs smoothly because we’re all similar kind of people (with) similar ideas and attitudes.

Dusty

New employees go through a trial period at the end of which they either stay or they leave. Tim and Virginia claim to have never sacked anyone. 'It’s awkward, difficult, unproductive and not good for their self esteem,' says Tim. If people have left, it is understood that they have left of their own accord. It could be conjectured that such a homogeneous workforce might place pressure on any person who did not fit its norms. Indeed, Tim acknowledged that there is a pressure to conform to their expectations, a pressure that is applied equally by employees as by Tim and Virginia. Tim describes it this way:

If we lay down the line about what is expected and that continues not to happen, then something’s got to give eventually. Generally, we get a jump one way or the other. That person will say ‘Well, bugger it! I’m going’ or ... they will pull their socks up and fall into line.

Tim

This does not mean that Tim and Virginia do not devote time and energy to assisting employees to meet their requirements. Persistence with Dusty has resulted in his becoming a ‘changed man’ (Tim). They persisted partly because he was on a Jobstart subsidy but, as Tim said, ‘He was a good boy for the job’. Dusty says that he ‘learned a bit of discipline (and) ... learned to get off my arse’. He now claims ‘I love my job!’ So Dusty made the “jump”, fell into line and stayed with the company.
Tim and Virginia were not as successful with another employee whose world 'revolved around his little patch and his BMX bike' (Tim). Whereas Dusty 're-made' himself and accepted the values and work ethic of Big Duck & Fish, the BMX biker remained focused on activities external to the company. His values and work ethic contradicted those of the company and so he left. One has a strong sense of the group closing ranks against someone who has refused to conform to their values.

Employment arrangements

The hours of work are generally 9 am to 5.30 pm, although finishing time depends upon kiln loading. Employees are paid overtime or receive time off in lieu for additional hours and are paid a step above their award entitlement. They have four weeks annual leave for which they negotiate dates with Tim and Virginia. There is a fair degree of flexibility shown by the owners and employees with regards to working arrangements. If employees have personal problems to deal with, they are encouraged to take the time they need to sort these out. There is an informal understanding that if employees take time out they will 'repay' the company in some way, like taking a half-hour for lunch or taking time from annual leave. Virginia believes those 'with a conscience' make up time.

Tim and Virginia acknowledge that it is each employee’s right to be a member of a union and have not discouraged membership. The employees, however, have not joined and tend to be wary of what they perceive as 'official' bodies.

Team approach

It is very evident that The Big Duck & Fish Company is a highly interactive and cohesive group of people. 'We work together' (James). All the interviewees always used 'we' when answering questions, even in response to questions which focused on their individual work or issues. Dusty regularly said in the interview, 'we just all got together ... '.

Sam, explaining that it is the nature of the work itself that lends itself to teamwork, gives the example of loading kilns at the end of the day:

When we’re doing kilns at the end of the day, we all chip in and you look over and you see someone who’s needing a hand (and) you go and help them and it just happens that way The (team) feeling is very apparent ... for some processes more than others, but it is certainly there.

Sam

Sam expresses the generally held view of ‘team’ – that everyone is working together on one task rather like a sports team. There is also a sense that even when
individuals work on their own they are still working as part of the whole team through constant interaction with each other.

Employees regularly help each other in their work, correct each other if required and provide positive feedback to each other. The roles of coach and mentor are shared by everyone and assumed as the need arises. No-one is appointed into team leadership roles. Dusty talks about how, when he finishes a job, he will ask someone if they want ‘a hand’ and if they do he’ll help them out, otherwise he will ‘go off and see what else I can do’. Sally describes how she will point out a fault made by someone else and ask them to make sure it does not happen next time and ‘then the next time it comes through it’s usually gone’. Sally looks up to Karen as her mentor and coach simply because Karen has been with the company for longer and ‘knows more than me’.

James seems to have been more conscious about taking on the role of mentor with other employees. He sees himself as a ‘more established member of staff’.

That probably makes me feel a little more responsible for making sure things get done around the place. You just ask other people here and there to do a little bit extra, ‘Can you do this or can you do that?’ along the way, while they are in the vicinity.

James

A good example of the team approach is the way in which the company found its new premises in North Fitzroy through a joint effort. Everyone was instructed by Tim to look out for suitable sites. Before making the final choice, all employees came down to have a look and to give their approval. Once into the premises, designing work layout was a collaborative process:

A group discussion type of way ... All the logistics of the floor plan (were) more or less done in cooperation (with) ... all ... workers, and Tim was really good about that because he obviously wanted us to put in because we were essentially ... the ones using it, not him ... It was in his interests and our interests that we work together on that decision.

Sam

So collaborative decision making is seen to make good business sense.

Work roles

Tim and Virginia are both engaged in managing the business. Virginia is also largely responsible for design.

At the moment, the company functions tend to be divided along gender lines with the all-male manufacturing function upstairs and the all-female decorating function downstairs. Only Dusty works in both areas. This will change once the
decorator line is moved upstairs. A number of interviewees wanted to make it clear that present arrangements may 'sound sexist', but that they were not so.

Karen and Sally have fairly fixed roles on the decorator line although there is some variation in what they do each day. The decorator line, currently in the shop, employs Virginia, Karen, Sally and sometimes Dusty. Virginia starts the group off at the beginning of the day, then works on the line herself or leaves the others to it. The decorators also take customer orders and provide shop service. Sally and Karen have the most consistent roles. They work on the decorating line until the end of the day when they help load the kilns upstairs. Sally describes what happens on the decorating line:

We usually do our own little bit, like Virginia does the base colour and Dusty scratches it and then Kaz (Karen) paints it and fills it all in and then I usually black and outline around it ... So we are doing that all day and sorting out orders as well and taking phone calls and because we're down in the shop at the moment, we're also working with people coming in off the street ... and serving them.

Sally

Those in the manufacturing area upstairs have varied roles, which include making greenware (raw plates), waxing, sanding, glazing, firing, loading and maintaining the kilns, receiving and dispatch. The closest people come to defined job roles or expertise is 'everyone ... sort of has their particular thing' (Sam) except for Sam who, because he is relatively new to the company, has not yet 'got involved heavily in one particular area'. He feels that his is a support role for others at the moment. Dusty talks of the enjoyment of varied work:

... one of the good things I like about the job ... is when I come in and I really don't know what I'm doing each day ... It will be one of the designated jobs ... I ask Virginia what she wants me to do and we just head off and (it's) either sanding plates or preparing for decoration or maybe getting the paints out for decoration or ... whatever. (It) varies from day to day.

Dusty

This is different from many other manufacturing companies where roles and schedules are clearly defined. It suggests a flexible form of work organisation where the manufacturing process itself is consistent, but the jobs that employees undertake vary considerably within a day and from day to day. Work is self-organising or 'adaptive' where 'expertise, tasks, teams and projects emerge in response to a need' (Wheatley 1994, p. 91).

Jobs are also allocated according to abilities and talents of the employees. Dusty 'had the natural flair' and 'he said he wanted to learn' (Anthony), so he throws the
clay. Anthony performs ‘every process, except for decorating (because) my flair isn’t (in that area)’ (Anthony).

Like the others, James does not identify himself with a specific job, but with the business as a whole:

I don’t have a title because being involved in a small business you just get a lot of varied tasks ... We all need to be prepared to ... step in and do what we can.

James

Virginia has a key role in the design and manufacturing process. She organises employees at the beginning of each day, responds to and organises orders, decorates plates, develops new designs in consultation with employees, deals with customers and monitors all stages of the manufacturing process. The interviews present a clear picture of Virginia’s direct involvement with employees and the manufacturing process. As the business has grown, Tim’s role has become less ‘hands on’, except for his close work with Anthony on the maintenance side of things, especially with the kilns. Virginia is certainly the key person in terms of product development and design.

I ask Virginia what she wants me to do ...

Dusty

Virginia usually has the final say ... (regarding design).

Sally

Virginia is in charge (of decorating).

Sally

Virginia has got a pretty good eye for style. She ... pretty much designs all the patterns, with input from the others on the decorating bench, for sure.

James

Tim is perceived by employees as more involved in the business and financial side of things although there are plans for much of the business management to be taken over by Karen once she has been trained.

... it’s usually Tim that organises that sort of thing (recruitment).

Dusty

... Tim ... has to try and manage the books.

James
Tim's role also includes maintenance and process improvement. Tim believes the differences in the skills and roles of himself and Virginia are important for a successful and consultative partnership. They work independently of each other, but also consult closely on business matters.

**Workplace culture**

The employees are friendly, cooperative, positive, energetic and eager to learn. As James says, 'It's a very communal workplace'. Employees all appear to get on very well with each other and with Tim and Virginia. 'We hardly ever have arguments ... everyone knows each other well, like beforehand ... in Colac' (Sally).

The employees socialise together outside work hours. Tim and Virginia usually have a social drink with employees on Fridays, but do not generally socialise with them out of work. Tim and Virginia both have family commitments and, being older than their employees, do not have the same interests. There is clearly enjoyment in each other's company which leads to:

> The work environment (being) very good ... we'll be looking to help one another out if need be ... It's very small, it's quite intimate ... It goes beyond just a workplace thing, it's very much like you're helping out a mate or friend.

_Sam_

Several of the employees described the company as being more like a family than a workplace: 'It's certainly a 'feelable' type of atmosphere. You can sense it' (Sam). The picture painted by employees is of a very harmonious workplace, with rarely any 'major (interpersonal) hassles ... ' (Anthony). There appears to be some frustration with chaotic finishes to the day at kiln loading time and a lack of preparation for this, but it is not seen as a big enough problem to make waves about or to risk jeopardising relationships:

> Every now and then people get a bit gripey.

_Anthony_

> ... everyone will annoy you on occasions ... you get really sort of annoyed with them ... Generally speaking we are very in tune with each other's feelings ... We're really quite intimate as a group, as a group of employers together, employees together.

_Sam_

Work takes place within an apparently endless conversation about the work itself and about the employees' personal lives. Conversations may, for example, take place at morning tea when everyone sits around the large table in the kitchen area 'discussing things'. What's going on in the business is merged with what's happening in their own personal lives. Reflection is unstructured and without any
clear separation of work and personal life. Karen describes the personal conversation as 'just like a therapy session'.

We usually talk about what we've done the night before or what we did on the weekend or what's happening at home with everyone ... what we've watched on telly the night before ... we tell each other nearly everything ...

*Sally*

Because the decorating work can be 'pretty monotonous at times' (Karen), the talking is important. Those on the decorating line used to listen to 3LO on the radio and talk about topical issues, but do so no longer because the music played upstairs is too loud. Karen seems to regret this. They now talk more about their own lives and experiences. This conversation about personal lives is not restricted to the female employees on the decorating line. It is also the trend among the male employees upstairs and Dusty, in particular, has a reputation for engaging in extensive discussions on any matter. Work talk consists of discussing the orders and how they are to be completed on time or talking about a new design or focusing on a particular task or problem.

Much of the learning at The Big Duck & Fish Company appears to take place through demonstration, talking and listening, suggesting that this is the preferred learning mode within the company. False assumptions are rarely made because everyone talks openly about tasks, processes and themselves (Watkins & Marsick 1993, p. 77).

**Leadership**

Tim and Virginia are seen very much as business partners and as the 'bosses' by their staff:

... they have the final say, of course. It was still Tim and Virginia's decision to actually shift ... They obviously know their figures better than what we did. We don't go through the books and see how we stand financially.

*James*

Tim and Virginia have clear expectations of the staff, but Tim had not articulated them until the interview. The expectations are based on the 'country work ethic'. Tim would not expect an employee to 'walk around with their hands in their pockets' or 'stop and have a cigarette in the middle of the day' or stop work ten minutes early or arrive late. He also expects them to be able to work on their own, without having to check with him or Virginia as to what they should be doing.
Tim talks about how he keeps a certain distance from staff even though they are very close. Occasionally he will need to ‘step away from them’ and bring them back into focus. He argues that it’s still a boss–worker relationship, but not a traditional one:

... There needs to be a certain distance, otherwise you could fall into the trap of not keeping your eye on the ball and allowing your relationship with workers to cloud your judgement.

Tim

He emphasises that the employees are not risking what he and Virginia are risking (mortgaged homes), and that if the business collapsed the staff could ‘walk away and get another job’, while he and Virginia would be bankrupt, ‘and I like them to be aware of that and they are’.

Both Tim and Virginia talked in the interviews about how they can ‘jump up and down and bark a bit’ (Tim) or ‘lose it ... every so often’ (Virginia), but that this does not happen often and they usually apologise for it and explain their behaviour. The employees also accept that this will happen from time to time. Indeed, a few described how emotions can become frayed and everyone can irritate each other from time to time. The seriousness of work is balanced with ‘a bit of play’ (Tim) that can come from Tim and Virginia as much as from the employees themselves.

Even though Tim and Virginia are recognised as the business managers and the bosses, they are equally regarded as friends and confidants. The most common way that Tim, Virginia and the staff describe the relationship is that it’s like a family.

Karen describes Virginia as ‘a bit like my mother ... a good one for advice ... she has always been there’. Virginia admits to being ‘a bit like a mother’ with her staff. She is obviously very fond of them and became rather emotional in the interview when asked how she felt about them:

I feel close to all of them. I feel responsible for them ... I like to think that I treat them the way I’d like to be treated myself.

Virginia

Dusty says:

I don’t even feel like they’re my bosses half the time. They’re more like workmates ... they tell me what to do every now and then, but still I could talk to them about anything.

Dusty

Tim and Virginia ‘operate as ... your best friends, help you out if you’ve got any hassles even (at) home’ (Anthony).
The employees appear to have clearly and happily accepted Tim and Virginia’s authority in the business. In this sense Big Duck & Fish is not a self-managed team where employees are empowered to take control (Watkins & Marsick 1993, p. 215). Employees do however have the ‘ability to influence the circumstances under which (they) live and have a genuine sense of responsibility for their action’ (Senge 1992, p. 287).

The leadership style is best captured in terms of a family with Tim and Virginia standing in as parents. The family metaphor is often used by both Tim and Virginia and employees to describe relationships. It is as if Tim and Virginia have modelled their leadership style on their understanding of ‘good’ parents: affectionate but keeping a certain distance, supportive, disciplining when appropriate, encouraging independence in their young employees – within an encompassing ‘country’ work ethic and pragmatic business values.

Vision and values

The employees and the owner-managers of The Big Duck & Fish Company share a vision, even though it is not proclaimed in a written statement on a wall. There is a clear and common understanding of the purpose of the company, of the business goals and future plans (Senge 1994, p. 206).

For Anthony, sharing the vision and goal setting is linked directly to his commitment to the company:

I’m pretty happy growing with the place ... seeing the processes from then to now ... you can actually see direction happening ... We discuss a lot of the direction of the business with Tim and Virg, like we all sit around and talk about ... what we should tackle next, should we take this on, even like what shops we should supply ... So, for myself, I’d like to stick around for a while. I quite enjoy it. It’s a great place to work.

Anthony

It is the business vision that provides the focus for learning. What Tim, Virginia and their staff learn is driven by the company’s core purpose: to manufacture distinctive, high quality ceramic ware and to ‘grow’ the business.

All employees have a thorough knowledge of the manufacturing process, each of the jobs within the process, and the current state of the business – although not the financial details. They are all aware of plans for the future because everything is talked about openly.

Tim uses the term ‘natural growth’ in explaining the directions the company will take and maintains: ‘The future often sets itself more than us setting it. We set it, but it also drives the direction we take’.
Future directions include the following. The first four are definite plans for which employees have a very clear understanding, while the others are still only under consideration by Tim and Virginia:

- ‘Nurturing’ (Tim) the hospitality and catering sector clients
- Not relying as much on wholesaling to retailers
- Controlling the retailing side of the business for themselves through the shop downstairs
- Setting up their own café or restaurant where Big Duck & Fish products can be used
- Using the Big Duck & Fish concept elsewhere through franchising, perhaps, but in the Country Road style where some control can be maintained
- Placing products interstate
- Venturing into export
- Separating manufacturing from retailing, perhaps by moving manufacturing to an industrial estate.

**Learning**

Learning at the company takes place collectively through verbal instruction, trial and error, observation, peer support and constructive feedback, practice, learning from mistakes, problem-solving and process improvement. Employees are also committed individually to improving their own skills. Learning is intrinsic to work and occurs socially. People in The Big Duck & Fish Company learn as they work together to grow the company. ‘Individuals help other individuals learn. (The) group learns in an almost randomly interactive fashion’ (Watkins & Marsick 1993, p. 9) as well as through more structured learning, but the learning is always firmly situated in the work.

**Developing employees’ skills and knowledge**

From their own accounts, the skills that employees have acquired since working at the company have been specific technical skills associated with ceramics, such as throwing, glazing and decorating, and personal skills and attributes such as increased self-confidence, improved communication skills and an understanding of business. Sam says that ‘personally’ he has ‘become (a) more rounded person’.

There is no formally structured induction or training program within the company. Employees learn their skills from Virginia and Tim, chiefly Virginia. It is interesting to note that even though she teaches her employees and has taught in educational institutions, Virginia made it quite clear that she does not regard herself as a teacher. She considers her teaching role as simply normal business practice.
Employees learn on the job with demonstration and explanation by Virginia or Tim, practise under supervision and then work on their own, with help from peers and from Tim and Virginia as required. Sally described this process to the interviewer/researcher:

Q. So your decorating, how did you learn that skill?

S. Virginia taught me.

Q. How did she do that?

S. She went through all the steps like the rubbering up and then she went through the ...

Q. By ‘went through’, what did she actually do?

S. She told me and showed me at the same time.

Q. And then what happened? So, she told you and showed you?

S. Yeah, and then she said ‘Alright now you can have a go of it’ and then she let me have a go and then she told me everything I was doing right and everything I was doing wrong.

Q. So how long did it take you to be able to work on your own?

S. About two weeks or so, but you know you still have problems with the colours because they’re so different from what they turn out to be and you don’t know which colour’s which.

Q. And what do you do when you have problems with the colours?

S. I usually just ask Virginia or Kaz.

Karen emphasised how important it was to be told of the purpose of processes:

Tim and Virginia, they taught me how to do everything, and everything had (a) purpose so that was the way they taught. There was a reason for doing everything ... and if you understood that, then you were on your way to doing it properly, exactly the way they wanted it to be ... They would show me how to do it and they’d explain why we did it that way and then you would just follow by example. That’s the way we were
taught. And if we could suggest anything and questioned anything, they would usually have a reason for why we did it.

Karen

It would appear then that Tim and Virginia have methods and standards which, even though not documented, are clearly conveyed to employees. Virginia explains that results drive their methods:

We dry a plate this way because it won’t break ... we fire a plate way x because we get firsts ... we decorate this way because it’s quick and it’s not tedious for the person involved.

Virginia

These methods are often not the methods she learned in her ceramics degree. Indeed, she talks of having to ‘unlearn’ a former employee, a ceramics graduate who was ‘the hardest person to teach’.

An employee may not receive instruction or demonstration before starting to work. James, for example, was ‘thrown in the deep end’, working ‘hands on’ on his first day of employment, for him ‘a very good way to learn’. He was allowed to make mistakes and to learn from them. He describes Virginia and Tim as ‘good people’ who understood the position they had put him in. James came to the job with the attitude that it is ‘always better to ask a stupid question’ than ‘make a stupid mistake’. His previous work experience had taught him this. It had also provided him with the ability to work in a team and to learn the processes that a team uses to get a job done:

... you can just observe the way they (the team) work, the way they do things ... understand how they use a method to get a job completed ...
That’s the sort of thing I learnt before I came here, but all my clay working experience was done ... here.

James

For James, learning how to work with clay was based on both the experience of handling and working with the clay and asking questions of Virginia about why the clay reacted in certain ways. She would then provide the theoretical component, describing, for example, the properties of particular types of clay.

Individuals develop their own technique for working with clay and, in working with the clay and in consultation with Virginia, they develop an understanding of its properties. It is literally a ‘hands on’ process using predominantly the senses of touch and sight. There is no prescribed technique, but there are guidelines from Virginia and assistance from other employees. Each person has to use trial and error, experiencing mistakes such as breakages before they ‘get to know the weight and the feel of the clay ... You get to know your clay and your work’ (Anthony). Those employees that work with clay are fascinated by its properties
and the way in which clay behaves under different circumstances. They talk about ‘their’ clay and their personal experience of it at length, in great detail and with animation.

Virginia regards the staff as good learners because they ‘can see the big picture – the production process and ... the goals for our business’. It is not possible to say that the employees articulate a systemic world view that sees everything as part of the whole – what Senge calls systems thinking – but that is how they work: individuals within a group finding meaning, and individual activities being made purposeful by understanding the whole business.

Anthony talks about how he also learns through his interaction with the company’s glaze supplier. Because of a serious problem with the glaze, he had to talk to the manufacturer:

Communicating with her ... helps you learn more and more things about the glaze ... and she’s learning from me about the ... way I’m glazing ... so there’s a bit of double handed happening. It’s the learning process.

Anthony

Kinaesthetic experience

Most of the employees express pleasure in the direct sensory experience of the materials that they work with, in being able to manipulate the clay or create a new colour.

I get the feeling when making a good plate ... when I’m on the run ... things are coming off the fingers well and I’m ... getting the right consistency of water and things. And I’m not having to think about it too much ... And then you look at your watch and an hour and a half’s passed and ... you’ve completed two runs ... and then you just get this feeling that you are doing quite well.

Sam

This can be described in Howard Gardner’s terms as ‘kinaesthetic intelligence’; or as ‘thinking by seeing, touching, and moving materials, by externalising mental processes in a physical object’ (Campbell et al. 1992, p. 9).

Formal training and qualifications

Dusty was the one employee who experienced some formal training in ceramics. He was sent to a friend of Virginia’s at the Meat Market Craft Centre in North Melbourne, a craft production centre of excellence with studio, workshops and display areas for ceramics and other crafts, to learn how to throw clay, something he had always wanted to do. When the previous thrower left the company,
Virginia and Tim offered him the opportunity to learn. Dusty says: ‘I’ve been throwing ever since on the wheel which is excellent’.

Anthony compares learning at The Big Duck & Fish Company with his experience as an apprentice electrician. ‘Here was a lot easier ... more positive.’ His previous boss was unfriendly and ‘made learning difficult’. Because of his boss’s character, Anthony was ‘put off’ the trade; he did not want to be like his boss. At his former job he was ‘a nobody’. By contrast at The Big Duck & Fish Company, ‘you contribute, your opinion is respected ... we all work together’. At trade school he felt that he did not learn a lot that was relevant to his work, that he learnt a lot about industrial motors without ever touching one: ‘It’s all theory and I could walk out on my own, go to a motor and not know what to do’.

Sam is the only employee with qualifications in ceramics, a Bachelor of Education (Visual Arts) with a major in ceramics. He regards working at Big Duck & Fish as obtaining good experience in clay until he gets a teaching job. He does not call on knowledge of ceramics from his degree for the work he is doing, except for some technical processes and firing:

I don’t make any decisions that have any real weight in terms of heavy draw on my ceramic knowledge, so basically (my education in ceramics) is of no consequence at all with regard to this job ... it’s good experience in working in clay and I enjoy working with clay and when I do start teaching ... I’ll probably be more qualified to ... in ceramics especially.

Sam

Sam guesses that there may be some things which he learnt more quickly than he otherwise would have. Some of the work does not require any training at all: ‘you could come off the street and do (some) of what I’m doing’. For others he received instruction from Tim and Virginia, and assistance from other employees who ‘helped (me) through the processes that were new to me’. Observing others, particularly Anthony while they made plates together, was also a key learning method: ‘There was an incredible amount of scope for me to just literally stand there and watch him do it ... and learn a lot’. Sam did not make his first plate until the end of his second month, and then it was relatively easy because of his close observation.

Tim started the business with no knowledge of ceramics. Virginia taught him. He is not keen to use colleges or universities because he believes they are not as up-to-date in new technologies as the industry is itself. He prefers to learn through networking with other companies in the industry, learning processes from them and gaining access to machinery and equipment for trialing. He says: ‘Some of the things we’re doing now are new for this country. Colleges would not be teaching it because it’s too new’.
Feedback

Positive feedback from Tim and Virginia is an integral and regular part of work. It’s usually, ‘Good on you guys, you’ve done a great job’ (Sally). When Sally and Karen have done the decorating themselves, Virginia will praise their work as it comes out of the kiln. Then, Sally says, ‘we know that we’ve done something right’. The feedback is specific and encourages employees to work independently. Sally quotes Virginia as saying, ‘Good guys, that’s great that you can do something without me actually being there … and you’ve thought about it properly …’.

An interesting comment from Dusty is that he gets positive feedback from the ‘bosses’ when he has done an exceptional job, because ‘you do a good job everyday, you hope …’.

There is feedback from customers. ‘People just come in (to the shop) and say this is fantastic’ (Anthony).

Employees also talked about knowing for themselves when they did a good job. The measures are concrete; they can be seen and touched. Sally describes that she feels ‘really good’ when ‘a whole load of plates comes out as firsts and when you actually see the orders being packed into big boxes and sent out to someone’. Anthony talks about the pleasure of ‘opening the kiln door and looking and seeing that everything’s worked, it’s fine’. Dusty says:

You see results … Like with (throwing pots) I saw immediate results … that first pot sits there next to you on the wheel and by the end of the day when you’ve thrown fifty pots you look at the first pot, you look at the end pot. You decide which is best … that’s the way I can tell if I’ve learned, seeing the improvements that I have made throughout just a day of making pots.

Like the others, Anthony talks about the satisfaction of making things: ‘I just look down in the shop and say, Yes, it looks good’.

Problem-solving and process improvement

Employees learn through working with others, including Tim and Virginia, to solve problems and improve processes. This is sometimes done through improvisation and experimentation. Anthony tells the story of how they solved the problem of pieces not drying in the new, cooler premises in North Fitzroy. In working out how to get the pieces dry they discovered that:
... with the drying process a lot of press stuff ... doesn’t like heat; it actually likes air and the air passing over the clay excites the ... molecules in the clay and they just get excited, and then just evaporate ... The air passing over is better than having heat because heat goes into the clay and then we have splitting ...

*Anthony*

So working with Tim and the equipment they had on the premises, through trial and error they improved the process. Tim talks about how they ‘toy’ with an idea.

Between us we can generally fabricate or at least scrounge the equipment that we need or modify it to make it do what we want to do.

*Tim*

He talks about how ignorance can be an advantage:

... you are willing to try things because you think they might work ... and every now and then it does work and the method is not what others use because they were taught a different way.

*Tim*

Making mistakes is part of the learning process. Mistakes are treated in a ‘humorous sort of fashion’ (Dusty) and openly. Given the fragile nature of the product, accidents with the product are expected to occur. Mistakes that are passed on to one employee by another employee are sorted out face-to-face. Sam talks about how he was embarrassed about making ‘some medium recs’ (rectangular plates):

(It’s) ... difficult ... to get them to hold their shape ... But Virg ... just managed to turn it around into ... a bit of a joke ... not a problem ... So at no stage did I ever feel really self-conscious or really embarrassed ... It was ... fine to make mistakes like that at the start.

*Sam*

Sam talked later in the interview about how at the beginning he was self-conscious of being really slow in contrast to someone like Anthony, but insists that any pressure came from himself, not from Tim or Virginia.

Employees also do not hesitate to point out each other’s mistakes or discuss problems they are having with another’s work.
If I have a problem with somebody here I generally tell them and it seems to work ... no-one is precious around here, so you don’t feel that (you) have to tip toe around everybody ... It’s generally brought out into the open ... without making a big deal of it.

*Karen*

Virginia likes to see the staff taking what she has taught them further and adding to the process by suggesting different ways of doing things. She says that ‘we work like this all the time ... it’s the way we solve problems’.

**Learning together**

It is clear that Tim, Virginia and the employees learn through pooling their knowledge and skills, being open to suggestions, working things out together, seeking all opinions and ideas, experiencing problems together. As a company they are ‘learning together’ (Anthony).

"... it was all very new, but a lot of it was basic common sense and (for) a lot of the processes ... it was a learning experience for (Tim and Virginia) as well ... They were open to suggestions. You sit down as a group and try and work something out ... Virg had the background in ceramics and Tim didn’t and all the rest of us hadn’t and it was like trying to get the different sections together of what people knew and get it together and try and work it out. A lot of Tim’s farming knowledge came in handy, with the hydraulics and the welding ... Everyone here has got ideas about what’s happened ... so it’s good to get everyone’s opinions on how to do a process and it works. And I mean, we’ve stumbled through, had a few hiccups and things like that, but it’s all learning, and it’s good that we all learn together.

*Anthony*

The result of this improvisation and trial and error is that the company does not always do things ‘by the book’. Sometimes this has resulted in better processes than if they had stuck to what Anthony calls ‘old golden rules’. Anthony reinforces what Tim says about ignorance: ‘(It) has taught us some handy lessons – just practical lessons on how to work efficiently’.

**Self-improvement**

Employees are motivated to learn and to improve their own skills and the overall manufacturing process. As Karen says:

We are always looking for better ways of processing things, or a faster way, a more efficient way, and because we’re so busy at work here we don’t have time to buggerise around so we find
out the most efficient way of doing things. So there is always room for new ideas.

Dusty is motivated to improve his own skills:

They give me a challenge. Can you throw something this tall or this wide? So all right. Get three or four kilos out, throw it on the wheel and see what happens, you know. Test myself. Find out what I've learned ... I quite often do that ... If I can do something well, that's all well and good, but you can always do it better. I can throw a little bit higher and a little bit bloody thinner walls, or whatever ... You can always test ... always testing myself.

Continuous improvement of processes and product, although not acknowledged by that term, is an integral part of the company's ethos which influences individual employees within the group, work practices and group learning activities.

Conclusion

The Big Duck & Fish Company is clearly engaged in organisational learning. Learning is:

- intrinsic
- embedded in the work practices
- based in the interpersonal relationships
- driven by business goals.

There is no sense of learning as separate from any other elements of the company. Because of the small size of the company, the group dynamics allow learning to be enmeshed with relationships, values, attitudes, the product, the processes, the physical work environment, problem-solving, planning, the past and the future.

Development of skills takes place within an environment where:

- employees are allowed to make mistakes (mistakes are opportunities to learn)
- there is trust between employees and employers
- there are known reasons for processes
- questions receive considered answers
- employees help each other and correct each other's work
- there is open communication and commitment to the business and the work.
Within this small, self-contained enterprise, skills are developed outside formal education and training structures and systems. Theoretical knowledge arises out of work practice and problem-solving. Employees are trained by the owner-managers, by colleagues, by other employees or simply through experience. Formal education programs in ceramics are regarded generally by the staff as irrelevant for the company or, in some cases, with mild cynicism or disdain.

With its shared vision and values, participative work practices and collaborative decision making and team learning, The Big Duck & Fish Company is clearly a Learning Organisation. The test for the company will come with its future growth. Will it be able to maintain the family intimacy developed in the last eight years? Both Virginia and Tim acknowledge that increased mechanisation may pose a threat in this respect. To what extent will today's transformational learning have more structure and formality in future?
5.

Nicholas Dattner & Company

Setting

Nicholas Dattner & Company, a manufacturer and retailer of solid timber furniture, is located in the shell of a Victorian era building — the former Lyric Theatre, in the inner Melbourne suburb of Fitzroy. The work area is 24,000 square feet, divided between workshop, storage, showroom and offices.

Throughout the showroom a range of oiled, waxed and polished solid timber tables, chairs and other furniture is displayed. On the tables are plates or decorative items seemingly chosen for their affinity with the furniture, or for their innate appeal. Framed letters from customers hang on the walls alongside original paintings and cartoon drawings. The ceiling of the showroom is of striking pressed metal. A pervading sense of space, elegant spareness and idiosyncratic style extends from the showroom into the workshop areas.

The workshop areas are large and orderly. The cabinet makers and hand-finishers concentrating on the task at hand give an impression not of a factory but of a craft workshop. Tonnes of timber — messmate, redgum, spotted gum — are stacked in a wide storage and loading bay area that runs the length of the building.

Staff

Nicholas Dattner & Company, founded in August 1983 with Nicholas Dattner (Nick), Keren Dattner (then married to Nick) and three others, now has twenty full-time staff ranging in age from sixteen years to the mid-fifties. In addition to Nick and Keren, the company directors, there are:

- five cabinet makers with one apprentice
- one qualified polisher with four apprentices
- a stock controller
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- three sales staff
- two part-time cleaners
- an administrator.

Four of the cabinet makers, the polisher and the administrator have been with the company for between seven and ten years. Three apprentices (two in polishing and the one cabinet-making apprentice) are in their second year and two are in their first year. Three of the long-term qualified tradespeople began their apprenticeships with the company and have stayed. Seven of the company members are women: one director, the administrator, one salesperson, three polishing apprentices and the cleaner.

Those interviewed for this case study were:
- Danielle Clemson, Apprentice finisher
- Nicholas Dattner, Owner-director
- Lesley Ellis, Administrator
- Tristan Forrest, Salesperson
- Simon Kerr, Cabinet maker
- Mark Rees, Cabinet maker
- Greg Smythe, Cabinet maker
- Frank Trimboli, Finisher

Staff refer to Keren Dattner by her nickname, ‘Chunky’.

Background to the company

The company was founded in 1983 to produce refectory tables which looked 300 years old: ‘The desire was to create a style of furniture that was in keeping with something that was genuinely old’ (Nick).

The company has always been located in Fitzroy but the workshop and showroom operated at separate sites for seven years. Two years ago they moved back together into a large property in Johnson Street, Fitzroy.

Moving the whole thing under one roof was a big change and people were very fearful. They thought the workshop would lose its autonomy, its characteristic personality, but it didn’t happen. It was a change without a change really.

Greg

Staff of the company see definite benefits in having the showroom and workshop at the same location, believing that communication is easier and issues can be dealt with quickly and efficiently.
As with The Big Duck & Fish Company, all staff were involved in selecting the new property, although Keren Dattner did most of the initial searching. Keren invited all the company members to look at the old theatre to assess its suitability:

We were all asked to look and see if it (the proposed building) could suit our needs. Would it work? Chunky said, ‘If there are any problems with this it’s not me who’ll have to deal with it, it’s you guys’. She needed to know; she was genuine about the involvement. Everyone agreed. The ultimate decision was an easy one to make. There was only one building that would work, everyone agreed.

Greg

The layout and design of the workshop space was decided by the staff:

Staff were given a lot of scope and left to set up the workshop how they wanted. We were relied on completely to decide the layout of machines and to choose where benches went. The benches are not set up one in each corner, but organised in an appropriate manner around the flow of work, but no-one is where they hate to be. There is never enough space in a workshop. The space here is generous compared to most places and everyone gave their two bob’s worth.

Greg

Such involvement of staff in core business decisions indicates that management expects staff to have opinions on issues that affect their work roles and practices and that management and staff believe that those doing the job best know how to enhance their work.

Product

The company produces and markets all its own products: tables, chairs, sideboards, beds, coffee tables, dressers, desks. Recently the product range has been extended to include domestic kitchens, office, restaurant and hotel fit-outs. Pieces are made from internal design or to customer specifications.

Company products are made entirely from Australian native hardwood, much of which is sourced from wreckers’ materials and old trees. The state of the timber is crucial to the quality of the finished product. The stores department holds thirty tonnes of timber at any one time.

Turnover

Although initial capital investment in 1983 was $25,000, by 1992 the company’s stock, plant and equipment was valued at over $400,000, and has remained stable since then.
Sales have grown even through the recession years from $375,000 (1984) to $1.3 million (1989) to $1.8 million (1992) to $2 million (1995). The January 1996 sale turned over more than $500,000 in less than three weeks.

Customers
Dattners produces mainly for domestic customers described by Dattners as ‘truck drivers, brain surgeons, engineers and builders’. Various types of customers prefer different styles of finish from the rustic to the highly polished. The company has investigated supplying department stores interested in stocking their product range but prefers to sell direct to their customers.

Employment practices

Selection and induction
Permanent full-time positions with the company are offered only if Nick and Keren Dattner believe the position is sustainable. Because the company has a policy of not retrenching people (though people have been sacked on occasions) selection for permanent positions is conducted carefully with all staff in the relevant section of the company involved to some extent.

Positions are usually referred to the Commonwealth Employment Service and to community-based employment initiatives but are rarely filled successfully through these channels. The methods of recruitment vary. Lesley, the administrator, and Tristan, a salesperson, both responded to advertised vacancies and were formally interviewed.

People often approach the company directly for work. Greg, an apprentice when he first met Nick restoring antiques in Hurstbridge, approached Nick for a job when he completed his apprenticeship. He has been with the company for eight years. Simon, a qualified cabinet maker who has been with the company for ten years, began an apprenticeship with the company shortly after he left school. Danielle, a second-year apprentice, began work with the company after a school work-experience placement.

When help is needed but long-term need uncertain, short-term casual contracts have been mutually agreed. At times, short-term contracts have been perceived by some employees as having a negative effect on the stability of the group. Nick explained that the finishing department suffered from this sort of instability prior to the decision that everyone should be trade qualified:

The finishers didn’t have that (trade qualification) and it left them in a somewhat undignified position because often they
were just ‘would be if they could be’s’ or anyone who struck me that they were willing to give it a try or half the time anyone who said they’d do it anyway.

Nick

The company now requires all cabinet makers and polishers to have, or be working towards, formal qualifications. Nick does, however, have a commitment to shaking things up every now and again. He says it is vital to invite bright new talent and ideas into the company as an insurance policy against stagnation:

We need to have the courage to shuffle the deck chairs. We need the raw naive energy generated by the new young staff.

Nick

Friends or relatives of people working with the company have come in to help as casuals in busy periods and have decided to stay. Lesley’s daughter came in to lend a hand during the school holidays and is now one of the polishing apprentices.

There is a stated commitment to supporting each employee in what they want to do, and even in some cases almost forcing them out of the company to pursue other opportunities.

I believe that if people are going to grow then they may need to go away from the company. People grow if they can explore, expand, experience. I have a philosophy of easing people out of the organisation when it’s time for them.

Nick

Fitting in

Like the Big Duck & Fish, Dattners exerts a certain implicit pressure to ‘fit in’. While employees of the company are well looked after, even nurtured in many cases, those who are perceived unable to ‘cut it’ are moved on. A line is drawn between supporting people to reach their full potential and easing people out of the company when they don’t ‘fit in’. Simon and Frank explain how people fit in and what it is that they are expected to fit in to. Each focuses on the way that people are expected to relate to each other:

The most important thing for people to fit in here is communication with your workmates. If you can’t communicate with your workmates, there’s trouble. If you get on their nerves and you can’t do anything to rectify that, it’s probably best to go and find another job.

Simon
Time makes people fit in. That’s why we’re moving to apprenticeships, so that we can teach them our way. If they’re not right they end up leaving.

*Frank*

It was observed that the company style, often referred to as the ‘waveline’ worked to create homogeneity rather than diversity among the staff:

The Nicholas Dattner & Company waveline – it’s their way of thinking. Everyone is on it and we think like them. It’s easygoing but not doing whatever you want. It’s friendship thinking, like family. We encourage our co-workers to feel that way.

*Frank*

If people leave it is regarded as a recognition of a clash of philosophy or a lack of commitment to company goals and the workplace culture:

Only two or three have been dismissed, most go by mutual agreement. They get told ‘This is not the kind of place you want to work’, ‘This is not what you thought it was’, ‘Not what you really want to be doing with your life’, ‘(it would be) best for both (you and the company) if you go’. This is usually done by Nick or Chunky or by various of us who have had that level of responsibility.

*Greg*

Simon also spoke about people leaving in the context of shoddy workmanship and a lack of concern about quality:

Nick doesn’t sack people but if they’re no good you can usually tell after a while. They might get a talking to or something like that or they are asked to leave in a nice sort of way.

*Simon*

If someone is not pulling their weight, not contributing, not working to company quality standards, they will be told. The issues will be discussed and suggestions made for resolving the problems. If the person does not comply, does not enter into this dialogue, does not demonstrate a commitment to trying to work through the issues with support, then the outcome may be resignation.

**Employment arrangements**

The above-award salary structure is related to age, time served and skill level, with the provision of bonuses. Several of the long-term workshop staff are on an annual salary of $35,000, 55 per cent above the award adult wage ($22,500) for a qualified and experienced cabinet maker. Working conditions include a rostered day off every three weeks and purchase of company products at cost.
The company uses very few external services apart from occasionally contracting consultant trainers. Marketing and advertising material is largely produced in-house. The humorous advertisements usually involve several company members.

The workshop hours are 7.30 am to 4.00 pm, but staff have flexibility. The showroom is open from Tuesday to Sunday, from 10 am to 5 pm.

Team approach

Work roles

Although team structures are informal, they can be understood as natural work groups. Teams are therefore based around work functions and workshop space. The workshop is divided into the store and cabinet-making section and the finishing department. The finishing department has a sanding room and a separate oiling, polishing and drying area.

Nick and Keren are the management team and participate in all other teams as well. They are busy and involved as Frank describes:

Nick is always talking to someone, customers. Even when he’s in his office he’s always on the phone, he’s always talking to someone.

Frank

Lesley, the administrator, describes herself as having an independent and autonomous job role. She confirms with customers that sales have taken place, organises deliveries, banking, administering the company payroll, deals with creditors and secures to other administrative tasks. There is no formal monitoring of her work or performance appraisal. Lesley interacts with all the teams.

I am involved in every part of the business and have contact, by phone, with all the customers. I discreetly organise for charges to be paid and document the customer background as part of developing the relationship with the customer.

Lesley

The cabinet makers operate as a team, organising their work around production and machinery needs. Mark coordinates four cabinet makers and an apprentice. He issues new work to the cabinet makers after receiving designs from Keren. Mark takes staff preferences into account in his flexible allocation of work.

Greg, a member of the cabinet-making team, describes his day as varying from ‘mayhem’ to full concentration on one piece of furniture for a whole day. He is
involved in maintenance, product queries and steel fabrication. He spends time with the apprentice. He discusses his work flow and production with Nick or Keren. He has recently acted as consultant to the sales staff. Greg’s work involves experimenting with ways of employing top-quality fine joinery techniques in ways which improve production time.

Frank is in charge of the finishing department, overseeing sanding, staining and polishing of the timber, organising daily work schedules for four apprentices and doing a significant amount of polishing himself. Danielle, a second-year apprentice, instructs part-timers and new apprentices: ‘I show them how to sand, stain and oil’.

In the showroom, Tristan is part of a sales team of three, who receive joint commissions. They have a weekly meeting to discuss specific problems such as difficult customers or problems in production, and general topics such as marketing, product range and stock. Tristan’s work extends beyond sales to drawing and furniture design functions. At his own request and with the encouragement of Nick, Tristan also took on a design role. Despite his lack of formal training in furniture design, his ideas and technical aptitude are being put to the test in production.

Beyond their work teams, employees possess a strong organisational identity, consulting each other within and between teams and organising themselves individually and in work groups. Within the constraints of work processes and production needs, people ‘relax, take it easy and wander around’. There is a constant movement of people from storeroom to workshop to finishing room to showroom and back again. ‘You can chat to anyone, anytime. Have a smoke or a coffee whenever. More often than not it’s about work things’ (Mark).

**Relationships**

The notion that conflict is productive and that ‘one of the most reliable indicators of a team that is continually learning is the visible conflict of ideas’ (Senge 1990) is consistent with the ethos of Nicholas Dattner & Company. Openness and honesty about thoughts and feelings are expected. Nick expects that people will tell him what they think, and welcomes it.

I make sure that people understand that they have the freedom to talk always, about anything in any way. If I am upset, offended or hurt by anyone I need to know what it is in me that is upset. We talk about those philosophies. People in this company are encouraged to say the worst about anyone openly to whomever and whenever they like, but they are not forced to.

Nick

Nick is articulate, forthright and highly expressive. Interviewees commented time and again on his capacity to talk. They valued the open dialogue espoused by
Nick, saying that they could talk to Nick and Keren about anything including their personal problems.

If I had a personal problem I would talk to Frank or Nick or Chunky. Nobody would mind you taking work time if you had something really going on (very serious) and it was affecting your work. They would think ‘You may as well get it out’.

Simon

The company is not just a job to staff. They feel like the company’s their own. There is caring for one another. Nick and Keren care about staff, they believe that each person deserves looking after. Having your heart in your work and knowing that Nick and Keren care is important.

Frank

The link made between personal well-being and a productive workplace is an overt one. The concern to understand other people and contribute to their growth and development is akin to friendship, community or family.

As the company has grown, Nick and Chunky have allowed everyone more freedom and support in being responsible for their own actions; this has been a good initiative to develop everyone’s confidence and self-esteem. Nick and Chunky have both grown as people and their personal growth has encouraged others’ growth.

Lesley

Mark agrees, observing that this has happened as a result of ‘a recognition of having a group of people they can trust’. People who have been with the company for a long time view Nick and Keren as friends:

The company is different because Nick and Chunky, basically, they are not my bosses, they are my friends. They will tell you if you have done something wrong, they will point it out to you, but it’s a more friendly kind of atmosphere, everyone gets on fairly well. (It was created) by the way they treat us.

Simon

The importance of supportive relationships is also evident in work processes where experimentation and development of personal style are encouraged and mistakes accepted as a valuable part of the learning process. Frank points out that the sanders, usually first-year apprentices, point out cabinet-making mistakes. When asked whether the apprentices felt nervous about pointing out errors to qualified and highly experienced cabinet makers, Frank said: ‘No, because the apprentices are not looked down on. Everyone gets treated the same’. Danielle, the
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young polishing apprentice, states that she is comfortable about saying what she feels in work group and company meetings.

Workplace culture

Some customers and colleagues remarked to staff that the atmosphere of friendship at Nicholas Dattner & Company must have something to do with the fact that they work with ‘such wonderful material and make beautiful furniture’. Nick rejects this idea:

It has nothing to do with the type of work and the materials we work with; there are plenty of bastards working with wood. A core value is the profound and absolute right to enjoy nothing but the total support and affection of our fellow human beings.

Nick

Asked to describe the defining features of the workplace culture, interviewees emphasised a culture of questioning, giving opinions, open and dynamic interaction on personal and work issues – a culture that promotes loyalty, commitment, personal and company responsibility.

It’s part of the culture and people grow into it. It’s interesting watching new people in their first week looking around for the boss, wondering how it all works. It’s interesting to see them come out of themselves a bit and start to put in their two bob’s worth and see that it’s genuinely appreciated.

Greg

Everyone has an equal right to speak and an equal hearing, even the apprentices. Even in this day and age it is still a rarity. Apprentices are still expected to be seen and not heard. I was excluded from production meetings at the place where I was trained … where I was doing my apprenticeship the only time I saw the big boss was when I did something wrong. Nick says you’re cutting off your nose to spite your face by excluding the apprentices.

Greg

Being an apprentice, they treat you the same. They play pranks on the other apprentices. There’s a lot of humour. You don’t hear people whingeing.

Danielle

Frank describes a crisis during which everyone worked very hard to recover from a major disaster:
About five years ago there was a fire in the workshop. A lot of the timber stock was lost and it was a shock to see our work destroyed ... it brought everyone closer together with the aim to get the company back on its feet. People pulled together, worked extra hours without overtime, willing to do it. There was a real consolidation over a six month period.

Frank

A different angle on 'pulling together' is described by Greg when he explains how anyone demanding priority will be told to just work in with the whole group, that everyone’s work is important:

If an individual sees their job as more important than others, then it sometimes creates very real and very negative tension. The whole will lean on the offending part; they might ostracise them so that they don’t affect the rest of the system, or lean on them so they pull their head in as it were.

Greg

How a group decides who is an 'offender' relates to the earlier discussion of conforming to the company ethos or 'fitting in'. Tristan talked of a situation where he was constantly conflicting with another member of the sales team who 'is too opinionated to follow the Dattner ethos' which Tristan, as a new member of staff, was trying to learn. He explained that the conflict was resolved through 'a mutual awareness that things needed to be sorted out' but added that the tension had been noticed by others who exerted some pressure on the two of them to deal with it.

Simon explained that some people have misinterpreted the culture and used the lack of hierarchical supervision to take more time off:

Some people take advantage of the easygoing atmosphere and openness; they think they can have a few more breaks here. They get told it’s not the way by Nick and Chunky or whoever. People just fit in.

Simon
Leadership

As Nick and Keren started the company and steered it to where it is now, they are leaders. They are seen by staff as the guiding and directing force of the company:

Nick and Chunky ... (are) two strong and very different personalities. Their combination of strengths is the reason for the success of the business.

*Greg*

Nick and Keren are committed to shared management and a belief in the evolution of the business, that things will ‘unfold as they should’ (Nick). There is also a shared conviction that the philosophy and principles by which they have built the company are now integral to it and exemplified in the staff and product. Nick calls this the ‘holy grail’:

Someone in the company needs to be the keeper of the holy grail, ideally more than one. It’s in the product, in the company. There is nothing archetypal about it. I was the keeper until now. It’s something in the company now.

*Nick*

It is evident that Nick has a forceful, at times overbearing, personality. Of his leadership style, Nick says:

We are changed by cathartic experiences in our own life: ‘I don’t want to go down that path any more’. Change comes from this ... I see myself as a catalyst and don’t believe in the notion of leadership. Leaders are a manifestation of what is around them.

*Nick*

Each employee’s relationship with Nick and his relationship to the staff overall is recognised as at the emotional core of the company:

He has a highly idiosyncratic style and everyone loves him to death ... Nick theorises a lot and he can be manipulative. People who work for him have to assert their opinions. If he won’t listen you have to make him justify why he wants to do things his way. Staff dialogue is a constant process of justifying what you want to do.

*Tristan*
It appears that Keren tempers Nick’s dominant style and brings a balance to the leadership of the company:

Chunky has always been there, always listened. Nick is a bit like that now but nowhere as near as Chunky. You’re not treated like a number there; you’re treated like a person. Everyone is involved. It happens over time and knowing that people listen. Chunky built it.

Frank

Nick has described his and Keren’s past roles as pilots, steering the company through difficult times, but suggests this does not apply now. Both Nick and Keren have changed their leadership style in recent years. The change was first noticed by the staff a few years ago, around the time of the recession.

About three or four years ago there was disenchantment about how things were being run, Nick and Chunky’s handling of things … Nick and Chunky had never let go or given responsibility to others. They might think they’ve run the company in this way in principle but in practice it’s only been the last two years that this has happened.

Mark

Lesley remarked: ‘In Nick there has been a change; before he would listen but he did not hear. Now he hears what people say, especially in relation to sales and PR’. Mark suggests the change is a recognition of ‘having a group of people they could trust’ and that ‘challenging Nick and showing him that others’ ideas can work’ was a factor:

If it’s not Nick’s idea it doesn’t happen – ideas get put forward and knocked back. We implement them anyway and they usually work … you can tell Nick when he’s wrong. He’ll take things on board and apologise if necessary.

Mark

Nick and Keren have chosen to gradually relinquish their overriding control and empower others in the management of the business. Nick explained that the process involved letting go of fear. The sense of release at letting go was a revelation to him:

If you have people playing tug of war it is amazing the amount of energy you’ve got to use to hold on, to not let go. And the force on the other side, sometimes it’s strong and sometimes it’s a bit stronger, but it was just exhausting. So in the game of tug
of war, when someone finally does let go, what happens? They all sit down on their bums and howl with laughter! That was like a wonderful revelation for me. That’s exactly what happens when you let go of fear.

*Nick*

Nicholas Dattner & Company can exist without Nick but only recently has this started to be understood.

*Lesley*

There is a public perception that the business is dependent on Nicholas Dattner; increasingly this is less so.

*Nick*

However the constant references to Nick and Keren that dominate the interviews suggest that the reliance on their leadership is still very strong. However, while the leadership of the company is vigorous and rests clearly with its two principals, employees feel that they have the power to influence what is done and how it is done. Nick and Keren are ‘the bosses’ but also team members, mentors and friends.

Nick’s attitude is that things will happen if enough people are enthusiastic about achieving results. Nick’s ability to enthuse and motivate people can be seen as a strength but, as Simon points out, he can be testing:

*There are certain things that Nick might do that get on your nerves a bit but you don’t let them worry you. Sometimes he has a joke with you or picks on you for something but you just take it with a grain of salt.*

*Simon*

Nick runs the company but he is not here enough … there needs to be more visible leadership. Long-term goals need to be set, something more formalised.

*Tristan*

**Management**

Opinions differ within the company on the style of management, as distinct from leadership, that the company needs. Nick sees the development of the company as a fluid unfolding with no formal management structure. Other people feel the need for a more formal management structure, and a role in that structure.

On a political level, when something is done right, it’s not seen. There is a weakness in not having a formal management structure. Often there are interpersonal political aspects going on that can have a negative effect if they are not dealt with. There
are ill-defined areas where there is no incentive for people to take the initiative to deal with them. If someone was a more official manager they would have a closer relationship day to day than Nick and Chunky have.

Greg

Nick places very little value on formal management skills, methods or training but both people with responsibility for the workshop indicate that they would like more training and support in that role.

Earlier on, in the workshop, there was a more formal management – there was a Factory Manager. When he left he suggested I take over. It was a great opportunity but the company went through a very dramatic growth spurt. I was only 26–27 and had no experience in management.

Greg

Nick admits mistakes in not preparing Greg for the position, and in not being clear about what was expected. The lack of planning led to Greg suffering from overload, not clear who he was reporting to, who was supporting him or how to organise his time.

I was cramming at home, basic management books. I thought my way was definitely in keeping with Nick’s philosophy and, from the books I was reading these principles – forming relationships of trust, working with people rather than whipping them – were becoming a popular way of managing and it suited me well.

Greg

Some tension exists between Nick’s preference for an organic leadership style and employees’ need for skills in day-to-day operational management. Even though Nick has a low opinion of formal management programs, some of his employees want management training.

Vision and values

A commitment to Australian, especially Victorian, hardwoods is at the core of the company’s vision and is shared by all those interviewed. Frank and Greg spoke at length about the qualities of the timber they work with and how they engage in a constant process of learning through experimenting with techniques to exploit the properties of the timber in ways that enhance the integrity of the design and finish of each product.
Adding value to Australian resources and appreciating the durability and uniqueness of the products the company creates is actively promoted.

The company stands for quality and individuality. Because of its profile and marketing style the company is seen as bigger than it is. It could be developed more.

Lesley

Company members regularly engage in reviewing goals. Although planning is seen as crucial to success, Nick rejects formal business plans: ‘business plans gave us the 1980s’. When the company faces a big decision or needs to review processes or products, a full-day session is organised for which Nick prepares a ‘Future Directions’ document to be discussed by the whole company. The document outlines the present situation, suggests ideas and plans and invites everyone to prepare for lengthy discussion:

We have intelligent group discussions, examine reasons for decisions. Some people talk about the notion of voting – no – issues are not black and white. Imagine a family voting on every decision. We need consensus.

Nick

Future Directions (January 1996), a nine-page paper suggesting major changes for the company, deals with product range, production, sales and marketing and also interpersonal issues such as fears and aspirations. After circulation to all staff it was discussed at a series of meetings.

I read it all through. The ideas are a bit confusing. We had an afternoon meeting about it. We talked about ideas to make a happier working environment, (and be) more time-efficient. Things have happened already. Nick bought some more tools and put in some more lights for the sanders. And we’re getting racks to dry in the oiling room.

The discussion about fears and aspirations hasn’t happened yet but that afternoon was just stage one. We had an update this morning and we’ll be having another next week. I hope something comes of the ideas, not just getting half-way and sweeping it under the carpet.

Frank

The general feeling for the future is optimistic. The current plans under discussion involve new areas of marketing and changes in product range and production flow. The company members interviewed are enthusiastic about where the company is going and their part in it. Although the recession has seen the closure of competitors, staff are optimistic about the future:
I can see the company growing, it has grown tenfold since I first started. If it keeps going the way it’s going, we’ll be fairly big.

Simon

Learning

Learning at Nicholas Dattner & Company is consistent with what Watkins and Marsick (1993, p. 9) characterised as ‘highly social ... people learn as they work together toward the achievement of clear goals that they help create’.

Learning is intrinsic to the processes within the company, to the daily dialogue and to experimentation with techniques. Whatever problems there are with a design or a piece of timber, or with disagreements about how best to resolve problems, the general attitude is that it ‘takes as long as it takes’ to get resolved but that the decision has to be reached by consensus. This means that the organisation devotes a lot of time to problem-solving and is committed to doing so.

In work processes, experimentation and the development of personal style are encouraged. Mistakes are accepted as a valuable part of the learning process. Individual employees are continually learning, developing their skills primarily through experience.

There is a philosophy of learning as you go along, where staff are supported to develop their own styles and techniques of polishing.

Frank

... (there is) a lot of space to just do it.

Tristan

Developing skills and knowledge

Learning occurs within the organisation through dialogue and questioning, observation and experimentation, advice and instruction, and reflection and research. Mark describes the process as ‘observing and doing, trial and error, listening and asking, having mistakes picked up and being shown how to fix or avoid further mistakes’. Employees feel they are given a lot of responsibility and that expectations of them are very high.

Asserting and justifying opinions in debates over the best method, design, technique or idea for a product is developed as part of the work culture. These debates result in improvements for the business and enhanced skills for the employees.
Learning in the Workplace

There’s a dynamic process of fiercely thrashing out design issues in order to justify them. Our arguments are based on the need to know, the need to give structural basis to the ideas. Issues are talked through until there is consensus.

*Tristan*

It is expected that company members will question everything and offer opinions constantly. Aged 16, and 18 months into her polishing apprenticeship, Danielle is confident about asking for help: ‘If you have a problem you just ask other people, and if someone asks you, you just stop your job and go and help them’.

This questioning provides a foundation for learning in an environment where every piece produced provides opportunities for learning: design, wood grain, wood character, seasonal demands.

In summer we use Danish oil as tung oil dries too fast. We swap over in about April. How do people learn this? We explain why and what the difference is. Everyone is always aware of what is going on. They are forever coming up and asking questions.

*Frank*

Consultation is an important part of learning. Sales staff consult with cabinet makers for input on ‘how customer orders are to be constructed, possibilities, what can and can’t be done, estimates of construction time … ’ (Greg). Staff often leave their work area to get the advice or opinion of a colleague. The trade-qualified people talk about their work with apprentices as mentoring, advising and offering opinions.

For the more experienced people it’s an unwritten thing that you have the responsibility to advise and instruct the others so that they can learn. Some take the advice and some don’t.

*Greg*

Interviewees also commented on learning that promoted personal growth:

I have learned most about myself, been given the space, found out I could accomplish more than I ever thought I could.

*Greg*

I’ve learned to relax a bit more, I know how to deal with things.

*Danielle*

... how to finish properly, how to get along with people.

*Danielle*
... learnt a lot about communication ... about manufacturing and about sales.

Lesley

Observation and experimentation

The company spent its first eight years sourcing, experimenting with native timbers such as messmate (a native eucalypt), southern mahogany, brush box, ironbark and blackwood. Nick estimates that in the company's first five years, 1984-89, half the productive time at the workplace was spent learning about the wood, where to source it and how to work with it. Learning about how to work with Victorian hardwoods still takes up production time because each piece of timber is unique and the manufacturing process is not identical for each product.

Three of the interviewees referred to what they identified as the 'learn as you go along', 'thrown in the deep end', and 'learning grows on you' culture that permeates Dattners. They explained that it extended beyond the freedom to experiment, to the ready availability of support, help and advice.

Everyone in the company is invited to design, but around a well-defined design brief: either seventeenth century English Oak style or today's contemporary styles. It is seen as a learning challenge to fit designs into this framework. Some staff would like to see the brief widened but Nick suggests that if the design framework were to open, marketability and aesthetics would curtail the invitation to contribute in the design area.

Staff are able to find out what others are doing and to move around within the company. One of the cabinet makers applied for and obtained a position in the showroom for six months. The administrator spent two weeks in the workshop at her own request. Nick's advice to new staff is 'relax, take it easy, wander around, play'.

Everyone is always seeing what everyone else is doing. It's changed around, people are on different things, it keeps changing now and then. People move around, they get sick of doing the same thing.

Danielle

Learning takes place through observing others at work, taking advice from coworkers, solving problems relating to materials and design in collaboration with others, and constantly refining work processes through experimentation and thinking things through. Employees watch others, copy the process, become adept at that process, then adapt it to suit their own personal style.

The only way people learn at Dattners is by doing, by experience ... by observation and research and always asking if there is a problem ... there isn't formal training on the job.

Mark
There is a philosophy of learning as you go along, where staff are supported to develop their own personal styles and techniques of polishing. There is no one way of doing the job. People learn through constantly doing, through experimentation, through developing ways of working that suit their style ... any way of working is accepted as long as the results are achieved.

Frank

Some people learn that the style of those they are observing is not transferable to themselves, as Lesley did during her period in the showroom.

With sales I knew the product and believed in it so I was able to talk about it. I observed how others went about sales, but they had such highly individualistic personal styles, that while I could pick up on their body language and style, I couldn’t adapt it to myself.

Lesley

Kinaesthetic and visual experience

Many of the employees spoke of their fascination with wood, discussing the qualities and character of a piece of timber and the ways of working with it at length. Much of the knowledge acquired by employees, especially cabinet makers and polishers, is through detailed observation and touch.

I’ve learned there are all different finishes, different types of finishes, types of wax and ways of waxing ... I’d like to stay with what I’m doing at work. The finish at school is not so good, it looks fake. Nick’s finish looks really natural, not plastic.

Danielle

As with The Big Duck & Fish Company, pleasure in the experience of working directly with the raw material is expressed by the staff. Greg loves the timber that they use: ‘I have learned about my trade through exposure to the materials we use which I wouldn’t have got anywhere else’. He talks about the things that can be learnt when working with wood: ‘discovering that you can bend timber’. Simon talks about the types of pieces he prefers to work on: ‘I love to do cabinets, especially one-off designs, some of my own designs’; and Mark says that the talk at work is most of the time about ‘the state of the timber’. For the cabinet makers it is a ‘rarefied woodies thing’ and there has been rivalry between the ‘woodies’ and the polishers, due to differences in required skill levels for cabinet making versus polishing. The creative avenues available in polishing are being better recognised now.

Frank, because he knows each type of wood, its shades when raw and the colours it can be matched to, can now play an educative role with sales staff and customers.
Nick talks about the character of the timber and about the passions of the people who work with it:

If you have a passion about something, then you have a passion about what to do it with. Woodworkers are like that; they’re pretty pervy about tools, they love their tools.

_Nick_

Keren Dattner is largely responsible for ordering the timber, a role that demands a high level of technical knowledge about timber quality. Because each cabinet maker must also have enough knowledge to accept responsibility for the timber they use, they know how to measure moisture content and structural and aesthetic integrity. Polishers are trained to understand the aesthetics of timber and, increasingly, sales staff are learning about the raw material. There is a constant process of learning as the properties of the raw timber product vary according to age, condition and even harvest region.

**Feedback**

Feedback from Nick and Keren and from staff to each other is constant.

Nick is very strong in praising, very complimentary with the staff, he lays it on thick, but he means it, he means it. That’s something I’ve always admired about Nick; he certainly gives praise where it’s due.

_Greg_

Tristan who has been with the company, in the showroom, for five months feels his judgement ‘is valued by Nick’, that Nick ‘challenges and promotes’ him and that ‘throughout the company a good level of feedback is given, (leading to) a level of awareness of each other’s competence’.

Feedback, often specific to the task at hand, encourages maintenance of high standards and attention to detail. It is also focused on ‘growing people’, encouraging them to value what they do and who they are.

There is also customer feedback. Customers write appreciatively to the company and drop in to check on the progress of their order, talking to the trades workers and sales or design staff.

**Problem-solving and process improvement**

There is no formal quality control system at Nicholas Dattner & Company because quality assurance is embedded in everything that everyone does.

I put myself into the customers’ shoes. People are paying top dollars for the tables. If I said about a table or chair, that, ‘I wouldn’t buy that’, then I haven’t done a good job.

_Frank_
There is no quality control in Nicholas Dattner & Company. Quality is organic. Quality control is something you need when you don't have quality.

Nick

Many of the employees repeat the company mantra of 'no quality control' and their descriptions of work practices and processes give credence to this. Attention to quality is described as intrinsic to all work and is practised habitually rather than managed through a system of checklists, standardised documentation of procedures and the use of other tools of quality measurement.

The polishers are the last stage before the customer gets the product so we need to notice anything that might not be right. Polishers will notice sanding and staining errors; cabinet-making errors are picked up by the sanders.

Frank

Quality often relates to aesthetic rather than structural considerations. The interpretation of aesthetic quality is complex and there can be a divergence of opinion. The customer may be consulted, particularly regarding the finishing and polishing of recycled timber and redgum. Under the company's policy of unconditional guarantee, if a customer rejects an order, the work has to be done again to the exact specifications. It is through close relationship with the customer and the creative debate of the work teams that an awareness of aesthetic quality becomes embedded in the work practices and attitudes of all workers.

Nobody likes to see a job they have lovingly laboured over having to be redone – you get it right fairly quickly if your hard work is rejected by a customer.

Frank

It is accepted that mistakes will happen but that faults in workmanship will be quickly relayed from one to the other in order to be redressed. The learning that occurs from acknowledging errors and rectifying problems is seen to contribute, over time, to workplace productivity and personal and team responsibility.

Mistakes are learned from. You become aware of what can happen and don’t do it again. One thing all polishers will do at some stage is put the screws through a table – it's a basic mistake. Once you're aware that this will happen, you start to double-check and triple-check and this process of checking then becomes fundamental to all your work.

Frank
Formal training and qualifications

Training ranges from formal apprenticeship to external short courses and internal brainstorming sessions. Two years ago the company decided that everyone should become trade qualified. Five people have completed apprenticeships, two of whom completed them in-house. There are currently five apprentices.

The company needs to achieve a skilful team of workers with a better balance of experienced and apprenticed staff.

Frank

The discipline of completing the apprenticeship and the sense of achievement for the individual seem to be more important than the knowledge or skills acquired ‘at school’. Knowledge that is useful for the broader furniture industry, is often not applicable at Dattners.

I’d much rather the finish we do at work than at school ... because at school we spray and French polish. I like French polish but, at my work, we use oil and tung oil and stuff like that, so it’s a different finish.

Danielle

Most of the things they taught me I had already learned at work. I completed the schooling in two years (instead of three). The first year there was a lot of guys mucking around and I thought I don’t really like trades because I don’t really like school. I’ve never been bad at it. I just wanted to get out of there so I just knuckled down for the first year and did as much as I possibly could.

Simon

Three of the longer-term company members expressed a need for management training, but Nick is confident that the company is evolving the way it should, and that people who now feel the need for more formalised structures will grow to appreciate the fluidity and openness in time.

Conclusion

Like The Big Duck & Fish Company, learning at Dattners is a collective social activity and is embedded in work. Dattners demonstrates many of the characteristics of the Learning Organisation although does not declare itself as one:

- Personal development is encouraged.
- There are processes for all employees to engage in reflection.
- There is a company vision regularly reviewed by all employees.
- Employees learn together, as a team.
Some employees are undertaking vocational education and training programs such as apprenticeships but training in these programs is mediated by the 'Dattner way' which they learn at work through:

- hands on experience with the timber
- experimentation and innovation
- demonstration, instruction, practice and coaching
- consultation and discussion
- structured reflective practice.

Learning is not limited to furniture design and manufacturing, but includes sound knowledge of the business and interpersonal skills, all inextricably bound together.

The company encourages personal development, individual creativity and a continuous search for improved techniques. The workplace culture is dominated by the personality of Nicholas Dattner who is a strong individualistic leader and the driving force of the company. There is a sense that employees are as committed to Dattner personally as to the business – in a very real sense, Dattner is the business. Despite his leadership style and the tension which it can create for employees, Dattners is a participatory workplace. However, if Nicholas Dattner does remove himself more from a leadership role as he intends, how will the culture, leadership and work practices change?
6.

Huntsman Chemical Company Australia

The third company, Huntsman Chemical Company Australia, is significantly different from the other two. It is a large multinational chemical company, half owned by a foreign company, with a large workforce of award employees (‘associates’) and non-award ‘staff’. Formal structures, policies and systems shape the organisation, the relationships and the learning that occur within it. Associates and staff are divided into teams according to plants and offices. One of the half-owners, who lives in the United States, visits from time to time. Similarly to the other two case studies, however, learning is central to the organisation.

Setting

Huntsman Chemical Company Australia’s West Footscray facility is located on a 100 acre site in Melbourne’s old industrial heartland. Although the factory buildings are set back from the road, the refinery towers and petrochemical reactors are clearly visible and dominate the skyline.

At the main gate, the entrance procedure for visitors is friendly but strict. Before visitors can enter the grounds, they must watch a safety induction video and surrender any matches, lighters and mobile phones to the guard. Visitors are issued with a numbered card stating that they have reached Safety Induction Level 1. This card must be produced on any subsequent visit.

Inside the gate are red brick buildings of 1940s vintage. The gardens and lawns are neatly trimmed. The plant has the appearance of a small self-contained town with street names, sign posts, pedestrian crossings and bicycles ready to be used by employees to get around the site. Coloured lines on the roads and footpaths lead to different parts of the factory. Inside the entrance gate is a billboard which reads, ‘Number of Days Since Last Lost Time Injury – 61’.
A more modern building houses the Customer Service Centre, where visitors wait to be received. The centre has a reception desk, coffee and magazines for visitors, indoor plants, and company policies framed on the walls. It is a quiet area, although people pass through regularly, pausing to chat with the receptionist and other staff.

Staff

The West Footscray facility employs 490 people in 11 separate departments. Despite a circular organisational chart, there is a two-level hierarchy between staff and associates which appears to maintain a traditional separation between 'knowing' and 'doing' (Duignan 1995, p. 9).

Shopfloor staff and operators are called 'associates' and other employees, including management, are 'staff'. However, the human resources director was the only person who used the official nomenclature during this research study. Shopfloor employees and operators referred to 'staff' variously as 'the hierarchy', 'the company', 'managers' and 'bosses'.

Of the 490 employees, about 60 are women, almost all of whom are 'staff'. There are no female chemical operators. One female apprentice electrician is currently placed with the company as part of a group apprenticeship scheme. Four female laboratory technicians are classified as 'associates'. About two-thirds of all employees are over 40 years old. The ethnic composition of the workforce was not available, but sixteen languages are spoken on site.

Staff turnover is low, reflecting the low mobility within the chemical industry. Although the former chief executive departed the company when Huntsman took over the management in 1993, and some resignations resulted from subsequent restructuring, there were no retrenchments.

The following people took part in the case study interviews:

Danny Cartwright  Chemical operator
David Graham  Employee development manager
Peter Hancock  Learning development coordinator
Mark Jackson  Employee relations manager
Dominic Pontelandolfo  Leading utilities operator
Sally Scott  Industrial hygienist
Maree Sellstrom  Human resources director
Paul Thompson  Senior analyst/programmer, Information technology department
Utilities technician team members
Paul Bradshaw
Jingo Chan
Ernie Martin
Colin Pie
Ross Takerei
Peter Watson

Background to the company

Huntsman Chemicals, founded in 1982 by John M. Huntsman, is now a multinational company with 38 manufacturing facilities worldwide, generating more than US$1.6 billion annually. The largest polystyrene producer in North America, Huntsman Chemicals has facilities not only in USA and Canada, but also Armenia, Australia, China, England, France, Germany, India, Indonesia, Korea, Russia, Taiwan, Thailand and Ukraine.

The Australian facilities are an equal joint venture between Huntsman and Consolidated Press Holdings of Australia, which purchased two industrial chemical and plastic facilities (including the West Footscray facility) from Chemplex Holdings in 1993. Huntsman is the operating and managerial partner in this arrangement. There are three sites in Victoria: West Footscray (9 operating plants), Dandenong (3 plants) and Huntsman Film Products at Thomastown. It is intended that Huntsman Chemical Company Australia will provide a springboard for the company’s Asia-Pacific activities.

Products
In Australia, Huntsman manufactures a range of industrial chemicals and plastics, including expandable polystyrene, used for insulation, protective packaging and insulated food containers; ABS, SAN and SBR latex resins, used in automotive components, refrigerator interiors, electrical equipment, telephones, as well as carpet backing, adhesives and concrete additives.

The West Footscray facility, Australia’s only styrene monomer plant, manufactures this and other petrochemical products including phenol, acetone, polyester resins, polystyrene, expandable polystyrene and latex resins.

Manufacturing process
The manufacturing process, illustrated in Table 6.1, shows plants, process flow, products and product uses.
Plants

Huntsman's West Footscray site is divided into three sections – plastics, resins and chemicals – within which the nine production plants stand at a distance from the other buildings and from each other, surrounded by a ‘sound-break’ of trees and shrubs. Each production plant has tall thin refinery towers of five or six storeys and several shorter, stubbier reactors connected by a complicated arrangement of pipes, valves and pumps. Steam and vapour issue from various points of the structure.

Each plant has a control room from which the operators can adjust the chemical production process electronically from the control panel.

The operators also monitor the plants by spending up to two hours outdoors during each shift looking (for steam), listening, smelling and feeling the pipes (for vibrations). They know if something is not quite right. Sense of smell is very important and is tested in the recruitment medical.

Turnover

Annual turnover for the West Footscray facility is over $300 million. The profit margin, dependent on the commodity market, varies between $3 million and $30 million annually.

Customers

Major customers include:
- Dow Chemicals
- Pacific Dunlop
- Marplex
- Synthetic Resins
- ICI Dulux
- Email
- BTR Nylex.

Employment practices

Selection and induction

There had been no recruitment of new staff or associates in the six months prior to the study. Recruitment would normally be conducted by members of the relevant team assisted by a member of the human resources staff. Members of selection panels are given appropriate training.

New employees are inducted in accordance with ISO 9002 which includes safety induction. New plant team members receive specific technical training for their plant which may last as long as three months during which time they are considered trainees.
Employment practices

There are five unions on site:
- Australian Workers Union
- Australian Manufacturing Workers Union
- Communications, Electrical, Electronic, Energy, Information, Postal, Plumbing and Allied Services Union of Australia
- National Union of Workers
- Construction, Forestry, Mining and Energy Union.

Only one enterprise specific award, covering the chemical operators and the warehouse, is applicable to Huntsman associates. The union party to that award is the Australian Workers Union. All other associates are covered by industry awards. An enterprise agreement covering all award associates has been negotiated with all unions on site. Two types of enterprise agreements sit on top of awards. A site-wide ‘Certified Agreement’ applies to all associates at the Footscray site who are covered by awards. This site-wide agreement is an ‘umbrella’ for a number of specific unregistered agreements reached with individual unions and teams. This Certified Agreement, an enterprise agreement registered with the Industrial Relations Commission, does not specify pay increases, productivity initiatives or proceedings for changes to work practice.

In July 1995, the company introduced the concept of ‘class’ plants: those plants which demonstrate consistent commitment to continuous improvement in quality, process and productivity and are ‘living the Huntsman business philosophy’. In order to achieve this status, the plant team is audited to ensure it has a number of strategies and objectives in place within the following categories:
- environment health and safety
- cost vs budget
- quality
- teamwork
- skills and limitations
- staffing
- learning environment.

Teams entering this improvement system remain covered by the enterprise agreement between unions and management for pay and conditions but do not bargain for productivity, performance or quality improvements. Instead, continuous improvement in systems and processes leading to business improvement and improved company performance is a ‘given’. To maintain this system of operating, the company needs a highly skilled and committed workforce who, as a consequence, will be well paid.

For teams not prepared to participate in Huntsman Class Teams, continuous improvement is not a ‘given’. Productivity improvements need to be negotiated.
From the period 1 July 1995 to 30 June 1996, all nine plant teams, including the utilities team, participated in Huntsman Class Teams. Reviews of progress are to be conducted, using agreed targets and measures, in June 1996. A team is assessed as being a ‘Huntsman Class Team’ on the attainment of Level 4 for each objective in each of the categories of health and safety, quality, etc.

The company aims to have all award associates participating in the Huntsman Class Teams process from 1 July 1996. Negotiations are taking place with the warehouse, maintenance, stores and laboratory teams and their unions to this end.

Business philosophy
The Huntsman business philosophy is a shaping influence on company activities. Framed and displayed in every facility, it commits the company to environmental and social responsibility, participative management and employee involvement at all levels.

Employees are considered associates in the business and vital members of a ‘family’. The company is to recognise the contribution of each individual and provide opportunities for personal growth and development. Teamwork, quality, customer service and ethical and moral business standards are espoused. The spirit of free enterprise and profit maximisation is evoked for the mutual benefit of customers, employees, suppliers and local communities.

Team approach
Following the joint venture of 1993, the company adopted teams as the organising principle. A ‘team’ is viewed as a self-managing group committed to achieving business objectives and ‘living’ the business philosophy. Teams do not necessarily have identical structures or work practices. Each team develops its own team concept. Each plant has just one team. Employees who work outside the plants are organised by ‘natural work groups’ into teams such as human resource management or information technology.

Those interviewed at Huntsman Australia’s West Footscray facility spoke in terms of ‘before and after’ the Huntsman takeover which brought with it significant workplace changes, the most significant of which was the move ‘to teams’. Other changes noted were a more participative decision-making process, a shift in accountability to the shopfloor, changes in work practices and in employee relations and training, with resultant improvements in health and safety, quality, customer service and, more recently, a focus on equal opportunity and anti-discrimination issues.

Teams are now the major learning unit of the organisation, although not all of them demonstrate ‘alignment’ (Senge 1994, p. 10). Some are still struggling with the change. It is evident that the utilities team was confronted with a new
organisational structure and new roles which demanded that they learn new technical and interpersonal skills.

Interviewees in this study spoke of the early stages of the change to teams as one of ‘organised chaos’ in which experimentation resulted in some things working and others not; some people responding positively while others, resenting the changes, held onto former power and knowledge. Some teams, such as the utilities team, responded quickly and positively to the changes while other teams resisted the change.

**Team development**

For discussing the move to teams, the experience of the utilities team has been selected for focus. In 1994, the utilities team was an early starter in working on the concept; and has been operating as a team since December 1994. The utilities team is responsible for maintaining the cooling towers and supplying steam for turbines and heat exchange. It replaced the former boilerhouse group comprising an area manager, two project engineers, one supervisor/administrator, two foremen, seven leading hands and nine operators.

The new utilities team has seventeen members: a technical support person (previously the area manager), a training and administration coordinator, and fifteen other associates working in five shifts of 3. One foreman and one operator left the company through natural attrition. The engineers moved back to the project area. The new structure is illustrated below.

**New structure**

![Diagram of new structure](image-url)
The utilities team was established in line with an agreed ‘utilities team concept’ which spelt out:
- structure of the team
- roles
- shifts/days
- training program
- leave arrangements
- discipline procedures
- annual salary arrangement.

The team recommended the establishment of a team Board consisting of one member from each shift, a union representative and one member from the support team (previously foremen or supervisors). The use of a Board structure indicates that the company regards the team as a separate business entity responsible for itself. The role of the Board is to:
- set performance goals for team
- monitor progress of goals
- examine various aspects of the utilities department
- participate in ‘interactive’ problem solving
- participate in selection of new team members
- provide encouragement
- give guidance in career and discipline matters.

Utilities team interviews
In July 1994, through a presentation and series of workshops facilitated by an external consultant, the company ‘announced’ that there were to be significant changes. Most interviewees were sceptical of this process, describing it as ‘brainwashing’. The utilities group was told by management, ‘we want you to go to teams’. The account of developing this team concept is based on the interview with Dominic, a member of the utilities team and a shop steward. Other team members acknowledge that Dominic has a good memory and ‘knows the history’.

The utilities team was thrown onto its own resources. Management did not intervene despite requests from the team for them to explain what they wanted of them. Management said that it was entirely up to them: ‘you work in the area, you sit down and work it out and come and talk to us’. Dominic explained that the team members did not know what to do and went to meetings simply because they were being paid to go. When they insisted on being told by management what was expected of them, they were sent away to work it out for themselves. Dominic said, ‘This started us thinking’.

The breakthrough in thinking for the utilities team came with a presentation from employees from ICI Botany of how they had implemented workplace change. Two of the utilities team members then visited the ICI plant. Dominic describes his response to this visit:
And I just came back and said ‘this can happen if they let us’. And I thought, ‘Well if they don’t let us, then all they’ve been saying is not true’ ... And we just started working on it and I was talking to the other blokes and they started believing and it just went from there and we really didn’t know where we were going, but we struggled through and we put an agreement together.

*Dominic*

It is interesting to speculate what it was that the team came to believe in. Dominic suggests that ‘believing’ was an important step towards self-management or becoming a team. It would appear to be centred in a belief that they could become, as another team member put it, ‘in charge of our own destiny’; that management was going to be ‘true’ to their word and ‘let them’ be self-directing.

The development of a team concept and enterprise agreement is seen by Dominic as a creative, unstructured process without time constraints. Team members freely explore ideas and possibilities without the need for a sequential or linear plan.

We looked at every possible scenario, everything we could think of and we had meetings with six or eight or ten of us ... We went through things, brainstorming and putting things on the board ... Some we crossed off early and some we’d cross off later and some we’d throw away and put back and some we’d run with. And then we eventually, after about three months ... arrived at an agreement. We presented it to the company. We had no involvement from the company during (the process) and no involvement from the union, other than the shop steward.

*Dominic*

Another team member talked about the problems at these meetings:

It’s been hard. The first few meetings we had ... six people and there was not one meeting where someone didn’t walk out. But the next meeting that bloke would be back.

*Dominic*

The process of reaching agreement was described as ‘like the old union system without strikes’. Management may not initially accept the team’s proposal, but ‘we talk about it and usually we agree’. This negotiation process takes place within the context of learning about the business and developing an understanding of the whole company.
Jo Foster (General manager) gives us a quarterly report which explains how it all works, some new markets we’ve got, markets we’ve lost, the competition, so now we know the future of the whole place and not just my plant.

Dominic

Team members emphasised that job security is even more important for them than financial security, even though they obtain salary increases when the team achieves its objectives. They have an enterprise agreement (and therefore jobs) in place for the next twelve months.

Human resources staff described the process of team acceptance and assimilation of the new work practices as a ‘maturing’ process. They commented that those teams which have not learned the new ways of doing things are not yet ‘mature’. The teams may be having difficulty with leadership; sometimes they may make wrong decisions because they did not consult the appropriate expert; some teams may not know what their training needs are or be unable to view the changes objectively.

The employee development manager saw the team-building process as risky for the company because some teams would make costly mistakes in attempting to do too much and go too far. He added that ‘it was a risk worth taking’.

They do make mistakes because we give them too much. It was a boundaryless system, if you like, and that is a hell of a risk because with the boundaryless system they tend to spread themselves very thin, trying to be all and do all for everyone. And the team can’t cope, therefore the primary function suffers. But we let that happen and then, through realisation, they tighten the boundaries.

David

Response to change

Some employees sense that the work dynamics did not change as a result of ‘going to teams’. Danny, a chemical operator, talked about his work group as having been a team for five to ten years. The nature of the work itself meant that they had always been a team: ‘we’ve never had much choice in that regard’. Danny said that operators have always had to work together to get tasks done and solve problems and the only change now is that they have greater responsibility and share the work that was done previously by the foreman.

Danny was not clear about what exactly constitutes a team. His team has forty members over five shifts, but he refers to the small group of eight operators on his shift as a team. He also supposed that you could count the plant team leaders as part of the team, two cycle operators and even ‘the higher management’ who are ‘going out and selling the product’.
Learning in the Workplace

Some members of the utilities team were puzzled about the expectations that relationships with each other would be different after the formation of plant teams. One member said, 'I don’t know Ross any better than I did five years ago!'. Others believed the team ‘just evolved’. The utilities team members acknowledge that their team has been more successful than other teams in making the changes. Dominic puts it down to being ‘almost team-oriented before we got into teams’.

Marie, the human resources director, stresses that the implementation of teams is a change in values and relationships.

When we started teams, it was obvious that people would say ‘We’ve always worked as a team’ and they didn’t really know how to work as a team. They didn’t understand about cooperative behaviour, they didn’t understand about keeping quiet and letting someone have a say and listen to them with respect, give them feedback and draw other people in ... (They) didn’t understand about sharing. They knew a lot about dominating.

Marie

The concept of ‘team’ remains fluid and imprecise. It is understood by some as a group of people who work cooperatively together and, in that sense, things have not changed. Others understand it as a significant cultural shift. What has certainly changed is that the group no longer works under the supervision of a foreman or supervisor, but operates with an increased level of autonomy, responsibility and accountability and within a more democratic decision-making process. Teams are fixed enough, though, to be recognised as a bargaining unit.

Roles and relationships within teams

Members of the utilities team stressed that they are now all equals. Team members volunteer to undertake different roles within the team and share roles such as chairing team meetings or taking minutes. The stores team re-organised the positions on their team, with every function on an equal salary. They are described as a ‘leaderless’ team. On the other hand, the warehouse team ‘absorbed the old foreman role’, elected one team leader and had another leader appointed.

The utilities team take on particular tasks if they ‘feel strong enough’ about it. They cited a ‘classic case’ where one operator, wanting to improve a piece of equipment, took a trip to a plant in Shepparton in his own time with the company paying for travel expenses. He returned with improvement ideas and implemented them. Another team member attributed such action to the operator making the job easier for himself and, as a consequence, for others. There is a clear sense of operators taking on responsibility for their jobs and an expectation that management will support ideas for improvement.

If I volunteer my services, it’s in order to make the job easier for myself first of all and it’ll make things easier for everyone else. I
don’t expect to get thanks for it. I expect that if I see a problem with something I go to management and say, I’ll look after that. I’m not going to pay for the pump. If I come up with a recommendation for a pump, I expect (them) to chip in. And if it works, I don’t want a pat on the back. It just makes my job easier.

Danny talked about how much he enjoyed having more control over annual leave:

I like the idea of having the responsibility that yes we may have a coordinator on shift and if a guy wants x amount of time off we go up to that (coordinator) and we say, ‘Look, I’m after this period off’ and you can turn around and work it out on the board and you can say, ‘Yes, you can have it’ or ‘You can’t have it’.

Danny

The role of coordinator is shared amongst the team members.

Sally, an industrial hygienist, spoke about the way in which the team structure has resulted in the scope of her job being expanded.

You are actually allowed to bring up your ideas now whereas, before Huntsman, it was specifically industrial hygiene and you did your job and that was it ... These days you can go out of the bounds of your job which in some ways is good and in some ways is frustrating.

Sally

Sally described how she now works more directly with the plant teams who are her customers. She now has a broader picture of what is happening in the plant because information is not filtered through three layers of management before it gets to her. Previously, her boss would have the ‘whole picture’, but would ‘filter’ the information so that she received only ‘specifics’.

It wasn’t due to people filtering for their own reasons, it was more due to them not knowing what we would be interested in, or not knowing the full impact on your job ...

Sally

The flattening of the hierarchy has resulted in a better flow of information to her. She has an understanding of the ‘whole health and safety environment’ and not just one aspect.

A member of the information technology team explained that the roles and work practices had not changed significantly there because the culture of the team and the nature of that team’s work are not conducive to team-based work practices. The information technology team tends to be ‘results oriented, technology focused
... with individuals working in their own special (area of) expertise and not getting involved in other areas'. He believed that the group socialised less than any other and described their conversations as being around 'safe' topics like sport or politics rather than 'deeper issues like training and education and what's happening (in) information technology (and) the organisation in general (or) management related issues and information technology strategy related issues'. He believed that this was typical of information technology professionals generally and that it placed a significant constraint on learning. He had experienced breadth and variety in his work role through participating in cross-functional team activities, particularly when the 'wall was removed' between the human resources and information technology departments.

Leadership

The style of leadership at Huntsman Chemical Company's West Footscray facility is still evolving, with the company experimenting with ways in which leaders can be encouraged and developed. There is a tension between the development of self-managing teams and a hierarchical structure in which managers still maintain control. The plant teams have adopted leadership strategies varying from sharing leadership roles amongst team members to maintaining one person in the role. For the plant teams it appears that the critical factor contributing to their degree of autonomy and self-management is how willing the former supervisors are to relinquish power. There is still a struggle between two value systems: the old culture and the new Huntsman philosophy.

For the utilities team, the role of the former leading hand in the changeover process was seen as critical to its success. He 'gave up his authority' and 'started teaching people his job' drawing on his experience outside the company to reshape his role. He said of himself, 'I likened it to becoming a coach because I do that sort of thing outside in my other life ... I found it reasonably easy'. According to him, other supervisors did not find the changeover easy and were not provided with any formal training from the company in 'how to change or how to be better people'.

There are two points being made here about the changeover from the role of supervisor to coach. Supervisors must be prepared to transfer their knowledge to team members and they must be prepared to give up their authority or power and, in so doing, become what was described as 'better people'. Previously some supervisors had had their 'secrets' and operators would simply follow their instructions. Such an authoritarian approach is seen by team members as inappropriate for the new self-managing teams. But there is more to it than simply leadership style: the personality of the person needs to be conducive to team-based working relationships or, as it was expressed bluntly, 'if he's been a dead set prick, there's no way a group of guys is going to accept him back into the team'.
There also seems to be some onus on the team to actively seek and use the previous supervisor's knowledge. Members of the utilities team cited cases where other teams had 'gone off on their own without using the knowledge of the previous supervisor' and had therefore not been as successful in self-management.

In the new structure there are generally two leaders for each plant team. One is elected by the team with approval from management. The other, the plant technical leader, appointed by management in consultation with the team, is often the 'old' supervisor who has the broadest technical knowledge. Some teams are beginning to demand the responsibility to elect their own leaders without management input. Management has responded that teams are not yet 'mature' enough to elect their own leader without 'company' input or make decisions about their own team budgets. The human resources director (Marie) is concerned that teams will not choose a leader who will focus on the business's needs.

(One) team now wants to have the full say of electing the leader and they don't want company input ... I've said 'You've got to put a recommendation up ... but you've got to understand that the company is ... accountable for an effective delivery of the various services and business. And if you elect a leader without any company input, how can you guarantee that leader is going to do that?' And we're going to sit down and talk about it.

Marie

Even though Marie is hesitant about this idea she is willing to talk to the team. Her 'instinct is that it's far too early to support that initiative, but we could probably trial it in a couple of areas'.

The human resources section has been wrestling with the issue of leadership and, in that process, has experimented with a number of different approaches to developing leaders.

A leadership support group comprising leaders from across the site – the three major businesses (sales, finances, human resources), the director of operations and the directors of logistics – meets weekly on operational matters and receives team recommendations. If the group judges a proposal to be in the interests of the company, it will be supported. There has very rarely been a negative response.

A number of leadership development programs have been tried, using different systems and approaches, confirming Danny's comment that 'they're experimenting with a lot of ideas'. The current leadership development program includes a process of assessment, discussion, mentoring and feedback from various people and groups, but 'I don't think we've developed good leaders as a result of that' (Marie).

There have been workshops on empowering managers using processes which aim to develop leaders who are 'comfortable ... because they're pursuing their values in concert with the company'. Marie described how some people find the
consultative model very difficult because they have been used to an autocratic system, but the company’s ‘standards’ are now consultative management, so ‘if people are out of line then we really need to look at a whole range of strategies for changing their behaviour’.

One interviewee explained that some managers had problems ‘relinquishing control’ and Danny comments that the ‘hierarchy’ has had to confront a change to its power base.

I think in the past they tended to have their own little castles. They have sat in those castles – ‘this is my power base’ – and if anyone else encroaches on it from either another hierarchical situation or from an operator upwards it’s very frightening to them. I think now that the changes have gone through, they see us less as a threat and more, ‘yes, let’s take their input’ and ‘there are ideas out there that we could implement’ and it’s beneficial not only to the company as a whole, but it’s beneficial to everyone to make life more enjoyable …

Danny

In discussing the resistance to the changes, from some quarters, Danny said that it was ‘a matter of eventually getting everyone to one way of thinking’ and that when that happens ‘things should hopefully slot into place’.

Vision and values

The Huntsman vision and values, expressed in formal mission statements and policies, are now in operation. They are transmitted through training and development programs, company-wide meetings with the chief executive, team agreements and company publications such as the newsletter.

The corporate vision originated by John Huntsman encompasses all Huntsman sites across the world. It is stated in declamatory style and articulates values like ‘family’, ‘friendship’, ‘neighbours’ as well as more pragmatic commercial objectives. It is about values and relationships rather than chemical products. It is certainly not typical of Australian company vision statements which tend to contain a few concise sentences about quality, customer service and cooperative work practices.

Notwithstanding the fact that our businesses are family owned, we owe great allegiance to our wonderful associates – the extended family. Our employees have maintained high levels of professionalism and dedication to our commercial objectives and, at the same time, to the environment, our neighbours, our customers, and each other. It has been a privilege to see men and
women grow into jobs they never thought were attainable and to do them well. Our customers are our friends and partners. We believe in fairness and extra effort, particularly when our products may be in short supply and some of our downstream markets are in trouble.

... Relationships which extend from the basic raw materials we purchase to the complex finished products marketed by our customers are a strong and lasting foundation of our company. We view these partnerships as a major competitive advantage and I am personally most grateful for them.

_Huntsman worldwide profile, 1993_

The Huntsman business philosophy statement is publicised in every facility and, according to the company profile, ‘is embraced by all employees’ who ‘strive every working day to promote (its) application’. It declares that team work produces superior productivity and profitability and that ethical and moral standards are the foundation of good business. It advocates:

- safe, clean, efficient facilities
- environmental and social responsibility
- participative management
- employee involvement at all levels
- opportunities for personal growth and development
- the finest quality and service
- aggressive growth philosophy
- spirit of free enterprise
- maximisation of long-term profits.

Benefits and compensation will reward performance both individually and collectively.

Within the worldwide Huntsman vision, the vision statement for the Australian facility is short and focuses on change, relationships and values:

By revolutionising the way we treat each other and our partners – customers, suppliers and the local community – we will create unique opportunities in Australia and beyond.

Above all, we will value integrity, honesty and respect.

The human resources director echoed these statements when she said that her department was there to ‘deliver an organisation based on trust, honesty, customer service, respect for one another ... committed to consultation’ (Marie).

Although other interviewees did not use such words to describe the new workplace culture, they certainly confirmed that significant changes had matched the spirit of these vision statements.
Dominic acknowledged that the company actively demonstrated care for employees and that they 'always professed to being family oriented'. He was able, for example, to take time off work to be with his sick wife without using up any of his leave allowance. The human resources director sent flowers to his wife. 'It really hit me, you know, that there (are) people out there that think about you.' One employee's wife was assaulted and the company paid for her to have counselling, even though she was not an employee of the company.

Perceptions of change
When asked about significant changes resulting from the Huntsman vision, interviewees focused chiefly on:
- the flattening of the organisation
- democratisation of decision making
- increased accountability for operators
- move to teams
- changed conditions of employment through new enterprise agreements
- a broadening in the scope of work
- increased knowledge of the business.

There was no mention of changes to occupational health and safety practices or quality, despite the significant changes and achievements in these areas.

The main change over the last couple of years (is that) you’ve come from your hierarchy situation where you’ve got top managers saying ‘this is what we want to do, this is the way we are going about it’ down to the lower level. (Now there is) more input by the operators saying ‘If we do it this way it will be far more beneficial to the firm’ ... in the past the ideas were looked down or frowned upon, now they tend to be going to the situation where they say, ‘Yeah, let’s implement that and see what happens’.

Danny

Employees were disenchanted with the company in the early stages of introducing the change: ‘people didn’t think too much of it at the time’. Danny described the introductory lectures and activities as ‘brainwashing’ and ‘silly’, but said that people are gradually accepting the changes.

It was a slow case of swaying people round ... into their way of thinking and it’s better to have people on side when you’re going to implement change rather than turn around and come in with a heavy stick ... saying ‘This is what we are going to do’ and build up resistance.

Danny
Sally spoke of how the change happened gradually. Before the Huntsman takeover, morale had been low and the plant ‘falling to pieces’. She describes the period of change as ‘a strange two years where history … rises … a stage of mistrust and disgruntled staff before people began to fit into it’. The old and new cultures are both still present. There are ‘still decisions that happen up above, (at) management level, which just hit without any discussion and you wonder where they come from … People are taken out of here and put there for no specific reason, you never get told the reason’. She believes that service departments are working longer hours and harder because of what she called ‘retrenchments’. This was not the case with chemical operators because they are seen as ‘protected’ by the union.

People in the company appear to be embracing the new culture, or undecided, or actively resisting the changes. It was suggested that the latter group would not stay with the company for much longer. ‘There’s still certain people on site in certain positions that are against teams, but I think the way they’re going they won’t be here much longer’ (Dominic). Danny believed that most people are in the ‘in between situation’ of resisting the change or going along with it.

Marie, the human resources director, struggles with the union–management tension that still pervades the company to some extent: ‘we’ve still got a long way to go before we put to bed the conflict model and start to trust’ (Marie). However, she has a strong commitment to the change. Her background includes nursing, health programs in schools, industrial relations (‘a lot of union work’) and roles assisting and advising various Labor government ministers and departments, both state and commonwealth. She talks of the Huntsman vision and values in terms of relationships and trust.

She learned early at Huntsman that ‘the way I work with people is quite different to most …’:

I like sitting down and talking to people … building a relationship … developing credibility. It all seems very … obvious, but I don’t think it’s done often: developing credibility, developing trust, talking things through, counselling people … Businesses are there to make money … but so are the workers … They are also there to have job security and … to enjoy coming to work … And I think that all ties together (and) links back to working harmoniously.

We’ve got to be open, we’ve got to be providing information … workers, if they’re going to be trusting, have got to know … the state of the business. We’ve got to understand that we’ve got to spend time to communicate and tell them what it’s about and then teach them the business so they can learn the business …
Learning in the Workplace

That’s one of our key strategies this year in human resources …
I don’t think we put enough effort into helping and supporting
our operators to learn the business.

Marie

Her own attitude complements the emphasis on values and relationships in the
Huntsman vision statements and her own vision, as expressed here, appears to be
reflected in the work practices of the utilities team.

Learning

Huntsman Chemical Company Australia consciously adopts the Learning
Organisation framework to explain what they are trying to achieve:

We’re trying to get a system in place that meets the needs of the
business and the individual … to make this a good place to work
so people want to work here … we want people to be trained in
the job role, (so that) they have the knowledge, skills and
attitudes to carry out the job function (in order to) deliver
satisfying jobs to the individual and profit to the company … If
we don’t make a profit we’re not going to be here. It’s that
simple.

You can give them full job responsibilities to carry out their role
in such a way that they feel part of (the company). They feel they
have self-worth. They come to work as part of life … You work
… safe, healthy and happy …

So to do that you have got to create a learning organisation
because people need to learn … and you want to capitalise on
that so that the individual gains and the company gains and the
organisation grows and learns as that happens.

David

Learning is placed right at the centre of the change process. Associates and staff
learn as individuals and as teams. The change process is forcing employees to
develop new skills and knowledge, both technical and interpersonal. It appears
that their experience of the change process has also brought personal development
and changes in attitude and behaviour.

Employees have learned through formal educational and training programs as well
as through their day-to-day interactions with others in their team and across the
company. They learn through participating in team activities, attending
information meetings, problem-solving, experimenting with ways to make the job
easier, and through seeking guidance from former supervisors and technical
experts. Some employees appear to be learning the key Learning Organisation discipline of systems thinking.

**Developing skills and knowledge of the plant teams**

The company provides employees with in-house training and development programs in a range of skills to support and encourage the workplace change. These programs are not necessarily accredited through the vocational education and training system although there is interest in having most training for operators accredited in some way. The training has included:

- conflict resolution
- leadership
- meeting skills
- decision making
- costing and budgeting
- trainer training
- technical training specific to company needs.

Team members learn planning, negotiation and problem-solving skills through experiencing it in the team’s day-to-day operation and through specific training programs. Skills are practised in situations where employees meet in teams to set objectives and to discuss budgeting and financial matters like overtime and leave arrangements, and in negotiating details with management.

Until the teams actually experienced the need for certain skills and knowledge, training in those areas was not seen as particularly useful. So, the demand for training from teams has reflected the progress of each team. With the changeover to a team structure, the demand was initially for conflict-resolution skills, but:

> Now that people are involving more people, getting more information, there’s less (demand) for conflict (resolution) and now more (demand) for problem-solving, meeting skills, how to run a meeting effectively, how to give feedback.

*Marie*

At first, because teams found it difficult to decide on what training they wanted, former supervisors sometimes decided on behalf of the team. Some teams found the training irrelevant. The learning development coordinator explains:

> They (team members) weren’t aware of a lot of those (skills such as conflict resolution, meetings, planning, problem solving) because they were still in the early days and they lacked a lot of guidance.

*Peter*

Training needs are decided by the team and given priority on the basis of relevance to the team’s business needs. The utilities team has a training committee which decides on the training for the team:
What we’ve decided we’d do is ... put a questionnaire on the board and ask people what they want to be trained in, and then we’ll assess it and prioritise it and start from the highest priority and work through it, and I’d say as we go along people will add more and more ...

If a ... person wants to be a brain surgeon, and he can prove that the team would need it, then we’ll support him. But if he wants to do an engine driver’s course and he can’t prove it’s beneficial to the team then we won’t support him. So we’ll take every item on its merits ... Once we approve it, then we’ve got to get it past our training department which is a bit harder.

Dominic

At the time of the interview, the team was involved in negotiating forklift training which management did not believe the team needed. The team was not ‘pushing it’ because it was not a high priority for them, but ‘we’re saying it would be beneficial and it would be timesaving’. Dominic can envisage that the company will eventually agree and that they ‘will pay for it and give us time off to do it or we’ll do it on site’.

It is clear that the team-based approach and the team accountability are opening up learning opportunities for associates: ‘It’s going to fall on our shoulders if we make a certain decision that isn’t correct’. Two members of the utilities team visited another company to learn about how they worked. Other employees spoke of visiting other plants within Huntsman. Contact within and between plants had existed to some extent, but increased accountability of team members with no foreman to ‘oversee everything’ is encouraging contact to occur more strenuously (Danny). According to Danny, employees think more because ‘everyone realises that they’re going to take responsibility for their own actions. Obviously you want to make the right moves and not the incorrect ones’.

Each team has a training coordinator who administers the training for team members and trains operators through technical competency-based training programs, assisted by human resources personnel as required. This role (and allowance) may be carried out by one individual or it may be shared amongst team members. Training coordinators are themselves trained in one-on-one training, demonstrating their own competency at each succeeding level of an established scale.

They’re going to support the learners in their team for the right reasons and bring up their skills ... human resources department is going to supply them with a good quality training tool so that their job’s not so difficult ...

David
Training tools consist of print materials, interactive computer programs and videos.

There has also been a conscious effort to provide employees with a more holistic understanding of the company and with capability for systems thinking. Training includes group sessions with previous foremen, sessions involving employees across several plants and occasions on which knowledge is shared on the job between operators – knowledge that some foremen do not necessarily have.

Danny explained how recent learning has provided him with an ‘overall view of things’ and a certain objectivity (‘stand back and think’) before making decisions about the plant:

> It’s nice to have that overall knowledge, (it’s) beneficial to other plants ... less work and less aggravation for everyone all round.

_Danny_

Danny admits that he struggled to think objectively and within a systems framework:

> It’s very hard to stand back and think, ‘Well that plant needs to come before my plant’. So you’re thinking if you’re standing back and you can see the overall view of everything and think of reasons: ‘Well, that’s got to come up first and then that’s got to come up second’ and so on. That’s the type of information they are passing on to us.

_Danny_

**Business skills and knowledge**

Employees have been learning about the company’s business through meetings held with management where they receive a general ‘overisation’ (sic) of the company progress. Danny describes it as learning ‘higher management ways of running the firm’. Jo Foster holds quarterly meetings with all employees and provides them with a report. One interviewee commented on how the questions at those meetings have changed:

> It’s become really noticeable the kinds of questions that the guys who work on the shop floor are now asking ... They are really interested in the business now, they are asking questions about markets, shares, prices, strategies, whereas a year or two ago you wouldn’t have got those questions at all. You might have got questions about ‘Am I going to have a job next week?’ or ‘What’s happening with the bonus scheme?’ ... very narrow focus questions. Whereas these days it just blows my mind some of the questions people ask.

_Paul_
Another interviewee wondered whether they actually ‘got the full picture ... They (management) tend to leave important things out’.

As well as these quarterly information sessions, employees have greater access to senior management:

You can go to Jo Foster and say, ‘I want some information on this’ and he’ll send it to you straightaway, whereas before, ‘oh no, no, no, we can’t do that ...’. That’s one good thing about John Huntsman. When he came over he said, ‘Anything you want to know, it doesn’t matter what it is, we’ll tell you. Anything’.

*Member of utilities team*

Part of learning about how the business operates has been learning about budgeting, because teams now have some budgeting responsibilities. Danny talked about how the styrene team had to work out the overtime budget for the team for next year and negotiate it with management. These are large budgets which require specific skills development in team members and a sense of their own capability:

(The utilities team is) starting to organise (their) own budgets, ... it’s $19 million so it’s pretty big, but there’s a lot of work involved in that and ... people like me don’t know very much ... we’re not having trouble, but we have a little bit of time ... to get used to it, to be able to run it.

*Dominic*

Along with the devolution of responsibilities to teams and the phasing out of the foreman position, has been a transfer of knowledge from foremen to operators. The foremen held specific technical knowledge and also broad contextual knowledge. Operators are now increasing their understanding of ‘how other plants run and how I affect other plants by making moves on my plant’ (Danny). The method of transfer varies from informal on-the-job advice to formal training sessions run by foremen at the request of the operators. The effectiveness of knowledge transfer depends on how willing or how resistant the foreman is to the change. As Danny puts it, operators are ‘encroaching on their power base’.

*Problem solving*

If chemical operators cannot solve a problem on their own, they consult other operators and, if need be, seek expert advice. They also assess the impact of the problem on the plant before deciding on action.

If my plant runs a certain way and all of a sudden it’s not running that way any more and it’s not through any changes that have been made by my plant or the opposite end, I make inquiries at the front end and they might turn around and say,
‘Yes, we have made a certain move and it’s altered the density of the steam and so therefore your temperature has gone up’ ... and then you might delve further and say, ‘why did you make it? Will you be running it like that for very long?’ You might think to yourself, ‘is it a good change or a bad change? Does it affect the running of the plant?’ If it affects the running of the plant in an adverse way, you try to get them to change it pretty quick smart.

Danny

There is regular day-to-day learning by one employee from another:

If you’ve got some sort of problem and the opposite guy you’re working with hasn’t experienced that problem, we try and work it out between us or we ask the guys at the opposite end to put (in) their ... knowledge ... We generalise our knowledge between us and try to work out what the problem is. If we haven’t got the knowledge ... we incorporate the plant technical leaders.

Danny

For Danny, being able to solve problems is part of job satisfaction:

I feel pleased that ... if something goes wrong with the plant and I’m able to work out the problem either by myself or with others on shift and have that problem out of the way and the plant running correctly by the end of the shift, I think well at least I’ve gone home and I felt as though I’ve done something for the day.

Danny

Learning from mistakes does not appear to be a reflective, structured or documented process. Interviewees said they ‘hopefully’ learn from mistakes although documentation of mistakes and how they were rectified is limited to a shift log book, shift sheet, whiteboard note or verbal exchange. This is recognised as not being reliable.

It may only be your shift that knows about the information; it may only be the next couple of shifts, but future ... shifts, say four or five weeks down the line where a guy’s been off for four or five weeks, he may not pick up that knowledge ... So obviously if you have made that mistake once in the past, you shouldn’t really make it again, but hopefully if it does occur again you’re not going to make it a third or fourth time.

Danny
Developing skills and knowledge of staff teams

Similarly to associates, staff learn through a combination of formal accredited education and training programs, in-house and external training programs, and through trial and error and the change process itself. Conferences and journals are an additional means of gaining knowledge. The human resource team is attempting structured reflection at meetings.

Sally learns through graduate diploma training, 'handed on' skills from other staff, reading journals, going to seminars and discussion with others in her team. As well as training programs, she has learned through 'hands on experience ... by trial and error, (and) ... the mentor process ... working alongside someone else to start with ... on-the-job training really' (Sally). In order to keep up-to-date with her own field she needs to learn in her own time:

You really don't get the time to read the journals and to keep right up-to-date with current knowledge. It's not like (there's) a day you can put aside for that or half a day ... with that sort of training. With the people skills and communication skills you get put on courses, but to keep up-to-date with your own technical area ... you've really got to make the time yourself. So you take books home and read for hours. We have presentations by the rest of the teams to help in your area of expertise.

*Sally*

The implementation of teams has affected the way Sally works and what she has had to learn in order to service the teams. Teams are now perceived as her direct customers and, without middle management as a buffer, Sally had to learn to work differently.

You used to send out a memo to the managers and the managers would ... pass it on and a lot of communication was very easy, but these days you've got to go out to 17 different teams and do it 17 different times ...

*Sally*

Sally has therefore improved her oral, written, advertising and training skills 'to get a message over'. She has been on two leadership training courses.

She describes how her team learned to perform during the styrene turnaround (maintenance shut-down). Through the experience, the team learned planning skills and how to implement procedures. They learnt from previous mistakes and gained 'the confidence that we can work together as a team really well when we need to'. What they learned was documented to some extent in Sally's report, but for future projects the team will rely largely on memory.
In terms of team skills, Sally believes that the most important thing she learned was ‘to understand people’s differences, what’s important to who and why; so who needs to know what, how involved they want to be, that sort of thing’.

The information technology team, on the other hand, focuses largely on technical learning through training courses, using manuals and trial and error. Because team members tend to work on their own, team-skills training has been seen as important, as much for getting the group together as for the actual team skills learned. Their individualistic culture is seen by one team member as placing constraints on his own and the team’s learning. ‘Rarely do we deliberately design opportunities or space to learn’ (Paul).

Marie, the human resources director, describes her own learning over the last two years as ‘learning the business and how a multinational works ... that politics exists in all (organisations) ...’. Marie has been ‘learning how people operate together and that the way I work with people is quite different to most’. She regards herself as entirely responsible for her own learning, selecting two conferences to attend each year to ‘network and look for other models’.

Marie and the rest of the human resources team set learning and development objectives which meet both the business’s and the learners’ needs. ‘What we’re not doing enough of is learning as a group’ (Marie). Their attempts at evening meetings with speakers, and taking half a day off for reading and discussion groups are not always successful, because day-to-day demands of their work take priority.

**Personal development**

Each of the interviewees identified changes in themselves as a result of the recent company changes. Some believed they were ‘better people’. Others, more specific, identified increased self-confidence, greater tolerance of people and an ‘acceptance of the complexities and subtleties and the forces that are going on in the organisation’ (Paul).

**Formal education and training**

The company is supported by accredited training programs delivered by a range of public and private providers selected to meet company needs. The purpose of training and developing is seen as changing people: ‘changing so that they deliver more value to the company’ (David).

Structured accredited training programs such as the Chemical Operator’s Certificate are provided by the company. Some plant teams have trade qualifications. Some staff are undertaking graduate programs.

The basic operator’s certificate has increased my knowledge ... I have a lot more extensive knowledge of making alterations to the plant, writing out different permits, a lot more extensive knowledge that the old foreman used to have. That’s given me a
bit of knowledge of not so much how one plant runs, but how
other plants run and how I affect other plants by making moves
on my own plant.

Danny

His ‘knowledge of the plant has increased one hell of a lot’ through the formal
certificate training program. He is looking forward to ‘going on to the next
certificate up’. It is the combination of the Operators’ Certificate and the
opportunity that teams provide for delegating the old foreman’s role to the team
members, that has made this learning effective.

Accredited training is seen as providing employees with a transferable
qualification:

I want to give people something (so) that if this place ever
folded. or if they ever decided to go somewhere else, they could
take something away with them. If you get the training, you
might as well get the paper.

David

The company however has not had much success ‘selling’ the Chemical
Operators’ Certificate. Only one operator has completed it. Transferability holds
little attraction because company and industry turnover is so low. And the course
was seen as irrelevant to work at Huntsman. The company intends to re-write the
certificate to make it relevant to company operations and ‘to give them the whys,
so they understand what the process is about’.

Human resources staff believed that the self-paced delivery method was also a
problem:

I’m dead set against isolated learning … It’s not learning, you’re
just not learning … You need interaction, you’ve got to interact
with other people and talk to them about it and carry it through
that way.

David

David remembers his own experience with the self-paced Basic Electronic
Certificate. He got bored with it. ‘I was missing the classroom side of it. Not the
lectures, but the sharing of ideas’ (David). The new course will be delivered
through subject matter experts on site who will act as coaches. Requests for skills
training are expected to begin soon.

People are becoming more aware of their lack of knowledge and
skill (because) more is being asked of them. People are actually
starting to ask, ‘what are you going to do for us, about our lack
of skills or knowledge?’
Paul (information services team) who recently completed his master’s degree was surprised to learn ... that there is this whole area of study related to diffusion of innovations and how organisations and communities adopt ideas and technologies ... and how ideas propagate through social systems.

Paul

His description of the information technology team suggests that this approach is not Huntsman Australia’s way, but that there are some moves towards more effective management of technology. He would also like to apply his knowledge of technology management within the company and has already been asked for ‘his thoughts and ideas’. He enjoyed studying management and strategic change and was surprised ‘at the number of things that I learnt that I was able to come into my office the next day and put into practice straightaway’.

Although the company paid for the fees in his final two years, it was a personal initiative. So far there has not been any ‘interest on behalf of the organisation’ in what he was doing. He admits that it would be ‘nice’ if the company asked for copies of his assignments for the library so everyone could have access to them. So for him, ‘there is no mechanism within the organisation (for) maximising the value of work done by people doing further study’.

Conclusion

Huntsman Chemical Company Australia is clearly setting its sights on becoming a Learning Organisation. It has embraced the concepts and language of the Learning Organisation literature (in particular, Senge and Covey) and is implementing strategies to change the company dramatically from a traditionally autocratic and hierarchical company to a team-based, participative, learning culture.

The human resources team is driving the change. Some people in that team use the term ‘learning organisation’ when describing the company’s goals and directions; others are not at all concerned how the change and directions are labelled and are sceptical of fads. The other employees interviewed are simply experiencing and participating in the change without any organising framework beyond the teams.

The utilities team experiences self-management as a learning process in which team members take on new roles and responsibilities. They have negotiated an enterprise agreement which sets objectives for them to achieve and ensures pay rises for the team when objectives are achieved. They are experiencing collaborative learning in their team activities and on the shop floor. The team leader takes on the role of coach and is personally committed to the directions that the company is taking. Some team members, who have engaged in self-reflection, have experienced the organisational changes and learning as transformational.
Others are more sceptical, questioning whether the changes in work relationships are all that significant. They are participating in the change apparently willingly because they can see personal benefits. The team identified job security, for example, as a positive outcome of the team agreement.

The Learning Organisation model does not fully capture what is happening (or intended) at Huntsman. Nor does it address all the dynamics that contribute to organisational change. Emery’s model for understanding organisational change may prove a valuable complement. It combines ‘intrinsic’ factors (or motivators) affecting work satisfaction with ‘extrinsic’ conditions of employment. Grounded in the day-to-day realities of the workplace, it recognises that organisations must meet basic needs of their employees.

Intrinsic factors include:
- variety and challenge
- elbow room for decision making
- feedback and learning
- mutual support and respect
- wholeness and meaning
- room to grow – a bright future.

Extrinsic factors include:
- fair and adequate pay
- job security
- benefits
- safety
- health
- due process.

Weisbord 1991, p. 167

Leadership is problematic for the company, with tension apparent in the shift towards self-managing teams and the maintenance of an organisational structure which attributes different status to associates and staff.

The critical factors for opening up opportunities for individual and team learning at Huntsman Chemical Company Australia appear to be devolution of responsibility to team members and access to information about the wider business context. Employees are beginning to articulate the interrelationship between their own action and the organisation as a whole, so forming the basis for systems thinking. Training programs form part of the context for learning and are viewed as one of the many ways in which the company engages in learning.
7.

Implications and Directions for Further Research

The aim of this project was to study the nature of learning in three enterprises. The key questions were:

- How useful is Learning Organisation theory for understanding the nature of learning in enterprises?
- Under what conditions does learning occur within the workplace?
- What is the relationship between formal training and workplace learning?

Each organisational context provided a distinct dynamic which influenced the nature of organisational learning and raised questions about approaches to workplace training.

In this chapter the major observations of the enterprises are reviewed in terms of the three questions; key questions for vocational education and training are identified; and recommendations made for future research into workplace learning.

The 'Learning Organisation'

The case studies demonstrate that the Learning Organisation concept is useful for understanding workplace learning, especially its recognition of:

- organisations as complex interrelated whole systems
- the quality of human relationships as the basis of effective work and learning
- the centrality of the individual in the learning process
- learning as a continuous, strategically used process integrated with and running parallel with work (Watkins & Marsick 1993, pp. 8–9).
However, the case studies indicate that the Learning Organisation concept may be problematic in:

- assuming an homogeneous workforce that shares basic views and values
- oversimplifying the complexities of power and authority in organisations, particularly those undergoing rapid change
- assuming a high level of commitment by individuals to the company.

The case studies revealed that some characteristics of the Learning Organisation were shared by the three companies, but realised differently in each.

At Big Duck & Fish the employees and owner-managers work as a team, collaboratively and collectively. The environment encourages individuals to develop their 'personal capacities' (Senge et al. 1995, pp. 6-7) through learning skills in ceramics and decoration and developing personally. Learning is intrinsic and embedded in the work and the human relationships, but there is no formal system to 'capture and share learning' (Watkins & Marsick 1993, p. 11). Company vision and values are shared, but they clearly belong to the owner-managers. The employees are able to contribute to the details of vision, but the overall directions are set by the owner-managers. All members of the organisation are committed to the product itself and to 'growing' the business.

Unlike the two smaller companies, Huntsman Chemical Company Australia explicitly invokes the Learning Organisation rhetoric and has set out to implement changes which are intended to create a Learning Organisation. The company is in the process of changing from an 'old culture' to a new way of working. There is evidence that some features of the Learning Organisation are emerging, but there is a struggle between the old hierarchical arrangements and the new team-based culture.

The size of an enterprise is a critical factor when considering the applicability of Learning Organisation theory. Even though most of the literature focuses on large companies, this research suggest that smaller enterprises may be more likely to demonstrate Learning Organisation characteristics. Employees at Big Duck & Fish and Dattner's know each other well and work with each other every day. The owner-managers work with them or in close proximity. There is less work-role differentiation than in larger enterprises. Within smaller work environments it is easier to comprehend the entire business; and for employees to acquire information about the core activities and the corporate vision, and to become members of a socially integrated group.

The owner-managers of Big Duck & Fish and Nicholas Dattner have carefully selected their workforce through their recruitment and selection processes. Homogeneity is strengthened by the nature of the product manufacturing processes which do not demand a wide range of trade skills. It appears that any employees who do not conform to the company ethos are pressured by the group to leave. A small homogeneous workforce is likely to be able to work collectively and synergistically to achieve unified action on common goals, a key characteristic of the Learning Organisation (Watkins & Marsick 1993, p. 14).
Implications and Directions for Further Research

The Learning Organisation's characteristic homogeneity is problematic in the context of a larger company, where there are likely to be greater differences within the workforce, especially given the diversity of languages and backgrounds that make up Australia's multicultural labour market. At Huntsman Chemical Company, where at least sixteen languages are spoken, the notion of the 'all purpose' worker engaged in dialogue and self-actualising collaboration appears difficult to sustain.

Linked to the assumption of homogeneity in the Learning Organisation, is the degree of commitment it assumes on the part of the individual to the company. The case study research found some evidence of such commitment, but further research is required. At Huntsman Chemical Company, Dominic recognised significant changes to his behaviour and attitude to management as a result of becoming an advocate of the Huntsman philosophy. Employees at Big Duck & Fish are committed to 'growing the business'. At Dattner 'the company has come of age ... we know what we are capable of, we have proved ourselves' (Greg). In all three enterprises there is a low turnover of staff and a sense of job security. How closely the commitment to the company ethos is dependent on the employee's sense of job security may be inferred from the Huntsman industrial agreements where employees are guaranteed employment for a set period of time.

The notions of leadership within the Learning Organisation literature do not adequately address the issues of power and authority within companies, particularly organisations undergoing rapid change. The case studies illustrate some of the complexities and tensions regarding leadership.

- At Huntsman Chemical Company Australia, there is a tension between the espoused participatory model and the clear separation of work roles and status within a hierarchy.
- In Nicholas Dattner & Company, leadership is located in one charismatic individual who resists having management roles assigned in the company and management training for his staff.
- At The Big Duck & Fish Company, the authority of the owner-managers is clearly and explicitly accepted by employees who subscribe to their vision and values.

Workplace learning

Nature of learning

The nature of learning in Learning Organisations is clearly articulated by Watkins & Marsick (1993) whose work was used in this study as a major source. The case studies provide evidence of workplace learning which is:

- a collective social activity
- a continuous, strategically used process
Learning in the Workplace

- integrated with and running parallel to work
- embedded in systems to capture and share learning

and which
- results in changes in knowledge, beliefs and behaviours
- enhances organisational capacity for innovation and growth.

(Watkins & Marsick 1993, pp. 8–9)

What is learned

The research shows that, in the workplaces studied, people learned:
- skills and knowledge to perform their job
- contextual knowledge about the business, their own individual place within this context, and the place of their work or tasks within the whole production system
- interpersonal skills: how to work and learn collaboratively
- intrapersonal skills and self-knowledge.

Part of intrapersonal learning appears to be a remaking of oneself, such as a change in attitude and behaviour to match attitudes and behaviour of colleagues and to comply with the workplace culture. This was described by individuals as ‘self-improvement’. Part of what some employees at the three enterprises learnt was how to make themselves the ‘right’ person for the job. Dusty, at Big Duck & Fish, became a ‘changed man’ and some of the foremen at Huntsman became ‘better people’ in the new workplace order.

How people learn

In the case studies, it was observed that job and interpersonal skills and knowledge were learned in an holistic manner. They were not assimilated as separate, independent competencies or capabilities but were inextricably inter-related to each other. At Big Duck & Fish, employees learned job-related skills while doing hands-on work with the clay and engaging in intrapersonal learning through conversation with fellow staff about the future plans for the company. The elements of learning could not be separated from the process of production.

It was evident that learning takes place in a multiplicity of ways. In the enterprises studied, the most common way of learning technical skills was through individual demonstration and instruction in the task at hand. At both Big Duck & Fish and Nicholas Dattner & Company, the employees learned through having a skill demonstrated, with explanations about why it was undertaken in such a way. This was followed by the learner practising the skill with corrective intervention and further explanation from the teacher as required. The learner then further practised on their own, often seeking advice and coaching until they became proficient.

The cultures at each of the three workplaces allowed trial and error to varying degrees. Most interviewees described how they frequently learnt from their mistakes. At Big Duck & Fish and Nicholas Dattner & Company, where the
products require inventive design and artistic judgement, employees were encouraged to experiment and improvise.

Other methods of learning included:
- observing peers at work, especially at Big Duck & Fish and Nicholas Dattner & Company where production is strongly influenced by aesthetic considerations
- drawing on the knowledge and experience of experts
- solving specific work problems, sometimes through improvisation rather than a structured linear approach
- developing ways to improve work processes through structured and semi-structured methods
- formal and informal group activities, such as Huntsman’s company-wide meetings or everyone at Big Duck & Fish talking around the table at morning tea
- training programs.

Importance of workplace culture
The effectiveness of learning is mediated by a range of environmental and cultural factors, especially employment conditions, the nature of relationships in the workplace and common values. The following criteria seem necessary for effective organisational learning:
- fair salary
- safe workplace
- sense of job security and a belief that the company will look after you
- ready access to information about the business (to provide the context and the rationale for work and learning, fundamental to systems thinking)
- recognition by company management of the demands and needs of employees’ lives outside work
- support for risk taking and questioning of processes
- systems (formal and informal) for recognition and reward.

A shared vision provides a context for work and learning. Employees at Huntsman could articulate the goals of the business although they did not express these in terms of the ‘higher vision’ expressed in the company philosophy. They simply recognised how their actions or learning contributed to the achievement of business goals which would eventually be a personal benefit for them and others in the form of increased salary or job security.

Learning appears to be most effective when people have the opportunity and authority to implement or apply what they have learned. Teams at Huntsman requested training in meeting skills as they shifted to self-management. Employees learned from previous foremen when they became accountable for their work.

Relationship between product and learning
The case studies suggest that the nature of learning may be influenced by the nature of the product itself. At both Big Duck & Fish and Nicholas Dattner & Company the employees have direct sensory contact with the clay or the timber.
Others work with colour and texture to create a design. There is a sense of immediacy and actuality in their work; they appear to think in clay or paint or timber. The employees at these companies are fully engaged in learning about and with the product. They talk of ‘loving’ the timber, or the pleasure of working with clay. This contrasts with other manufacturing processes (such as at Huntsman) where the work is directed at primary production of materials for later processing. The task is standardised, dependent on technical specifications, and not associated with sensory pleasure. This aspect deserves further research.

Skills for effective participation in organisational learning

The case studies demonstrate that in order to participate effectively in organisational learning employees need to know how to:

- learn how to learn
- think critically
- reflect on experience
- think in a systems framework
- work and learn collaboratively
- understand the business.

These capacities are learned in context, embedded in work practices and interpersonal relationships. Often, such as at Big Duck & Fish, these skills are developed organically and implicitly. At Nicholas Dattner & Company there is also explicit focus on the personal development of employees, with times set aside for reflection on the business.

Facilitation of learning

The case studies suggest that coaches, teachers or trainers need to be experts in the core business. Virginia, at Big Duck & Fish, has expertise in ceramics learnt through her academic degree and many years of practical experience. What she teaches her employees is ceramics for Big Duck & Fish; she is an expert in the field defined by her core business.

The former supervisors at Huntsman were regarded as technical experts by team members. Their skills and knowledge had been re-shaped or formed by the specific work context. The new version of the Chemical Operator’s Certificate will be delivered by subject matter experts on site.

Technical skills and knowledge, while being relevant to the specific job, must be accompanied by broader contextual knowledge, such as the place of the skill in the overall manufacturing process and why the skill is performed in a particular way.

Formal education and training programs

Education and training programs play a significant role for workers at Huntsman where employees demanded training programs in order to develop skills and knowledge which the organisational change required of them. The staff interviewed had formal qualifications, the utilities team had their boiler maker ‘tickets’ and some employees had undertaken modules from the Chemical
Implications and Directions for Further Research

Operator’s Certificate. However, education and training, although important, forms only one context in which learning takes place. It is only one aspect of workplace learning.

The examples of Big Duck & Fish and Nicholas Dattner & Company, where education and training programs are of little or no significance, suggest that companies, in these cases small ones, can exhibit many of the features of the Learning Organisation without participating in the formal vocational education and training system.

Implications for vocational education and training

The case studies raise a number of issues for the way in which vocational education and training programs can best serve the needs of enterprises, particularly within the framework of the Learning Organisation.

A re-examination of the concept of competence (and competency based curricula, as expressed in national policies) should take into account contextual uniqueness of enterprises and the full repertoire of cognitive and interpersonal capabilities required to participate effectively in organisational learning. If effective learning is as highly contextualised as the case studies suggest, how relevant are nationally standardised curricula and how can they be applied effectively within an enterprise? Further research is called for in this area.

The emphasis in the literature of the Learning Organisation on cognitive skills such as systems thinking and double loop learning has implications for the design and delivery of training. The failure of the implementation handbooks for competency based training to address the issue of learning, prompts the question: how can education and training programs encourage these cognitive processes?

The experience of the enterprises studied endorses an approach to education and training delivery which recognises:
- contexts of learning
- learning processes
- the need to create environments conducive to learning.

It is critical that a set of principles about teaching, learning and cognition are located at the centre of curriculum development for vocational education and training. Building environments conducive to learning should become central to the delivery of training. Those engaged in delivery will need to reaffirm their expertise in teaching and learning.
Further research

A study of 'competence' within team-based work contexts could explore the implications of 'competence' for workplace learning and develop a framework for enterprise-specific workplace training by building on the notion of a 'competent' worker and taking into account the full repertoire of skills and knowledge required for a worker to participate in organisational learning. Key research questions should be:

- What constitutes 'competence' in team-based work concepts?
- What are the implications of 'competence' for workplace learning?
- What are the implications of 'competence' for the development, delivery and assessment of workplace training?

A longitudinal study of learning processes within innovative, leading-edge small businesses could provide a highly textured understanding of what happens in these organisations as they grow. Such case studies could be selected to provide comparative information on workplaces that vary according to:

- the heterogeneity of the workforce
- the ways in which the nature of the work mediates workplace learning and worker identity
- the creative demands and rewards of the work processes and setting.

A study of leadership should be conducted in companies, particularly in those which are explicitly implementing team-based structures or attempting to become Learning Organisations.
## Attachment 1

### Case study interviewees

**The Big Duck & Fish Company**
- Karen Bauer: Retail Manager
- Tim Dolan: Director, Business Manager, Equipment Designer
- Anthony Holland: Foreman
- James Long: Plate Maker
- Virginia Mayweld: Director, Designer, Production Manager
- Sam Mills: Plate Maker
- Sally Newcombe: Head Decorator
- Dusty Saalfield: Hand Thrower and Decorator

**Nicholas Dattner & Company**
- Danielle Clemson: Apprentice Finisher
- Nicholas Dattner: Owner, Director
- Lesley Ellis: Administrator
- Tristan Forrest: Salesperson
- Simon Kerr: Cabinet Maker
- Mark Rees: Cabinet Maker
- Greg Smythe: Cabinet Maker
- Frank Trimboli: Finisher

**Huntsman Chemical Company Australia**
- Danny Cartwright: Chemical Operator
- David Graham: Employee Development Manager
- Peter Hancock: Learning Development Coordinator
- Mark Jackson: Employee Relations Manager
- Dominic Pontelandolfo: Leading Utilities Operator
- Sally Scott: Industrial Hygienist
- Maree Sellstrom: Human Resources Director
- Paul Thompson: Senior Analyst/programmer, Information Technology Department

**Utilities technicians team members**
- Paul Bradshaw
- Jingo Chan
- Ernie Martin
- Colin Pie
- Ross Takerei
- Peter Watson
Attachment 2

Case study interview schedule

Initial factual information
- Name
- Position in the company
- How old are you?
- What formal qualifications do you have?
- How long have you worked here?
- How many hours do you normally work per week?
- How did you come to get this job?

Tell me about how your work is done here.
- How did you get your job here?
- Describe the work flow over a normal week and day
- Who does what, when, how and why?
- How many hours do you work?
- What do you talk to your workmates about during work time and breaks?
- How do you work with each other on the job?
- How do you help each other?
- How do you know when you’ve done something well at work?
- What happens when there is a problem, mistake or error?
- What happens with a new idea?

How has this organisation changed since you have been here?
- What changes have happened?
- What do you think has led to the changes?
  - External drivers?
  - Internal developments or events?
- Have any of the changes occurred because of your or your team’s suggestions?
- Have you or your team had input into planning for the changes?
- How have the changes affected you? your team? others?
- How have they affected the whole organisation?
- What have been the highlights and the lowlights?
  - What were they?
  - How were they dealt with?
- What have you learnt from these changes?
- What do you think has been learned by others?
  - co-workers, managers, owners, customers?
- What do you think has been the effect of this learning in the organisation?
Where do you think or know this organisation is going?
- What are the goals?
- What are the constraints?
- What do you expect or know will happen in the organisation over the next couple of years?
- What do you expect will happen to you over the next couple of years?
- What are the most important things this organisation has to achieve in the next two years?

What has been a critical time or event for the organisation?
- Was it a crisis or a time of innovation?
- Describe what it was, what happened and when.
- Who was involved?
- How were issues or differences or problems resolved?
- What did you learn as a result of this?
- What do you think was the overall learning for the whole organisation?
- Has the learning been tracked or recorded? How?
- What changes were made as a result of the learning?
- How was everyone informed of the learning?

Considering the time you’ve been with the organisation ...
- What have been the most important skills you have acquired?
  - how to ...
- How did you learn them?
  - Where did you learn?
  - Who did you learn from?
  - What did they do so that you could learn?
  - What did they tell you?
  - Did it happen in a structured or unstructured way?
- How did you know when you’d learnt something?
  - Does learning affect how you feel about yourself and your work?
  - Do others recognise that you’ve learnt?
  - How do they show this?
    - Praise, encouragement?
    - Further training, pay increase, new responsibilities?
    - Public celebration or thanks, promotion, prizes?
- What places limits on how much you learn?
- What personal qualities have you acquired?
- How did you develop these?
- Do you get time at work to reflect on what you’ve learnt?
- What and how do you help others to learn?
- What would help further develop your learning at work?
What is the quality of your worklife?

- What happens if you have a home or family issue that might affect your work?
- What happens if you have a personal problem that might affect your work?
  - Who do you talk to?
  - What types of action can be taken?
  - How do people react to your situation?
- How much flexibility is there in how your work is organised?
  - Options like flexi-time, compressed work weeks, job sharing?
  - Job rotation?
  - Control of work flow?
- Do you have opportunities to socialise at work?
- Does your organisation have programs to support staff?
  - Health and recreation?
  - Counselling?
- Would or do you use these programs?
- Are you or the company involved in any community work? How?
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