UNDERSTANDING EDUCATIONAL PROCESS IN

LEADERSHIP DEVELOPMENT

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CANDIDATE DECLARATION

I certify that the thesis entitled: Understanding the Effect of Educational Process in Leadership Development

submitted for the degree of Doctor of Philosophy

is the result of my own work and that where reference is made to the work of others, due acknowledgement is given.

I also certify that any material in the thesis which has been accepted for a degree or diploma by any other university or institution is identified in the text.

Full Name: …KEITH TREVOR THOMAS…………………………………

Signed: ……………………………………

Date:………………………
Acknowledgements

Foremost, I would like to acknowledge and thank my supervisor Professor Richard Bates. When my expanding conceptualisation threatened to encompass three potential thesis topics, his insight and gentle humour was exactly what was needed. I am grateful for his encouragement, friendship, and genuine interest in my work. I hope that I fulfilled my commitment to him, to remain steadfast and self-motivated.

There are many others: friends and colleagues from the Defence Force, staff at Deakin and La Trobe University, fellow researchers and supporting administrative staff, in particular Heather Davis from the Deakin Education Faculty. Without their support, this thesis would have been far more difficult to complete. I would especially like to acknowledge and thank the graduating class of 2000 from the Defence Academy and then Commandant Brigadier Gordon Jones who so readily embraced my initial request. Your respective participation and support is deeply appreciated.

Unquestionably, this endeavour and its successful completion would not have been possible without the considerable backing, encouragement and understanding of Mary and Madelaine - my partner and daughter, respectively. Mary was a constant source of support, encouragement and much needed focus. Madelaine - this project did come at a price, time away from family. As only a four year old might wonder, you often asked "why I sat for so long in front of the computer". Fortunately, as a five year old displaying patience and understanding beyond your age, you would tell visitors 'he's doing his PhD'.

Finally, while my work is now outside the military, this thesis and my preceding work as the principal author of the revised Army leadership doctrine at the short-lived Army's Centre for Command Studies (CCS) are founded on the Centre’s vision and commitment to benefit the future Australian soldier. Recalling a comment by a senior and very pragmatic warrant officer, in response to the then draft leadership model, 'the wheel (leadership) ain't broke so why was I trying to fix it?' My response then as now is that change, which I equated to enemy action, was never predictable and so it never pays to become too complacent. In retrospect, I would add that the world has undergone a transformation. This change is marked by a new configuration of social, economic and organisational forces,
which requires autonomy and freedom by individuals and small units alike so that they can deal with continuing discontinuity. This will require us, as Pascale urges, to “break the chains of the old mindset if we are to grapple successfully with the task of managing adaptive organisations.” As Pascale goes on to explain “the enemy within ourselves is the old mindset” (Limerick 1998: 21). One view of the new mindset is that it must embrace individualism, collaboration and innovation, while being prepared to let go of the apparent certainty of hierarchical control (Limerick 1998). It is to these issues – of clarifying the capabilities involved and of determining the process to best develop this new mindset - which this thesis is concerned with, and to which we can now turn.
Abstract

This thesis is a case study of educational process in the leadership development program of the Australian Defence Force Academy. The intention is to determine the relative emphasis in educational process on the conventional command and managerial compliance (Type A) style and the emergent contingent and creative (Type B) style of leadership. The Type A style is theorised as emphasising hierarchy and control, whereas the emphasis in a Type B style is on adaptive and entrepreneurial behaviour. This study looks at the learning process in a cultural and structural context rather than focus on curriculum and instructional design. Research in this wider context is intended to enable development processes to successfully bridge a gap between theory and practice, implicit in studies that identify theories 'in-operation' as different from the theories 'espoused' (Argyris 1992, Savage 1996).

In terms of espoused and in-use theory, the study seeks to produce a valid and reliable result to the question: what is the relative emphasis on the two leadership styles in the operation of the three educational mechanisms of curriculum, pedagogy (teaching practice) and assessment? The quantitative analysis of results (n = 114) draws attention to both leadership styles in terms of two and three-way relationships of style, cadet or work group and service type. The data shows that both Type A and Type B leadership styles are evident in the general conversation of the organisation. This trend is present as espoused theory in the curriculum of the Defence Academy. However, the data also confirm a clear and strong emphasis towards command and managerial compliance as theory-in-use, particularly by cadets. This emphasis is noticeably evident in the teaching and assessment practice of the Defence Academy. Other research outcomes include the observation that:

- Contextually, while studies show it is difficult to isolate skills from their cultural and biographical context (Watkins, 1991:15), this study suggests that it is equally difficult to isolate skills development from this context.
- There is a strong task or instrumental link identified by cadet responses in terms of content and development process at the Defence Academy, in contrast to the wider developmental emphasis in general literature and senior officer interviews.
- There is a lack of awareness of teaching strategies and development activity consistent with espoused Type B leadership theory and curriculum content. This
gap is compounded by the use in the Defence Academy of personnel without teaching expertise or suitable developmental experience.

- The socialisation of cadets into the military workplace is the primary purpose of training. This purpose appears taken for granted by all concerned - staff, cadets and senior officers.

Defence Academy development processes appear to be faced with a dilemma. Arguably, *training* and *learning from experience* are limited approaches to development. Training, which involves learning by replication, and learning from experience, which is largely imitative, are both of little use when people are faced with novel and ambiguous situations. This study suggests that in order to support the development of capabilities that go beyond training based competence a *learning and development* approach is needed. This more expansive approach requires educational planners to consider the cultural and social context that can inadvertently promote the status quo in practice over espoused outcomes.
# List of Acronyms

**Title:** Understanding Educational Process in Leadership Development

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>ADC</td>
<td>Australian Defence College</td>
</tr>
<tr>
<td>ADF</td>
<td>Australian Defence Forces</td>
</tr>
<tr>
<td>ADFA</td>
<td>Australian Defence Forces Academy</td>
</tr>
<tr>
<td>AF</td>
<td>Air Force</td>
</tr>
<tr>
<td>BPR</td>
<td>Business Process Reengineering</td>
</tr>
<tr>
<td>CCL</td>
<td>Centre for Creative Leadership</td>
</tr>
<tr>
<td>CD</td>
<td>Constructive Development</td>
</tr>
<tr>
<td>CPD</td>
<td>Continuing professional development</td>
</tr>
<tr>
<td>CCLH</td>
<td>Centre for Creative Leadership Handbook</td>
</tr>
<tr>
<td>DLL</td>
<td>Double-loop learning</td>
</tr>
<tr>
<td>JSCFADT</td>
<td>Joint Standing Committee on Foreign Affairs, Defence, and Trade (The Price Review)</td>
</tr>
<tr>
<td>KSA</td>
<td>Knowledge, skills, and attributes</td>
</tr>
<tr>
<td>LDP</td>
<td>Leader development program</td>
</tr>
<tr>
<td>LTCOL (E)</td>
<td>Lieutenant Colonel (Army rank equivalent to Commander in Navy and Wing Commander in the AF)</td>
</tr>
<tr>
<td>OD</td>
<td>Organisational Development</td>
</tr>
<tr>
<td>PD</td>
<td>Professional Development</td>
</tr>
<tr>
<td>PMD</td>
<td>Professional military development</td>
</tr>
<tr>
<td>RAAF</td>
<td>Royal Australian Air Force</td>
</tr>
<tr>
<td>RAAFC</td>
<td>Royal Australian Air Force College (RAAF Base Point Cook)</td>
</tr>
<tr>
<td>RAN</td>
<td>Royal Australian Navy</td>
</tr>
<tr>
<td>RANC</td>
<td>Royal Australian Navy College (HMAS Creswell)</td>
</tr>
<tr>
<td>RMA</td>
<td>Revolution in Military Affairs</td>
</tr>
<tr>
<td>RMC</td>
<td>Royal Military College</td>
</tr>
<tr>
<td>SSL</td>
<td>Single-loop learning</td>
</tr>
<tr>
<td>SST</td>
<td>Single Service Training</td>
</tr>
<tr>
<td>TQM</td>
<td>Total Quality Management</td>
</tr>
<tr>
<td>Type A</td>
<td>Conventional <em>command and managerial compliance</em> leadership style</td>
</tr>
<tr>
<td>Type B</td>
<td>Emerging, <em>contingent and creative</em> leadership style that emphasises team based relational and entrepreneurial behaviour</td>
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Chapter 1: Overview of the Problem

CHAPTER 1

OVERVIEW OF THE PROBLEM
CHAPTER 1: OVERVIEW OF THE PROBLEM

“More time is wasted in educational programmes than through idleness”
(Swieringa and Wierdsma 1992: 1)

Section 1.1 Statement of Purpose: Bridging Theory and Practice

The transformation of work in the latter part of the twentieth century, with the information technology revolution, has changed organisations (Senge 1995; Sarros and Butchatsky 1996; Scholtes 1998; Castells 2000; Daft 2002). In order to survive in this uncertain and often chaotic environment, organisations have shifted from an emphasis on command strategies, functional line-staff structures and control systems, to contingent and adaptive strategies with flattened hierarchies. Citing Peter Drucker, Savage suggests organisations of the future will be knowledge-based and essentially self-directing (Savage 1996). In the military, similar dramatic change in the environment provoked a debate in the mid-1990s over a so-called 'revolution in military affairs' or RMA. This revolution, generally associated with advances in information technology and a significantly changed security environment since the end of the Cold War, anticipates fundamental change in the military.

Faced with these new realities, there is a renewed and evident changed focus on leadership. The changes, which are discussed in more detail in chapter 2, are categorised in this study as a shift from a command and managerial compliance (Type A) style that emphasises hierarchy and control, to a contingent and creative (Type B) style. The emerging style emphasises team-based relational processes and creative and entrepreneurial behaviour. The differences in styles demonstrate how the meaning of leadership has changed to fit an uncertain and dynamic knowledge-based environment.

As organisations come to terms with these changed assumptions about leadership, there is also a need to reconsider strategies for leadership development, which is the process of expanding an individual’s capacity to be effective in a leadership role. The need for re-evaluation is perhaps especially true for organisations such as the military as they invest heavily in training their people. For one thing, there is recognition that it is necessary to train everyone to lead (Zenger, Ulrich et al. 2000). Research also affirms that leadership skills and consequent performance is not the province of a few gifted individuals. Rather,
leadership is a potential capability in many individuals. The associated knowledge and skills are "developed capabilities" that emerge over time as a function of education and experience (Ackermans 1996; Mumford, Zaccaro et al. 2000: 21).

This thesis is a case study of the educational process in the leadership development program of the Australian Defence Force Academy (ADFA). The intention of this study is to stand outside mainstream perspectives, to introduce some new ideas in educational development, and then return to mainstream thought. The research focus is towards the learning process in a cultural and structural context, rather than on curriculum and instructional design. Research in this wider context is intended to bridge a gap between theory and practice (Gibbons 1999; Castells 2000). This gap is implicit in studies that identify theories in-operation or in-use as being different from the theories espoused in company documents and doctrine (Argyris 1992; Savage 1996). This concept, introduced by Chris Argyris and his colleagues, is considered next.

Section 1.2 Theories-of-action and Individual Behaviour

Individual behaviour is generally intended to achieve tacit or explicit intentions. Yet, it is not possible to design every action from the beginning. Nor is it likely that anyone can have all the knowledge that is relevant to every situation. Therefore, it is normal that in any given situation beliefs and values will play a part in determining behaviour. These beliefs or micro-theories are described as theories-of-action (Argyris 1992) that are held in people's heads. They are important as they influence individual behaviour. Argyris identifies two types of theories of action: "espoused theories" that describe the way people say they behave and "theories-in-use" or theories-in-operation that describe the behaviour that people actually display (Argyris 1992: 152).

Argyris suggests that people are often unaware that their theories-in-use are often not the same as their espoused theories. While people may espouse a number of different theories or values to explain their actions, Argyris and his colleagues report great consistency in the theory-in-use. They suggest a generalizable theory-in-use model called Model 1 (Argyris

---

1 Over 95 percent in nearly 1000 cases varying in age, sex, race and status
People exhibiting this model of role behaviour are high on advocacy and high on control. The other category of theory-in-use, which is not a mirror reverse of Model 1, is called Model 2. The significant feature of Model 2 theories-in-use is the ability to call upon qualitatively good data and to test advocated positions and assumptions. Argyris does not offer substantial argument as to why most people would adopt a Model 2 theory-in-use. However, as Anderson (1994) comments, the values and strategies associated with Model 2 seem plausible enough in the context of values likely to be espoused by Western society. Table 1.1 shows the characteristic values and strategies of Model 1 and Model 2 theory-in-use (Argyris 1976; Anderson 1994).

<table>
<thead>
<tr>
<th>Table 1.1: Model 1 and 2 Theories-in-Use (Adapted from Anderson 1994)</th>
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<tbody>
<tr>
<td><strong>Model 1 Governing Variables</strong></td>
</tr>
<tr>
<td>Seeking unilateral control</td>
</tr>
<tr>
<td>Minimise losses and maximise wins</td>
</tr>
<tr>
<td>Minimise negative expression</td>
</tr>
<tr>
<td>Be rational</td>
</tr>
<tr>
<td>Strategies</td>
</tr>
<tr>
<td>Advocate a position without encouraging inquiry</td>
</tr>
<tr>
<td>Own and control task</td>
</tr>
<tr>
<td>Unilaterally protect self and others; blind to impact on others; reduce incongruity by use of defensive actions such as stereotyping, blaming, suppressing and intellectualizing</td>
</tr>
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The theories-of-action concept is focused on individual and group interactions and defences. However, the theory does also connect the individual learner with the organisation, because if individuals in an organisation only make use of Model 1 learning, the theory suggests that the organisation will inevitably begin to act against its long-term interests. Conversely, the theory suggests that Model 2 behaviour, which emphasises bilateral control, will enhance the capacity of the organisation to innovate and to develop new ways of looking at the environment in order to regenerate itself.

Argyris's conceptualisation of learning and theories-in-action makes a significant contribution to understanding learning in organisations. The theory raises two primary
concerns for education process. First, people programmed through socialisation and other processes with Model 1 theories-in-use, are unlikely to be capable of collaborative inquiry or of taking on learning oriented norms. This can occur without them even being aware of it. Second, if they cannot change these theories-in-use then they become virtual prisoners of those theories. The theory serves one other purpose in terms of education process: it highlights the facilitative responsibility of staff as teacher, coach and mentor as they help students reflect on their theories-in-action.

Argyris (1992) suggests that most of our social systems are typically Model 1 theory-in-use systems. Hence, the three considerations outlined are central to the research framework of this study. To the extent that leadership interventions fail to distinguish between espoused theories and theories-in-use, the risk is that leadership education programs may champion a contingency Type B leadership style at the espoused level but unknowingly educate leaders to produce primarily Type A leadership style as theory-in-use. Under these conditions, the likely outcome of leadership education is to promote the status quo, as interventions may transform espoused theory, but will have little impact on theories-in-use (Argyris 1976).

Section 1.3 The Role of Education, Learning and Development

Education and learning both occupy a central role in modern societies. Yet, support for education and learning is not without controversy. The challenge in many ways is about wrestling with the dilemma evident in the twin roles of education: on the one hand generating change and on the other hand conserving traditions (Evans and Nation 1996). If leadership development is concerned with growing leaders able to meet the demands and circumstance of the future, then the dilemma facing educational process becomes evident in the tension between the Type A and Type B leadership styles.

Nor is this consideration limited to individuals. A common thread to learning and consequent change is the creation of an organisation capable of rapid and continuous adaptation. Because organisations can only learn by the learning of their people (Simon 1991), there is an implicit merging of individual and organisational learning in educational
Chapter 1: Overview of the Problem

interventions. The dilemma facing education process, of generating change and yet conserving tradition, is mirrored in the organisational requirement for both efficiency in current operations and the preparedness to innovate or adapt to the innovations of others.

1.3.1 Learning and Change - A Useful Distinction

Central to education and development directed at individual and organisational change and success is the capacity to learn. The reason is simple: learning determines any change in behaviour (Cowan 1995). Defined in this context, learning is "a change in the way in which people understand the world around them" (Ramsden 1992: 82).

Two kinds of learning can be distinguished. The first is adaptive learning that supports efficiency through first-order or incremental change and continuous improvement. The second is generative learning that supports second-order or transformative change. It requires the ability to innovate and a preparedness to break free from existing norms and practice. Both adaptive learning and generative learning are necessary and the difference between the two characteristic types is illustrated in Table 1.2 (Argyris and Schon 1978; Hanks 1994; Senge 1995; Argyris 2000; Carneiro 2000).

<table>
<thead>
<tr>
<th>Adaptive Learning</th>
<th>Generative Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responding to environmental change</td>
<td>Expanding capabilities</td>
</tr>
<tr>
<td>Coping with threats</td>
<td>Enhancing creativity</td>
</tr>
<tr>
<td>Reacting to symptoms</td>
<td>New ways of looking at the environment</td>
</tr>
<tr>
<td>Capturing trends and incorporating early signs of change</td>
<td>Addressing underlying causes</td>
</tr>
<tr>
<td>Flexibility as a prime value</td>
<td>Thinking differently, anticipating futures</td>
</tr>
<tr>
<td>Strategy: Efficiency through continuous improvement</td>
<td>Strategy: Longer term effectiveness through innovation and learning</td>
</tr>
</tbody>
</table>

Table 1.2: Adaptive and Generative Learning (Adapted from Carneiro, 2000)

Given the centrality of learning to success of a company, learning has become a strategic initiative for many companies and a focal point for competitive advantage (DiBella, 2001). However, the best blend of the two kinds of learning remains open to debate. What is clear is that adaptive learning should not outweigh generative learning, which is needed to
expand existing capability. Moreover, innovation happens in unpredictable and unforeseen ways. For this reason, in the context of encouraging a generative learning capacity, it is important to understand that it may not be possible to predict the outcomes and value of such longer-term educational investments (Collins and Porras 1994). Nonetheless, there is obvious value in fostering the capability particularly given the suggestion from studies by Argyris and colleagues (Argyris and Schon 1978; Argyris 1992; Argyris 2000) that people programmed through socialisation and other processes with Model 1 theories-in-use are unlikely to be capable of collaborative enquiry or of taking on learning-oriented norms.

1.3.2 Single and Double Loop Learning

Another important concept for education and development directed at individual and organisational change is the distinction between single and double loop learning processes (see Figure 1.1). The concept and major empirical findings of single-loop and double-loop learning are described in a series of studies by Argyris and his colleagues (Argyris and Schon 1978; Argyris 1992; Argyris 2000).

Figure 1.1: Single and Double Loop Learning

The two learning processes correlate with first and second order change (Anderson 1994, citing Watzlawick, Weakland and Fish, 1974). Single loop learning (SLL) or adaptive learning improves systems at the process level, with solutions being sought from within existing insights and rules. Changes through SLL are based on problem solving with consequent actions typically described as more of the same, but better (Swieringa and Wierdsma 1992). Conversely, double loop learning (DLL) or generative learning improves systems at the level of insight with questions being asked of governing rules, of assumptions and of collective knowledge. This more complex form of learning is important for transformative or radical change.
While problem solving is important and skilled professionals are usually well practised at this, an over focus on single-loop learning can inadvertently contribute to an inability to engage in double-loop learning. The latter form of learning is linked to the implementation of change strategies that are creative and not constrained by the status quo (Argyris 1976). This capability is important because individuals and organisations would reasonably expect to encounter the need for radical change regularly through their life span (Mink 1991; Swieringa and Wierdsma 1992).

The learning dilemma represented by the two types of learning, is compounded by the fact that individuals and companies may not be aware of the distinction in practice. Coincidentally, both Swieringa et al. (1992) and Argyris (1976, 1992) also observe that when single-loop learning strategies fail, individuals and companies are likely to become defensive and adopt strategies to screen out criticism and blame others. Effectively, just when individuals and organisations need to learn most by being creative and developing new principles, they often shut down this capacity. The apparent "automatic reaction to defensiveness" is also more likely when the focus is on personal behaviour, such as in leadership development, rather than when the issue relates to external factors such as training systems, pay, and compensation (Argyris 1992: 148).

1.3.3 Learning from Experience and through Education

Another development concept that is directly related to individual and organisational change is the capacity to "learn and benefit from experience". This capacity is crucial to effective development for both individual and groups (Mumford, Zaccaro et al. 2000: 21). Learning from experience is described as a cyclic form of learning. It is best exemplified by the Kolb's experiential learning cycle that is discussed later in Chapter 3 (Kolb 1984).

Swieringa and Wierdsma argue that the concept of a learning cycle can help bridge the difference between "learning from experience" and "learning through education" (Swieringa and Wierdsma 1992: 22). The point is that neither experience nor education alone can guarantee understanding and ability. Both elements are necessary. They are linked by the facility for reflection. Linking these elements, effective development can then
be described as an on-going upwards spiral involving a cycle of doing (experiencing), reflecting, thinking, deciding and (re) doing (Argyris 1976; Walker 1991; Brunner 1994).

1.3.4 Organisational Learning and Change

A final important issue is to understand learning and development in the context of organisational learning and change. Learning and change is characteristic of all successful organisations and the associated concepts have been studied or discussed in organisations under the guise of a variety of terms. These activities based on learning from experience are illustrated in Figure 1.2.

Figure 1.2: Dimensions of Organisational Learning and Change

Adapted from R.E. Quinn (1988)

Each of the four groups of learning and change activity represent potentially competing dimensions to organisational development (Quinn 1988). Innovation represents new ways to understand or configure the world, while continuous improvement or kaizen is the process of getting progressively better through incremental changes. Innovation corresponds with DLL and transformative change, while continuous improvement corresponds with SLL and simple change. Continuous adaptation is concerned with adapting to changes in the market place, while benchmarking is learning from the experience of others (DiBella 2001). Both latter processes may correspond to simple or transformative change. However, reengineering organisational processes does not ensure the dynamic teaming and integration necessary for on-going success. The challenge is in part an attitudinal one, because it is argued that "real integration is people dependent" (Savage 1996: 118).
1.3.5 Summary

There is an implicit merging of individual and organisational learning in educational interventions, because the only way organisations can learn is through the learning of individual people. In development initiatives directed at individual and organisational change, there are two related roles for education - that of generating changes as well as conserving traditions. In terms of bridging theory and practice, these twin roles represent a dilemma that mirror the dual challenge for organisations - that of innovation or adaptation to the innovation of others, as well as efficiency in current operations.

Education that is intended to improve the quality of current action is largely concerned with an improvement in competence related to developing efficiency in current operations. This learning is largely based on SLL processes. However, in terms of generating change and innovating, the risk is that competent people can be collectively incompetent or display what Senge (1995) describes as skilled incompetence. This characteristic occurs because of a tendency towards defensiveness in the process of collective inquiry that can stop learning. What this suggests is that individuals and organisations need to be able to move beyond single-loop and adaptive forms of learning. When periodic radical change is required, the associated DLL and generative form of learning can and ideally must be mobilised from within the organisation.

In summary, learning and development strategies need to accommodate improvement and first-order change related to competence. They must also be able to foster renewal and capacity development, which requires the capacity for second-order change. By programming people with Model 1 mental models or theories-in-use, the risk for education and development processes is that students may become incapable of collaborative enquiry or of taking on learning oriented norms. They effectively become prisoners of their theories-of-action or mental models.

Section 1.4 Changing Context and Requirements for Military Leadership

The soldier’s profession, described by General Sir John Hackett in The Profession of Arms, is “the ordered application of force to resolve a social problem” (Connolly 1998: 47). This
need has not diminished in the 21st century. Rather, the changed security environment with the end of the Cold War seems to have ushered in new forms of conflict and new ways of responding to threats (Crevel 1991; Builder 1997; Thomas 1997). The so-called revolution in military affairs (RMA), premised on developments in information technology, has at one level turned military attention to precision strike and other such 'smart' weapons. The considerably changed security environment is characterised by the emergence of the notion of asymmetric warfare that is more commonly associated with terrorism as state and non-state actors unable to compete with conventional means seek other strategies to pursue their objectives (Thomas 1997).

While much of the attention of RMA advocates appears to be directed towards technology and its potential implications for military capability, there is an important parallel consideration in terms of people and process. This concern is captured in the notion of needing to define and understand fifth generation management (Savage 1996), a concept that invites a rethinking of basic values, attitudes and assumptions. The challenge of the RMA, in the context of people and process, is then essentially a leadership challenge concerned with managing the complex sets of interrelationships. As Savage warns, organisations cannot afford to continue "playing superficial power games" (Savage 1996: 260). It only saps their strength. In educational systems, this self-defeating practice is evident in the practice of pitting one student against another, rather than creating conditions under which students can learn from one another.

For the Australian Defence Force (ADF), the need is to develop the necessary capabilities in its people so that they can undertake the complex military operations likely in the future (Defence 2000). As Martin van Creveld warns, it is a great mistake to assume that good conventional forces will be able to deal with the emerging unconventional threats that foreshadow a historic change in warfare (Creveld 1998). Turning his thoughts towards education and training, van Creveld advised creative responses in education and training processes, as well as the need for an injection of uncertainty into training (Journal #2, 29 Sep 98).
While the authors of the Defence White Paper appear to have shifted in their rhetoric about the RMA, the document still acknowledges Australia's strategic circumstances have become ‘more demanding’ and the potential demands on its armed forces have grown. On this point, the White Paper also expresses some concern over a mismatch in strategic objectives, capabilities and spending, while confirming that the strategic circumstances present a much wider dimension to the leadership challenge (Defence 2000). The clear implication in terms of the 'soldier's profession' is to make the ordered application of force a more challenging task. Not surprisingly, the document espouses the belief that "a key requirement... is a substantial pool of highly competent professionals - especially at the mid-levels of the Defence Force" (Defence 2000: 61). Regardless of the current opinion about an RMA, the changed environment has considerable practical implications for leadership at the level of educational and training process. A critical examination of these processes is likely to serve the ADF’s espoused need for highly competent professionals.

In defining a future capability requirement, given the context for military leaders, there is reasonably a continuing emphasis on virtues such as “physical courage, endurance, mental toughness, adaptability, risk-taking, communication skills and will to win” (Hickling 1998: 37-39). At the operational level experience has also shown that the real leadership capacity is “intellectual rather than physical” (Connolly 1998: 50). This capacity is not restricted to the senior ranks, with the military recognising that its junior leaders will have to accept “enormous responsibility” often in the glare of television (Sanderson 1998: 5). In discussions on the future of officer education, the espoused requirement includes the need for such capabilities as strategic understanding, a capacity for autonomy and a sense of accountability founded on sound moral and ethical reasoning. These are some attributes and understandings in a complex set of capabilities to be fostered in future military leaders. Clearly, there are constants as well as important qualitative changes in what is required.

There is a similar pattern of constants but also some significant changes in the field of development. For one thing, personal development is understood now not as a single event but a "time based process" (CCLH 1998: 218). Moreover, it is understood that to develop the full potential of a person, a required capability is the ability to learn and benefit from experience. These two considerations allied to the complex leadership capabilities
identified earlier, suggest a much wider emphasis on professional development for our future leaders. This emphasis goes far beyond what is the status quo of training for individual and collective competence in a pre-defined skill-set.

Section 1.5 The ADF Professional Development Structure

An overview of the professional development (PD) structure for officers of the ADF is shown in Figure 1.3. There are four arbitrary groupings in the formal development structure for officers in the ADF. These are described as:

- Pre-commissioning training for officer cadets at the Defence Academy,
- Junior officer development,
- Command and staff training for mid-level officers, and
- Preparation for senior ranks.

Figure 1.3: Structure for Professional Military Development

(Adapted from JSCFADT, 1995)
Training for personnel in these four broad groups is conducted at ADFA, the service colleges,² the Command and Staff College, and the Centre for Defence & Strategic Studies respectively. These training institutions fit within the overarching framework of the Australian Defence College that is responsible for the overall management of the all-corps officer-training continuum. While ADFA, which is the focus of this study, is responsible for pre-commissioning training it is also possible for some officer cadets to enter the military as direct entry recruits. These direct entry cadet officers go directly to the respective RAN, Army, and RAAF service colleges for what is deemed as specialist military training. However, once these basic military training courses are completed, these officers would be expected to merge into the formal training process.

In practice, professional military development (PMD) is not as clearly defined. In addition to the formal courses available at the illustrated educational and training institutions, professional development for ADF officers can be provided by many other programs and institutions, including university programs undertaken of an officer's own volition. The formal structure does not also reflect the considerable development provided as on-the-job training by parent military units. There is also an unexplored level of complexity in single service training (SST) that occurs in the background to the formal program at the Defence Academy and the respective service colleges.

Overall, there is considerable effort devoted to formal and informal career long development. It is estimated that in a career of 30 years or more, it is usual for an officer to spend seven to eight years of his or her career, in formal development courses (JSCFADT 1995). Formal development is generally accessed within the four broad groupings. However, there is also considerable opportunity to attend formal and informal development programs outside the ADC framework.

**Section 1.6 Pre-commissioning Development and Training**

The Australian Defence Force Academy (ADFA), based in Canberra, is responsible for the provision of pre-commissioning development and training for Navy, Army and Air Force

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² RAN College at HMAS Creswell, RMC Duntroon (Army) and RAAF College at RAAF Base Point Cook
officer cadets. These officer cadets (and midshipmen), who broadly range in age from 18-22 years, enter the Academy on a four-year traineeship. The first three years of this process is spent in the tri-service military environment of the Defence Academy. Graduates then spend a fourth year in their respective service colleges undergoing specialist military training before joining operational military units as commissioned officers.

The Defence Academy shares many features that are found in the military academies of the United Kingdom, the United States (US) of America, as well as the tri-service Royal Military College at Kingston, Canada (see Appendix 1). Studies undertaken at the US Army Academy at West Point, the US Naval Academy at Annapolis and the US Air Force Academy ay Colorado Springs reveal striking parallels, not only “in terms of formal organisation but [also] in terms of many informal [cultural] rituals” that have arisen at the Defence Academy (ADFA 1998: xiv). Notably, the United Kingdom's Royal Military College at Sandhurst does not provide tertiary education in their program.

1.6.1 Academic and Military Education Components

Despite the singular title, the Defence Academy comprises two interdependent components: one military, the other academic. A senior military officer (Brigadier equivalent), who may be appointed from any of the three services, commands the military component. University College (UC) represents the academic component. It is headed by the Rector, who is a senior academic appointed by the University of New South Wales (UNSW). The composition of the Defence Academy is divided somewhat equally between military and academic staff. There is also a small number of civilian staff that forms part of the administrative element in the military component.

The purpose of the Defence Academy program is to develop the professional abilities and qualities of character and leadership that are appropriate to officers of the Defence Forces. The three components that make up the pre-commissioning development framework are illustrated in Figure 1.4 below. The Defence Academy based components constitute the two boxes to the left, with ‘Military Training’ the responsibility of single service colleges.

3 Indicative figures are military staff 181, UC academic staff 194, UC general staff 290 (JSCFADT 1995)
Chapter 1: Overview of the Problem

The Defence Academy espouses an aim to provide military education and training for officer cadets, and a balanced and liberal tertiary education within a military environment (ADFA 1998). This dual purpose is achieved through a professional military studies program and a parallel academic education (JSCFADT 1995). These programs are delivered respectively by uniformed members of the three Services posted to the Defence Academy and by academic staff of UC. The programs are both distinct again from specific military training provided at the single service (RAN, Army and RAAF) colleges. There are several reasons for offering a university education in the military environment of the Defence Academy. The justification for such an arrangement includes enabling Defence to closely manage the balance between military training and academic education and, perhaps flagging an enduring cultural issue, the desire by the Defence organisation to encourage cadets to see academic education as part of their military careers (JSCFADT 1995).

The Joint Standing Committee on Foreign Affairs, Defence and Trade (The Price Review), which inquired into the provision of academic studies and professional military education to officer cadets in 1995, determined the Defence Academy was an investment for the benefit of the military after next. This statement by the Price Review that notionally looked a generation ahead, places a considerable responsibility on the Defence Academy for developing the military's future leaders. Part of this responsibility, met through the creation of a 'joint' Navy, Army and Air Force pre-commissioning academy, is towards improving inter-service collaboration between the three military services. There is also the clear commitment to providing "the educational foundation for [future] higher command" (JSCFADT 1995: 162). Because of these broader objectives, the perceived role of the Defence Academy by the Federal Government and ADF appears to be a foundational one, and one that underwrites a career-long developmental approach.
1.6.2 Professional Military Studies

The professional military studies (PMS) program represents a bridge between the academic and purely military studies components. Thus, in design, the program is intended to reflect both academic rigour as well as vocational application. It is this PMS program at the Defence Academy that is responsible for teaching leadership as well as subjects such as defence studies, sport, field-training, weapon-handling, military law, discipline, drill and communication skills. These subjects are delivered in subject modules over the course of three years. Leadership study is both classroom-based and practical, with the practical element provided through a series of annual leadership training exercises, as well as through a process embedded in daily Academy life. Thus, administrative duties in the cadet hierarchy and extra-curricular appointments such as Academy sports and social clubs all serve to enrich the cadets' leadership development experience.

The Military Training program is provided at the respective Navy, Army and Air Force Colleges. This program, termed single service training (SST), is scheduled periodically through the cadet academic year. Military training has the dual intention of fostering a commitment to the parent service, as well as providing the skills and knowledge that are unique to the service. These vocationally specific skills are often referred to as warfighting skills, the generic term for skills associated with the conduct of military operations. SST involves the acquisition of individual and collective military skills that reflect the nature of warfare of the day. Importantly, while there is considerable overlap in the SST program with core subjects such as leadership development in the PMS program, the SST program is not controlled or coordinated by the Defence Academy.

Training and education for both professional military studies and military training is based on an explicit all-corps officer-training continuum. The continuum, founded on a competency-based educational framework, defines training requirements and desired outcomes for all officers. This framework is arguably interpreted in strict behavioural or performance terms rather than by a softer statement of intention (Egan 1988; JSCFADT 1995; Stevenson 1995; Stevenson 2000). Overall, it is apparent that the all-corps training
framework gives considerable emphasis to leadership. The RAAF College for example, defines leadership as a fundamental of every workplace competency (Defence 2002).

1.6.3 Competing Tensions in the Defence Academy

The Academy structure reveals an uncertain emphasis in the professional military studies program. This uncertainty is in part a result of competing "pressure from the demands of both academic education and military training" (JSCFADT 1995: 6). While the academic education is reported as encouraging critical thinking, independence and resourcefulness, military training (including SST) at the Defence Academy is described as structured, directed, formal and authoritarian. Consequently, the review noted, at different times of the day depending on whether the program is military or academic, cadets can be required to "cope with very different environments and expectations" (JSCFADT 1995: 164).

There is also an apparent tension between preparing officers for a narrower war-fighting context versus a more general peacetime context. A war-fighting focus tends to detract from the system of education necessary to produce an officer with the ability to display initiative, lateral thinking, risk taking, motivation, versatility and flexibility. These primarily intellectual capabilities were identified as essential for the future officer and leader (JSCFADT 1995). However, as the committee understood, this also involves longer lead-times and considerably different methods to foster officers with these capabilities.

A structural aspect to the competing tensions in the Defence Academy relates to the knowledge, skills and attitudes (KSA) of Academy military instructors. Perhaps consistent with the imitative form of learning and fundamental socialisation intent of the program, staff KSA are neither academically based nor concerned with being able to help people learn (Wilkinson 1998). Rather, these KSA reflect employment specialty – such as pilot, seaman officer, or infantry platoon commander. Thus, it is no surprise cadets see military staff as "evaluators, disciplinarians and judges" rather than as educators, teachers or mentors (ADFA 1998: 1-39).
Section 1.7  Closing Remarks

In terms of developing people, the general education landscape, much like the Defence Academy, is dominated by economic or utilitarian priorities (Carneiro 2000). This is evident in the link between knowledge and competencies and by education institutions operating like large machines designed to teach and control learning. The concern in such organisations is that there may be "many mechanisms that can obstruct learning" (Swieringa and Wierdsma 1992: 55, 61). The use of military personnel rather than teaching staff is an example of a structural obstacle in ADFA. Another potential issue is in relation to the discrepancy between espoused and theory-in-use. Typically, as Argyris suggests, people are often also unaware that the gap and any talk of theory-in-use is usually avoided for fear of being accused of being irrational or illogical.

Within the professional and character building focus of the Defence Academy, it is apparent that ADFA also provides the educational foundation for future leadership responsibility. The approach can thus be categorised as learning from experience and learning through education, although the crucial role of reflection to link both processes is not apparent. Thus, while it is obvious that the question should be not only a utilitarian one concerned with efficiency, clearly there is cause for some concern over the efficacy of the program. Aside from the apparent failure to link experience and education, there are also competing pressures between the various components of a busy program in ADFA that contribute to concern over the efficacy of the program.

In terms of the longer-term investment in education and professional development, there may also be cause for concern over the effectiveness of the program. As noted earlier, the current environment requires a leadership capacity that goes beyond predefined skills. Another matter concerns the dramatic evolution in the way in which knowledge - as a social and cultural construct - and knowledge acquisition is understood. In the journey towards understanding, studies show clearly that culture is a powerful determinant of knowledge appropriation and transmission (Carneiro 2000).
Chapter 1: Overview of the Problem

However, despite these growing insights educational systems and learning approaches are still reportedly a landscape of uncertainty and major differences (Marsick 1988; O'Brien 1999; Phillips 2000; Marchese 2001). Perhaps, as Swieringa et al. (1992) suggest, it is time for learning and collective learning to experiment in practice and to try out what has been conceived in theory. The analysis so far lends credence to questioning the extent to which educational process has changed in-practice relative to what is being espoused. The premium placed on knowledge and leadership suggests considerable value might be derived from an improved understanding of the relative effects of the educational process.

Section 1.8 Research Aim and Objectives

The research aim, founded on the reported gap between theory and practice, is to explore in-use theory in leadership development processes at the Defence Academy. The focus of the study is towards considering the process of development in a cultural and structural context. To this end, the study seeks to understand the relative emphasis on the two leadership styles in the educational process represented by the "three message systems of curriculum, pedagogy and evaluation" (Bernstein 1975: 47). Unpacking this research aim, the study will:

- First, outline a broad understanding of the changed paradigm of leadership and of leadership development theory and practices.
- Second, produce a valid and reliable result that indicates the relative emphasis on the two leadership styles (*command and managerial compliance* (Type A) style or *contingent and creative* (Type B) style). The emphasis in the operation of the three educational mechanisms of curriculum, pedagogy and assessment will be explored in terms of espoused and in-use theory.
- Third, examine the relative emphasis on Type A and B styles in terms of espoused and in-use theory across the wider educational context. This context includes consideration of the program purpose, the teaching and learning process (that includes the three educational mechanisms), and the learning outcomes.
To achieve these study objectives, it is necessary to explore several bodies of knowledge related to leadership, learning and development. The conceptual terrain is shown in Table 1.3 below.

<table>
<thead>
<tr>
<th>Type</th>
<th>Change</th>
<th>Leadership</th>
<th>Learning</th>
<th>Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Adaptive or incremental</td>
<td>A traditional style</td>
<td>Single loop learning (SLL)</td>
<td>Objectivist (imitative) training</td>
</tr>
<tr>
<td></td>
<td>More of the same</td>
<td>Command and managerial compliance</td>
<td>Model 1 theories-in-use</td>
<td>Competencies</td>
</tr>
<tr>
<td>B</td>
<td>Generative or radical</td>
<td>A contingent and creative style</td>
<td>Double loop learning (DLL)</td>
<td>Interpretive and generative learning</td>
</tr>
<tr>
<td></td>
<td>Creative change</td>
<td>Encourages relational and entrepreneurial activity</td>
<td>Model 2 theories-in-use</td>
<td>Meta-learning capabilities</td>
</tr>
</tbody>
</table>

Considered in Chapter 1 & 2 | Chapter 1 & 2 | Chapter 1 & 3 | Chapter 3 & 4

Section 1.9 Significance of the Study

The primary significance of this study is in terms bridging a potential gap between espoused and in-practice theory as exhibited in leadership style. An improved understanding of the relative effect of the educational mechanisms, based on a consideration of the cultural and structural context, will support improved development outcomes. Culture and structure can impede the development of desired outcomes, so there is a need to consider these influences. Moreover, heeding Argyris's warning (1976, 1992), there is a need to distinguish between espoused theories and theories-in-use. To the extent that leadership programs fail to distinguish between the two styles, there is the possibility that they may champion contingency (Type B) models at the espoused level but unknowingly educate leaders to produce primarily conventional command and managerial (Type A) theories-in-use. As such, the risk is that educational initiatives may only promote the status quo or at best transform espoused theory with little impact on actual theories-in-use (Argyris 1976).
Chapter 1: Overview of the Problem

More broadly, the significance of this study is in flagging a mismatch between knowledge and capability as being developed in training institutions and the social and operational context of its use. The environment, characterised by uncertainty and chaos, has drawn attention to the changed requirements for leadership. Operational military experience confirms that leadership needs to be both physical and intellectual. The changed emphasis is categorised as a shift for managing by compliance and control, to leaders who understanding general principles are able to recognise novel and ambiguous situations that require them to adapt their behaviour. These considerations require more than competence in leaders. Learning processes must also be able to foster the ability to challenge the process and change the status quo, to take risks, innovate and to experiment. These meta-abilities are necessary if organisations are to find new and better ways to do things.

These considerations present the Defence Academy development process with a dilemma. The development process, to foster the desired capabilities in the future military leaders, starts from the earliest experience in the classrooms and general environment of the Defence Academy. Arguably, training and learning from experience are limited approaches to the development of capabilities required for the operational environment. Training, which represents learning by replication, and learning from experience are both largely imitative strategies that are of little use when individuals are faced with novel situations or when the consequences of actions cannot be observed. The approach, perhaps suitable in a simple world, is inadequate for a complex information-age society (Bruner 1996) that requires greater freedom of initiative and capacity to initiate radical change and innovation. The risk to organisations of not fostering these capabilities is in the creation of competent people who display 'skilled incompetence' through defensiveness in the process of collective inquiry (Swieringa and Wierdsma 1992; Senge 1995).

Section 1.10 Organisation of the Dissertation

The thesis is structured as follows:

- Chapter 1 introduces the study area and need to distinguish between espoused and theory-in-use in learning and educational process. The chapter explains the research aim, significance of the study and organisation of the dissertation.
• Chapter 2 discusses the literature describing the changing context for leadership. The two leadership styles described are the basis of subsequent inquiry into the relative effect of the three educational mechanisms.

• Chapter 3 reviews development literature, identifying basic themes and assumptions in mainstream theory and practice. The chapter then previews a development strategy to support a Type B contingent leadership style.

• Chapter 4 discusses a teaching for learning framework to support the development objective of both Type A and Type B styles of leadership.

• Chapter 5 outlines the research framework and methodology for this study. Both quantitative (survey) and qualitative (focus group, interviews and documents) methods are used to explore espoused and in-use theory in relation to the educational mechanisms in the Defence Academy.

• Chapter 6 outlines quantitative results related to the relative effect of educational mechanisms, and a more detailed qualitative data analysis. Qualitative data provides evidence of the relative effects of curriculum, (pedagogy) teaching methods and assessment in terms of the overall learning process.

• Chapter 7 discusses research outcomes, study implications and considers research retrospectives. Future research prospects arising from this study are also discussed.

Don't push growth; remove the factors limiting growth.
Chapter 2: Changing Conceptions of Leadership

CHAPTER 2

CHANGING CONCEPTIONS OF LEADERSHIP
CHAPTER 2: CHANGING CONCEPTIONS OF LEADERSHIP

"As our circumstances are new, we must think anew and act anew"
(Abraham Lincoln, at the outset of the Civil War, in Hanks, 1994: 35)

Section 2.1 Introduction

The transformation of work in the latter part of the twentieth century marks the beginning of a complex information-age society. There are clear implications for leadership in the complex and diverse environment of this new world. There is in fact suggestion of "a new model for leadership" (CCLH 1998: 412) based on intellectual endeavour that involves issues such as learning, change, cultural identity and society in the information age. This chapter explores an evolutionary understanding of leadership and apparent shift in current leadership practice given the realities of the operating environment.

Section 2.2 The Past as Prologue

Contemporary leadership research ranges from a focus on traits, to behaviour, power-influence and situational approaches. More recently a comprehensive framework of leadership has been discussed under the label of transformational leadership (Bass 1981; Avolio, Waldman et al. 1991; Tichy 1999). What is evident is that contemporary interest, much like the earlier (wisdom) literature that focused largely on the visionary hero (Marchese 2001), reflects the dominant cultural and other values. A brief review of the precursor changes in cultural, social, economic, and political attitudes makes this point clear. Thus, the past can be seen as prologue to the current shift in leadership emphasis.

Writers such as Confucius, Aristotle, Socrates and Plato emphasised leaders as the prime shapers of society. In these early times, leadership responsibility either was based on divine right or was determined by who was the eldest, the strongest, or the most articulate. Over time, as Wren (1994) outlines, leadership came to be viewed as a function of custom and tradition or in some cases a function of personal traits. Concepts of motivation were scarce. Rather, societal duty and subsistence prevailed (Hanks 1994; Wren 1994). Western leadership theory at this point could be characterised by Machiavelli's notion that all men were bad and Hobbes's argument for strong central leadership.
The influence of political philosophers such as John Locke (1690) and the age of enlightenment in the eighteenth century introduced the ideas of equality, justice and rule of reason. These ideas came to challenge the existing order. At the same time, a growing international trade and reliance on the power of the market, saw the emergence of specialisation and a division of labour associated with the factory system (Wren 1994). Leadership in this period, usually associated with the concept of scientific management, came to be viewed as a function of knowledge (Wren 1994). Later research by the Ohio and Michigan State Universities took leadership into a situational stage, playing down traits in favour of interaction between leader and follower based on the context of the situation. The modern period associated with the late twentieth century brought another major shift. Motivation was found in challenge, responsibility and self-actualisation and brought charisma and transformational leadership to centre stage (Wren 1994).

What this brief review highlights are precursor changes in cultural, social, economic, and political attitudes. These changes in values and consequent changes in management thought and practice have a common theme - the need to adapt to a competitive and changing environment. This evolution has over time been variously described as a struggle: between state versus individual rights, between human rights (liberty ethic) versus autocracy, and between centralisation (mercantile) versus decentralisation (market ethic) (Wren 1994). In essence, what is evident is a clear set of ideas that represents a struggle between the traditional and emerging society. Hence, the struggle is an old and continuing one that emerges once again in contemporary discussion over leadership style.

Seen in this historical context, the duality in leadership styles is presented in this study as the tension between conforming and autonomous behaviour, and between learning for replication and learning for generative change. This dilemma provides the backdrop to a discussion on the changed environment and consequent shift in leadership paradigm.

Section 2.3 Operating Environment: From Industrial to Knowledge Age

Figure 2.1 illustrates a framework to understand environmental uncertainty, in terms of capacity, volatility and complexity. Capacity relates to the ability of an environment to
support growth, ranging from abundant to scarce. Volatility refers to the degree of instability in the environment and can range from being stable to a high degree of instability or dynamic change. Complexity refers to the factors that are involved in the environment. The overall state is one of continuous uncertainty and ambiguity, with rapid and widespread change a continuing feature in the global environment.

*Figure 2.1: Three Dimensions of Environment Uncertainty (Adapted from Robbins (2001))*

Dynamic complexity is increasingly the nature of all real world problems. Dynamic complexity, as opposed to detail complexity, refers to situations where cause and effect are subtle and where the effects of interventions are not obvious. Thus, when seeking to solve a particular problem the "potential relationship with all other problem areas" must be considered (de Wit and Meyer 1999: 29). The point is, few if any problems can be isolated effectively for separate treatment. As well, there is arguably a risk that despite doing what may seem the obvious thing, the effect may be to "not produce the obvious, desired outcome" (Senge 1995: 71).

The challenge for any organisation has been and remains to focus on the circumstances prevailing in the specific environment, or else they might gear themselves to solve yesterday’s problems (Kakabadse 1999). Adapting the classic analysis of a scientific revolution by Thomas Kuhn, it would seem that there is a deep (technological) transformation taking place in the developed world (Castells 2000). The operating environment is described as a technology intensive, knowledge-based one that requires changes to structure, control, authority and communications (Drucker 1994; McMaster 1996; Savage 1996). These changes are symptomatic of a transition from an industrial to a knowledge age, from routine to complexity, and from sequential to parallel activity. There
is also a possible social transformation taking place with an emerging *network society* and the blossoming of genetic engineering and other related applications (Castells 2000).

These changes collectively present a complex and radical shift in the operating environment. **Table 2.1** provides a frame of reference for the existing and emerging themes in the respective operating environments being suggested by Drucker, Zuboff, McMaster, Peters and others (Savage 1996).

<table>
<thead>
<tr>
<th>Type of Organisation</th>
<th>Late Industrial (Routine)</th>
<th>Early Knowledge (Complexity)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steep Hierarchies</td>
<td>Knowledge Networking</td>
<td></td>
</tr>
<tr>
<td>Chain of Command</td>
<td>Networked and Networking</td>
<td></td>
</tr>
<tr>
<td>Command and Control</td>
<td>Focus and Coordinate</td>
<td></td>
</tr>
<tr>
<td>Authority of Position</td>
<td>Authority of Knowledge</td>
<td></td>
</tr>
<tr>
<td>Sequential Activities</td>
<td>Simultaneous Activities</td>
<td></td>
</tr>
<tr>
<td>Vertical Communications</td>
<td>Horizontal Communication</td>
<td></td>
</tr>
<tr>
<td>Values: Distrust and Compliance</td>
<td>Values: Trust and Integrity</td>
<td></td>
</tr>
</tbody>
</table>

The table is illustrative and does not suggest a clear dichotomy to be observed in organisations. **Table 2.2** identifies conceptual principles associated with each paradigm.

<table>
<thead>
<tr>
<th>Hierarchies</th>
<th>Knowledge Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Division of labour</td>
<td>Peer to peer networking</td>
</tr>
<tr>
<td>Self-Interest</td>
<td>Integrative processes</td>
</tr>
<tr>
<td>Pay for Tasks</td>
<td>Work as Dialogue</td>
</tr>
<tr>
<td>Division of Management</td>
<td>Human Time and Timing</td>
</tr>
<tr>
<td>Separate Thinking/Doing</td>
<td>Virtual Enterprising</td>
</tr>
<tr>
<td>One Person/One Boss</td>
<td>Dynamic Teaming</td>
</tr>
<tr>
<td>Automate</td>
<td></td>
</tr>
<tr>
<td>Training and Education</td>
<td>Training, Education and Learning</td>
</tr>
</tbody>
</table>

These conceptual principles are generalised but interrelated themes. That is, the concept invites "both/and" rather than "either/or" choices. Thus, for example, hierarchies will remain but authority structures will be much flatter and with different underpinning principles. The inherent need in knowledge and network organisations is for flexibility and
the ability to take risks and innovate. In the context of this study, an environment of authority (and fear) and rigid structures can act as learning barriers. The choice is not more computerisation (of hierarchies), but a refocus "towards integration" of human capabilities (Savage 1996: 245). The change in terms of educational approach is characterised as a shift from a training approach to a broader training, education and learning approach.

As a consequence of these changes the latter part of the twentieth century has seen a renewed and changed focus on leadership (Senge 1995; Sarros and Butchatsky 1996; Scholtes 1998). The changes in the characteristics of leadership can be broadly related to:

- A blurring of the boundaries and a change in the locus of knowledge, which is now with people who ordinarily would not have access to it. Access gives individuals the "ability to make decisions and perform functions that were previously the province solely of management" (Daft 1997: 697).
- A shift in attention towards relational attributes needed to build teams and cooperative, learning organisational cultures (Sarros 1995; Senge 1995). Studies also emphasise the need for complex problem solving and social judgement skills, as well as aspects such as followership, mentoring, influence and leader accessibility (Avolio, Waldman et al. 1991; Mumford, Zaccaro et al. 2000; Zaccaro, Mumford et al. 2000).
- A move away from mechanistic organisations characterised by a bureaucracy to more organic and flatter organisational structures (McMaster 1996; Fullan 1997; Mant 1997; CCLH 1998).
- The recognition of organisations as systems and as "learning organisations" with a "capacity for self-renewal" (Wheatley 1994: 13; Senge 1995).

Section 2.4  The Nature Of Leadership

Although heavily researched, leadership is still little understood (Bass 1981; Klenke 1996). Described as a "complex multi-faceted phenomena" (Yukl 1998: 5), the subject is unsuited to a single definition. In broad terms, it is an inter-personal or social process of influence involving a series of complex interactions between leader and followers, contingent on the situation. Organisationally, leadership is associated with influencing the motivation of
followers towards some goal (Yukl 1998; Mumford, Zaccaro et al. 2000). Other more contemporary roles include managing change and complexity, as well as leaders as designers, stewards and mentors, albeit these latter roles are perhaps associated more with senior leadership positions (Hanks 1994; Senge 1995; Scholtes 1998).

Noting that leadership is unsuited to a single definition, for training purposes the Army describes leadership as: "the art of influencing and directing people towards the willing achievement of team or organisational goals" (Army 2000: 2) The emphasis is on a purpose-driven process that involves a series of complex interactions between leader and followers. The key factors are personal influence and use of power over time towards a goal. Within the definition there are two broad roles apportioned to leadership: interpersonal relations and task achievement. These two roles are broadly consistent with the initiating structure and consideration dimensions to leader behaviour identified by the Ohio State University studies and employee-orientation and production-orientation dimensions by the University of Michigan studies (Robbins 2001: 316).

What is not evident in these roles is the inclusion of such contemporary issues of managing change and complexity, and of leaders as designers, stewards and mentors, albeit these roles are perhaps more relevant in the context of senior leadership positions. Similarly, other recent additions to an individual's capacity to lead include Senge's five learning disciplines (Senge 1995) and Goleman's personal and social competence framework based on Emotional Intelligence (Goleman 1996). These perspectives shift interest in leadership from a purely functional emphasis to including a consideration of the personal nature of leadership. This aspect is described as involving the development of "mental and personal mastery" or what another researcher calls the "core self" of the leader (Senge 1995: 360; Davis 2001: 19). Understandably, as Senge (1995) also notes, it is also difficult to reduce these aspects of personal leadership capacity to a set of skills or competence.

Based on the considerations outlined, it is possible to devise a typology of leadership that identifies key considerations for leader action and that provide a basis for determining subsequent leader effectiveness (see Appendix 2). The key elements of this interpersonal
Chapter 2: Changing Conceptions of Leadership

process are three components: self, interpersonal and task achievement considerations. Explicit implications associated with these components include the need for leaders to display character and competence – both personal and professional. Other implications for leaders include the capacity to define purpose and direction, and to model desired behaviour, build a team and plan and manage the team. The requirement for emotional intelligence (EI) is also highlighted particularly for jobs that require a high degree of social interaction (Robbins 2001: 332). Given these general components of the leadership process, two broad factors influence the nature of leadership. These are:

- First - the *organisational systems and process* that create part of the context for the practice of leadership. Thus, culture, structure, policy and practice (such as training, assessment, recognition and reward systems) are contextual influences.
- Second - the *human element*, which is made up of variables such as personality, values, attitudes, perception, motivation and group process that include communication systems and decision-making style. It is useful to keep in mind that individuals can also behave differently when in groups.

**Section 2.5  An Emerging Leadership Model**

Given the nature of leadership and the broad influencing factors, it is easy to see how information technology and the emerging knowledge-age have changed conceptions of leadership. Without drawing a distinction between supervisors, managers and leaders, all jobs need leadership behaviour at times. This reflects the reality of a complex and inherently dynamic environment where the leadership task is a tall order for even the most talented. As McMaster says, "no one person can hope to be unfailingly competent and omniscient" (McMaster 1996: 74).

The "new model for leadership" described by the Centre of Creative Leadership involves the exploration, albeit limited, of themes and issues such as learning, change, cultural identity and society in the information age (CCLH 1998: 412). Other views on the emerging style include the argument that a single point of view is not sustainable in face of complexity and leadership has consequently moved from a single leader-centric view to a team based distributed process (O'Connor 1998). The new paradigm suggests the need for
creative and dynamic leaders able to act autonomously in flatter structures and with blurred lines of authority. Overall, the emerging leadership requirement can be summarised as a shift from control to commitment, from monitoring to mentoring, and from commanding to conducting (Savage 1996: 236). A comparative summary of a conventional style of leadership and the emerging leadership paradigm is shown in Appendix 3. These changes are categorised in this study as a shift from a command and managerial control (Type A) style towards a contingent and creative (Type B) style of leadership. The emerging style places an emphasis on the ability to create, and to understand interrelationships and multiple realities (Castells 2000).

This simple categorisation demonstrates how the meaning of leadership has moved away from traits and behaviour, and from views that often confused leadership with authority and hence authority figures. The new realities challenge organisational ways of operating and being. While the formal leader will remain, their role in a complex interconnected world is under challenge (Savage 1996; Castells 2000). Arguably, a directing style will remain appropriate at times for the military however, the overall effectiveness of this style is questionable.

Section 2.6 Understanding Leadership Practice in the Military

Leadership and its associated values are always context bound. Hence, the emerging style needs to be understood in terms of contemporary practice in the military. In defining leadership practice, what sets military leaders apart from leaders in the wider society is the need to command and lead their subordinates in an environment of potentially extreme personal danger. This responsibility may also involve the controlled or threatened use of lethal force. This context introduces the organisational reality of command authority, whereby the military commander always has position power or authority based on formal appointment or seniority in rank. Yet, authority inherited through higher rank or position falls short of what is understood as leadership. This point, one can argue, is also not new to the military. For example, it is normal practice in operational situations of high risk that competence (knowledge) takes precedence over rank and authority.
Consequently, despite the presence of command authority and a strictly hierarchical environment in the military services, there is still a great emphasis placed on leadership. Exemplifying this emphasis, at a Senior Officer Recall Day in 2001 attended by all ADF one-star officers (military and civilian equivalent), a draft Defence Leadership Model (Appendix 4) was developed. This model illustrates the basic values, principles and capabilities all senior officers are committed to practicing and encouraging with their groups. The emphasis in this model on performance principles of ‘elbowroom’ or what might be interpreted as freedom to exercise initiative, challenge and self-esteem among others, are arguably consistent with the emerging view of a contingent style of leadership. It is also reasonable to infer from the draft model and doctrine that declares a need for "leaders of leaders" (US Army 1996; Defence 2000) that the espoused theory is supportive of a commitment to the emerging contingent and creative style of leadership.

However, there must also be some concern over the overall success of the process, because despite the emphasis on leadership and the evident success of some leaders there are also persistent problems related to leadership that arise in the organisation. For example in the fortnight that Australian troops returned from a successful commitment in East Timor, the then new Secretary of the Department of Defence Dr. Alan Hawke, publicly flagged a credibility problem for Defence (Jans 2000). Later, in May 2001, while affirming the Results through People credo, Dr Hawke accepted (Defence) was "…not the market leader in workforce planning, leadership and employer of choice…” (Hawke 2001: 5). Perhaps the most damning recent incident occurred in February 2002 with the unfolding of the children overboard photograph saga. The incident and related events showed senior defence leaders in a very poor light, attracting deep criticism of the very architects of the new leadership focus - the Secretary of Defence Dr. Alan Hawke and Chief of Defence Forces Admiral Chris Barrie.

The criticism is also not limited to the senior ranks. The Grey Review (ADFA 1998) in examining the culture of the Defence Academy found problems with unacceptable sexual

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4 General Peter Cosgrove and before him General John Sanderson, who commanded the UN peacekeeping forces in Cambodia in 1994-95.
behaviour and general bullying. The situation is apparently similar to comparable military academies in the UK, USA and Canada, the review noting that all institutions had longstanding problems with bullying, as well as regular scandals associated with the shift towards a mixed-gender environment (ADFA 1998).

Section 2.7 Challenges Facing All Leaders

This focus on and criticism of higher management and general leadership is of course not a phenomenon that applies to Defence alone. It applies virtually to all organisations as the senior executive role has transformed. People such as Handy, and Constable and McCormick highlighted this concern over management education and training in the UK in the 1980’s. The Karpin report (Enterprising Nation 1995), a study commissioned by the Federal Government, outlined similar concerns with management education in Australia.

Reflecting on the spate of recent challenges facing leadership in all walks (military, political and corporate - recall the recent Enron, HIH Insurance and Ansett collapses) the reality is that leadership is a big, perhaps even overwhelming, responsibility for even the most talented. Typically also, the most important questions do not have simple solutions (Quinn 1996). As a basis for supporting action, there is perhaps a need to interrupt the cycles and patterns that are going on in the two broad areas that influence the nature of leadership: organisational systems and process and the human element.

Section 2.8 Specific Challenges for Military Leaders

What are some of the specific challenges likely to confront military leaders? The demand for the soldier's profession - the controlled use of force - has unfortunately not diminished. Rather, discussion of a revolution in military affairs (RMA) is premised on a changed security environment that suggests new low-intensity forms of conflict and new ways of responding to threats by militaries around the world. Characteristically, this is likely to be small groups of military personnel, working in a small space but in a very complex and

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5 Related to the boatload of refugees intercepted by HMAS Adelaide in late 2001 - arguably at the cost of leadership credibility for many including the highest-ranking officers in the Defence department
dispersed operational environment (Creveld 1998). While militaries appear to be looking for ways to leverage their capacity to fight or counter large-scale wars of the past, the effect of the changed environment is to make the controlled application of force a challenging task. In this regard, it is worth recalling the warning from van Creveld that it is a mistake to assume that a good conventional force will be able to deal with unconventional forms of conflict. The new structures needed in low intensity conflicts are likely to be flatter with a greater span of control and lesser need for hierarchy, all in a media and lawyer infested environment. There is also likely to be an erosion of the distinction between officer and soldier, with officer’s being required to command their troops as well as defend and fight for their respective lives. There are few short-cuts possible in terms of discipline and the need for restraint and so as the Army recognises, the "nub of the challenge remains leadership" (Connolly 1998: 49).

The key components of a team-based process of leadership are illustrated in Appendix 5. However, the issues are more complex in application. Practical challenges exist in relation to the range of skills required by military leaders. The tacit wisdom is that at the tactical level the emphasis is and remains on virtues such as "physical courage, endurance, mental toughness, adaptability, risk-taking, professional knowledge, communication skills and will to win" (Hickling 1998: 37-39). Conversely, operational experience has shown the real leadership capacity at higher levels is "intellectual rather than physical" (Connolly 1998: 50). Another insight from operational experience is that junior leaders are likely to have to accept "enormous responsibility" in the future, perhaps compounded by the glare of television (Sanderson 1998: 5). Understandably, the changed scope and associated responsibilities are expected to require capabilities such as strategic understanding, autonomy and accountability by junior officers, over and above the physical virtues and conventional professional competencies. In sum, it seems clear that while there are some constants in leadership, there are also important qualitative changes. These changes suggest a wider emphasis on professional military development over a more simplistic emphasis on war-fighting skills for the junior officers in training at the Defence Academy.
Section 2.9  Closing Remarks

The transformation of the social, economic and political landscape, largely due to this technological revolution, is the point of departure. This revolution has ushered in a "world of uncontrolled, confusing change" (Castells 2000: 3). To make sense of this confusing and dangerous world requires broad analysis, as it touches on many issues and themes. While this breadth of analysis is beyond the scope of this study, it is necessary for all leaders and potential leaders to understand that the new realities challenge ways of operating and being, and there are consequently clear implications for prevailing conceptions of leadership.

The transition from industrial to knowledge age is characterised by complexity, sequential activity and the need for autonomy in contrast to the conventional control paradigm that exists in many organisational structures. In a dynamic and uncertain knowledge-based environment, a centralised approach is likely to face grave challenges. The reality is that in such an environment, senior management may not know best and knowledge rather than authority becomes pre-eminent. Not surprisingly, there is a shift in emphasis to a creative and distributed leadership paradigm, where leaders are expected to be able to act autonomously in flatter structures and with blurred lines of authority.

Reflecting a similarly changed environment in the military, the discussion of a RMA has foreshadowed a transformation of the world and its conflicts. While much of the attention is directed towards technology, there is recognition in the organisation that the nub of the challenge is leadership. There is evidence also of a renewed focus on leadership by the ADF and Defence hierarchy. Yet, the shift towards what this chapter categorises as the emerging contingent and creative (Type B) style is not as easy as one might think. The challenge, described as a structural one of breaking the Smith/Taylor/Fayol paradigm, is in part "attitudinal" (Savage 1996: 114). In the military, General Sanderson warns of "powerful cultural influences" that will take time to adjust (Sanderson 1998: 5).

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7 Smith's division of labour, reinforced by Taylor's theory of scientific management, and Fayol's principles that set the rationale for unity of command and span of command - all still used in today's organisations.
Given the crucial role of education and training in preparing future leaders, attention needs to focus on the two broad factors that influence the nature of leadership: the *organisational systems and process* that create part of the context for the practice of leadership, and the *human element*. The consequent need appears to establish a framework for leadership development that links these two factors (organisational systems and process and the human element) with the emerging style of leadership as theory-in-use.
CHAPTER 3: LEADERSHIP DEVELOPMENT - FROM TRAINING TO LEARNING

[The] willingness to learn is fundamental, as leadership and learning are indispensable to each other.

John F. Kennedy

Section 3.1 Introduction

The focus of this chapter is on understanding the issues related to development with a view to making the educational processes more effective. The chapter addresses some definitional issues related to the nature of development. Next, the work of seminal writers in the field such as Senge, Argyris, Bruner, Piaget and Vygotsky is considered. The chapter then highlights issues emerging from literature and selected examples of practice. A general shift in practice from a primarily behaviourist based training approach towards a learning and developmental paradigm is noted. The difference of this paradigm and consequent framework for teaching Type A and B styles of leadership would see students as more than simple receptacles of knowledge and would include the responsibility of facilitating their personal development.

3.1.1 Leadership Development

Leadership development is generally understood as the process of expanding a person's capacity to be effective in present and future leadership roles and processes, generally within teams and organisations (CCLH 1998; Cacioppe 2000). This purposive expansion of capacity or development may be cognitive or it may be social, described as growth in inner self-confidence, related to self-knowledge, clear personal goals and positive thinking. In sum, the issue of development is concerned with what we know, how we think and how we reason, which in turn concern the highly interrelated areas of emotions, personality, morality and interpersonal attributes of individuals (Lindenfield 1995; Sternberg 1995).

While there are a wide variety of approaches to leadership development and practitioners differ in the use of terminology, it is generally agreed that leadership can be taught (Klenke 1996; Kur and Bunning 1996; Krejci and Malin 1997; Zimmerman-Oster and Burkhardt 1999). There is an emerging body of research described as "learning leadership theory"
that is documenting this effort (Binard & Brungardt, 1997 in Zimmerman-Oster and Burkhardt 1999: 2). Much of this evaluative work appears designed to identify methods, possible models and themes of leadership programs. The role of learning in development is given prime focus, and emerging themes include lifelong learning, learning how to learn or metacognition (Iles 1994; Salomon 1997), and the learning organisation (Senge 1995; Shaw and Green 1999). A summary of selected features from studies in the published literature is in Appendix 6.

Section 3.2 The Nature of Development

Development suggests changes of an irreversible nature through time. The practice in studies of human development is to classify development under headings of physical, intellectual, social, emotional and more recently moral development. Yet, putting aside physical development, which does not give rise to conceptual difficulties, it is reasonable to ask what distinguishes emotional development from social development, and how can intellectual development be distinguished from either emotional or social development? That is, separation of each from the other is untenable. To illustrate, both social and moral development "involve the development of feeling and the intellect" (Hirst and Peters 1970: 51). Similarly, a concern with emotional (affective) development is untenable without stress on the role of cognition (intellectual), which is much wider than simply theorising, constructing and thinking in elaborate symbols. Logically, any concern for rational knowledge must also be concerned with the aspect of feelings that can influence judgement. In sum, regardless of development in terms of a mode of experience - scientific, mathematical, moral, or leadership, each mode will involve characteristic cognitive and affective aspects.

The study of Piaget (cognitive development), Kohlberg (moral development) and other theorists provides important material that enables the better understanding of each of these modes of experience. Defining an "end-state" that represents a culmination of the development process is problematic. Some researchers argue it is an essentially limiting stance because human life offers a great variety of possibilities of development (Hirst and Peters 1970). Moreover, these possibilities depend in part on cultural pressures and in part
on individual choice. As well, any conception of an end-state of human development is inevitably tied to the values of a particular culture. Notwithstanding, this issue of an end-state will be discussed in the wider context of the mastery of various skills and qualities of mind such as critical thinking, integrity and creativity. This mastery is a product of a person's experience, through explicit as well as other tacit forms of learning. However, it is appropriate to consider some more general issues related to human development.

### 3.2.1 Maturation versus Learning

The term development applies to changes in cognitive, social and psychomotor skills, because of maturation and learning from specific experiences. While the two processes (maturation and learning) interact, for example, people are better able with age to comprehend ideas that are more complex and to apply information in more than a single context leadership development is not strictly concerned with maturation. This latter process is biologically determined and involves incremental changes in an individual as they grow and age. Leadership development rather is directly associated with the qualitative changes in cognitive and social skills that result from specific learning experiences (Sternberg 1995). This distinction between maturation and learning highlights a debate over the role of nature (heredity) and nurture (environment) in leadership development. It invites the question are leaders born or are they made? The broad answer says Sternberg (1995) is that both heredity and environment contribute in an "interactive process" of development (Sternberg 1995: 449), To illustrate the relationship using music as the example, heredity (nature) is important in determining an individual's aptitude to play music. However, despite any genetic aptitude, an individual's realised capacity to play music will be influenced a large extent by the environment (nurture).

Based on this exploration of the process of development, leadership development might be usefully restated as activity designed to evoke qualitative cognitive and social change in the individual because of learning from experience. There is a qualitative difference in this definition from the earlier functional description of the developmental process. The process, which is often equated with personal development, is illustrated in Figure 3.1.
A personal development rather than vocational emphasis invites the reasonable question of development, but to what end? Personal development does not appear to be an adequate answer to the organisational need for effective leadership. Yet, understanding the developmental process and noting that over eighty-five percent of leader behaviour is apparently learned through modelling (Decker 1986), a personal development intervention appears to reap better results than a purely instrumental approach. Secondly, as Bennis et al. point out, the achievement of a mission cannot be separated from the means used to achieve that mission (Bennis and Goldsmith 1997). Thus, in leadership, individual character and attributes count. This is not to do with superficial issues of style, but with deeper attributes of trust, purpose and direction, optimism and a bias towards action. The process of developing and sustaining these attributes is a personal development issue and the elements involved are cognitive and social change.

The issue of personal development aside, the description of leadership development as activity that evokes qualitative change in the individual does not reflect the role of and implications for organisations supporting this process. Clearly, the term development is not suited to a single, definitive answer. Nor do varying descriptions and uses help definitional clarity - see Appendix 6. This definitional ambiguity suggests that there may be a need for language to change as the "nature of the social reality" being described changes (Limerick
1998: 220). It also suggests that if we are to truly understand human development, we may need to phrase our questions so that they encourage us to find "realistic and therefore probably complex answers" (Sternberg 1995: 413). What is abundantly clear is that these questions need to be asked in terms of learning and the learning process, which seems central to qualitative development in the individual.

### 3.2.2 Nature of Learning

Development and learning strategies are grounded in one of three development perspectives: **behaviourist, cognitive or social** (Reid 2001). Within these three categories, the term learning defies easy definition, being used to denote a product or outcome (what was learned), a process (how it was learned) and a function (what helps one learn). Learning is most often described as a behavioural outcome: “*some systematic change in behaviour or behavioural disposition that occurs as a consequence of experience...*” (Watkins 1991). Implicit in this definition of learning is the aspect of relative permanent change or change that is intended to last. This change, both good and bad, while described predominantly in behavioural terms (actions) can also be explained in terms of cognitive, interpersonal and contextual influences (DeSimone and Harris 1998).

In education, regardless of level, learning involves a change in the way an individual understands, experiences or conceptualises ideas related to the discipline being studied (Ramsden 1992). Assuming that essential condition for learning - learner motivation - the focus of learning is on qualitative change in a person's view of reality and not on the ability to repeat quantities of information on demand. Yet, studies cited by Ramsden (1992) indicate that students appear not to change their understanding of reality because of their studies. The research indicates that students retain quantities of information, at least for a short period. The research also suggests that students may experience superficial changes such as the acquisition of the language of various disciplines. However, they appear not to develop a self-critical awareness of subjects. These findings represent a "serious indictment of teaching" practice (Ramsden 1992: 30).
This concern, related to levels in achievement, was first addressed by Bloom's taxonomy as early as 1956 (Fry, Ketteridge et al. 1999). Bloom suggested six levels of learning in increasing order of complexity in his taxonomy of cognitive behaviours. Others researchers have since revised this list - see Table 3.1 (Jonassen and Grabowski 1998). Whereas most taxonomy's describe learning outcomes in a single dimension, Merrill's taxonomy describes both content and performance level, while Leith is only concerned with cognitive behaviour.

Table 3.1: Taxonomies of Learning

<table>
<thead>
<tr>
<th>Bloom</th>
<th>Gagne</th>
<th>Merrill</th>
<th>Leith</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge (Recall of facts, terms - no comprehension)</td>
<td>Verbal Information</td>
<td>Remember</td>
<td>Stimulus</td>
</tr>
<tr>
<td>Comprehension (Basic understanding &amp; use of knowledge)</td>
<td>Concrete concept (Colour, shades)</td>
<td>Facts</td>
<td>Discrimination</td>
</tr>
<tr>
<td>Application (Apply knowledge to solve a problem)</td>
<td>Defined concept (Understanding through definition)</td>
<td>Concepts</td>
<td>Response</td>
</tr>
<tr>
<td>Analysis (Determine structure or organisation of a set of ideas)</td>
<td>Rule Application (Cause and effect relationships)</td>
<td>Rules</td>
<td>Learning</td>
</tr>
<tr>
<td>Synthesis (Reassemble a new plan from the old)</td>
<td>Higher order Rule Learning (Select and interpret rules)</td>
<td>Principles</td>
<td>Associations</td>
</tr>
<tr>
<td>Evaluation (Making judgements based on either internal or external generated criteria)</td>
<td>Cognitive strategies (Systems for solving a problem)</td>
<td>Use concept</td>
<td>Serial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use rules</td>
<td>learning/chaining</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use principles</td>
<td>Learning set</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>formation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Concept learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Concept integration</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Problem solving</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Find</td>
<td>Learning Schemata</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Concepts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rules</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Principles</td>
<td></td>
</tr>
</tbody>
</table>

When determining the form of instruction or predicting how well learners will learn, the most important variable is desired learning outcome (Jonassen and Grabowski 1998). This is the particular feature of the Bloom's taxonomy, which has consequently been used in the development of most measures of cognition and achievement. But there are also major criticisms of the approach (Dart and Boulton-Lewis 1998). There is, for example, limited evidence supporting the hierarchical nature of the six levels. As researchers have argued the objectives in one class are likely to be used and built on the behaviours found in preceding classes. The taxonomy is premised on a distinction between process and content. Thus, it separates knowledge from the intellectual abilities or process that operates on this
knowledge. The taxonomy is also not accompanied by criteria for judging the outcome of the activity. As well, there is a supposition that the question leads to a particular type of Bloom response. Arguably, no relationship is necessary as a student may respond with a very deep response to a lower order question.

Thus, an important consideration in measuring learning outcomes is the learning processes being used. For this reason, it is important to embed curricula within the context of the subject matter. The requirement therefore is to measure 'understanding' which is excluded in Bloom's taxonomy that apparently is better suited for educational objectives formulated in precise and specific terms (Datta and Boulton-Lewis 1998). Evidently, Bloom's methodology suits, and has naturally been linked with, the behavioural objectives movement. Yet, both quantitative and qualitative learning outcomes are determined by a complex interaction between teaching practices and student characteristics. Any approach will require a consideration of prior knowledge, student motives and their learning strategies. Learning outcomes also vary by learner traits such as locus of control, by personality, general mental (intelligence) ability, cognitive information gathering and information organising style, and learning style (Kolb). Learning is clearly a complex process and learners will have varying aptitudes for different outcomes.

A useful and simple construct that illustrates the scope and rich texture of learning is Russell Ackoff's analysis of learning outcomes. Learning, as he explains, ranges on a continuum from data through to information, knowledge, understanding and wisdom (Marchese 2001) - see **Figure 3.2**.

**Figure 3.2: Levels of Learning**

```
+---------------------------+     +---------------------------+
| Data | Information | Knowledge | Understanding | Wisdom |
```

---

45
Using this construct, data is about knowing facts, information relates to an ability to recall facts or memorisation, while knowledge describes a set of subject-related concepts that enable the extraction of meaning or an acquisition of procedures. Understanding, which sits further to the right in this suggested continuum, describes an individual's capacity to place knowledge into a wider context or to the abstraction of meaning. Finally, wisdom describes the deep synthesis or reinterpretation of knowledge that reflects a deep understanding of reality (Fry, Ketteridge et al. 1999; Kelly 2001). Much of the educational focus is to the left of the continuum and few will argue against learning for understanding and wisdom that comes with time, depth of learning, practice and reinforcement.

Research by Wills (1994) indicates that what constitutes learning can vary according to the discipline under review. For example, teacher assumptions and beliefs about learning will be guided to some degree by the epistemological nature of the subject positioned broadly along a continuum of hard and soft disciplines (Wills 1994). Hard subjects have an image of being objective. They are based largely on factual knowledge such as the study of finance and statistics. Conversely, soft subjects arguably allow greater subjectivity. They are based on a mix of facts, as well as subjective considerations that include individual attributes, perception, and a range of contingent factors.

Another typology of learning (Figure 3.3) describes three types of learning (Wills 1994). Type 1 learning occurs because of absorbing factual information or knowledge. It is of immediate relevance but of little value to an individual's longer-term view of the world. Being able to read and understand a balance sheet is an example of this type of learning. Type 1 learning is characterised as cerebral learning as it depends on effective memory retention. Type 2 learning, occurs as a result of building on the absorption of factual information or knowledge so that behaviours change and become transferable from one situation to another. A good example of Type 2 learning is the learning of subtle interviewing skills that result in situation-specific skills. This type of learning builds on concrete behaviour changes. Type 3 learning, occurs when an individual becomes conscious of their conceptions of the world, of how they were formed and of how they might change them. Ultimately, the impact of this learning and change is evident in an
individual's identity and level of self-development. Type 3 learning equates to transformational learning - it implies a whole-of-person process that results in the transformation of the individual through self-development.

**Figure 3.3: Typology of Learning (Adapted from Wills, 1994)**

There is a degree of fluidity in the above framework. Knowledge based (Type 1) sessions for example can be transformed into competence (Type 2) if situation specific behaviour can be designed into sessions. Similarly, competence based programs (Type 2) can become self-development (Type 3) if learned skills reach a deeper personal transformative level.

### 3.2.3 Learning Styles

Educators have long known that students are different in the way they think and in the way they learn. Learning style is a biologically and developmentally determined set of personal characteristics. They range in terms of environmental preference, sensory mode preference (visual, auditory or kinaesthetic), to thinking style and to dependent-independent preference (Atkin 1999). These preferences tend to merge and overlap with personality and leadership styles, although the emphasis here is on thinking styles. Style theory recognises that learners' cognitive, affective, physiological and sociological patterns determine their academic outcomes. It is also argued that the characteristics of a specific style can make an identical educational environment, methodology and resources, effective for some learners and yet ineffective for others (Dunn and Griggs 2000).
In the past two decades, several theories and measurement devices have been developed to explore how students learn and by extension how educators should teach (Dyrud 1997). Table 3.2 identifies a number of these in outline. Despite the range of models in use in the US and in Australia, the situation is problematic because of "vested interests in marketing" a learning styles inventory and associated development program (Atkin 1999: 14).

Table 3.2: Learning Styles and Instruments

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Myers-Briggs Type Indicator</em></td>
<td>A Jungian model describing four dimensions of extraversion-introversion, sensing-intuitive, thinking-feeling and judging-perception</td>
</tr>
<tr>
<td><em>Kolb's Learning Style Model</em></td>
<td>Classifies learners according to four types; useful model in the context of experiential learning</td>
</tr>
<tr>
<td><em>Hermann Brain Dominance Instrument</em></td>
<td>Instrument is based on right brain/left brain cerebral or limbic functions</td>
</tr>
<tr>
<td><em>Felder-Silverman Learning Style model</em></td>
<td>The model categorizes learners on a continuum ranging from sensing/intuitive to sequential/global (Dyrud citing Felder, 1996)</td>
</tr>
<tr>
<td><em>The Dunn model (see Figure 3.4)</em></td>
<td>The model integrates cognitive-style theory and brain-lateralization theory</td>
</tr>
</tbody>
</table>

Various studies, that match instructional techniques to cognitive style, demonstrate significant consequent improvement in student performance (Dunn and Griggs 2000). A study by Tanenbaum (1982) describes similar results in studies of high school students enrolled in nutrition classes (Atkin 1999). Atkin (1999) citing a study by Price (1980) suggests learning-style changes as students moved from elementary school into adolescence and young adulthood. Other researchers have found that learning styles are also different by achievement level, gender, and age (Dunn and Griggs 2000, citing their 1995 study). Thus, as students develop, general changes in style can be expected.

Individual styles have been found to differ in terms of high and low academic achievement. While both student groups have variations within groups in ways of learning, as a group gifted students had significantly differing learning styles from underachieving students. This latter group also did not perform well with the same methods suited for gifted students. Individual style also differed by gender. Males appear to be more kinaesthetic and tactile, followed by visual (if they had a third modality). As a group, males also preferred more mobility, less formal environments and were more non-conforming and peer motivated than their female counterparts. In contrast, females tended to be auditory,
conforming, authority oriented and better able to sit passively in a conventional classroom. Females also tend toward being quiet when learning and more self and adult-motivated (Dunn and Griggs 2000).

Learning styles undergo a transition between elementary and middle schools, and between middle and secondary schools. They continue to change through college and adulthood and the styles of older adults (age range of 65-85) can differ in many ways from younger people. Notably, some adults do not exhibit any change at all through their lives (Dunn and Griggs 2000).

There is also considerable research that supports the assertion by Dunn and colleagues that the variables in the various cognitive-style theories cluster together. For example, there is a relationship between learning with few or no interspersed breaks, quiet, well-lit formal environments, little or no intake and analytic left-brain processing. Similarly, students with comparatively short attention spans that learned easily in soft lighting, with breaks, informal seating and snacks, correlated with global right-brained processing. Further, dependence/independence correlates well with global/analytic cognitive styles respectively and bring out the same clustering as right and left preferreded students (Brennan, 1984; Burke, Guastello et al., 1999, levy, 1982 and Trautman, 1979 all cited in Dunn and Griggs, 2000: 11). These considerations are illustrated in Figure 3.4.

**Figure 3.4: Dunn and Dunn Learning Style Model (Dunn and Griggs 2000)**

<table>
<thead>
<tr>
<th>STIMULI</th>
<th>ELEMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental</strong></td>
<td>Sound  Light  Temperature  Design</td>
</tr>
<tr>
<td><strong>Emotional</strong></td>
<td>Motivation  Persistence  Responsibility  Structure</td>
</tr>
<tr>
<td><strong>Sociological</strong></td>
<td>Self  Pairs  Peers  Team  Adult  Varied</td>
</tr>
<tr>
<td><strong>Physiological</strong></td>
<td>Perceptual  Intake  Time  Mobility</td>
</tr>
<tr>
<td><strong>Psychological</strong></td>
<td>Global-Analytic  Hemisphericity  Impulsive-Reflective</td>
</tr>
<tr>
<td></td>
<td>Simultaneous or Successive Processing</td>
</tr>
</tbody>
</table>

The Dunn and Dunn model is designed for and has been applied to "primary (Dunn, Dunn, & Perrin, 1994), elementary (Dunn & Dunn, 1972, 1978, 1992), secondary (Dunn & Dunn,
Chapter 3: Leadership Development - From Training to Learning

1978, 1993), and adult (Dunn & Dunn, 1998, 1999) populations” (Dunn and Griggs 2000: 8). The idea behind the theory is firstly, for instructors to understand how they and their students learn. This will enable the use of pedagogical techniques that enfranchise the greatest number of students possible. Secondly, theory suggests students become aware of their reactions to the immediate instructional environment, the emotionality, sociological preference (alone, with peers, an adult authority figure), physiological characteristics (perceptual strengths,8 energy levels, intake and mobility needs) and preferred processing style (global versus analytic) (Dunn and Griggs 2000).

Earlier work by Dunn and Griggs (1995) reviewed studies that revealed greater variety within groups than between groups. Four style traits significantly differentiate between groups and among individuals in a group: 1) achievement levels, 2) gender, 3) age, and 4) culture. Figure 3.5 summarises results from the studies cited by Dunn and Griggs (2000).

Figure 3.5: Learning Styles and Research Insights (Adapted from Dunn and Griggs, 2000)

<table>
<thead>
<tr>
<th>Preferences</th>
<th>Age (Changes with age)</th>
<th>Achievement (Gifted/Underachieving)</th>
<th>Gender (Learn differently)</th>
<th>Culture (Difference within greater than between)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sociological</strong></td>
<td>Younger child - adult</td>
<td>Gifted: self motivated earlier (from 1st/2nd grade and styles appear similar across cultures and subject areas (Milgram, 1993)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>self motivated</td>
<td></td>
<td>Males: more active and less authority oriented</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adults - variable styles and older adult (65-85) differs from younger people</td>
<td><strong>Underachievers:</strong> peer motivated earlier and remain that way well past adolescence</td>
<td><strong>Females:</strong> quieter and more authority oriented than males</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Grade 5/6: peer motivated; and by 9th Grade: self motivated</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>There is a greater than average preference for selected styles within cultural groups;</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>In US study it was found that Europeans group preferred to study alone, while the Native American was more peer oriented</td>
<td></td>
</tr>
<tr>
<td><strong>Emotional</strong></td>
<td>Motivation, responsibility and need for internal vs external structure are developmental (Thies, 1979); Motivation can fluctuate by day, teacher and class. Three stages of non-conformity - terrible two’s and the period between 6th to 9th grades are two stages (Dunn, White et al., 1982).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Males: peer motivated and non-conforming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Females: self, parent or teacher motivated and more conforming</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8 “Auditory, visual, tactual, and/or kinesthetic strengths”, Dunn and Griggs (eds), 2000: 9
Physiological (perceptual, energy, intake, mobility)  The younger the child the more tactual & kinaesthetic (active involvement and experience); auditory and visual modalities develop later with age (unspecified);
Some adults can remain tactual or kinaesthetic;
Adult (teachers) learn more, more quickly and retain more in style responsive methods rather than traditional staff-development methods.
Less than 12% of primary school children are auditory
Few children and adults are able to remember 75% of information for between 30–40 minutes.
Less than 40% of people are visual learners

Males: tend to kinaesthetic & tactual; need more mobility, and less formal environment
Females: tend to auditory and able to sit passively in class
Asian higher analytic that Native American; European had higher sequential processing skills that African, Native Americans had higher simultaneous processing skills that Europeans who had higher auditory than Native & Hispanic - visual learners; African - preferred kinaesthetic

While cognitive-style theory suggests that individual’s process information based on learned traits, brain-lateralization theory proposes the brain's two hemispheres have different functions. There is evidence that indicates a brain hemispheric dominance linked to the two ways the brain processes information – hence, left and right brain processing - see Figure 3.6. Citing research initially begun by Alexander Luria (1973) and Roger Perry (1968), Dunn et al., (2000) flag conclusions that demonstrate the left hemisphere appeared associated with verbal and sequential (successive) abilities, while the right hemisphere appeared associated with emotions and spatial, holistic (simultaneous) processing.

Figure 3.6: Left and Right Modes of Brain Processing

<table>
<thead>
<tr>
<th>Left Mode Processing</th>
<th>Right Mode Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial or Sequential</td>
<td>Parallel or simultaneous</td>
</tr>
<tr>
<td>Focal or convergent</td>
<td>Diffuse or divergent</td>
</tr>
<tr>
<td>Verbal or symbol</td>
<td>Image or spatial</td>
</tr>
<tr>
<td>Logical or analytical</td>
<td>Intuitive or holistic</td>
</tr>
</tbody>
</table>

Effective learning requires the ability to use both types of processing, sometimes in isolation and sometimes in tandem. Effective teaching requires the stimulation of the appropriate processing in the learner for the learning task. A pedagogical application of this insight is in terms of textbooks that are usually written in a step-by-step analytic style, with procedures itemized but no direct applications included that relate the content to a user's experience. This form is unsuited to a global processing style. An alternate text for this global style would include stories, examples, illustrations and humour. When the text "matched, rather than mismatched, individuals' global learning styles" it has resulted in
significantly better test scores (Dunn and Griggs 2000: 14). Requiring students to teach themselves is another pedagogical method that eliminates the impact of teaching styles.

Experiential Learning

The integration of theory and practice is a complex process and the predominant albeit western educational viewpoint is constructivism.\(^9\) This approach views the learning process as an on-going spiralling experiential process, where meaning is constructed and reconstructed by the learner (Bawden 1989). Kolb’s experiential learning cycle model (see Figure 3.7) is the clearest exposition of the concept of experiential learning (Smith 1992). In Kolb’s words, experiential learning focuses on:

"…the transaction between the internal characteristics and external circumstances, between personal knowledge and social knowledge. Learning from experience shapes and actualises developmental potentiality. This learning is a social process and the course of individual development is shaped by the cultural system of social knowledge" (Kolb 1984: 133).

Figure 3.7: Kolb Experiential Learning Model

Kolb’s Experiential Learning model explains the integration of theory and practice in terms of four mutually supporting phases. The four phases in order are concrete experience, reflection, re-conceptualisation (or refined understanding), and (transfer of this understanding by) active experimentation (in further activities). Each phase is important in

\(^9\) Other than a constructivist view, which focuses on learning for being, other views include the positivist view that focuses on learning for knowing, and the utilitarian view that focuses on learning for doing.
this cycle, although research shows there are marked differences in individual preference and ability in the different phases of the cycle. Importantly, maximum learning and integration occur when all four phases of the cycle are completed. However, because of varying individual preferences there can be a tendency to skip over the weaker phases and it requires an awareness of personal strengths and weaknesses to avoid this temptation.

Skilled facilitation using personal and group experiences can help course participants through the four stages of learning associated with the theory (Sheehan and Kearns 1995). Learning however does not occur without guidance. Just doing an activity does not ensure the right lesson is learnt. For the right lessons to be learned the learning experience must be facilitated. The importance of this concept when conducting leadership training is that practice comes before theory. For the theory is meaningless without experience upon which to reflect. Much of the training conducted within the Army, particularly team training and collective training falls into the experiential learning category. However, the real lessons in a training activity are often lost because the individuals or the group do not reflect on the experience and gain some meaning from it. Learning in this context is viewed as a cyclical process starting with a concrete experience that forms the basis of observations and reflection. These observations are assimilated into a new theory from which implications for future action are deduced that in turn guide subsequent experience.

Gaps and obstacles to learning can appear at any point of the learning cycle and reflection is seen as a key to successful application of this development theory. It is argued that *reflection* and *theory*, in contrast to *experience*, are the “motors” that drive the learning cycle (Sheehan and Kearns 1995:10). Indeed, regardless of the stage in the learning cycle at which the participants enter, reflection ensures they touch base with all stages. This discourages participants from taking a short cut between experience and action. Overall, the Kolb learning model is a well-accepted and proven base on which to construct a development (change) programme.
3.2.5 Adult Learning

While much of the research from cognitive psychology, although based on studies of adolescents, is relevant to adult learning, learning in the work place is considerably different to learning in school. Typically, it is concerned with adult learners who are early in their careers and the elderly. Malcolm Knowles and Carl Rogers have been instrumental in defining adult learning theory are based on the belief that adults have different experiences (than children) and these differences are relevant to creating the ideal learning environment. Age, motivation, prior knowledge, the learning context and influence of situational and social conditions are all factors that can affect learning. Attributes unique to adult learners are typically described as prior knowledge and experience, self-directed learners, critical reflection, and experiential learners (Reid 2001).

While adults can have considerable prior knowledge that can aid the acquisition of new knowledge, it is useful to remember that where it is dated or inaccurate that this knowledge may hinder learning. Differences in experiences need to be bridged by providing anchoring events, realistic problems, or other situations that form a common reference point. These anchoring points may or may not have a single correct solution. Instructional materials should reflect the diversity in adults through cultural, gender, ethnic and racial differences.

The desire to be self-directed learners is a unique feature of adult learning. It forms the cornerstone of Knowles’ andragogy (Reid 2001). It exists when the learner plans and directs the learning. Institutionally learning that prescribes objectives and instructional modalities with no involvement by the learners is counter to this characteristic of adult learners. Strategies to enhance self-directed learning include the use of contracts where the learner diagnoses needs, plans activities, selects resources and evaluates progress. Clear specification of what is to be learned and what is expected is another strategy. A democratic atmosphere that encourages participation in decisions, goals and self-evaluation and access to resources as well as activities that support socialisation and communication can strengthen self-directed learning environments.
Educators “cannot always accept adult definitions of needs” as the operational criteria in the development of curriculum, design of programs, or evaluation (Brookfield 1985: 68). The task is to help them realise that bodies of knowledge, accepted truths, values and behaviours comprising their worlds are contextual and culturally constructed. Similarly, attempts to make adults critically reflective can attract a negative response. Watkins suggests the need to recognise adult education is a collaborative and transactional encounter and all concerned should be involved in negotiating the objectives, methods and evaluation. In this sense, the need is to respect the learner’s individuality, and encourage genuine questioning and critical outlook rather than enforce a party line (Brookfield 1985).

Section 3.3 Learning and Development Viewpoints in Literature

Behaviourist learning theories (Pavlov) and then developmental ones (such as Thorndike, Skinner and Piaget) dominated the study of learning in its early days. More recently, it has been cognitive and constructivist models (Jerome Bruner). The two main behaviourist approaches are classical conditioning and operant conditioning in which desired voluntary behaviour leads to a reward or prevents a punishment (Robbins 2001).

A third approach, social learning theory, is an extension of operant conditioning but acknowledges observational learning through role models. Authors such as Peter Senge and Chris Argyris provide insight into the contextual aspects of learning. Conversely, Jerome Bruner, Jean Piaget, Robert Kegan and Lev Vygotsky address the development aspects of learning. The range of views is illustrated in Figure 3.8 is not exclusive, nor is intended to suggest a continuum. The views by these selected authors provide a useful multi-dimensional perspective to understanding the implications of learning for development. A summary of their viewpoints and contribution to organisational and individual learning is in Appendix 7.

10 Law of effect (Thorndike) states behaviour that is followed by a pleasurable consequence will occur more frequently; Reinforcement theory (Skinner) argues that behaviour is a function of consequence based on the law of effect; Stages of development (Piaget) constrain how fast a child’s mind can deal with abstraction. This latter idea must be regarded with caution – development depends on a grasp of the context or situation in which the child is required to reason (see Bruner (1996)).

11 The reality we impute to the world we inhabit is constructed or ‘reality is made not found’ Bruner (1996)
3.3.1 Contextual Themes in Management Literature

Peter Senge, the author of an often cited and highly regarded study into organisational learning, *The Fifth Discipline*, focuses his discussion at two levels of leadership. At the individual level, Senge argues that some capabilities must be embedded. These include the capacity for personal vision, the ability to reflect on one's own thinking and the recognition of mental models, and the ability to think in term of interdependencies and patterns of change founded on the discipline of systems thinking (Senge 1995). *Mental models* and *systems thinking* constitute key capabilities. The first is related to the ability to change and the second to the communication process required to make clear why change is necessary.

At the group level, Senge argues that two capabilities are essential. The first is the ability to build a shared vision, and the second the ability to reflect on complex issues. This requires the capacity for balanced discussion (dialogue), where people advocate their views on complex issues and collectively reconcile the possibly many different views (Senge, 1995). Arguably, the leader’s most important role is then to facilitate these collective capabilities. This is achieved by creating an environment that allows critical and open reflection to take place, and a level of trust such that organisational members feel free to speak positively or negatively about any issue.

Senge distinguishes between two kinds of learning – *adaptive learning* and *generative learning*. Adaptive learning explains how an organisation adapts its actions and products or services to the demands of consumers or buyers (Senge, 1995). Such an approach, where
an organisation waits for developments in the external environment before formulating new actions, is a reactive approach to learning and change. Generative learning, on the other hand, takes a more proactive and future oriented approach to learning and change. This form of learning requires the organisation to look at itself critically and to alter systems and structures appropriately to meet future trends emerging in the environment. It is an inward looking critical learning perspective that depends on the organisation possessing the capacity to direct its systems towards future demands rather than merely base its internal changes on observation. The challenge for organisational leaders is to establish a climate of learning that includes a focus on trust and on values such as an encouragement of experimentation and inquiry as well as advocacy. Supporting structures will include enhanced communication processes and use of collective reflection.

The concepts of single and double-loop learning were outlined briefly in Chapter 1. Argyris explains that learning takes place at two levels: action strategy and governing variable. The concepts are illustrated in Figure 3.9. Argyris draws inspiration for the term single-loop learning from electrical engineering or cybernetics. The learning is instrumental, that is, it works in a mechanical sense with adjustments being made to already known structures.

Figure 3.9: Single and Double-Loop learning (adapted from Argyris, Schon 1978)

Single-loop learning is therefore concerned primarily with effectiveness in terms of how best to achieve existing goals and objectives, while keeping organisational performance within the range specified by existing values and norms (Argyris 2000). As with Senge’s adaptive learning, single-loop learning works as a response to changes in the environment. Therefore, organisational learning occurs when mismatches are corrected by changing actions or routines in the known structures and processes of the organisation. The result of routine behaviour is actions based upon past experience, with errors only detected when they occur in known structures. According to Argyris (2000), most people are programmed
with single-loop routines that reinforce defensive reasoning. The effect is people think in terms of past experience and actions and so tend towards repetition.

Double-loop learning on the other hand concentrates not only on the actions but also on the structures governing the variables controlling the actions. Learning involves a modification of the underlying norms, policies and objectives (Argyris, Schön, 1978: 2-3; Argyris, 1992). To this end, individuals abandon the instrumental form of learning typified by the thermostat. The system becomes intelligent, asking 'why do we do as we do’. This is similar to Senge’s generative learning, supported by communication and reflection. Effective double-loop learning can have adverse consequences for the individuals and organisation in terms of motivation and trust, unless the problem is overcome with the establishment of a vision about the future. A common vision acts as a point of reference that according to Argyris et al. (1978) is pivotal to double-loop change and learning.

Argyris also offers insight into why individuals (and organisations) can have difficulty in changing behaviours. He suggests *micro-theories* or *mental models* of action explain the meaning behind actions (Argyris 1976). These models called *theories-in-use* are different to *espoused theories* that people profess to hold, and have been discussed in outline in Chapter 1. Although individual behaviours vary widely and espoused theories of action also differ, Argyris (1992) found almost no variation among individual theories-in-use. Moreover, even though people may employ different strategies of control, these researchers report no variance across cultures in theories-in-use. This allowed the development of a theory-in-use model (*Model 1 theory-in-use*) that Argyris and his colleagues say is "highly generalizable" (Argyris 1992: 152). Arguably, few people "are aware that the theories they espouse are not the theories-in-use" (Argyris 1976: 44) and apparently over 95 percent of respondents varying by age, sex, colour and status held Model 1 theories-in-use.

Behavioural strategies associated with Model 1 theories-in-use are highly skilled and performed so effortlessly to appear automatic. They are also good strategies for routine problems. However, when faced with uncertainty, risk and important non-routine issues a
Model 1 approach is unsuited. Typically, theories-in-use make it likely that individuals will deal with uncertainty by using a bypass strategy, in turn leading to an escalation of defensiveness and error. As Argyris (1992) says, individuals act as if their inferences are concrete and of high validity. Consequent actions lead to "unrecognised inconsistencies, self-fulfilling prophecies, non-learning processes and escalating error" (Argyris 1992: 26).

Argyris indicates a progressive research effort to develop usable theories of intervention to help individuals and organisations. It appears that it is possible to teach individuals Model 2 action strategies and to produce organisational level Model 2 (O-2) learning systems. To enable organisations to double-loop learn a four-step process is required. It begins paradoxically with altering individual automatic reactions to socialisation. These new theories of action (Model 2) need to be practiced in conditions of minimal to moderate stress. As well, participants need to determine under which conditions Model I or Model 2 theories-in-use is preferred. The final step is to introduce these new actions into the organisation and simultaneously help others learn them as well.

In the final analysis, subordinates’ "learning will be reinforced or extinguished by the actions of their superiors" (Argyris 1992: 35). The point is consistent with Senge’s (1995) injunction not to push but rather to remove the factors limiting growth. There are two assumptions in organisational double-loop learning that must be made explicit. Firstly, interventions must begin at the highest levels – at the level that has autonomy to implement the learning. Secondly, double-loop learning must begin at the individual level and then spread to the organisational level. The latter observation is supported by Swieringa's observation on the need for "collective learning for collective change" (Swieringa and Wierdsma 1992: 97).

### 3.3.2 Development Themes in Educational Literature

Having addressed the areas of 'contextual' learning, we turn next to a description and analysis of the dynamics involved in learning. Jerome Bruner describes learning as a process in which learners construct new ideas or concepts based upon their current and past knowledge (Bruner 1996). This process of constructing new ideas also involves
interactions with the culture of which the person is part. The principles of selectivity will vary from culture to culture (Bruner 1973), depending on the patterns of past experience on which organisational members construct new ideas.

Organisational members will also internalise tools such as communication forms and styles of behaviour from the culture. These tools often do not encourage learning. Rather, the constant use of known tools reinforces defensive routines. Consistent with Senge and Argyris, Bruner argues that today most people act from defensive routines. That is, their actions are based on what has been done in the past and from a conviction that one must act as required by the manager or leader. The challenge is to establish an environment that encourages questioning, where instead of extrinsic problem solving based on doing as the manager wants, a learning organisation needs to encourage intrinsic problem solving. Such an approach would require individuals to think of why they behave as they do.

Such a critical and reflective approach to problem solving is similar to earlier proposals by both Senge and Argyris. Bruner’s thoughts can be illustrated as follows in Figure 3.10.

As with Senge and Argyris, the development of knowledge evolves from an alteration of current thinking. Frequently, people think and act based on past experiences, objectifying that reality while failing to question the foundations of the experience. This is a static and seemingly simplistic view of reality. There is a need to incorporate the dynamic features of organisational life such as culture. As Bruner explains, external and objective reality can only be known by the properties of mind and the symbol systems on which that mind relies.
(Bruner, 1996). This suggests an interaction with organisational culture where the culture reinforces a way of thinking. This potentially could lead to a reflective and generative learning process or to a stunted, simple learning routine.

We next turn to how people learn. Two of the most influential researchers in this area are Jean Piaget and Lev Vygotsky. Importantly, in terms of a critical stance to their approach, both Piaget and Vygotsky's studies focus, albeit not exclusively, on how children learn. For this reason, it could be argued that both authors' views are inadequate in terms of organisational learning. However, Piaget and Vygotsky make an important contribution to broad assumptions on learning and particularly to developmental research (Sternberg 1995). Piaget's theory is considered the most comprehensive of cognitive development. In contrast to Piaget, who emphasises an inside-out maturation process, Vygotsky emphasises the role of the environment in intellectual development through what he calls a "process of internalisation" (Sternberg 1995: 429). Thus, social rather than biological factors are the key to learning and educators, psychologists and researchers have embraced the idea that it is possible to extend and facilitate the development of cognitive abilities.

Piaget proposed a theoretical framework for learning through a process of adaptation based on four stages: "sensorimotor, pre-operational, concrete-operational, and formal-operational" (Sternberg, 1995:424). People build cognitive structures to understand and respond to physical experiences in their environment. Thus, in Piaget's terms development preceded learning, as he held that developmental stages were largely fixed (Slavin 1997). As Slavin notes (citing work by Donaldson 1978, Kusaka 1989) this principle of 'stages' has been criticised and revised, with many people doubting there are broad stages of cognitive development. Rather, it is argued that children develop in different ways on different tasks and that experience can have a strong influence on the pace of development. Piaget also recognised the importance of individuals as members of cultures and the power of such membership. In Piaget's view, most people respond in a social context to defend ideas to actual or imagined audiences. This is similar to Argyris notion of defensive reasoning, which Piaget (1974) calls the 'internalised argument'. He describes it like this:
"The adult, even in his most personal and private occupation... thinks socially, has continually in his mind’s eye his collaborators or opponents, actual or eventual, at any rate members of his own profession to whom sooner or later he will announce the results of his labours. This mental picture pursues him throughout his task. The task itself is henceforth socialised at almost every stage of its development... the need for checking and demonstrating calls into being an inner speech addressed throughout to a hypothetical opponent whom the imagination often pictures as one of flesh and blood. When, therefore, the adult is brought face to face with his fellow beings, what he announces to them is something already socially elaborated and therefore roughly adapted to his audience" (Piaget 1974: 59).

It is reasonable to conclude that in Piaget's view people respond defensively to changes based on their belief in what is socially acceptable. This type of learning is an act of membership in a community of practice (Piaget 1974). People seek acceptance in their actions and try to make sure that other members recognise proposals and ideas in an organisational context. In terms of learning, this response suggests that people will remain in a single-loop routine out to fear of acting in a socially unacceptable manner.

The effect is that learning will only occur in an assimilated fashion - an interpretation in terms of existing cognitive structures. Accommodation, or what equates to double-loop learning in Argyris' terms, occurs in situations where experience seems different or new. When people lose equilibrium, cognitive structures alter to accommodate new conditions and build new and more adequate cognitive structures. As people are inclined to act in socially acceptable ways, the environment would seem the key to encouraging accommodation. Arguably, it is only when people feel secure in and trust the social environment can they build new cognitive structures. Hence, accommodative learning only develops in an environment where people feel secure to present new ideas.

Inspired by Piaget, Robert Kegan expands Piaget's perspectives of cognitive development beyond adolescence into the adult experience (Ling, Ling et al. 1999). Kegan outlines a five stage developmental rather than evolutionary model where:
First Order Thinking (Body): corresponds to Piaget’s first level (sensori-motor), with no initial differentiation between object and subject in infancy. That is, there is no distinction made between the child and environment.

Second Order Thinking (Emotion): which emerges in later childhood as objects are understood to possess qualities of their own and a distinction is possible between the individual and the environment.

Third Order Thinking (Image): is characterised by individuals being capable of cognitive complexity and of thinking across categories. This stage enables a coherent disposition towards ultimate reality, although objectivity may not be evident. Consequently, there is no self-reflexivity and thinking is essentially collective and traditional. This is a consensus or culture based view of reality.

Fourth Order Thinking (Rational Thought): is characterised by the ability to reflect critically, to detach oneself from the taken-for-granted knowledge inherited from a culture. Individuals are able to look critically at their own and others’ knowledge, as they try to determine the truth of the world.

Fifth Order Thinking (Integral): While in fourth order thinking individuals identify with their capacity for critical reflection, in fifth order thinking this capacity for critical reflection becomes the object of our knowing. The way of thinking is relativised as only one out of many ways of constructing reality.

Kegan’s findings are important in an organisational context because he identifies the interplay between an individual’s cognitive development and culture. Culture shapes reality and influences members of that culture to be less self-reflexive by reinforcing past actions and diminishing the need for change in cognitive structures. In the context of intellectual development, Kegan identifies non-critical acceptance of a view of reality as third-order thinking. Arguably, the need is for fourth and fifth order thinking that involves taking a critical stance towards versions of reality. This requires the ability to look critically at the evidence "rather than the authoritative voice of culture" to give their thoughts legitimacy (Ling, Ling et al. 1999: 18). Development into the latter stages is not automatic and it is possible for individuals to regress to earlier orders of thinking.
These stages of thinking have fundamental implications for education. In third-order thinking the focus is "transmitting what is already known" and learning is more receptive (Ling, Ling et al. 1999: 26). Characteristically, the curriculum is content-centred or objectivist, determined by those in authority and where the paradigm is one of enculturation. Conversely, if fourth-order thinking is the intended outcome then learning processes must aim to produce autonomous individuals able to examine critically the information presented to them. This approach, described as a student-centred constructivist approach, is based on self-directed learning and the encouragement of active learning in preference to more receptive and conformist approaches. The learning focus is both personal development and cultural change.

Lastly, we turn our attention to the Russian psychologist Lev Vygotsky who explored how people learn. Vygotsky, like Bruner and Kegan, emphasised the importance of culture in learning. His work is based on two key ideas.

First, he proposed that intellectual development could be understood only in terms of historical and cultural context.

Second, he believed development depends on sign systems that individuals grow up with (Slavin 1997). Sign systems refer to symbols that cultures create to help people think, communicate and solve problems.

In contrast to Piaget, Vygotsky's theory suggests that "learning precedes development" (Slavin 1997: 46). Like Piaget, however, Vygotsky believed that the acquisition of these sign systems is by means of instruction and information from others. The most important contribution by Vygotsky is the emphasis on the socio-cultural nature of learning. The emphasis on proximal development describes tasks a child cannot do alone but is able to do with the help of more competent peers or adults.

Another key idea, derived from Vygotsky's notion of social learning, is scaffolding which refers to the assistance provided in early stages of learning by more competent peers or adults (Slavin 1997). Vygotsky argues all human knowledge is "local knowledge" that is relative at least in some respects to the culture in which it makes sense (Morss 1996).
Language is the primary form of interaction in this social context and hence cognitive development is a dialectical process. Overall, Vygotsky, like Piaget, would seem to conclude that knowledge is constructed within a specific material and social context. A summary of cognitive and social development theory is in Appendix 8. There is a broad consistency that learning is derived from a change in mental processes, that people construct knowledge based on reflection, and the quality of the reflective process is shaped by environment and culture.

Two individual life stage theories are reviewed in Table 3.3. Eric Erikson's eight stages of personality development is one of the most used and accepted psychosocial theories (Sternberg 1995). Each stage, starting from birth represents a developmental challenge that a psychologically healthy person meets satisfactorily. Failure to meet one or more of these developmental challenges will cause an individual to continue to try to cope with the related specific conflict through life.

<table>
<thead>
<tr>
<th>Erikson's Theory of Personality and Identity Development</th>
<th>Acquired worldview &amp; developmental challenge</th>
</tr>
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<tbody>
<tr>
<td>Stage 1: Trust vs Mistrust (birth to 1 year)</td>
<td>View the world as basically friendly or hostile</td>
</tr>
<tr>
<td>Stage 2: Autonomy vs Shame &amp; Doubt (1-3 years)</td>
<td>Leads to development of will - a sense of control over emotions, thoughts &amp; behaviours vs doubt</td>
</tr>
<tr>
<td>Stage 3: Initiative vs Guilt (3-6 years)</td>
<td>Learn to take initiative and assert themselves in socially acceptable ways; Sense of purpose</td>
</tr>
<tr>
<td>Stage 4: Industry vs Inferiority (6-12 years)</td>
<td>Learn sense of capability and industriousness; sense of competence vs incompetence low self esteem</td>
</tr>
<tr>
<td>Stage 5: Identity vs Role Confusion (adolescence)</td>
<td>Integrate social, intellectual, sexual, ethical &amp; other aspects into a unified self-identity; sense of fidelity</td>
</tr>
<tr>
<td>Stage 6: Intimacy vs Isolation (early adulthood)</td>
<td>Emerging adult commits to an intimate relationship; love in a giving &amp; non-selfish way vs isolation</td>
</tr>
<tr>
<td>Stage 7: Generativity vs stagnation (middle adulthood)</td>
<td>Adults try to be productive and contribute to the next generation vs stagnation and self-centred</td>
</tr>
<tr>
<td>Stage 8: Integrity vs despair (old age)</td>
<td>Making sense of lives led and choices made; a gaining of wisdom vs despair over lost opportunity</td>
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<tr>
<th>Levinson's Stages of Adulthood</th>
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<tr>
<td>Early or novice phase (17-40 yrs)</td>
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<tr>
<td>Middle adulthood (40-65 yrs)</td>
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<td>Late adult phase (65 onwards)</td>
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David Levinson's *Stages of Adult Development* identifies three stages of adult life: early, middle and late adulthood. These stages correlate with Erikson's latter developmental periods but flag a different life purpose for each stage. Both Levinson and Erikson's theories are culture bound and both theorists are also criticised for insisting on invariant age ranges for their various stages. However, despite these criticisms, the theories are useful in considering development in the context of life stages, and in explaining how an individual needs to cope with the various "transitions" (Sternberg 1995: 454).

### 3.3.3 Summary of Development Theory

In summary, there is an implicit understanding in theory that everyone can learn and grow from developmental experiences. However, there is clearly also great variability in the process. Contextual approaches to development highlight the role of defensive routines and the negative effect these routines can have against generative or double-loop learning. The contextual approaches also identify the impact of culture on individual and collective behaviour. As Argyris explains, it is the gap between espoused and practiced theories-in-use that causes difficulties for individuals and organisations when development programs seek to change behaviour. Most people operate using micro-theories or mental models that Argyris defines as Model 1 theories-in-use. These micro theories, based on governing values of unilateral control and rationality, are face saving strategies. The effect is that people tacitly act in ways that are counter-productive to espoused theories.

Conversely, theory developed by Piaget, Vygotsky and others, while recognising contextual issues such as environment draw attention to particular developmental issues. There is a clear implication that leadership development interventions are not single events but rather a time-based dynamic process. Individual life stages are a key consideration in this process, particularly for any development framework that seeks to address long-term issues such as continuous learning and continuous professional development.

Another theme concerns the need to understand the interaction between individual and culture in any discussion of individual cognitive development. Learning can be viewed as an act of membership in a community of practice. Finally, in terms of the practice of
thinking and acting based on experience without questioning the foundations of this experience, the theory would suggest this form of development is static and based on a simplistic view of reality. Rather, what is necessary for effective learning is the incorporation of the dynamic features of organisational life such as culture and process.

Overall, the process of leadership development involves both growth and change through personal development and through a systemic supporting role by the organisation. As we move to more complex and collaborative structures, because "people become interdependent" (Kerr 1999: 230), the development task in its widest sense is to build a community of leaders, a point supported by Senge (1995). There is also a reasonable and overriding need to contextualise learning within what is often termed a professional development context (Shaw and Green 1999). To this end, leadership development programs can be categorised into three broad tracks: the technical component of leadership, the organisational or practical/business process component, and the individual or self-knowledge component. This three-track theme is evident in certain European leadership programs (Kur and Bunning 1996). Spanning the three tracks, there is a need to reconcile the broad issue of competence versus what are termed meta-skills or meta-competencies that deliver 'excellence' in professional development (Cheetham and Chivers 1996; Beaty, Lawson et al. 1997). These integrating themes to planning leadership development are explored next in a review of development practice.

Section 3.4 Development Practice

If the net effect of the environment is to make leadership an essential role then leadership development becomes a critical tool for organisations. Program aims can range from personal and professional development (Hackman, Olive et al. 1999), to socialisation and value inculcation (Stevens, Jr. et al. 1994), to a transformative focus in preparing leaders for social change (Zimmerman-Oster and Burkhardt 1999). Overall, the varying themes in development practice have in common an acceptance of a positive relationship between personal development and effective management. As Bourner (1996) says, given an environment of increased change the need for development of self-knowledge and hence personal development has also increased.
3.4.1 Research Themes and Prospects

The main themes emerging from current literature are summarised in Appendix 9. Common to most development interventions is the matter of learning. Thematically, it is possible to discern a broad trend in U.S. based development programs. This trend appears to be individual as opposed to organisational in focus, and activity is characterised by an emphasis on transformative, values based leadership (Klagge 1996; Atwater, Dionne et al. 1999; Zimmerman-Oster and Burkhardt 1999). While transactional or maintenance leadership sets immediate priorities in terms of group purpose, transformational leadership articulates a compelling vision that rouses others to action (Mink 1991). Shared values become the basis of trust and performance for the common good, although models of management competence have a behavioural emphasis on personal competence (Boyatzis 1982). Thus, the transformative focus is both utilitarian and idealistic.

The transformative (character based) approach recognises the whole person and by implication requires an exploration of individual perceptions and blocks to learning. Hence, the process actually encourages a focus on personal development. However, the focus is utilitarian and based on personal attributes that reflect, as one researcher describes, an emphasis on outer self confidence rather than more deeply rooted inner confidence personality attributes (Lindenfield 1995). Similarly, Cairns (1998) citing executive development programs such as Phillips Centurion project and GE's Workout, says the focus is on values and attitudes that "provide a blueprint" for managers (Cairns 1998: 44). These programs are delivered to larger groups and are intended to cascade down through the organisation to reach a critical number of managers.

In contrast to the individual and transformative values based theme of the U.S., the broad theme in the UK and Europe seems to be an emphasis on learning and developing relationships (Browell 2000). There is also a notable explicit interest in integrating individual and organisational goals through the mechanism of continuing professional education or development (CPD) (Hemmington 1999). In developing a model for professional competence, the emphasis appears to be on outcomes that incorporate initial functional and behavioural competence, as well as meta-competencies such as self-
knowledge, emotional resilience and cognitive skills and ethics (Cheetham and Chivers 1996; Hemmington 1999; Peters and Smith 2000). Executive development has also shifted from strategic direction to competitive advantage through learning and people (Cairns 1998) that would presumably place considerable emphasis on meta-competencies, as well as a flexible learning agenda in order to cope with changing business priorities.

Within the limitation of uncertain terminology, the approach in the UK and Europe would seem to place an emphasis on professional development that is concerned with personal and organisational effectiveness rather than values based leadership development per se that is intended to provide the "glue vital to global organisations" (Cairns 1998: 44). Hemmington (1999), citing various research studies (Kennie 1998, Sandelands 1998, Jones and Robinson 1998 and Peach 1998), flags the need to emphasise matters such as CPD conducted within a structured personal development plan. He also highlights the need for a clearer link between CPD and strategy, as well as for managers taking responsibility for their own learning. This latter concern identifies the development of meta-competencies such as learning how to learn, and the use of effective learning strategies "including double-loop learning and self-directed learning" (Hemmington 1999: 48).

A common trend to both broad UK/European and US approaches however, is the apparent strong vocational focus in development programs. Whether the trend is vocational, or as Cairns (1998) declares, a tool for creating competitive advantage, there are a number of studies that demonstrate the positive relationship between personal development and effective management (Bourner 1996; Butcher and Harvey 1998). In the context of self or personal development, research would suggest it is inappropriate, perhaps even impossible, to separate the development of meta-abilities from career development (Lindenfield 1995; Butcher and Harvey 1998). Others argue an integrated approach involving both personal and professional growth is mutually beneficial to both individual and organisation (Law 1999; Browell 2000) and can enhance the utility of foundational competency based learning (Antonacopoulou 2000).
Shifting from content and purpose to the epistemology\textsuperscript{12} of professional practice, the common need is the \textit{reflective practitioner} approach popularised by Schon (Schon 1987; Cheetham and Chivers 1996). The approach combines practice and field experience using real issues in conjunction with appropriate theory (Peters and Smith 2000). Action learning as a method in leadership development asserts the need to contextualise learning through linking it to everyday work (Cairns 1998; Goldberg 2001). Regardless of method, there is a need for development to be managed rather than assumed to occur because of exposure to theory and experience. Occupational standards have been developed to cover key vocational areas for most of the workforce. These standards offer a framework for performance-based development that is centred on knowledge, skills and attributes (KSA) rather than academic achievement (Cheetham and Chivers 1996). The KSA model was first espoused in Bloom’s taxonomy as the cognitive, affective and psychomotor domains (Bloom 1964). However, the affective and psychomotor concepts remain relatively poorly developed in terms of the original grouping, a noteworthy point when considering leadership development where many of the competencies fall in the affective domain.

Nonetheless, a competencies framework approach is appealing for the apparent rigour and precision in description of competence through functional analysis. However, the competencies approach is also open to criticism for being static and for taking an atomised view of competence. These criticisms are accentuated by the fact that many of the professions are undergoing considerable change. As well, it is inappropriate and perhaps even impossible to separate development of meta-competencies, that are behavioural and largely reside in the affective domain, from functional competence (Butcher and Harvey 1998). Moreover, as Cheetham et al., (1996) note, behavioural characteristics such as self-confidence, sensitivity and pro-activity are important to effective performance.

Because personal competence is not normally part of competency standards, this key consideration in terms of developing a person’s capability risks being ignored in training and development. Importantly, the development of meta-competencies such as cognitive skills, self-knowledge, emotional resilience and personal drive are developed from within

\textsuperscript{12} The theory of knowledge - how do we know what we know; Plato (through reason); Bacon and other
Chapter 3: Leadership Development - From Training to Learning

(the individual). This is the same point made in Senge's observation of leadership exemplars that "such people are not made to order... they make themselves". Hence, it is reasonable to argue that the skills and art of leadership are not so much taught as learned and it is individual factors such as motivation, self-knowledge, observation of role models and reflection that determine the quality of learning. Because the job competence model largely ignores the individual it fails to capture the inherent artistry that Schon suggests is required to resolve the day-to-day problems. This creative process, which goes beyond scientific principles, rests heavily on the ability to reflect - both in-action and about-action (Cheetham and Chivers 1996).

As several researchers note, learning is a source of competitive advantage (Lindenfield 1995; Antonacopoulou 2000). Learned ability also plays a facilitative role in other management KSAs, by enabling these KSAs to be used more effectively (Butcher and Harvey 1998). Thus, leadership development is often associated with professional development, which is described variously as learning that is personal, situational and emergent (Beaty, Lawson et al. 1997). An encompassing view of leadership development would suggest integrating three aspects of development: self-development, leadership of teams and (effective) business change (Kur and Bunning 1996; Cacioppe 2000). In essence, individual skill development and organisational, even community, capacity building can be embraced into leadership development. However, regardless of the scope of development, methods to enhance what is described as lower order foundational skills are usually associated with training and instruction for competence. Conversely, higher order skills or meta-abilities are associated with education and development initiatives. The difference in outcome can be described respectively as competence in performance versus qualitative change and the achievement of personal excellence.

Appendix 9 summarises development terminology and activity into lower order foundational skills and higher order meta-abilities. Where this distinction between lower and higher order skills is uncertain, the symbol ↔ is used to denote the activity can cross over into both domains. Using the terms discussed so far it is possible to describe and empiricists (by classifying the world); Kuhn (by paradigms or conventions that develop)?
categorise the various development interventions. Personal development is generally associated with qualitative and hence higher order change, although in the context of professional development this can cross over into a vocational skills focus (Shaw and Green 1999; Browell 2000). For example, Cheetham and Chivers (1996) identify core competencies related to four areas, functional, personal, knowledge and values and ethics. Conversely, they suggest meta-competencies such as communication, self-development, creativity, analysis and problem solving. Other researchers identify what they term as meta-abilities such as cognitive skills, self-knowledge, emotional resilience and personal drive. These meta-abilities are learned abilities that in turn enable a wider range of management KSAs to be used effectively.

Summarising research themes and prospects, what is worth highlighting from Appendix 6 and Appendix 9 are the following points:

- The multiplicity of terms related to leadership development in common use;
- The apparent clear focus of programs on content and competence based outcomes, with a commensurate lack of process-specific details for most of the interventions;
- Little in-depth documentation of the results of development efforts (Binard and Brungardt, 1997 cited in Zimmerman-Oster et al., 1999). However, this does not mean that programs are not successful;
- Various studies indicate that participants assign high value to the training (Hackman, Olive et al. 1999; Zimmerman-Oster and Burkhardt 1999). There is also a suggestion that personal development alone does not achieve lasting effects (Atkinson 1999; Drew 1999);
- To achieve lasting results certain prerequisites, including personalization to the organisation and group character, are necessary (Beaty, Lawson et al. 1997; Goldberg 2001);
- Timing of the development experience in terms of life and career is also important as this is relevant to the ability to learn from experience (CCLH 1998); and
Finally, when implementing a development program, it is ideal to have a supportive senior partner to lend 'corporate weight' (Goldberg 2001).

3.4.2 Evaluating the Effectiveness of Leadership Development

The study of leadership has steadily increased over the last decade. There are for example in the U.S. over 800 leadership development programs in institutions of higher education (Zimmerman-Oster and Burkhardt 1999). Traditional evaluation activities such as focus groups and interviews affirm the value of leadership programs and the associated increase in skills but most of the studies are small in scale, lack research sophistication and chart micro-social experiences (Zimmerman-Oster and Burkhardt 1999).

Citing work by Schoor (1998), Zimmerman-Oster et al. flag the difficulty of knowing how to expand these micro-social experiences into larger interventions. It will require going beyond quantitative analysis to valuing alternate qualitative methods of collecting information in order to understand complex social phenomenon evident in development interventions. To illustrate the challenge, even if training accounted for only a small percentage of development, being unaware of how this development happens makes it difficult to replicate the experience reliably for positive benefit (Goldberg 2001).

The critical challenge is to document and expand successful development effort so that they may be replicated to have broader impact. A longitudinal study of US military academy cadets that tracked 236 students from matriculation to graduation is instructive (Atwater, Dionne et al. 1999). Aiming to predict leadership effectiveness and emergence, the researchers selected self-esteem, hardiness, moral development and physical fitness for measurement. They expected effective leaders would achieve higher scores after four years of training. The findings regarding developmental trends are noteworthy. As one might expect physical fitness improved, as did moral reasoning. However, self-esteem and hardiness scores did not improve (Atwater, Dionne et al. 1999: 1559). The researchers speculate the results may have been as desired by those conducting military training [an unlikely objective]. Alternatively, they suggest that it may reflect a trend that military
training is not accomplishing all of its intended purposes. This latter explanation would seem the more likely rational explanation.

Research by Stevens (1994), also in the area of training military cadets, adds further insight into the development process at a military academy. The study findings indicate that the intention of the program is not to inculcate new and different values, but rather to reinforce institutionally compatible values on those who choose the military (Stevens, Jr. et al. 1994). Other studies that note a similar character and values based education at military academies, would seem to add considerable substance to the findings being reported by Stevens (Sterling 2000; Schmidt 2001).

The difficulty in apportioning a cause to specific outcomes from programs suggests future research should include an examination of education processes to see if the program is having its intended influence. This issue is as pertinent to higher education interventions as it is to military academies. Citing research by Schwartz, Axtman and Freeman, 1998, a record number of curricular and co-curricular leadership development activities are being offered at university (Zimmerman-Oster and Burkhardt 1999). There is however little evidence of success that is being sustained over time. Moreover, (citing research by Howe, 1996; Howe and Freeman, 1997; Morse, 1989; and Roberts, 1981), Zimmerman-Oster et al. note little attempt has been made to use this information to create a sustained commitment within higher education to identify, develop and nurture emerging leaders through leadership development opportunity.

Another major issue in development practice concerns the ability to explain the underlying processes behind why some people in leadership positions are more effective. Citing research by Lord, DeVader and Allinger (1986), Lucius et al. flag emotional maturity as a trait related to effective performance (Lucius and Kuhnert 1999). Successful leaders also exhibit traits such as stability and empathy that allow them to maintain cooperative relationships with others, as well as greater flexible and adaptable in varying situations. However, most theories are apparently deficient in explaining why certain individuals
exemplify effective leadership styles and why these individuals are more effective than others (Lucius and Kuhnert 1999).

### 3.4.3 Tensions between CPD and Vocational Development

The crucial role of continuing professional development for maintaining both personal and organisational effectiveness in a rapidly changing environment is discussed by a number of researchers (Beaty, Lawson et al. 1997; Law 1999; Shaw and Green 1999). Reflecting on the trends in the UK, Shaw and Green (1999) identify a tension between continuous professional development (CPD) and lifelong learning. Lifelong learning extends the concept of CPD far beyond vocational skills to a broader set of knowledge and intellectual skills. It also places the onus on the individual for learning and for personal fulfilment and invites consideration of a wider set of economic and social benefits beyond employment.

Research however suggests continuous professional development has failed to be continuous, has been overly vocational in focus and has often been fragmented and not developmental (Shaw and Green 1999). It would seem in the UK, despite lifelong learning being acknowledged as a national need by the National Committee of Inquiry into Higher Education, the practice is somewhat shorter in focus towards up-skilling and a process that is largely employer driven. In Australia, the Federal Government's Industry Task Force on Leadership and Management Skills (the Karpin Report) displays a similar vocational and functional focus. The report asserts the need for skilled managers "who can adapt themselves and their organisations to change" because "the adaptive capacity of economy depends on managers" (Karpin 1995: 8). At the heart of the issue is a tension between individual focused interventions and approaches founded on what one author terms a "managerialist ideology" (Buchanan 1995: 56).

Any effort to develop individual and organisational capability must align with the business objectives of the organisation. This dual focus is not new, but there is a new awareness of attempting to achieve competitive advantage through an integrated approach to learning (Cairns 1998; Hemmington 1999; Cacioppe 2000). It has considerable implications for educational planning processes and invites a more holistic framework of opportunity for
leadership development. A useful step forward would be to discover how development occurs. This insight would aid efforts to amplify the methods and make them more effective developmental tools. As Goldberg (2001) comments, the way we think about something actually makes a difference and there is value in examining existing mental models that represent deeply ingrained assumptions and generalisations. These models influence how we understand the world and how we take action (Senge 1995; Goldberg 2001).

### 3.4.4 Corporate Leadership Development Programs

Leadership training is one of the most commonly offered forms of training with over eighty-nine percent of US companies surveyed providing such training (DeSimone and Harris 1998). One approach is Fiedler's *Leader Match* program (DeSimone and Harris 1998), a self-administered program takes between five to twelve hours to complete. Additional lectures, discussions and other training media can be used to supplement the program.

The core concept of the program is that each person has a particular style based on individual needs. The aim for leaders is to diagnose the leadership situation and either put themselves into a favourable position or else try to modify the situation to suit their style. While the approach of this program suffers from being narrowly focused, Fiedler's contingency theory and the Leader Match program has been extensively researched and proven effective as well as cost-efficient. For example, Burke and Day in a meta-analysis of seventy studies of management development programs, conclude the program is effective when using subjective behavioural criteria. That is, the program is successful in effecting changes in on-the-job behaviour (DeSimone and Harris 1998: 547).

Leadership development is not always theory based like the *Leader Match* program. The drive to compete in an uncertain environment has seen a practical emphasis in many approaches to development (Cohen and Tichy 1997; CCLH 1998). Cohen and Tichy's research into best practice led them to conclude that rather than focusing on developing people around a set of competencies, the key is that leaders must develop leaders.
Similarly, Kouzes argues for involvement by senior executives because "credibility is the foundation of leadership" (Kouzes 1999: 39). Thus, if sustained success is directly influenced by the quality of leadership in the organisation then "teaching, coaching and cultivating others becomes a strategic imperative for senior executives" (Tichy 1999: 256). To realize this imperative, leaders need to create an environment that supports learning. They also need a "story to tell" which is at its most powerful when it tells a group where they are going. Finally, leaders require a "well defined teaching methodology" that includes coaching and the ability to learn while they teach (Tichy 1999: 259-61).

*LeaderLab* is a program developed by the Centre for Creative Leadership (CCL) based on developmental experiences and a learning process situated in an organisational context. The generic model is illustrated in Figure 3.11. The program, run over six months, commences with a weeklong session and subsequent activity that is spaced periodically and run over a few days. Participants first undergo a range of assessments and feedback exercises that include the development of an action-plan. This plan, reviewed after three months, is the basis for implementation and assessment of progress. Activity in the program includes work in teams and action-based exercises as well as non-traditional learning activity such as creating pieces of art.

![Figure 3.11: Leadership Development Model (CCLH 1998)](image)

The CCL development model identifies three elements fundamental to all developmental experiences: *assessment, challenge* and *support*. These elements serve a dual purpose.
First, they motivate people and focus their efforts "towards learning, growth and change" and second, they provide the "material or resources for learning" in the form of information, observations and reactions (CCLH 1998: 8). Developmental experiences are typically novel, ambiguous and difficult tasks set by either themselves or others. Ideally, these experiences are autonomous, relevant and visible. The intention is to cause people to stretch beyond their comfort zones and to develop new capacities. Examples of experiences that challenge leaders and hence are of development value include start-up assignments and the need to deal with failure and loss. Central to the overall learning experience is the practice of individual participants being held accountable for their efforts.

General Electric's (GE) management development is a three-week course based at GE's training centre at Crotonville. The aim of the course is to develop executive skills in relation to key business issues. While there are clear business objectives, the course places an emphasis on the parallel development of individual and organisational learning (Kur and Bunning 1996; Cairns 1998). The style of the course is both informal and confrontational, and course objectives are achieved through participation on key programs such as developing business strategy, competing globally, diversity and globalisation, leading teams and change. The company emphasises "corporate glue" and the program uses socialisation explicitly to help managers adapt to their new responsibilities (Evans, Pucik et al. 2002: 350).

3.4.5 The United States Military Academy (USMA) Program

The US Army's Military Academy (USMA) at West Point is a highly integrated example of leadership development. The USMA is not a values free environment. Rather, the academy program sets out to develop leaders of character who do the right things under intense pressure and scrutiny. The development process spans a cadet's entire undergraduate experience. Within this four-year program however, cadets in their third or 'junior' year13 must attend the Military Leadership Course offered by the USMA's Department of Behavioural Sciences and Leadership (McNally, Gerras et al. 1996).

13 Cadets in training are referred progressively to as cadet freshman, sophomore, junior and seniors
Although the classroom is not the sole source of developing leaders, the Military Leadership Course is seen as an important component of leader development. The course is ideally positioned, as by their third year cadets have extensive first-hand experience of leadership challenges. As McNally et al. comment, cadets are "ripe for an intellectually challenging and academically rigorous course of reflection" (McNally, Gerras et al. 1996: 176). Moreover, because the majority of leadership responsibility at the Academy is in the final (senior) year, cadet leaders are able to subsequently apply and practice classroom lessons within the leadership laboratory that is the USMA. Key aspects of the USMA program include exposure to role models, emphasis on "followership", hands-on leadership experience and study of past and present leaders. Instructional strategies emphasise "critical thinking skills" over mere knowledge and the "integrative development of higher order cognitive skills" (McNally, Gerras et al. 1996: 176-177).

Aside from the USMA program, the US Army has implemented a comprehensive leader development program (LDP) across the organisation. The program, which commenced in 1997, is implemented sequentially through specific stages of a soldier's career. The program is based on a functional set of nine leadership competencies for an individual leader, and extends through to sub-unit (company level) leader, and unit (battalion level) leader. Interestingly, the process is explicitly stated as intending to develop leaders in a non-threatening and non-evaluative environment (US Army 1996). The LDP 'Intent' is to: "Develop leaders who can assess, evaluate, coach and counsel subordinates; teach the process in the institution; reinforce in operational units and during self-developmental activities…." (US Army 1996: Intent-2).

3.4.6 Development Management Principles

Shifting from specific programs and common themes in practice to general principles for program development, Evans et al., (2002) advance the idea of development management principles (see Appendix 10). These principles are in order "challenging assignments", "risk management" and "hardship testing" (Evans, Pucik et al. 2002: 351). The principles appear to be principally workplace based rather than course related. However, they appear
to be largely consistent with the three development elements of assessment, challenge and support identified by the Centre for Creative Leadership model (CCLH, 1998).

The common theme in the set of principles highlighted is an emphasis on learning, although it is not axiomatic that all learning experiences will result in positive change. Other common elements implicit in the process include effective reflection and guidance from a coach or mentor. Most importantly, because qualitative change may feel threatening to the individual this potentially transformative change is better assimilated when external threats are at a minimum. This is because there is a maximum level of threat that most people can tolerate. While this threshold will vary with the individual, training and development programs need to factor this consideration into their design principles.

3.4.7 Summary of Practice

In summary, a review of development shows a variety of organisational approaches to leadership development. These can range from simple theory based approaches (Fiedler's Leader Match) to highly integrated programs such as the USMA. Programs can be theory based, practical in focus and based on either general purpose or job specific competencies. The programs can use a combination of techniques based on behaviourist, cognitive and humanist developmental theory, although the process of leadership development is designed to evoke qualitative cognitive and social change in the individual as a result of learning from experience. This process can be equated with personal development, although there is an apparent tension between this personal focus and professional development that has a vocational emphasis. However, both personal and professional development emphasise meta-skills development over foundational skills. This distinction in level can be equated to personal excellence via a learning and development approach as opposed to vocational competence derived from training and instruction.

Development principles can be identified to provide a meta-framework for the design of a program. These principles can be applied within a broad taxonomy of development competencies. Turning towards outcomes, findings generally indicate that both participants and the organisation are positive about the results of training (Hackman, Olive et al. 1999;
Zimmerman-Oster and Burkhardt 1999). Research also suggests a positive relationship between development at the personal level and effective management. Conversely, while development is happening, organisations appear unaware of the processes involved and so are unable to replicate the development experience (Goldberg 2001).

3.4.8 Leadership Development in the Australian Military

ADF personnel policy defines the goal of leadership development is to "ensure that an effective leadership culture is in place through integrating leadership development, education and training across the Defence organisation" (Defence 2001). The goal echoes a requirement stated in the Defence White Paper (Defence 2000: 63). Given the clear espoused organisational intent, Defence has moved progressively to align formal education and training with the National Training (competencies) Framework. For officer training, there is today an integrated approach for all common training needs including leadership development, for both military and civilian personnel. The approach falls within the framework of the Australian Defence College (ADC).

Within this overarching framework of the ADC, professional military development in the officer corps revolves around several tiers. The first tier is pre-commissioning studies at the Australian Defence Force Academy, Royal Australian Naval College at HMAS Creswell, Royal Military College at Duntroon, and the Royal Australian Air Force College at Point Cook. Thereafter, officers attend a progressive series of second-tier junior and mid-level officer development courses to develop skills, knowledge and attitudes required within their primary specialisations and general staff duties, and to prepare them for more senior rank. These activities include attendance at external programs and the completion of private studies. Formal professional development culminates for selected senior officers of colonel and brigadier equivalent rank at the Centre for Defence and Strategic Studies. This third-tier program prepares senior officers for policy advisory roles at the strategic level, and for overseeing the implementation of national policy.

14 Personnel Policy Guideline 10 - Leadership Development
Pre-commissioning training for generalist officers is either through the Defence Academy or by direct entry into the single-service colleges. The aim of the Defence Academy program, where the bulk of pre-commissioning training occurs, has been discussed in outline in Chapter 1. Professional military development (PMD) is the process of expanding and enhancing cadets’ capabilities to equip graduates to meet the challenges of senior rank or more demanding appointments. PMD comprises three components - academic education, professional military studies, and military training - see Figure 3.12.

Figure 3.12: Officer Education and Training Framework

Professional military studies combine academic elements as well as elements of direct military relevance. Leadership and behavioural studies are provided, albeit not exclusively, from within this component. While the distinction between the components is reasonably clear, the overall emphasis on professional military studies is reported as uncertain and as being "under pressure from the demands of academic education and military training" (JSCFADT 1995: 6).

The development approach at the Defence Academy program can typically be described as teaching for transfer of knowledge from instructor to learner, and lessons are based on a set of competencies defined in strict behavioural or performance objective terms (Egan 1988; JSCFADT 1995; Stevenson 1995). Another study (Wilkinson 1998), examined the systems approach to training used by the Royal Australian Navy (RAN). This thesis, a comparative study of the RAN and four other navies - Royal New Zealand Navy (RNZN), the United States Navy (USN), the UK's Royal Navy (RN), and Canadian Forces Navy (CF-N), makes some notable observations that are most relevant to this study. Commenting on the respective instructional styles observed, Wilkinson identified: the RAN and RNZN models as "interactive", the USN and CF-N models as "presentational", and the RN model was "question and answer based" (Wilkinson 1998: IX). He also noted that the organisation and implementation of naval training promoted didactic and less effective learning.
While increased education and training is advocated by Defence to enable people to cope with the changes in the workplace, the supporting processes and the uncritical push for higher education both need to be questioned. Wilkinson's (1998) study lends weight to the general theme in literature supporting an examination of the processes that underpin and determine the effectiveness of training. Learning, particularly collective learning, takes place through interaction with others. This is the process dimension of learning and as Swieringa et al. comment there is a directly proportional relationship between content and process. The better the process, the better the content (Swieringa and Wierdsma 1992). The point reaffirms the contribution by the Belbins to adult learning that active learning works best and that "process (activity) matters more than the subject" (Rogers 1989: 43; Belbin 1993). This is considered to be true even for knowledge-based subjects.

Another issue for consideration is the pressure that education should correspond closely to the needs of the industry. A consequence of this widely accepted notion is that situation specific competencies, as opposed to generalised and widely useable ones, are characteristic of workplace learning. The utility of competencies has been discussed. They help make goals explicit and assessment objective, and they also provide a clear career path progressing from one level to another (Rutherford 1995). The down side of such an approach is less adaptive workers, an issue highlighted by the Enterprising Nation Report. This report argues for a shift in the balance from "narrow functional skills" to "broader, more strategic" ones (Karpin 1995: 144). Yet, despite research questioning the "direct instrumental value" of vocational education, this occupational focus on education and training retains great strength (Watkins 1991b: 46). The use of functional competencies is entrenched in the ADF training process.

There is widespread debate over the use of competencies. However, the issue of competencies is not central to this study. Suffice it to say, without rejecting formal training and development based on a competencies framework, there is justification to look at the connection between how students experience teaching and how they learn. This is the issue of primary concern for this study.

15 For criticisms of competencies see Cantor and Roberts (1986), Gamson (1979) in Brown, 1994: 144
Section 3.5 Synthesising Theory and Practice

The mass of literature demonstrates the inadequacy of a purely scientific approach to human experience. A scientific approach can be to the detriment of individual flair, which is the very essence of leadership. Thus, no matter how tempting it may be to provide ready solutions, these solutions might also be the reverse of how to improve the situation. As Ramsden says, "there are no right solutions, just methods that may or may not work" (Ramsden 1992: xi). Concerning learning, it is evident there is little attention given to the nature of learning in the workplace. Yet, it is knowledge possessed by individuals in organisations that is increasingly the critical component in gaining and retaining a competitive edge (Watkins 1991). This section synthesises the preceding theoretical and practical concepts into a framework for learning in the workplace that facilitates rather than controls learning.

3.5.1 Development Planning and Learning Domains

A comprehensive seven-stage model to plan leadership development is shown in Appendix 11 (Vicere 1997). This model begins with a clear articulation of the strategic imperatives and subsequent definition of leadership competencies. Content, methods and timing of the program are determined next with delivery based on internal sources or external provider such as a university or consulting organisation. Evaluation of the program delivery and effectiveness is based on the four-step evaluation model outlined by Kirkpatrick (Kirkpatrick 1994). However, while the Vicere planning model is a useful guide, research has shown "learning in traditional curricula is often unsatisfactory" (Ramsden 1992: 35). Another researcher comments, worthwhile individual learning experiences are the collective result of content, effective learning methodology and quality facilitators (Cacioppe 2000). Taking a longer-term developmental approach, Marsick (in Watkins K (1990) emphasise the need for organisations to focus on learning over and above more instrumental training or teaching approaches.

Marsick, Mezirow and Brookfield (in Watkins, K., 1991) have developed a model for understanding learning in the workplace. Based on Habermas' three primary cognitive interests of instrumental, dialogic and emancipatory the respective learning domains are
defined as "technical", "practical" and "self-reflective" (Mezirow 1981: 62; Watkins 1991). The technical domain is concerned with the ways an individual controls and manipulates their environment. The practical domain relates to the interactions or communicative actions bound by consensual norms that define expectations of behaviour. Finally, the third self-reflective domain is concerned with self-knowledge including the way individuals see themselves, their roles and social expectations.

The first domain of technical or instrumental action is focused on empirical knowledge and technical rules. It is clearly the largest category in development efforts in the workplace. However, noting the criticism of instrumental and training based approaches Marsick et al., (in Watkins 1990) argue that skills cannot be isolated from their cultural and biographical context. Moreover, if as Mezirow (1981) says, the intent of education is perspective - personal and social - transformation, then there is logic in shifting the focus to the two domains of dialogic and self-reflective learning. Importantly, as earlier discussion of adult learning flagged, this learning is dependent on the capacity for critical reflexivity. As well, drawing on Erikson and Levinson's theories of development, the capacity to reflect and successfully theorize alternate paradigms is only likely to develop in late adolescence or adulthood.

3.5.2 Individual and Collective Learning

Individual learning alone is not sufficient to enable organisational success. A collective learning capacity is also needed. It is even argued that organisations need to function as open systems where the learning of one individual or work group can affect that of others (Watkins 1991; Mink, Mink et al. 1994). This relationship between learning organisations and an open system is illustrated in Appendix 12. As well as emphasising an openness to learning, a collective learning capacity also requires the capacity to learn how to learn (Mink 1991). However, collective learning can frequently be incidental. That is, learning is only a by-product of interacting with others or results from performing a task, without design and critical examination. For successful collective learning, it is essential that individuals have “an understanding of the historical, cultural and biographical antecedents of action” and are skilled in “questioning tacit beliefs” (Watkins 1991: 14).
Organisations seeking a competitive advantage in an unpredictable world must, to paraphrase Senge, *continually expand their capacity to create their future* (Swieringa and Wierdsma 1992; Senge 1995). This concept, which has been encapsulated in the notion of a learning organisation, is not to suggest a single model or program. Rather, the concept might be viewed as a "philosophy that infuses the entire organisation" (Daft 1997: 61). Action learning is one strategy to extend the learning paradigm into organisations, while the Kolb experiential learning model illustrates the on-going cycle of *action, evaluation, reflection* and *critique* that is needed. This process, if applied successfully, has the capacity to turn a reactive organisation into a learning organisation (Limerick 1998; Argyris 2000).

### 3.5.3 From Training to Development

Training, education and development are distinct concepts that have in common a concern with the enhancement of the individual. The differences between concepts is important as they influence the respective approaches to development (Garavan 1997). *Training* is usually focused on job specific objectives and concerned with uniformity of learning outcomes. *Education* is knowledge based and concerned with cognitive development, although there is also an influence on social development. *Development* focuses on the learner rather than the learning per se and is concerned with providing the individual with "opportunities for learning, growth and change" (DeSimone and Harris 1998: 513).

Learning under a training perspective is generally associated with *learning by doing*, while an educational approach it is synonymous with *learning by thinking*. Development, involves learning through cognitive, psychomotor and affective development, or alternatively by "*thinking*, *doing* and *feeling*" (Garavan 1997: 42). The components involved in planning a development experience are shown in Figure 3.13.
With the vital nature of training, education and development, and because change and learning reinforce each other, it is argued that the separation of these activities is an outdated approach to managing the learning process (Savolainen 2000). Rather than this separation, an integrative 'development and learning' approach is proposed that places an emphasis on the qualitative understanding of how people develop. This alternate approach is founded on adult development principles and assumes students are active participants in the process (Rogers 1989; Argyris 1992). The approach is compared to the more traditional training approach in Table 3.4. While training objectives are usually behavioural and job specific, the outcomes in a learning and development approach, because it is focused on the learner and is future oriented, are less precise.

The implications are obvious in the context of adult development where a constructivist approach to teaching is the predominant approach. A major theme of the constructivist approach is that learning is an active process in which the learner constructs new ideas or concepts based on their current and past knowledge (Bruner 2000). The consequent cognitive structures, called schema or mental models, provide meaning and organisation to experiences. They enable the learner to go beyond the information given.

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16 There are varying degrees of constructivist theories – radical, cognitive, social and trivial
### Table 3.4: Comparative Development Frameworks

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Training &amp; Development</th>
<th>Development and Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome</strong></td>
<td>Changes in behaviour</td>
<td>Results/changes in understanding</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development of meta-cognition</td>
</tr>
<tr>
<td><strong>Orientation of Learning Process</strong></td>
<td>Acquiring prescribed subject matter – objective centred, learning by doing</td>
<td>Task or problem oriented learning by doing, thinking and feeling</td>
</tr>
<tr>
<td><strong>Teaching Approach</strong></td>
<td>Traditional transmission instruction – the learner is viewed as dependent, submissive and the teacher is responsible for educational decisions</td>
<td>Constructivist – socially mediated process – learner is a rich source for own and other’s learning; student self-directed and takes responsibility for learning</td>
</tr>
<tr>
<td><strong>Teacher Role</strong></td>
<td>Provide structure, impart knowledge; provide feedback</td>
<td>Facilitate, challenge and support learning</td>
</tr>
<tr>
<td><strong>Learning environment</strong></td>
<td>Objectivist: coverage of curriculum by lectures, seminars, tests of recall or application of trivial knowledge</td>
<td>Activities such as projects, group-work, problem-solving, reflective and other meaningful thinking</td>
</tr>
<tr>
<td><strong>Time Frame</strong></td>
<td>Short term – task specific</td>
<td>Long term – whole of life</td>
</tr>
<tr>
<td><strong>Student Role</strong></td>
<td>Passive, imitative and produce required responses</td>
<td>Active involvement in the process; self-directed</td>
</tr>
<tr>
<td><strong>Student Motivation</strong></td>
<td>By extrinsic factors such as fear of failure, competition for marks</td>
<td>By intrinsic factors such as self-esteem and recognition</td>
</tr>
<tr>
<td><strong>Student Learning</strong></td>
<td>Surface and achievement oriented</td>
<td>Deep and achievement oriented, metacognitive skills development</td>
</tr>
<tr>
<td><strong>Learning Change</strong></td>
<td>Single-loop learning; process improvement &amp; maintenance focus</td>
<td>Innovation; double-loop learning (transformative change)</td>
</tr>
<tr>
<td></td>
<td>Adaptive change</td>
<td>Generative change</td>
</tr>
</tbody>
</table>

Constructivism, defines a continuum of increasingly complex responses to the environment. This is similar to the stages in child development theory described by Piaget (Sternberg 1995). To illustrate, in some situations the existing mode of thought or schema is adequate for the challenge of the environment. At other times, where information does not fit existing schemas, there is cognitive disequilibrium. The learner can attempt to restore equilibrium by *assimilation*, which results in the new information being absorbed into existing schema. Alternatively, the learner can respond by *accommodation*, where existing schema is modified. Together, the two processes offer individuals higher levels of adaptability, through more sophisticated levels of thought.
While development practice is not premised on the abandonment of formal training and development, the constructivist approach offers a new way to integrate work and learning. The approach emphasises developing the skills of the learner to construct meaning and significance using theoretical or intellectual frameworks. Thus, teaching and learning might be seen as two sides of the same coin, where the role of teaching is in "making learning possible" (Ramsden 1992: 114). A constructivist approach would see the instructor and student engaged in an active dialogue or Socratic form of learning. In this dialogue, the role of the instructor is to translate information into a format appropriate to the current state of understanding of the learner, and the curriculum would be organised in a spiral manner so the student can continually build on what has already been learned.

Section 3.6 Closing Remarks: Implications for Leadership Development

Developmental research recognises contextual issues such as environment and culture, as well as drawing attention to particular developmental issues such as life stages and cognitive development. In terms of leadership development, it is clear that a successful outcome is not the result of single event interventions, but rather that development is a time-based dynamic process. This process involves individual development over three domains or tracks, and invites a consideration of issues such as learning in the workplace and perspective transformation at both individual and collective levels. As Vygotsky and Piaget among others conclude, knowledge is constructed within a specific material and social context. Moreover, as Argyris, Limerick, Mink and others suggest, individual learning is not sufficient to enable organisational success. There is an essential need for a collective learning capacity. Thus, the active participation by the student (or worker) in this process is implicit, as is the need for an environment where learning will be reinforced by the actions of superiors and organisational culture.

From an educational perspective, learning is an instinctive and universal characteristic of all human beings that cannot be absorbed without thought, question and choice. In this sense, education is planned, self-conscious change, where the learner does something that brings about change. Creative acts and experimentation are implicit, as is the ability to take risk. An implicit theme across the various perspectives of learning is of change as a
collective process. This view is often described as a social constructivist view that emphasises communication and other dynamic social processes. Such an approach is able to match the different learning styles of learners, where research has shown a specific style can make an identical educational environment, methodology and resources effective for some learners and yet ineffective for others (Dunn and Griggs 2000).

Within the training and alternate development and learning frameworks, two different and partly incompatible teaching approaches are possible. The first approach is the traditional transmission-based approach. This approach is premised on students learning facts and concepts by absorbing the content of their teacher’s explanations. Alternatively, students read explanations from a text and answer related questions to gain subject understanding, while procedural knowledge is mastered through guided and repetitive practice in a systematic and highly prescribed fashion. The form of learning in a traditional training approach is characterised as learning by doing.

Constructivist compatible instruction that forms a development and learning approach is based on learning processes that emphasise cognitive and social development approaches as well as behavioural ones. This approach emphasises understanding that arises through prolonged engagement of the learner in relating new ideas and explanations to their prior knowledge and beliefs. The upshot is the capacity to employ procedural knowledge (skills) from working with concrete problems that provide experience in deciding how and when to use sets of skills. The process is characterised as learning by thinking, doing and feeling.

These constructivist methods are the pedagogical basis for the examination of the relative effect of the three educational mechanisms of curriculum, pedagogy and assessment. Within this construct, generic (low skilled) labour strategies correlate with a Type A style. Teaching strategies are typically instrumental and training based, involving a fixed curriculum, didactic pedagogy and compliance to rules as the basis of evaluation. A knowledge-based labour approach correlates with the Type B style. Teaching practice is likely to be based on continuous learning and self-propagating learning. The approach is characterised by a flexible curriculum and concern for the capacity to use information
effectively, rather than an observance of rules. The constructivist approach is considered in the following chapter as a pathway for teaching for learning.
CHAPTER 4: TEACHING FOR LEARNING

Someone who knows what he (she) has learned and not how he (she) learned it still has a lot to learn.

Section 4.1 Introduction

This chapter develops a constructivist learning and development approach that emphasises performance, while exploring how Type A and Type B characteristics interact across the three educational mechanisms of curriculum, pedagogical and assessment processes. To put the approach into context, it generally takes a long-term view and in method, it emphasises active student participation. In contrast, a training approach in terms of aim and content is short-term skills focused and in methods and procedures employed is more directive in its approach. The training process figuratively seeks to shape and mould the individual. Nor is there anything wrong with such an approach, as long as it is confined to task-oriented learning common to the technical domain.

Section 4.2 Teaching for Learning

This concern for learning has the important principle behind it - that learning is logically necessary to education, whereas teaching is not. However, because of the abstract nature and complex structures of many of the study objectives, teaching as a facilitative tool is also essential. The focus is on how the learner is helped through the developmental experience rather that with subject or curriculum content. A content focus, as Ramsden (1992) has argued citing several studies, does not appear to change students' understanding of reality. Rather, it is the learning process, including the structures and educational framework, which appears as critical to this purpose.

In the context of educational practice, teaching is always directive whether it is authoritarian or democratic. However, the caution is to not interfere "with the creative, formulative, investigative capacity of the educand" (Freire 1999: 79), or else the necessary directivity can become manipulation and authoritarianism. Freire's theory of learning acknowledges an undeniable political and directive nature to education. Equally, there is a need to respect students and to stay watchful for the "hidden curriculum". Emphasising a
post-modern progressive viewpoint of teaching, the emphasis is not on transmission of
knowledge but on helping students to "learn to learn" (Freire 1999: 80-81).

Section 4.3  Military Education - Recasting Basic Doctrine

From the nineteenth to the first half of the twentieth century, after the study of tactics and
general staff duties, history was often regarded as the single most important subject in the
preparation of a future military leader in Western Armies (Evans 1998). Because, the fate
of empires could be decided and the course of international affairs dramatically changed
from a single decisive battle – an Austerlitz, Waterloo, or Sedan – “intimate knowledge of
the great encounter battle became the main educational model for Western military
professionals” (Evans 1998: 124). This method of applied military history, by subjecting
selected campaigns to rigorous historical analysis, was developed as an efficient substitute
of practical acquaintance with almost every phase of active service.

However, there were weaknesses with such an approach. Citing van Creveld, Evans (1998)
says comparative historical analysis was lacking and often reduced to a single campaign
drawn from a single campaign (Creveld 1990: 125). It also produced officers who were
narrow technicians with little knowledge of the industrial and political context of modern
warfare. The dichotomy between earlier theory and the realities of 20th century industrial
warfare was graphically exposed by the trench deadlock of World War I, and then
confirmed by World War II, which established that modern warfare was as much about
resources, technology and political leadership as battlefield skill. The complexity of the
Korean War in the early 1950s reinforced this perception. War could, as Evans asserts, no
longer be understood as a “discrete narrative of battlefield events disconnected from
broader political, social and technological factors” (Evans 1998: 126).

Just as the Cold War found orthodox military history wanting, the collapse of the bipolar
superpower context plunged strategic studies into “an intellectual sclerosis” (Evans 1998:
131) from which it is yet to recover. While military specialists differ in their views on the
kinds of warfare that will emerge in the 21st century, there is general consensus on a
change in the nature of warfare where the “nub of the challenge remains leadership”
(Creveld 1991; Builder 1997; Connolly 1998: 49; Creveld 1998b). To face the challenges of the new century, Evans (1998) calls for an “enlightened approach to the education of military officers”, yet taking a prescriptive and industrial approach to their education suggests, “the mind of the army officer must be tempered by systemic training...” to produce leaders who are “subtle and learned” (Evans 1998: 140).

Arguably, a contemporary approach to leadership development is needed, and for the most part, the historical record would suggest that military institutions are resistant to learning from experience. Nor is military education in the U.S. at least, until very recently, deemed to be important on the battlefield or in officer careers (Murray 1997). However, there has been a considerable recasting of basic doctrines. In the U.S., the Army, Marine Corp, the Air Force and Navy programs have all reportedly made substantial efforts towards grappling with a world of friction and uncertainty, often described as the fog of war. These considerations take primacy for the emerging leadership requirement (Murray 1997). In Australia, seeking to meet similar demands, the recently formed Australian Defence College charter declares an approach that seeks to promote learning and growth of leaders and managers (CDCLM 2002).

Draft supporting leadership doctrine in both the US and Australia forms the basis for leadership actions and for leadership development initiatives. Basic doctrine brings together the three essential elements of character, competence and action in a framework entitled BE, KNOW, DO, that provides a simple and effective way to approach leadership. Unlike previous doctrine that tended to focus exclusively on various levels of uniformed leaders, emerging doctrine emphasises an integrated approach to leaders, both military and civilian, as well as emphasising self-development and development of subordinates (US 1999). Aside from character-based requirements, doctrine refers to sets of skills and actions - interpersonal, conceptual, technical and tactical. These skills and actions, couched in terms of direct leadership, are supplemented by additional skills (and capabilities) for organisational and strategic levels of leadership that require leaders to perform in roles that are more complex.

17 The accumulation of chance errors and difficulties
Section 4.4 Learning and Educational Process

Research into learning in higher education offers useful insight into development strategies that can alternately emphasise foundational skills and hence performance replication (Type A style) and/or to contingent and strategic thinking skills that correspond to understanding principles and the capacity to adapt behaviour accordingly to situations (Type B style). The respective strategies, underscored by specific teaching approaches, encourage different student learning approaches and consequently qualitatively different outcomes (Prosser and Trigwell 1999). These outcomes and a typical educational frame associated with each style are illustrated in Table 4.1.

<table>
<thead>
<tr>
<th>Type A: Command and Managerial Compliance</th>
<th>Type B: Contingent and Creative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emphasis:</strong> foundational skills and performance replication by imitation in a functional line-staff structure;</td>
<td><strong>Emphasis:</strong> understand principles and recognise novel and ambiguous situations that demand different behaviour</td>
</tr>
<tr>
<td>Context: a stable and predictable environment</td>
<td>Context: an uncertain and changing environment</td>
</tr>
<tr>
<td>Program Approach: Training</td>
<td>Program Approach: Learning &amp; Development</td>
</tr>
</tbody>
</table>

- **Curriculum**
  - Fixed objectivist
  - Applied typically to a generic low-skilled labour force to achieve task-based outcomes and foundational skills. Short term time frame
- **Pedagogy**
  - Didactic, passive; feedback & reinforcement
- **Assessment**
  - Explicit, rule based compliance
- **Outcomes:** Practiced responses; behavioural changes and a progressive accumulation of knowledge that relies on structure & reinforcement

- **Curriculum**
  - Constructivist
- **Pedagogy**
  - Active, participative
- **Reflective processes**
- **Assessment**
  - Internalised self assessed
- **Outcomes:** Creative responses; changes in understanding that are discontinuous and qualitative; metacognitive skills - learning how to learn and hence independent, continuous learning

4.4.1 What are Students Expected to Learn

In general, the concept of excellence in higher education has remained largely unchanged from what A.N. Whitehead described in an essay in 1929. His main theme, that a university education should lead students to the "imaginative acquisition of knowledge", is consistent with the expectations of lecturers today (Ramsden 1992:1). It is also consistent with the intention captured in the phrase to think critically, and the need expressed by
Marginson to provide "technological literacy and critical skills" (Marginson 1997: 258). It is within this broad aim of education that we need to consider the specific objectives of a subject or discipline.

However, rather than an immediate focus on methods of teaching and assessment it is perhaps apt to first ask "what are students expected to learn" and then determining how students go about learning it (Ramsden 1992: 125). In determining specific objectives, Bruner's pedagogical and curricular stance is important. He challenges people to think in more reflexive, analytical ways and so encourage students to go beyond what is presented (Wiske 1998). In doing this, there is a need to remain aware of learning as a process that is sensitive to cognitive and developmental factors. Hence, there is a gradual mastery of systems and modes. The goal is for students to develop understanding and not simply amassing isolated information.

4.4.2 Framework for Student Learning - Learning Domains

Based on an outcomes perspective, methods are in the background, as they are the means and not the ends. That is, methods should be selected based on whether they support quality-learning outcomes or not. What is important are the questions of what do educators want students to learn, and what are the variations in the outcomes of their learning? There can often be an inconsistency between the outcomes of student learning as teachers and students would ideally like them to be and the reality of what students actually learn. These differences in the quality of learning outcomes are due to differences in the ways that students learn - both cognitive and learning style.\(^\text{18}\) These differences in turn can be explained by the students’ previous experiences of teaching (Hayes and Allison 1998).

In determining suitable outcomes, there is arguably a strong justification for the adoption of a common frame to understand learning in the workplace. Ramsden (1992) identifies three qualitative different levels of learning outcomes. Ranging qualitatively from abstract to highly categorical knowledge, these outcomes are:

\(^{18}\) Cognitive style refers to the way of gathering, processing and evaluating information. Learning style is usually considered a sub-category of cognitive style; a consistent way of responding to and using stimuli in the context of learning (Hayes et al. 1998)
General abilities and personal qualities, such as critical thinking and being able to communicate effectively, at the most abstract level.

At the next level specific, content related understanding linked to a discipline or profession. It also includes the less easily defined ways of thinking like an Army officer when faced with a typical problem; and

Finally, the highly categorical proficiencies like knowledge of information, technical or manipulative skills, and specific problem solving skills.

Knowledge at all three levels and the ability to connect knowledge at each level to each of the others is essential (Ramsden 1992: 18). These three defined levels can be equated with the conceptual framework outlined earlier by Mezirow (1981) in Chapter 3. The important point is that there is a simultaneous need to develop job skills and an intertwined need to learn about the organisation and the self (Watkins 1991). The two frames of reference for the respective learning domains are illustrated in Table 4.2.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Job skills</td>
<td>Technical” or “instrumental</td>
<td>Categorical proficiencies (technical or very specific)</td>
</tr>
<tr>
<td>Social/organisation</td>
<td>Practical learning</td>
<td>Content related understanding linked to a discipline or profession</td>
</tr>
<tr>
<td>Self</td>
<td>Self-reflective learning or transformative learning</td>
<td>General abilities and personal qualities</td>
</tr>
</tbody>
</table>

Turning to teaching method, the objectives-based training approach is characteristic of the dominant behaviourist framework. This approach is suited as an educational method for Ramsden's categorical proficiencies level or Mezirow's domain of "technical" or "instrumental" learning (Mezirow 1981: 75), being concerned with factual representation and more-of-the-same learning. However, a training approach is unsuited for learning about the organisation (practical learning) and about self. Mezirow's practical learning takes place in the workplace and involves understanding communication processes, culture and policies, as well as goals and objectives. Self-reflective learning emphasises critical
reflection as a member of a larger social unit and is directed at personal change or transformation in perspective as a result of self-knowledge. Both elements suggest willing involvement by the student learner in a collective reflexive process. The change is personal and occurs in cognitive structures through insights rather than intellectualisation.

Educational process concerned with the second domain of **practical learning** or of social interaction is very different from those applied in the first domain of technical learning. They require a focus on the way learners construct meaning, how they typify and label others and on what they do and say when they interact with one another.

Methods include: role play, developing empathy, conflict resolution, group discussion and dialogue, leading learning groups, listening and expressing, critical thinking, differentiating between "in order to" motives and "because" motives, and symbolic interaction (Mezirow 1981: 76).

Educational process related to the third domain of **self-knowledge** or transformative learning requires a focus on the way individuals see themselves, their roles and social expectations. The process central to this domain is perspective transformation enabling the development of alternative perspectives for interpreting reality.

Methods include interviews to compare movement in problem awareness, expectations and goals or Socratic dialogue in small groups of learners facing a common dilemma. The aim is to elicit and challenge psycho-cultural assumptions behind habituated ways of perceiving, thinking, feeling and behaving. An ethos of support, encouragement, non-judgemental acceptance and individual responsibility is created, even while alternate perspectives are presented. Applying insights to one's own life rather than mere intellectualisation "fosters critical reflexivity" (Mezirow 1981: 77).

In reality, there are few situations that will involve only one domain. As Mezirow (1981) observes, the three domains are intertwined and people become aware of the connections in learning [only] "when they become critically reflective" (Watkins 1991: 41). Two other points are relevant. First, in order to facilitate learning, adult educators need to master the demands of all three domains. They need to become adept at working with learners in ways
that are sensitive to the relatedness and differences of each learning domain. Second, the current use of behaviourist techniques for the second and third learning domains is inappropriate. Applying the earlier instrumental or technical categorisations, a training focus may be appropriate for technical or very specific lower order skills. For higher-order skills that equate to the second and third domains, other methods become more useful.

The diversity of what is labelled ‘adult education’ suggests facilitating learning will mean different things to different people. The point however is that research and professional practice has formed a general consensus on the goal and method of teaching adults. It is characterised as "self-directed learning" (Mezirow 1981: 79; Chappuis and Stiggins 2002). This is the characteristic mode of learning, with each of the learning domains involving different ways of knowing and different educational strategies and methods. Because educational knowledge is realised through the three message systems of curriculum, pedagogy and evaluation (Bernstein 1975: 47), they form the basis for investigating the learning and development process. The three mechanisms are outlined below:

- Curriculum defines what counts as valid knowledge,
- Pedagogy defines what counts as a valid transmission of knowledge (the how of instruction), and
- Evaluation defines what counts as valid realisation of knowledge (Bernstein 1975).

Together, these three mechanisms have a major influence on the student’s experience. Reconsideration of these practices is pivotal to improving teaching and learning. However, this relationship is often overlooked when examining developmental processes that too often fail to bridge successfully the gap between theory and application. The answer is a complex one and one that resides partly in the emerging science of learning.

4.4.3 Constructivist Learning: A Performance Based View

Edward Tolman and C.H. Hoszik, in a series of experiments in the 1930's illustrated the effects of latent learning - learning that is not reflected in performance. This form of learning is the basis for arguing the importance of mental representations to behaviour (Sternberg 1995), which is a major theme in the theoretical framework of constructivist
learning. Constructivist theory views learning as an active process in which learners construct new ideas or concepts based on their current and past knowledge (Bruner 2000). These cognitive structures, also described as action schemas or mental models, provide meaning and organisation to developmental experiences. They allow the learner to go beyond the information given by also encompassing feelings and knowledge, both tacit and explicit. Arguably, the more these structures are tied to existing cognitive maps, the more individuals are likely to be able to retrieve them at a later time (Dixon 1999).

In using experience for development, there is a difference between knowing something and actually doing it. Abrahamsson (in Usher, 1985) noted that not all experience is a basis from which learning can be derived. Practically, where work has been routinised and deskilled there is little cognitive learning. We also need to be clear that learning through experience is not the same as learning from experience (Usher 1985). Learning from experience requires a capacity to reflect on experience (the raw data) and draw meaning from it. To this end, the Kolb experiential learning cycle (see Chapter 3) is useful to illustrate the link between concrete experience and reflection.

One avenue of learning from experience, extending Vygotsky's ideas, is through direct instruction or through what might be called mediated learning experiences, where tasks are introduced and the learner is helped to interpret the experience. The effects of such intentional approaches to learning are that the more individuals expand their cognitive maps (learn) and the more meaning structures within it are interrelated, the more an individual can increase his or her "capacity to learn" (Dixon 1999: 21). It is argued that, rather than simply filling up long-term memory over time, processes that support meaning and relationships between data actually increase the storage capacity of memory.

Another avenue of learning from experience is tacit learning (Sternberg 1995; Dixon 1999). This is evident in the way a child learns a language. It is also evident in the learning of abstract ideas such as justice and freedom, which are largely learned by tacit exposure to culture. Similarly, when individuals join a new organisation they learn about how to act,  

19 "Critical differentiation and problem awareness" (see Usher 1985: 97)
what to say and what is expected, not simply by any verbal messages, but by tacit learning while working in the organisation.

Knowledge, skill and understanding are the staples in education. Wiske (1998) suggests it is worth questioning the conception of knowledge, skill and understanding that underwrites what happens in educational interventions. Her argument is that a representational view based on mental models and schema "only provides partial understanding" (Wiske 1998: 45). From this (representational) perspective, understanding lies in having the right mental structure or representation and performance is presumed to be simply a consequence of having the right representation. In contrast, the "performance view" takes the line that understanding is best seen as lying in the performance capability itself. The heart of the issue is "effective involvement in activity" and not having what could be potentially incomplete representations (Wiske 1998: 49). Consequently, the emphasis of the performance view is on constructing performance capability rather than mere representations. This distinction between performance and representational views of constructive learning is important, because the views infer different methods for teaching and learning. This issue is examined in more detail in the following paragraphs.

### 4.4.4 Developing Performance Capabilities

While it is arguable that the metaphor of constructing performances remains apt, it seems more natural to suggest learners develop or work up to a "performance capability" (Wiske 1998: 55). Such a view evokes the metaphor of developing a flexible performance capability towards mastery over time. The emphasis is on building a learner's repertoire of understanding performances more than on cultivating the construction of representations. The consequent learning (for understanding) occurs "through reflective engagement in approachable but challenging understanding performances" (Wiske 1998: 52). "This (performance) view of constructivist understanding favours incremental learning and so seeks to foster incremental learners. Performance requires attention, practice and refinement. Attaining understanding is less like acquiring something and more like learning to act flexibly" (Wiske 1998: 52).
Within this notion of performance, the broad principle of teaching aligns well with contemporary conceptions of pedagogy such as cognitive apprenticeships, the idea of communities of inquiry and a culture of thinking in classrooms. A performance based stance casts teachers less in the role of informers and testers and more in the role of facilitators or coaches. Lectures and tests are supportive activities and not central activities. The main agenda is arranging, supporting and sequencing performances of understanding. This vision of teaching (in Wiske 1998) aligns well with other contemporary conceptions of pedagogy including building a culture of thinking in classrooms and the idea of communities of inquiry. It suggests broad principles including learning for understanding through reflexive engagement in challenging performances, a gradual development of understanding building on previous understanding, and a logically progressive chain of performances of increasing challenge and variety (Wiske 1998).

A general teaching for understanding framework to summarise what might be termed performance constructivism is illustrated in Table 4.3 and in detail in Appendix 13. Understanding is characterised across four dimensions: "knowledge, methods, purposes and forms" and four levels "naïve, novice, apprentice and master" (Wiske 1998: 172).

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Knowledge</th>
<th>Methods</th>
<th>Purposes</th>
<th>Forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naïve</td>
<td>Transformed intuitive beliefs</td>
<td>Healthy scepticism</td>
<td>Awareness of the purposes of knowledge</td>
<td>Mastery of performance genres</td>
</tr>
<tr>
<td>Novice</td>
<td>Coherent &amp; rich conceptual webs</td>
<td>Building knowledge in the domain</td>
<td>Use &amp; consequence of use of knowledge</td>
<td>Effective use of symbol systems</td>
</tr>
<tr>
<td>Apprentice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Master</td>
<td></td>
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</tr>
</tbody>
</table>

The framework is a conceptual tool to examine students' understanding and to orient future work. It is intended as a working tool that needs to be adapted to the specific content, contexts and levels of instruction being used. It emphasises a flexible (performance) capability that evolves towards mastery over time and it emphasises reflection over factual
epistemology. It requires a shift towards a broader, more richly organised conceptual network of ideas than generally accepted in the domains of knowledge being taught.

4.4.5 Embracing Social and Student Related Issues

Bruner (1996) expanded the theoretical framework of constructivism to encompass social and cultural aspects of learning. Thus, the instructor and student engage in an active dialogue or Socratic form of learning in which the task of the instructor is to translate information to be learned into a format appropriate to the current state of understanding of the learner. A constructivist curriculum would thus be organised in a spiral manner, where the student continually builds upon what they have already learned. Other elements of a general constructivist framework for instruction would ideally address four major aspects:

- Pre-disposition towards learning,
- The ways in which a body of knowledge can be structured so that the learner can most readily grasp it,
- The most effective sequences in which to present material, and
- The nature and pacing of rewards and punishments (Bruner 2000).

Section 4.5 Relational Perspectives in Teaching and Learning

The connection between how students experience teaching and how they learn will be the subject of the following section. This will be followed by a consideration of teacher conceptions that, like the impact of student conceptions of student approaches, influence the way teachers approach their teaching responsibilities.

4.5.1 Positionality - From a Student’s Perspective

To improve the quality of education, we need to study its effect on students and look at the experience through their eyes. As already noted, there is a growing emphasis on learning environments that embody learner-centred education. There is also a need to take a fresh approach to the problem described by Foucault as "positionality" (Bruner 1994: 169). 'What is it you want me to say?' defines a student speaking from a marginalised position, circumscribed through years of enculturation. It reflects an instrumental view of education,
where education operates as a means of social control. As a consequence, the student, embodied in experience, is taught not to value experience, not to value the subjective and not to value the cultural knowledge he or she brings into the classroom.

This issue identifies an *either/or* dichotomy that students face. *Either* they are grounded in fact or theory *or* they are steeped in experience. In Brunner’s (1994) view, because they are not taught to value connections to experience, they fail to understand that theory grows out of real world experiences. Hence, they see information as knowledge, not as something to be turned into knowledge as it is construed against one’s background of experience. This is a challenge to the educational and socialisation process that has so far taught without appreciating the “I”, the “me” and the “we”, valuing objectified knowledge more than anecdotal situations and personal experience (Brunner 1994: 170).

Studies investigating processes and conditions of effective learning in higher education from a *student’s point of view* reveal useful insights. One insight is the confirmation of what many educators have known for years – that teaching and learning in higher education are inextricably linked (Ramsden 1992). To teach is to make an assumption about what (and how) the student learns. Thus, teaching and learning is a constantly interchanging activity, inviting the metaphor by Ramsden (1992) that they *are two sides of the same coin*. A second insight is the recurring finding in research in regard to learning, that "we can never assume that the impact of teaching on student learning is what we expect it to be" (Ramsden 1992: 7). This is because of the effect of educational context and environment, when learning all too often might be more about how to please the lecturer and to gain recognition or reward, than about changes in their (students) understanding.

### 4.5.2 Student Learning Approaches

A learning approach standpoint disregards learning as a process, of how something is learned. Rather, it focuses on the character of learning, described in terms of *deep or surface based approaches* as well as *holistic or atomistic structural aspects* related to how the subject is presented (Watkins 1991; Ramsden 1992) (Marton and Saljo 1976). This concept is illustrated in Figure 4.1.
Theorists such as Craik & Lockhart 1972, Van Rossum & Schenk 1984, Marton, Hounsell & Entwistle 1984 (cited in Reid 2001), explore the difference between learners who process information at a surface versus deep level. Surface learners or processors tend to concentrate on facts, while deep learners’ processors are superior at retaining the main ideas and the overall organisation. While many learners use both surface and deep modes, surface processors can be encouraged to develop deep processing capabilities by techniques such as writing summary statements, writing topic sentences, rephrasing content or reformulating questions, comparing new material to what is known, and explaining the newly learned material to peers (Reid 2001). These deep processing enhancing techniques can be done in groups or by using chats or journals.

Ramsden (1992) and Chalmers et al., (1996) take the view that what distinguishes students using a surface-learning, deep-learning or a third categorisation of achievement focus, is the intention (motivation) of the learner. While deep and surface approaches to a particular learning task are mutually exclusive and notably can vary with the task, an achieving focus can be combined with either of the other two approaches. If the intention is to complete the task with a tendency to concentrate, only on facts it is typically a surface based learning approach. The strategies adopted focus on information being memorised for assessment purposes and students treating the task as an external imposition. Strategies can vary from recall and reproduction to deeper engagement in the task, albeit with the aim to achieve high marks.

Table 4.4 shown below summarises the main attributes associated with deep and surface learning.
Chapter 4: Teaching for Learning

### Table 4.4: Attributes of approaches to learning (Adapted from Ramsden, 1992)

<table>
<thead>
<tr>
<th>Surface approach to learning</th>
<th>Deep approach to learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intention only to complete task requirements</td>
<td>Intention to understand</td>
</tr>
<tr>
<td>Focus on ‘the signs’ (eg. sentences of the text, the formula needed to solve the problem)</td>
<td>Focus on ‘what is signified’ (eg. the author’s argument, concepts applicable to solve problem)</td>
</tr>
<tr>
<td>Memorises information for assessments</td>
<td>Relates previous knowledge to new knowledge</td>
</tr>
</tbody>
</table>

The effect of surface-learning approaches is that the student only gains a superficial understanding of what is being investigated and is likely to perform minimally and by replication within given situations (Ramsden 1992; Chalmers and Fuller 1996). Research by Entwistle also suggests that anxiety, fear of failure, and low self-esteem are usually associated with these surface approaches to learning (Entwistle 1982). Conversely, a deep-learning approach is based on the principle or intention of engaging in the task on its own terms so that maximum meaning is extracted (Chalmers and Fuller 1996). The approach is characterised by student interest and the ability to understand. Deep learning moves the student beyond retention of knowledge to applying and relating new knowledge in different ways. Typically, students also achieve a higher grade and retain this understanding for a longer time than students using a primarily surface approach.

#### 4.5.3 Teacher Approaches to Teaching

Just as students hold beliefs about learning that affect the way they go about learning, teachers also hold beliefs about the nature of teaching which affect the way they teach. There are three broad approaches (Ramsden 1992). The first is characterised as teaching as transmission with the typical didactic lecture a classic representation of this approach. The second approach shifts from a teacher focus to student focus with teaching as a supervisory process. The third approach views teaching and learning as 'two sides of the same coin' and so teaching is a cooperative process with learners where "the aim is to make learning possible" (Ramsden 1992: 114).
Another more differentiated categorisation defines two qualitatively different groups: a "teacher or content focus" and a "focus is on the student" (Prosser and Trigwell 1999: 22). Three teacher and content-centred approaches are described ranging from *imparting information*, to *transmitting knowledge* and attitudes to knowledge within a framework of a discipline and to *facilitating understanding*. These content centred approaches are essentially quantitative approaches, placing an emphasis on increasing student knowledge and with the teacher as central to the process (Chalmers and Fuller 1996). The latter student-focused group is categorised into two broad approaches. The first approach has activity aimed at changing students' understanding. It is similar to Ramsden's *teaching is viewed as a cooperative activity*, with the student a less experienced learner. The second (student-centred) approach has activity that is based on *teaching that supports student learning*. Thus, students become responsible for their learning and the content of that learning. Conversely, the aim of the teacher is to encourage and sustain the student interest, to help plan, monitor and provide feedback as well as provide conceptual guidance.

The two student-centred conceptions are described as placing a greater emphasis on qualitative outcomes. These approaches aim to change the way students see and use knowledge (Chalmers and Fuller 1996). Overall, as Ramsden (1992) notes, Whitehead's (1929) and Bruner's (1966) views of education and the theory of teaching based on a student-centred approach are "a long way from surface approaches" (Ramsden 1992: 115).

### Section 4.6 Designing Education for Learning

Course content is traditionally communicated through a syllabus or curriculum. However, as is apparent issues such as deep versus surface and instrumental versus practical and self-knowledge are decisive in judgments about programs or curricula. These are critical questions in designing programs and these basic premises about the aims of education and development programs must first be argued and defined. This is in part philosophical as the nature of learning cannot be "decided entirely by empirical methods" (Noddings 1995: 4), and so values and beliefs are also important and need to be considered.
Turning to the curriculum, evidence from studies from across many disciplines lead Ramsden to conclude that "learning in traditional curricula is often unsatisfactory" (Ramsden 1992: 35). Many students are not learning as effectively as they might and many appear to be learning an imitation of the disciplines they are studying. However, as Ramsden (1992) suggests, no progress in any subject can be made without the reflective application of knowledge to the right problems. This is important, because no matter how tempting it might be to provide readymade solutions these solutions might be the reverse of how to improve the situation. The reality is that there are no right answers, just methods that may or may not work, for each teacher, each department and each group of students (Ramsden 1992). The important question and one apparently not easily answered is "what changes in understanding" are expected as a result of the course (Ramsden 1992: 128).

4.6.1 Teaching for Learning (and Understanding)

If the purpose of teaching is simply to bring about learning it makes sense to begin with understanding student learning. To this end, "what a student does is actually more important in determining what is learned than what the teacher does" (Fry, Ketteridge et al. 1999:32). The teacher's role is to guide the learning process and put the responsibility for learning into the student's hands (Ramsden 1992: 20). As designers, teachers are encouraged to aim for graduates who can think, act, create and innovate at a high level.

It is tempting to see teaching as having a single focus – learning by the student. Even if such a view were true, it would be too narrow. Educational interventions require consideration at several levels. The student is an important point of influence and the teacher (facilitator) is another. Because no teacher works alone, many well-intentioned efforts are undermined by contradictory approaches by others or through simple apathy or jealousy. For sustained success, there is a need to consider the overall program design. Ultimately, the focus must be at the institution level, as it is the widest point of intervention (Ramsden 1992). Within this broad scope of teaching for learning, there are five key issues to be addressed:

- What do we want students to learn - the issue of clear goals and structure that connects this to previous experience. Often there is an inconsistency between the
outcomes of student learning as teachers and students would ideally like them to be and the reality of what students actually learn. The difference in the quality of learning is due to differences in the ways that students learn, which in turn can be explained in terms of their prior experiences of teaching.

- Arranging teaching and learning - the issue of teaching strategies, having organised materials around the big ideas that the goals must address and with a clear understanding of performances (how a task is to be completed).
- Determining if they have learned - the issue of assessment that ultimately seeks to develop students able to self-assess and others based on clear criteria.
- Determining effectiveness of teaching and how to improve - evaluation; and
- Applying all these to ongoing educational development (Ramsden 1992: 124).

To improve the quality of education we need to consider the effect of these five issues. The challenge is to build an environment in which the learner feels comfortable and builds confidence based on an intrinsic motivation to learn. In terms of designing education, there is a need to first develop a curriculum that is responsive to the student as a whole person in society. The next step is to apply the variety of instructional and assessment methodologies in a way that is responsive to learning styles and geared to enhance student capability (Ebey 1998). The overall teaching and learning process is illustrated in Figure 4.2.

Figure 4.2: The Teaching & Learning Process (adapted from Ramsden 1992)
4.6.2 Program Design: Curriculum

If creating access to knowledge is what curriculum is about, there are a variety of sources to aid its development (Langenbach 1994). Two key issues need consideration before setting out to build a curriculum for the workplace. They are important because they form major parts of the scaffolding upon which the curriculum is built. The first issue is the context and setting for the curriculum. If these are antagonistic to the purposes and goals of the curriculum "there is little hope that the curriculum will ever be developed" or if developed "ever accomplish its purposes and goals" (Langenbach 1994: 16). For example, if an organisation is interested in becoming more effective and believes that training will achieve this, it will develop a curriculum for training. Likewise, an organisation that promotes education will invest in activities that are educational in nature.

A second issue is related to the fundamental debate centred about education and training. Based on Knowles (1970), adult education proponents highlight a key tenet of utility. Simply, adults expect to apply what they learn to solve problems immediately (DeSimone and Harris 1998). This is in contrast with pedagogy, which is viewed as preparation for future life. Utility is arguably an important criterion for adult learning. The argument is founded on a view that the adult learner must see the usefulness of knowledge or else the educational initiative implicitly is not very useful. Yet, education is ultimately more useful for its less easily quantified effects that are life long, and which offer greater potential for improving the quality of living. It is for this reason that some argue for a curriculum model for education in the workplace (Langenbach 1994).

…but built on the values of education more than training, must include teaching and instructional strategies that are not at cross purposes with the goals of education and occur within the organisation or through its sponsorship (Langenbach 1994: 18-19).

A clear statement of the goals of education is a prerequisite to any curriculum. This can range from empowerment and liberation at one end of the continuum to the other extreme domesticated, where higher value is placed on controlled, predictable behaviour (Langenbach 1994: 19). The assumption behind the curriculum model proposed by Langebach is that lifelong learning is better and that learners are active participants in the
process. The difficulty is in convincing people of the long-term value of such an approach over the immediate utility and accountability of training, an issue similar to the vocational emphasis that was evident in development practice (see Chapter 3).

### 4.6.3 Adapting Teaching Practice

Several writers comment on what might be perceived as a gap between teaching practice and the emerging understanding of effective learning. Diane Brunner (1994), for example, in the context of language learning observes that the educational community has simply paid little attention to research (Brunner 1994). Similarly, Kelly and Dwyer (in Ling et al. 1999) observe that, while lively debate occurs around research methodology, there appears little such debate among academics on issues surrounding teaching. To this end, they also note that very often the implicit model of teaching and learning is an objectivist one. That is, teaching is about transferring knowledge about a particular discipline from teacher to the learner. Still worse, it would appear that the emphasis in higher education is on teaching with little concern about whether learning is taking place (Ling, Ling et al. 1999).

In the USA, the National Research Council released *How People Learn* in December 1998. This report synthesises research on human learning and provides research-based messages that are clear and directly relevant to classroom practice. Subsequent work by the Committee on Learning Research and Educational Practice (CLREP) identified the influence of research on practice was, for the most part, filtered through four mediating arenas: educational materials, pre and in-service teacher education, public policy, and public opinion (CBSSE-NAP 1999). However, the committee saw the influence of research on these four mediating arenas as weak. A variety of reasons was noted. These included the little time teachers had to identify and read relevant research, the different and unfamiliar language used by researchers, and the applicability of research constructs to real classroom settings. The committee also observed that learning and teaching had not been consolidated in a way that gave consistent, clear messages in formats that were useful for practice (CBSSE-NAP 1999).

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20 Public opinion is often formed from mass media reporting and from people’s own experiences in schools
Noting the opportunity represented by *How People Learn*, three findings were highlighted by the committee, because they had “both a solid research base to support them and strong implications for how the enterprise of education is conducted” (CBSSE-NAP 1999: Summary p1).

- First, students come to the classroom with preconceptions about how the world works. If their initial understanding is not engaged, they may fail to grasp new concepts and information presented in the classroom, or they may learn for purposes of a test but revert to their preconceptions outside the classroom.

- Second, to develop competence in an area of learning, students must have both a deep foundation of factual knowledge and a strong conceptual framework. This conceptual framework allows learners to organise information into meaningful patterns and store it hierarchically in memory to facilitate retrieval for problem solving. This mastery of concepts, unlike pure acquisition of factual knowledge, facilitates transfer of learning to new problems.

- Third, strategies can be taught that allow students to monitor their understanding and progress in problem solving. Although this monitoring goes on as an internal conversation, the strategies involved are part of a culture of inquiry, and they can be successfully taught in the context of subject matter. In teaching these strategies, the monitoring questions and observations are first modelled and discussed for some time in the classroom. The ultimate goal of teaching practice is to develop independent monitoring and learning.

This research has clear and important implications for the design of curricula, instruction, assessments and learning environments that are of relevance in Australia. Core learning principles with their associated implications for teaching practice are shown in Appendix 14. These principles apply to teacher education and professional development programs, as well as to school education, and they could be the lens through which current teaching practices and professional development programs might be evaluated. In the design of a future research agenda for the US, one of the overarching goals the committee (CLREP) identifies is to elaborate the messages of *How People Learn* at a level of detail that makes them useable to educators and policy makers (CBSSE-NAP 1999).
Section 4.7  Closing Remarks

There are few studies that focus directly on learning in the ADF and those that do appear to be instrumental and vocational in focus (JSCFADT 1995; Evans 1998; Smith 1998; Defence 2000). For example, Evans (1998) highlights the practice of using the orthodox model of narrative military history, and specifically the study of a single campaign drawn from the past, to develop narrow military technicians rather than broad and reflective commanders (Evans 1998: 125). Yet, contrary to this narrow and somewhat static focus, learning and development is a dynamic social and culturally based process. Hence, there is good reason to understand learning within a social context, where cultural and structural constructs may individually, or in combination, contrive to deflect the overall learning process and cause unexpected behaviour.

With the transformation of work, there is a growing emphasis on learning. In the emerging network society, learning is no more solely a classroom activity required to make employees become more proficient at a certain task. Learning is increasingly a continuous work-based activity, necessary to cope with changing demands in the environment. Given our understanding that learning is something that goes on inside the learner’s head, the role of education is to provide the means for strengthening and enabling these mental powers. In meeting this role, teaching and learning appear as two sides of the one coin, where ultimately the goal of education is for learners to be able to assess their own performance in terms of clear criteria, and where teachers and students share an on-going responsibility for analysing progress towards levels of mastery in performance.

Within a performance-based constructivist approach to leader development, the learning process is concerned with both how people learn (an internal to student focus) and what is the optimal environment for learning (an external to student focus). Qualitatively, the learning process is concerned with engaging students to apply what they know, and to monitor and promote their progress in performances of understanding in the three learning domains - job skills (technical), social (practical) and self-specific to the discipline. The transition in performance from novice to a level of mastery represents deep learning that is incremental. It comes with time, a depth of understanding, practice and reinforcement. To
this end, a strategy of scaffolding within a bridging apprenticeship arrangement would appear to be a reasonable structure to enhance skills formation in leadership.

The general educational frames that correspond with the two leadership styles are as illustrated in Table 4.1. In devising a practical framework for action, the challenge is to move beyond dichotomies and devise an encompassing framework for teaching and learning. This framework must guide teaching practice and must facilitate the design of a learning environment. An approach that encourages a command and managerial control (Type A) style of leadership is necessary in the military but on its own is not sufficient. Given the complex environment, future military leaders are likely to face, what is also required is the capacity for an autonomous and creative (Type B) style of leadership. Consequently, teaching and learning strategies must reflect this duality of purpose.
| CHAPTER 5 | RESEARCH PERSPECTIVES AND METHODOLOGICAL FRAMEWORK |
CHAPTER 5: RESEARCH PERSPECTIVES AND METHODOLOGICAL FRAMEWORK

Section 5.1 Introduction:

The purpose of this chapter is to outline research perspectives and the methodological framework selected to examine the nature and influence of educational processes in the Australian Defence Force Academy. The aim is to explore the methods of analysis that are practical and non-self-deluding. In short, these methods will get us to derive knowledge that we can rely on. This study, based on a case study of ADFA, is concerned with understanding the influence of the three educational mechanisms from the point of view of the participants, and the social and institutional context.

Two observations are conceptually fundamental. First, as Entwistle (1997) says, "theories must be derived from the settings to which they are involved" (cited by Shaw 1999: 42). A case study of leadership development in the bounded context of ADFA supports such a purpose. Second, research inquiry requires cultural as well as textual criticism. This is particularly true in the case in education where one is concerned with advancing the practical aspects of the field. For this reason, familiarity with the environment is invaluable when pursuing unique understandings in unique circumstances that ordinarily are not easily accessed by an external observer (Gough 1999). This researcher's familiarity after some 27 years military service, including time within RMC and ADFA, supports Gough's assertion.

Section 5.2 The Case Study Method

Overall, a research focus on case studies is consistent with the growing interest in post-school education, reflected in the attention being given to professional development and continuing education (DeSimone and Harris 1998: 270), as well as distance education, open learning for adults and transfer of training issues (Cohen and Manion 1994; Hall 1996; Marginson 1997). Arguably, in higher education there is also need to combine the potential of computer, communication and information technologies with pedagogical change, particularly in light of what is described as an "information-age mindset" (Frand 2000). These issues challenge and invite as one goal for education, the provision of the tools, knowledge and skills necessary to participate as members of a (lifelong) learning community long after graduation.

**Section 5.3 Approaches to Educational Research**

Educational research refers to systematic attempts to achieve a better understanding of the educational process with the aim of improving its effectiveness (Marton, Hounsell et al. 1997). Putting aside terminology for the moment, there is a research continuum from *basic research* at one end to *applied research* at the other (Johnson and Christensen 2000). Basic research involving experimental research methods under controlled conditions seeks to generate a theoretical understanding about basic human processes. Conversely, applied research focuses on answering practical problems with the aim of providing solutions in terms of either policy or implications for practice.

Cohen and Manion describe two broad paradigms or dimensions in educational research: *objectivist* (or ‘normative’) and *subjectivist* (or ‘interpretive’) (Cohen and Manion 1994). These perspectives relate to general assumptions about the nature of science. The objectivist views human behaviour as essentially rule-based and requiring investigation by methods from the natural sciences. Conversely, the subjectivist perspective begins with the individual and sets out to understand their interpretations.

**Table 5.1** summarises Burrell and Morgan’s analysis of the underlying and "strongly interdependent assumptions" associated with these two alternate perspectives (Cohen and Manion 1994: 9). Briefly, ontology is understood as describing the form and nature of
realism that can range from realism to nominalism. Epistemology relates to the nature of the relationship between knower and what can be known, while methodology is concerned with how researchers might go about finding out whatever they believe can be known.

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<th><strong>Table 5.1: Assumptions behind the subjective-objective dimension</strong></th>
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<td><strong>Objectivist</strong></td>
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<tr>
<td>Reality</td>
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<tr>
<td>Epistemology (form &amp; nature of reality)</td>
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<td>Determinism</td>
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<td>Nomothetic – methods designed to discover general laws</td>
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Research methodological issues are problematic, contextual and many positions are staked out. As Burrell and Morgan (1979) comment, the terms "nominalism-realism" have been the subject of much ontological debate with "great areas of controversy" surrounding them (Burrell and Morgan 1979: 4). There are similarly debates over each of the other frames. However, most importantly the analysis reveals important implications for the research approach adopted. As Gough states, methodological questions "cannot be extricated from epistemological questions" (Gough 1999).

**Table 5.2** expands the conventional objectivist-subjectivist dichotomy in educational research terminology. The table identifies related terms and their consequences for education research in terms of the aim of theory and the corresponding research methods.

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<th><strong>Table 5.2: Spectrum of Educational Research Terminology</strong></th>
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Carr and Kemmis (1986) describe educational research across a spectrum of positivist, interpretive and critical approaches (Shaw 1999). Within this framework a positivist approach equates with Cohen and Manion’s objectivist (and quantitative) paradigm, while the interpretative and critical approaches are described as subsets of the subjectivist (and qualitative) paradigm. Guba and Lincoln (Denzin and Lincoln 1994) suggest a continuum of four alternate paradigms ranging from:

- **Positivism** characterizes an epistemology that seeks to explain and predict what happens in the social world. The view is that there is an apprehendable reality and the researcher and object to be studied are independent entities;
- **Post-positivism**, that remains essentially within the same set of beliefs as positivism, but is a response to problematic criticisms of that approach;
- **Critical theory**, which is a blanket term for a set of alternate paradigms (including Marxism, feminism and materialism); and
- **Constructivism**, which moves away from realism to ontological relativism represented by multiple social and experiential realities that are both local and specific. The epistemology assumes the researcher and objects of investigation are interactive and the subsequent research approach (methodology) is through interaction between the researcher and respondents.

Burrell and Morgan have proposed an additional frame of reference founded in interpretations of society as "regulation" (emphasising an underlying unity and cohesiveness) versus "radical change" (deep seated structural conflict) (Burrell and Morgan 1979: 18-19). The utility of the model is in merging the two independent and polarised dimensions to describe four points of view (see Figure 5.1) to a research stance.

**Figure 5.1: Paradigms of Social Analysis (adapted from Burrell and Morgan, 1979)**
Rather than being variations of the same theme, Burrell and Morgan argue that a fundamental difference exists around social conflict based on regulation or radical change. They suggest that theorists placed in contrasting standpoints will generate different concepts and analytical tools. These viewpoints are intended to be mutually exclusive, as alternate viewpoints of social reality. The framework highlights possible boundaries for the study.

| Quadrant 1 - Radical Humanism | French existentialism, Anarchistic individualism, and critical theory |
| Quadrant 2 - Radical Structuralism | Contemporary Marxism, Conflict theory, and Russian social theory |
| Quadrant 3 - Interpretive | Phenomenology, Phenomenological sociology, and Hermeneutics |
| Quadrant 4 - Functionalist | Social action theory, Integrative theory, Social system theory, and Objectivism |

Qualitative research must also be placed in the context with five historical phases. Broadly, these phases are the “traditional” (1900's-1950's), “modernist” (1950's-1970's), “blurred genres” (1970's-1986's), “crisis of representation” (1986-1990's) that called into question issues such as gender, class and race, and “post-modern” (1990 to the present) (Denzin and Lincoln 1994: 2). Because these phases operate simultaneously, research must recognise multiple criteria of evaluation in qualitative research. The choices other than those available from a neutral, objective, positivist perspective include class, race, gender and ethnicity. They suggest an overarching multicultural research process.

In summary, while both normative and interpretative forms of research are evident in educational research, the dominant approach until recently has been theory building methods that characterised the natural sciences rather than those from the social sciences (Gough 1999). While each perspective is not without criticism (see Cohen and Manion

21 Seeks explanations within the realm of individual subjectivity.
22 The dominant framework
23 George Marcus (in Denzin, 1994) argues we are already in a post “post” period
Chapter 5: Research Perspectives and Methodological Framework

1994: 22-35), qualitative research cannot be viewed from a neutral, objective, positivist perspective only. Terminology aside, the priority is to identify the research inquiry approach as it has clear implications for subsequent research activity including formulation of questions, methodology, data collection and analysis. Eisner (1991) for example notes that the schema employed shapes the understanding that emerges in the portrayal of any situation. Similarly, Guba and Lincoln argue that "questions of method are secondary to the question of paradigm" (Denzin and Lincoln 1994: 105).

Section 5.4 Theoretical Framework and Study Method

The theoretical framework for this study is an interpretive one that is concerned with understanding the world at the level of subjective experience. In its approach, an interpretive frame tends to be nominalist in ontology, constructivist in epistemology, voluntarist in terms of human nature and idiosyncratic in its emphasis on the particular and individual. This in turn invites a methodology that supports getting a first hand knowledge of the subject as the explanations being sought are from a frame of reference of the participant as opposed to the observer of action.

Applying Guba and Lincoln's framework for educational research, an interaction between the researcher and the environment underscores the constructed and framework-dependent character of knowledge. It also invites a pluralistic and dynamic, as opposed to dogmatic, conception of knowledge. For these reasons, this study takes a broadly interpretive approach that is founded more specifically in a constructivist paradigm. The approach assumes “multiple, apprehensible and sometimes conflicting social realities” (Denzin and Lincoln 1994: 111) that are the product of human intellect. The ontological position of this approach allows that constructed reality might change as individuals became more informed and sophisticated. As such, the paradigm accurately describes the multiple realities and the dynamic nature of leadership development. It also allows research to go beyond an interpretative paradigm of describing and interpreting practice, to critical social science where change through involving practitioners themselves is the primary focus. The

Gough (1999: 143, citing John Van Maanen 1995) defines methodology as comprising "headwork" (thinking about how research should proceed), "textwork" (testimonies and critiques), and "fieldwork", which is the usual aspect of data production that tends to be emphasised.
change of practice can result from "critical self-reflection" or informed practice (praxis) initiated by practitioners themselves (Shaw 1999) or from a refinement of methods that might be applied to curricular or pedagogical work (Gough 1999).

Of course, as Howe and Berv (Phillips 2000) warn, a constructivist view can also go too far. For example, if knowledge is determined solely by private constructions teachers could lack the confidence to claim what they know, which in turn could make them reluctant to challenge students’ "personal constructions" for fear of imposing their personal own view of things” (Phillips 2000: 38). This issue is compounded in less definitive areas such as political education and leadership where mistakes are less obvious than in the natural sciences.

In terms of understanding methodology in the research process it is useful to distinguish between method that is concerned with techniques and procedures used, while methodology, which helps us understand the process itself. Another useful distinction is in the use of the term data production as opposed to collection or gathering that suggests data is out there waiting to be gathered rather than actively produced and constructed by researchers (Gough 1999). Turning to the apparent choice between qualitative or quantitative method, as Cohen and Manion (1994) suggest, the need is to lessen the tension in selecting between each approach. Rather, the two research approaches and specific methods are best viewed as being complementary. This perspective enables a researcher to combine the best features from both in a multi-method approach with “non-overlapping weaknesses” and “complementary strengths” (Johnson and Christensen 2000: 31).

Section 5.5  Method: Building Theory Using Case Studies

Case study is a relatively popular research strategy that focuses on understanding the dynamics present within single settings (Eisenhardt 1989; Yin 1989; Stake 1995). A case, defined as a bounded system (Johnson and Christensen 2000), involves ‘real’ situations in which people have responsibilities and obligations. These situations can have a clear identity, such as an individual (pupil), a classroom, a school or a program. They can also be more inclusive embracing an event, activity (learning to play softball) or process
(teacher training). Importantly, because of the close-up nature of the work, it will often be necessary to re-adjust the balance of power between the subjects and the researcher. This is usually via an explicit research contract that shows the credentials of the research team, the research proposal, extent of involvement and conventions governing access and use of information (Adelman, Jenkins et al. 1975).

Stake (1995) identifies three kinds of case studies: *intrinsic*, *instrumental* and *collective*. An intrinsic case study focuses interest towards understanding a specific case rather than general understanding. Conversely, an instrumental case study is about gaining a general understanding of a question by studying a particular case. Finally, a collective case study is where insight is gained into a topic by studying a number of cases concurrently (Johnson and Christensen 2000). There are advantages in studying multiple cases: it allows comparative study, supports generalisation, and where a result has been replicated, can inspire greater confidence in the findings.

Cohen and Manion (1994) attest to the wide use of case studies in contemporary social science and educational research. Eisenhardt (1989) suggests theory-building (instrumental) cases are most appropriate in the early stages of research on a topic, or to provide a fresh perspective to subjects that have already been researched. Given the limited number of cases that can usually be studied, Pettigrew (1988), cited by Eisenhardt, highlights the practice of selecting extreme situations and “polar types” in which the process of interest is “transparently observable” (Eisenhardt 1989: 537).

The advantages of case study analysis for theory building are discussed by Cohen and Manion (citing Adelman *et al.*, 1980), and by Eisenhardt (1989). The case study approach offers a number of specific advantages to the research interest of determining the relative influence of the respective education mechanisms and of more widely refining teaching practice from a student (learner) perspective. Primarily, being strong in reality, case studies are also likely to be in harmony with the observer's experience and thus form a natural basis for generalisation (Cohen and Manion 1994). The approach also allows recognition of the complexity and 'embeddedness' of social truth, enabling conflicting viewpoints and alternate interpretations to emerge. As the German philosopher Wilhelm Dilthey suggests
Arguably, the case study process can also potentially generate theory with less researcher bias than other approaches. Another point in its favour is the likelihood of theory being testable and of being empirically valid. Validity is high because the theory-building process is intimately tied to evidence. Thus, theory closely mirrors reality (Eisenhardt 1989) and the best cases can support alternate interpretations as well as make research more publicly accessible (Adelman, Jenkins et al. 1975).

There are also weaknesses in the case study approach. For example, because of the richness of data there can be a tendency for theory to lack simplicity in overall perspective. Moreover, emergent theory can be phenomena specific and consequently modest, without the broad sweep of grand theory (Eisenhardt 1989). Another view is that “case studies…lack the scientific weight and general applicability of conventional research methods” (Gummesson 2000: 88). However, Gummesson defends the case method by noting that conventional (scientific) methods are of less use in studies of human processes. In terms of generalizability, which is an implicit assumption of research, the problem needs to be approached differently from the traditional collection of statistical samples. It is possible to generalise from a single case, and generalizability will be determined by the comprehensiveness of the measurements that enable an “understanding of the structure, process and driving forces” rather than a correlation or cause-effect relationship (Gummesson 2000: 89).

Section 5.6 Validity, Reliability and Evidence versus Proof

Any test or assessment procedure must be reliable and valid, where reliability refers to a consistency or stability of a response. Validity refers to the appropriateness of the
interpretations and actions taken based on the scores (Johnson and Christensen 2000). While in quantitative research the use of test-retest and the use of two equivalent forms can measure the consistency of a group of individuals, there is a need to understand objectivity and reliability in qualitative analysis. Simply, the interpretative approach to social science aims to uncover meaning and significance (Carr and Kemmis 1986). This of course is not to imply an uncritical rendering of individual understandings. A critical social science such as developed by Habermas, would offer to highlight to individuals - perhaps through self-reflective understanding - how their aims and purposes may have become distorted or repressed (Carr and Kemmis 1986). It would also specify how through critique these might be removed so that a rational pursuit of their goals may be undertaken.

Because a certain amount of inference is required to clarify meaning, there is space afforded to the subjectivity of the researcher (Madill, Jordan et al. 2000). This issue is, of course, most pertinent in fields such as psychology, where the tradition is a positivist epistemology concerned primarily with objective and reliable methods of investigation. Nevertheless, because maximising the objectivity of research is linked to the production of reliable findings, it is appropriate that qualitative research be open to similar scrutiny.

Sidestepping a debate on the various epistemological positions of the researcher, the three broad strands identified by Madill, Jordan et al. (2000) are realist, contextual and radical constructivist. Citing research (Brink, 1991; Kirk and Miller, 1986; and Miles and Huberman, 1994), these authors argue that some researchers have transferred notions of objectivity and reliability either directly or with little modification into the evaluation of qualitative research. However, direct transference of these considerations to the evaluation of a contextual constructivist research approach, which involves bringing to light researcher subjectivities, is not supportable (Pidgeon and Henwood, 1997 cited by Madill, Jordan et al, 2000). In the human sciences, it is suggested that objectivity ought to

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25 Habermas introduces the Marxist concept of ideology critique into critical social science, where humanity seeks to liberate itself from established ways of thinking and established forms social life (see Carr and Kemmis, 1986: 138)

26 Distinguished as naïve, scientific and critical realism (in Madill, Jordan et al, 2000)

27 May be relevant for qualitative analysis conducted within a naïve or scientific realist epistemology
be replaced by *permeability* - explained as the capacity for interpretations to be changed by encounters with observations (Madill, Jordan et al. 2000).

Thus, all results will vary according to the context in which the data is collected and analysed and the constructivist perspective takes the position that all knowledge is local, provisional and situation dependent (Jaeger & Rosnow 1988, in Madill, Jordan et al., 2000). Factors that affect this result include participants' understanding, researcher interpretations, cultural meaning systems, and acts of judging interpretations as valid by scientific communities. In addition, because all accounts are subjective they are not invalidated by conflicting alternate views. However, as Madill and Jordan et al. (2000) say, within this contextualist framework there still is a desire to find some grounding for results. This can be via "basing findings in participant's actual descriptions" and by "discursive accounts...in social practices whose underlying logic and structure" can be discovered (Madill and Jordan et al. 2000, citing Parker 1996: 5). In considering alternate versions of a response to a research question, arguably some may be more persuasive or valuable than others and hence involves some evaluative process. However, as Wallat and Piazza (1988, in Madill and Jordan el al. 2000) advocate, there is benefit in maintaining diverse perspectives. Other research suggests that *triangulation* as opposed to *convergence* through consensus might get a fuller picture, though not necessarily a more objective one. That is, it might retain truly novel perspectives that otherwise might have been discounted if consensus were overvalued.

Overall, the object of the research process is to ensure *reliability* and *validity* of the data, with the intention of providing evidence rather than proof of the relative influence of the three educational mechanisms. This aim is supported by accessing a vertical and horizontal slice of military personnel, from senior to junior, across the three Service groups and data from representative groups in the workplace. The main source, qualitative data accessed through *focus groups* and *interviews*, is cross-referenced against quantitative data accessed through the *survey*, as well as *documentary* evidence including a recent detailed interview based review of the Academy (*The Grey Report*, ADFA 1998). This latter source when reframed in an educational context strongly corroborates the issues raised in terms of the influence of existing structure and culture.
Thus, it is argued that objectivity and reliability is relevant only to the extent that research is conducted within a naïve or scientific realist framework. It can be further argued that objectivity ought to be replaced by permeability, where interpretations can be changed by encounters with specific observations. That aside, there is a diversity of approaches available to the human sciences and a different form of triangulation is possible - by varied data production methods. Consequently, the analysis acknowledges subjectivity and rejects a consensus approach in order to gain a fuller understanding of the social phenomena that is of interest.

Section 5.7 Research Method: Overview of Data Sources

“Field research” (Gummesson 2000: 126) methods included the use of questionnaires, focus groups and individual interviews. A multi-method research approach is adopted for this study, involving both a quantitative (via survey instrument - see Appendix 15) and qualitative (via focus group - see Appendix 16, and individual senior officer interview - see Appendix 17) approach. The primary study group is a group of (57) cadet officers from the Defence Academy that were selected by the organisation on the basis of availability given pre-graduation and other administrative commitments.

A multi-perspective view is achieved by replicated data production from:

- Within the cadets in the Defence Academy across the three service (Navy, Army and Air Force) groups;
- From workplace based groups drawn from an operational environment - the Special Air Service Regiment and from two more technological environments - the School of Signals and RAAF School, Point Cook; and
- By personal interviews with selected senior military officers.

Founded within an interpretive inquiry approach that begins with the individual, the methods in this study are directed towards understanding social activity in real settings (Eisner 1991). Thus, theory is emergent and grounded in data "generated by the research act" (Cohen and Manion 1994: 37). In an ethnographic sense, the research presents pictures and interpretations of multiple realities constructed from the specific experiences of
individuals and groups of individuals through social and pedagogic processes in which these learners are engaged.

The primary aim of the field research, via the three different methods identified (survey, focus groups and interviews), is to gain a student’s perspective about the process of leadership development and to cross-reference these views to those provided by senior officers, who represent leadership exemplars in the organisation. Research data are augmented by the use of selected Australian Defence policy and doctrinal documents.

What are not explored are the perceptions of other significant groups such as military reservists (diverse by role and ethnic composition), servicewomen (gender based diversity), and Aboriginals (ethnicity) in the military system. It is recognised that these groups may have differing views from those who are surveyed.

In terms of desk research (the study of documents), there is a range of useful reports. The most notable include:

- The Report by the Joint Standing Committee on Foreign Affairs, Defence and Trade ‘Officer Education: The Military after Next’, in October 1995 (JSCFADT 1995), and

**Section 5.8 Method: Pilot Study**

A pilot study was used to test and enhance the clarity and validity of the instrument, as well as clarify data production and focus group strategy. This study was conducted at the Army's School of Signals - a military training base in Melbourne. The exercise provided a number of invaluable insights. Primarily, it indicated the need to simplify the range of paired questions in the instrument, which in a number of cases were either unclear, too sophisticated for the audience, or worded such that it suggested one acceptable perhaps
leading way to answer it. Importantly, the pilot study also confirmed that the responses to questions in the survey distinguished between the two leadership types.

A number of other useful insights emerged from the pilot study in relation to the data production process. Because of this study, a strategy to administer the questionnaire only two weeks in advance of the focus group was determined. This period was considered not too far in advance to cause participants to lose interest or misplace the instrument, yet it provided enough lead-time for satisfactory completion of the instrument. Moreover, by completing the questionnaire just prior to the focus group, participants in a sense were prepared for a deeper reflective process.

Another strategy became evident in relation to encouraging participation in the focus groups. By subdividing cadet groups and allocating each sub-group an observer and group spokesperson role, participants appeared to be better engaged with the process. This direct involvement supported participation and perhaps reduced any residual concern about relative ‘power’ in terms of rank and position. These sub-group representatives presented synthesised discussions at the larger group plenary session. This structure was an effective approach to collecting sub-group views, permitting easy discussion in the small group forum, while allowing participants to determine issues of significance and relevance in relation to their development experience.

Section 5.9 Questionnaire

The study sample for the questionnaire (see Appendix 15) and focus groups comprised a total of 114 respondents. These included 57 officers cadet from the Defence Academy drawn equally from the three Service groups, and 57 respondents are drawn from representative groups of the ADF: thirteen (13) in the Special Air Service Regiment, twenty-two (22) from the Army Signals School, in Watsonia and twenty-two (22) from the RAAF Base at Point Cook. The equal number of Defence Academy cadets and workplace participants is a coincidence. Cadet numbers are kept to a minimum to minimise the fishbowl effect. The Defence Academy has experienced considerable research attention
over the past ten years and much adverse publicity. The aim is to minimise any sense that this was a further potentially negative intrusion into cadet life and Academy business.

The development of the questionnaire was based on characteristics of two leadership styles - a command and managerial control (Type A) style and a contingent and creative (Type B) style. These styles are a synthesis of themes in management and leadership literature that is largely now reflected in recent Army leadership doctrine. The initial approach identified twenty-five paired questions related to aspects of the curriculum, pedagogy and assessment. The questions examined aspects of style related to:

- Structures that emphasised control versus flexibility,
- Responses to external influences emphasising stability versus adaptability,
- An emphasis on task and content versus interpersonal and process,
- Decision making styles that were leader centric versus distributed decisions, and
- Motivation that reflected transactional (task related) versus transformational (challenge and consideration) influence.

Based on these five broad areas an initial set of 25 polar opposite questions was identified for each respective educational mechanism. Through a progressive trail and testing process, this list was reduced to a more focused set of questions that explored respective aspects of curriculum content, pedagogical approaches and assessment strategies. The list was subsequently refined following the pilot study to a set of 30 questions (15 pairs) for each educational mechanism, with respondents invited to indicate their agreement or disagreement to randomly ordered questions based on a Likert scale that ranged from very unimportant (1) to very important (5). The research construct is shown (see Table 5.3).

<table>
<thead>
<tr>
<th>Table 5.3: Illustrative Research Frame and Response Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum</td>
</tr>
<tr>
<td>Pedagogy</td>
</tr>
<tr>
<td>Assessment</td>
</tr>
<tr>
<td>Likert Scale used:</td>
</tr>
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<td></td>
</tr>
</tbody>
</table>
The overall data production process was in order: questionnaire distributed with plain language statement (PLS) two weeks prior to the focus groups. Completed questionnaires are collected at the start of the focus group. The rate of completion of questionnaires was in the order of 95 percent, reflecting a willing involvement of the respondents and support by the organisation. Respondents who completed the questionnaires formed the subsequent focus groups, ensuring a consistency of thought in the data production process.

Section 5.10 Focus Groups

*Focus groups* or “group interviewing” (Cohen and Manion 1994: 287) is a research technique that “collects data through group interaction” on a topic determined by the researcher (Morgan 1997: 6). This is a useful strategy particularly when group members have worked together for some time towards a common purpose. Apart from organisational convenience, group interviews offered the potential for discussion that could provoke a wide range of responses (Cohen and Manion 1994). The downside to group interviewing is that the process is of less use in terms of allowing personal matters to emerge. There may also be a trend towards consensus, where extreme or out-of-the-box views are possibly censored.

While focus groups can vary in terms of formal structure along a continuum, this distinction is not useful because as Morgan (1997) notes, structure should and will vary with the research aim. For this study, a less formal approach based on a semi-structured group interview appeared to suit the research aim, which is to draw on personal insights and experiences in training. The set of questions asked are shown in Appendix 16. The initial question was to get participants to think broadly on the subject by exploring the general characteristics of leadership in the workplace. Subsequent questions asked participants to describe in order the leadership development processes, the factors that contributed to a successful leadership development experience and the major influences that shaped their personal approach to leadership. Finally, as a way of synthesising the discussion and drawing closure, participants are asked to select from all the issues discussed what they thought were the important or influential elements of their developmental experience.
The military environment is already highly structured and regimented. Consequently, in order to encourage openness and minimise any perceived imbalance in *power* (Adelman, Jenkins et al. 1975), a less formal approach seemed appropriate. The role played by the researcher is more of “*participant-observer*” than “*observer-participant*” (Carr and Kemmis 1986: 28). That is, assuming some participant influence is unavoidable and while exercising caution about the degree of influence, the focus is on understanding and facilitating group process rather than on intervention.

Conversely, the semi-structured approach based on a set of questions kept knowledge generation to a specific area while allowing the natural dynamic that occurs in conversation. This approach emphasises empathy and encouragement, as well as placing an emphasis on the informants’ perspectives that arguably helps participants feel that what they had to say is significant and acceptable (Shaw 1999). Moreover, increasing familiarity prompted some respondents to continue the discussion outside the classroom. Unfortunately, this also meant that some insightful comments are not recorded for transcription and analysis.

The officer cadet focus groups were scheduled by the Defence Academy during two days in graduation week. The arrangement reflects a practical difficulty of an external intervention not of primary relevance to the training schedule. Unquestionably, data production is constrained by external activities - the cadets' preparation for graduation. However, the timing also provided an environment conducive to openness and reflection that may not have been evident if the activity had been planned earlier in the Academy program. As the participants (cadets) were about to graduate, the process in which they were invited to participate was a healthy and evidently welcome reflective process. An added benefit, the proximity to graduation would have helped negate any concern over the risk of adverse outcomes from open participation and comment. Simply, they had nothing to lose and once the process got cadets past their early cynicism, they had a lot to give and to gain.

The focus groups are conducted in Service groups, with each cadet group allocated for approximately three hours to the research process. This process included a preliminary
briefing that included the study objectives, PLS and collection of the completed questionnaire, followed by the focus group conducted in two sub-groups and the post activity debrief in the reconstituted larger group. The requirement for a supervising officer – a stipulation placed by the Defence Academy - was not implemented through fortunate organisational circumstances rather than researcher’s intent. The absence of a 'structural intrusion' such as the proposed supervising officer was of considerable benefit in achieving a more equal status between interviewer and interviewees, and in facilitating an environment suited for open dialogue.

The time allocated to the focus group process is:

- 30 minutes preparation including initial briefing, questionnaire collection, and review of what is perceived as effective leadership practice. This stage is essential to build trust and prepare participants to reflect on their experiences;
- 75 minutes for focus group activity in sub-groups to enable wide consideration of a set of questions and for maximum participation. This time also allowed for sub-group preparation for the larger group plenary session;
- 30-45 minutes debrief on the study that includes sub-group presentations; and
- 30 minutes for any individual follow-up or for data (document) gathering.

This structure is ideal for focus groups. In order to get maximum value from participants, each Service group was subdivided into sub-groups of 8-10 participants. In the case of the Defence Academy, the support of an assistant group moderator (a qualified psychologist) was necessary to complete the very busy round of focus group interviews.

**Section 5.11 Individual Interviews**

Nine personal interviews were conducted with senior officers drawn from across the three Services. Leaders within a traditional domain or discipline are by definition 'experts'. The interviews with this group of officers allows the assumption of communicating with experts already "sophisticated in the stories, the images and the other embodiments of the domain" (Gardiner 1997: 11). Their perspectives on leadership and their personal
experiences and individual stories offer a special insight into culturally specific influence and to organisational leadership need and success.

The senior officers identified for the focused interviews were based in the first instance by a simple determinant of viability of access. This is settled through either personal contact or contact via a third party. The element of personal contact, both direct and indirect, was instrumental in determining availability and willingness to share their experiences and perspectives openly. Because of this need to garner in-built trust and credibility, as well as acknowledging the tempo of activity within the organisation, the participant list is by necessity limited. Those involved gave their time willingly and on reflection, it does not appear that a larger sample would have added materially to the data produced for analysis.

Generally, one hour was allocated for each senior officer interview, with a preliminary written brief so that the interview did not started cold. This was generally adequate for the researcher's purpose, but more importantly appeared reasonable to the officers interviewed.

The academic staff of the Defence Academy, who could have added a valuable perspective, unfortunately did not respond in sufficient number. Further, questionnaires that were sent to prospective participants were not returned. Subsequent follow-up contacts revealed a range of issues reflective of administering an instrument from a distance to people not known to the researcher, and who for usually time-based reasons were reluctant to contribute. As an alternate option, the researcher used personal interviews (notes only taken, not recorded on tape) with a limited group of academic staff who were either closely involved in the leadership program or were members of the curriculum development committee. These interviews are informative and generally supportive of the study themes.

Section 5.12 Method: Data Production

During data production, a number of participants on completion of the focus group commented that responses would have been considerably more pointed if they had been more aware of the interest in identifying the relative influence between Type A and B
styles across the three educational mechanisms. Upon inquiry on how responses might have been different, participants usually stated in terms of ‘it would have been towards identifying a stronger bias in Type A style over Type B’ (AF Workplace Focus Group). For this study, the apparent neutrality of participants is reassuring that the constructed representations and themes are perhaps only a conservative estimate.

An Olympus Pearcorder (Model S701) micro cassette recorder was used to record all interviews. This equipment proved adequate for recording in the one-on-one situations encountered in the study. For the focus groups, the same cassette player with an omni-directional microphone was used to record all discussion. This recording equipment proved of limited value in capturing the debate across the room. Aside from any issues related to the quality of recording because of the distance between group members and the recorder, there is an overlap of conversations. Any attempt to manage the flow of conversation would have stifled natural discussion.

The solution to this problem fortunately dovetailed with an approach to an ethical dilemma related to power that suggested individual anonymity was desirable through the focus group. The recording of participant perspectives was resolved by using a group spokesperson to summarise sub-group views at a plenary session in front of the microphone. That aside, note taking by the respective moderators captured notable observations and statements made during the process. It does however raise the matter of developing a satisfactory method for recording comment and interplay. One way is to summarise key responses progressively through the interview process, but this will be at the cost of continuity in discussion. There is also an inherent potential for bias in this approach as the recorder can unconsciously emphasise responses that agreed with his/her expectations. Another option is to wait until the end of the interview to summarise responses. However, this is likely to introduce bias as the delay could lead to forgetting some details, that more than not are likely to be the ones that disagree with interviewer expectations (Cohen and Manion 1994).

In the course of events, the cadet based group summary overcame these potential opportunities for bias by the researcher, albeit with some risk that notable comment might
be self-censored by the nominated scribe. Regardless, what is essential is to review and record the previous session in a journal before moving on to the next session, as the issues soon cloud and meld into one, making it difficult to distinguish what was said and by whom.

In summary, on the positive side the synthesised discussions captured broad themes by the group, while ensuring individual anonymity as well as overcoming equipment engendered social inhibition. Upon reflection, this approach lost some of the richness of the data, particularly when discussion became animated and voluble. Conversely, the data have arguably greater validity because they are collectively endorsed and because the process facilitated the use of natural language.

Section 5.13 Method: Data Analysis

All recorded interviews were transcribed verbatim by a professional typing service (Online Personnel) in Geelong. While this process was expensive, it was quick and convenient, albeit with some concern over ensuring the quality of the primary source of data, the focus group recordings. On the other hand, given the specialist listening and playback equipment available to the typing service, the quality and efficiency of transcription became equally as important as the trustworthiness of the data. The important consideration of trustworthiness of the data was achieved by reviewing completed transcripts in conjunction with the primary tape source.

A practical concern with using a transcription service is the typist’s unfamiliarity with the subject, particularly given the multiplicity of acronyms fostered by institutions like the military. It required some effort when vetting the text, but essentially such accuracy is not material to the issue in question. The research value of the data is in the personal experience and insights, and in the themes and patterns that became evident through meanings implicit in the text. The other practical difficulty, inevitable for a part-time researcher, is the challenge of staying immersed in the material. There is no ready solution to this issue, which in any case only really slows the research process.
Qualitative analysis in this study was conducted using a Qualitative Solutions Research Pty. Ltd., (QSR) product called NVivo. This new generation software is an update to the earlier ‘Non-numerical Unstructured Data Indexing Searching and Theorising product, more commonly known by the acronym NUD*IST (Richards 2000). The package, developed in Australia, is well supported with documentation and online user support groups. It is designed to build theory based on the principle of developing a hierarchy of code structures. The software helps manage and synthesise ideas as a basis for constructing and testing answers to research questions.

The quantitative aspects of this research were completed using the ‘Statistical Package for the Social Sciences’ or SPSS. The software package (now available in Version 10) is a widely available tool designed to cover a broad spectrum of statistical procedures. The package requires data to be entered in numerical values, although some procedures can accommodate alphabetic codes. Recoding from alphabetic to numeric codes can also be done. Devising a suitable coding scheme is an important consideration and the lessons learned over this study would have considerably benefited questionnaire design had they been known before instrument development.

One possible limitation in the data collected is the potential influence of groupthink a characteristic of strong groups that negatively influences thought process and decision-making (Robbins 2001). The effect of groupthink in focus groups can be because of an authoritative viewpoint put by one or more ‘dominant’ participants that tacitly becomes the group position. Alternatively, such an opinion can dissuade other differing and perhaps more original viewpoints. The use of sub-groups and sensitive moderation arguably limited any significant prejudicing effect on outcomes. Moreover, the practice of collecting data from multiple sources further verified and authenticated the information and themes identified.
Section 5.14 Ethical Issues

While security and confidentiality are organisational factors to be considered, the main ethical issue that runs through this study is that of relative power. This issue is of less concern with the workplace based participants and senior officers, but is very relevant when dealing with the cadets in the Defence Academy. Rank and hierarchy is representative of the military environment, but it is particularly evident in an initial training institution, where young men and women are being socialised into the military. Compounding the issue is the fact that the researcher, as a recently retired military officer (rank of Lieutenant Colonel) and still in the Army Reserve, had close contacts within the hierarchy. The circumstances suggested considerable risk for cadets that would ordinarily militate against complete openness. From an organisational perspective, the opportunity is unconditional with no expectation that the researcher would be required to disclose any matters that arose in confidence.

Under the circumstances informed consent is pre-eminent before participation in the research study (Johnson and Christensen 2000). All participants received a plain language statement (PLS) that outlined all features of the study that could reasonably influence his or her participation and a signed agreement is invited. As a rule, participant consent was symbolised by their attendance at the focus group, as this was a voluntary activity. That aside, given the culture of the military, in the workplace the application of a participative and consensual process was viewed by some (particularly senior officers) as unnecessary. Such an approach even evoked a negative response captured in a subject's comment of 'too much tree hugging'. As Resnick and Schwartz (1973) (in Johnson and Christensen 2000: 76) comment, "informing participants of all aspects of the research can, in some studies, totally alter the results". The observation is pertinent to the earlier observation (see section 5.12) that participants were unaware of the research interest in identifying the relative influence between Type A and B leadership styles. Overall, given the relative low risk of educational research, the participative process was applied but with common sense and some discretion.

28 The matter of taking tape recording, copying documents and other data invited sensitivity in terms of physical security and confidentiality. That the organisation is open and cooperative reflects on their attitude, as well as on the researcher being an ‘insider’ known by many of the commanders.
Chapter 5: Research Perspectives and Methodological Framework

Notably, earlier (theoretical) concerns over power and confidentiality related to the officer cadets did not arise. This was perhaps in part due to their healthy confidence and seeming willingness to participate for the organisational benefit. Moreover, aside from rank and confidentiality being addressed openly in the PLS and then repeated early in the focus group preamble, an understanding of the researcher's role in developing the Army Leadership Model and its related training materials diffused residual concerns. As the cadets were familiar with this training material, it seemed to encourage a receptivity of the researcher based on his apparent subject expertise. This background obviously did also lend credibility to the study purpose of attempting to devise a common framework to guide leadership development.

Notwithstanding researcher assurances, the reality of the environment in the Defence Academy, as more than one cadet officer openly admitted, is one that causes cadets to “keep their heads down in the trenches till they get out of this place”. As another cadet participant put it “if you raise your head (above the trench) you are liable to have it shot off” (Journal entry, Tue 2 Dec 2000, ADFA). In context, to invite an open and recorded discussion with a previously unknown researcher risked inviting a negative response, if only a self-censorship of thoughts, by some participants. The selected option, to invite open discussion that an appointed spokesperson summarised on behalf of each sub-group and presented to the larger forum in front of the microphone was, in retrospect, a sound approach. It arguably negated any residual concerns as well as contributed to an action-based ‘constructed’ learning experience for participants.

Section 5.15 Closing Remarks

In closing, the research approach was based on a cross sectional review of leadership development for officers in the Defence Academy. The primary interest was in understanding the influence of the three educational mechanisms of curriculum, pedagogy and assessment. This area is consistent with a growing interest in post-school education and characterised by attention to issues such as open learning and continuous learning for adults. Because methodological questions cannot be extricated from epistemological questions, this study explores the tension between the objectivist and subjectivist
perspectives, and takes a theoretical framework based on an interpretative and constructivist approach. The study method was a multi-method process involving both quantitative and qualitative approaches by way of questionnaire, and focus group and individual interviews respectively.

Overall the research process supported *triangulation* or a matching of information through independent measures or sources (such as people and documents), by method (interviews, focus groups and survey), and by data type (qualitative text, quantitative data and recordings) – see Denzin (1994). The findings are considered context specific and hence only applicable across a narrow constituency. Consistent with this contextualist analysis, there is a need to acknowledge researcher subjectivity, which in turn requires the researcher to make their relationship to the material clear and to ground analysis in participants' own accounts.

For this study, it was the realisation that people were not all having the same experience that sparked an interest in a critical social discourse on leadership development. The motivation therefore is to alter practice by developing theory from a student’s perspective that would enable the fullest expression of the statement: “*Leadership is not so much taught, as it is learnt*” (Army 2000:1-9). It implies active participation by the student and draws attention to individual factors such as personal motivation, self-knowledge and reflection, as well as environmental considerations that support open participation. These issues in turn draw attention to the context and process of training.

Notwithstanding several difficulties and practical limitations discussed, the data gathering process through focus groups and interviews elicited a rich vein of insight into effective development from a multidimensional perspective. There are still viewpoints that have not been explored, including the Academic components of training institutions, the single service training schools, the respective Reserve units and training centres, the Special Forces and finally other specialist military groups such as Defence Intelligence, Military Police and Aviation school. However, as this study is intended as the first in a series of explorations into this area, these and other groups would sensibly be the focus of future research and comparison.
CHAPTER 6: DATA ANALYSIS

“More time is wasted in educational programmes than through idleness”

(Swieringa and Wierdsma 1992: 1)

Section 6.1 Introduction

This chapter outlines the study findings interpreted and discussed in the context of the major research objective: to indicate the relative emphasis of the three educational mechanisms of curriculum, pedagogy, and evaluation on Type A and Type B leadership styles. This objective is considered within the wider research context of exploring the components of the development process that include:

- *Purpose*, addressing the perceived and stated intentions of the program, where teaching and learning are two sides of the same coin;
- *Teaching/learning process* that includes students’ prior expectations and subsequent impressions, the structure and other organisational aspects, and the actual curriculum, the teaching practices used and evaluation strategies; and
- *Learning outcomes*, which includes reported learning approaches, and performance that displays levels of understanding.

The discussion is presented in two sections. The first section concerns the *quantitative analysis* based on responses to a questionnaire-based survey. This section considers the quantitative responses by cadets and representatives in the workplace to a survey questionnaire examining Type A and B leadership styles evident in the educational dimensions of curriculum, teaching practices, and evaluation. The analysis of results draws attention to Type A and B leadership styles in terms of two and three-way relationships of style, cadet or work group and Service type. The observations are presented with the intention of providing a broad quantitative insight into the three educational mechanisms. This section serves as a backdrop to the richer qualitative tapestry represented by the first hand experiences of cadets in the Defence Academy. Their responses are cross tabulated with the views of workgroup and senior officer participants, as well with documents related to the context and purpose of the Defence leadership development process.
Chapter 6: Data Analysis

The second section concerns the *qualitative discussion* based on results drawn from three main research data sets: cadet focus groups, senior officer interviews and seminal writings on leadership by military leaders, and selected subject specific Defence documents. This latter section of analytic text draws attention to key features in the displayed data, knitting them together to make some sense of cadet behaviour in the specific context of Academy life. These observations are also couched within the defined framework for teaching and learning. Senior officer viewpoints are similarly ordered to cross-reference observed patterns by cadets against the experiences and expectations of leadership exemplars within the social system of the wider Defence organisation.

**Section 6.2  Quantitative Data**

The quantitative section of this study is based on a survey questionnaire that examined knowledge, skills and attributes commonly associated with Type A and B leadership approaches (styles). These elements, included fifteen randomly paired questions related to Type A and B aspects of issues such as decision making, motivation (including recognition and reward), risk taking, communication, and flexibility, across the three educational dimensions of curriculum, teaching practices, and assessment (see Appendix 15). Thus, for example:

- Page 2 of the questionnaire addressed leader actions and behaviours in which people in training perceived the *training curriculum* guiding and practicing them.
- Page 3 of the questionnaire examined how the curriculum was delivered in terms of *teaching methods and practices*.
- Page 4 of the questionnaire examined the attitudes and behaviours that were perceived as being *evaluated* most positively.
- Respondents were asked to indicate on a Likert scale of 1-5 the emphasis placed on each element. For example, one pair of questions examined the emphasis placed on 'minimising deviation from rules and standards' (Type A). Later, a randomly located second question examined the emphasis placed on encouraging the ability to adapt and change rules and procedures (Type B).
The purpose of the analyses is to draw attention to the relative emphasis placed on Type A or B approaches in the context of the three educational mechanisms: curriculum, teaching practices and assessment. This purpose was not evident to respondents participating in the survey. They were asked to 'identify their perceptions of specific elements in regard to leadership development.' It was only after the focus group following completion and collection of the survey, that they recognised the research question was seeking to discriminate the 'relative emphasis' placed on Type A and B styles in the curriculum, teaching practice and assessment. The effect was intentional and useful in terms of research plausibility. This point is confirmed by the number of participants who after the focus group remarked that had they known this intention they would have been "even more explicit in the distinctions they made between Type A and B" (Journal entry, Air Force Focus Group).

The point amply made by all of these respondents was that there was a generalised agreement that one style was in much greater evidence than the other. From this study's point of view in terms of objectivity and validity, it was preferable that any trends emerge from the data without overt influence. At this early stage of analysis, this occurrence of a Type A preference over Type B is only a useful 'pointer'. The initial impression requires other evidence before any firm conclusions may be drawn (Miles and Huberman 1994).

6.2.1 Analysis and Discussion

The analysis of results draws attention to Type A and B leadership styles in terms of two and three-way relationships of style, cadet or work group and Service type. The three prime variables of interest are:

- **Workgroup:** comprising the three Service groups of Navy, Army and Air Force. Workgroup was also categorised for analysis into Cadets, SASR, Signals (Army), and Air Force (Point Cook).

- **Leadership style:** comprising two broad categories - Type A (a *command and compliance*) and Type B (a *contingent and creative*) emphasising relational and emergent behaviour.
• Education mechanisms: comprising the three educational mechanisms of curriculum, teaching practices, and assessment.

A series of chi-square analyses was conducted to determine the relationship between workgroup, leadership style and education mechanisms. Frequencies were calculated for the number of responses for Type A and Type B across the service groups (i.e. Navy, Army and Air Force). The process to determine the number of responses for each Type (A/B) was by adding the recorded responses (score of 1-5) for each individual, averaging this total (of recorded) responses to derive the average individual score for Type A and B categories. Individual averages were then grouped and averaged for respective Type according to work group and Service groups.

The tabulated responses in terms of the primary research question examining the relative influence of the three mechanisms in relation to Type A and B styles can be seen in Table 6.1. Across all groups, the results indicate Type B is more prevalent (55.3 percent) than Type A (44.7 percent) for curriculum. However, the relationship is reversed for teaching practices, where Type A is more prevalent (55.4 percent) to Type B (44.5 percent). The distinction in assessment preference for Type A (58.2 percent) in relationship to Type B (41.8 percent) is even more heightened.

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Curriculum</th>
<th>Teaching</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type A</td>
<td>44.7% (n=421)</td>
<td>55.4% (n=538)</td>
<td>58.2% (n=612)</td>
</tr>
<tr>
<td>Type B</td>
<td>55.3% (n=520)</td>
<td>44.5% (n=432)</td>
<td>41.8% (n=439)</td>
</tr>
</tbody>
</table>

These responses are illustrated in a graph (Figure 6.1). The illustrations show a clear increasing and decreasing trend for both Type A and B styles respectively. A Type A style is increasingly evident for the three educational mechanisms of curriculum, teaching practices and assessment methods.
Conversely, a Type B style is decreasingly evident for the respective three educational mechanisms. The trendlines suggest a consistent bias in the mechanisms towards a Type A style. From a teaching professional point of view, it may also suggest that there is less awareness of strategies and methods available to implement consistent with espoused doctrine and curriculum. The relationship between style and education mechanism in terms of percentage of agreements for cadets and workforce is shown in Figure 6.2.

**Figure 6.2: Percentage agreement cadets and workforce for education mechanisms**
A general trend can be noted in Figure 6.2 for both cadet and workforce groups. Both Type A and B styles are evident and there is a general consistency across both cadet and workforce groups in their responses that suggest a Type B emphasis in the curriculum. The pattern is however reversed for teaching practices and assessment where a Type A style is recorded as being more frequent for cadets. There is a similar (Type A) emphasis in assessment reported by the workforce. The responses for teaching practices in the workplace tended to be inconclusive, with little distinction being made between styles. This could be explained by the fact that there is no specific teaching that takes place in a working military unit and hence there is an absence of a comparative opportunity.

The relationship between leadership style and education mechanism was examined for all cadets. There were 2962 valid responses. For Type A, there was a larger focus on teaching ($n=421, 44.7\%$) and assessment, whereas for Type B, the education mechanism of focus was curriculum. It was noted that leadership style was related to education mechanism, $\chi^2 (2) = 39.68, p < .05$. The relationship between leadership style and education mechanism was further examined within each of the cadet service groups (see Figure 6.3) to determine whether there were any differences among the groups.

Figure 6.3: Percentage agreement for cadets by Service group for each of the education.
For the navy cadets, Type A was predominately associated with teaching and assessment, whereas Type B was associated more strongly with curriculum. This relationship was significant, $\chi^2(2) = 9.18, p < .05$. This association between leadership and education mechanism slightly differed for the Army in that the relationship between Type A was stronger for the assessment $\chi^2(2) = 14.55, p < .05$. A similar finding was noted for Air Force cadets $\chi^2(2) = 17.10, p < .05$.

The relationship between the type of leadership style and cadet service group was also examined (see Table 6.2). The percentage breakdown of preferences for Type A was similar across the three workgroups and consistent with the broad trend reported earlier in Figure 6.1. In general, the association between Service and leadership style preference is most evident with Army, although all three groups record a greater emphasis on Type B style in the curriculum. There is a notable trend the other way for teaching and assessment, with responses indicating a stronger prevalence of Type A in the teaching practices and a more pronounced prevalence of Type A for assessment. No significant relationship was found between leadership and cadet service groups, $\chi^2(2) = 2.64, p > .05$.

<table>
<thead>
<tr>
<th>Group</th>
<th>Leadership</th>
<th>Curriculum</th>
<th>Teaching</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Navy</td>
<td>Type A</td>
<td>43.8%</td>
<td>53.9%</td>
<td>54.5%</td>
</tr>
<tr>
<td></td>
<td>Type B</td>
<td>56.2%</td>
<td>46.1%</td>
<td>45.5%</td>
</tr>
<tr>
<td>Army</td>
<td>Type A</td>
<td>45.9%</td>
<td>57.0%</td>
<td>60.1%</td>
</tr>
<tr>
<td></td>
<td>Type B</td>
<td>54.1%</td>
<td>43.0%</td>
<td>39.9%</td>
</tr>
<tr>
<td>Air Force</td>
<td>Type A</td>
<td>44.5%</td>
<td>55.7%</td>
<td>59.9%</td>
</tr>
<tr>
<td></td>
<td>Type B</td>
<td>55.5%</td>
<td>44.3%</td>
<td>40.1%</td>
</tr>
</tbody>
</table>

Another view of the trends within cadet Service groups is illustrated in Figure 6.4 below, which illustrates trends for curriculum, teaching practices and assessment for the respective Type A and B styles.
What can be discerned is a consistent pattern for Type A and B styles across the three service groups for all educational mechanisms. Notably, all three service groups show a rising trendline across the three mechanisms for Type A and a falling trendline for Type B across the three mechanisms. The Type A style emphasis is marginally more significant for Army and Air Force relative to Navy. In terms of the theoretical argument of the difference between Type A and B styles, the broad trend that is evident is similar to that illustrated in the initial graphs of Figure 6.1.

The association between leadership style and workgroup (i.e. cadet versus workplace) was examined for each of the education mechanisms. The percentage of responses for Type A and Type B were similar for the two groups (cadets and workplace) for curriculum, with no significant relationship recorded between Leadership Style and Workgroup, $\chi^2 (1) = 1.76 > .05$, with a greater preference towards Type B. A similar result was recorded for assessment, $\chi^2 (1) = .545$, $p > .05$, with the preference in each workgroup being stronger towards Type A (percentages). There was a significant relationship between leadership style and workgroup for teaching, $\chi^2 (1) = 6.75$, $p < .05$, with the cadets placing more emphasis on Type A than workplace. Workplaces appear ambivalent in their preference for Type A or Type B in teaching practices.
Figure 6.5 illustrates cadet responses compared to workplace responses for Type A and B across the three mechanisms. The pattern again is an emphasis in curriculum on Type B behaviour. However, the reported emphasis in teaching practice and assessment is towards an emphasis on a Type A style of behaviour.

6.2.2 Summary of Quantitative Analysis

In summary, there is a relationship between leadership style and education mechanisms but no significant differences are seen across the three service groups. Over the whole group, the relative influence of educational mechanisms in terms of the two defined leadership styles is as follows:

- The Defence Academy curriculum would appear to have shifted towards and appears to place a relatively equal emphasis on Type B and Type A styles of behaviour.
- The Defence Academy teaching practices and the assessment strategies however appear to have remained (?) as a primarily Type A style. Cadet responses indicate these latter two mechanisms are progressively more inclined to reflect a command and managerial compliance (Type A) style. This tendency is also corroborated by informal interviews with academic staff working at University College in the Defence Academy.
It seems that cadet responses differ from workplace responses in only teaching practice, with a stronger focus on a Type A style, compared to a seeming more ambivalent position in the workplace. In the context of the research question, the results would suggest that teaching institutions are perhaps less successful in shifting towards a Type B approach. Alternatively, the data focuses attention on the importance of giving specific attention to teaching practice in formal settings such as schools and training institutions in the military.

Section 6.3 Qualitative Data

Having considered the broad quantitative trends, we next turn to a qualitative consideration and discussion of the research aim, which explores the changes to leadership development in the context of the changed emphasis in leader behaviour. The research question again briefly is to identify the relative emphasis in the influence of the three educational mechanisms on command and managerial influence (Type A) and participative and relational influence (Type B) styles. This broad question is unbundled in the qualitative analysis that follows into the following sub-questions:

- Which aspects of the process - staff and institutional (socio-cultural) influences, student expectations and impressions and educational mechanisms - stand out in people's minds?
- What is the stated and perceived purpose of the program;
- How do cadets view the curriculum, teaching practices and evaluation methods in terms of the broad paradox represented by Type A/ B leadership behaviours?
- What learning outcomes and levels of performance appear to be emphasised by participants at the Academy?
- What are some of the developmental insights to be gleaned from participants' comments, for future benefit in leadership development programs?

Qualitative data are derived from focus groups conducted with cadets in their respective Service (Navy, Army and Air Force) groups, from interviews from selected senior military officers and from selected Defence reports and studies into officer education and into the Defence Academy more specifically.
6.3.1 Sorting the Data and Initial Qualitative Analysis

To support the qualitative consideration of the research question, the first step was to code the source data (senior officer interviews, officer cadet focus groups, and Defence and other documents related to leadership and education and training) into various themes. Briefly, using the software package NVIVO, the process is to highlight a relevant section (word, sentence, or paragraph) of the data and allocate to a specific node or nodes that notionally acts as a storage bin for related data. The process is inductive and iterative. That is, although there are likely themes (for example, ones based on the questions asked of cadets and senior officers) the initial coding of data into a working profile of tree nodes with related child nodes is progressively built on an iterative sorting of items into categories or themes (pattern coding).

Through partial coding of the source data (coding three documents), it is possible to develop a working draft of the node structure. This structure rationalized for conceptual clarity into eleven root nodes, with related child nodes, is in need of continual sceptical consideration. While patterns quickly emerge, as Miles and Huberman suggest, these patterns need conceptual and empirical testing. The important thing is "to a) see added evidence of the same pattern and, b) remain open to disconfirming evidence when it appears" (1994: 246).

Once the basic structure was organised in broad thematic order the complete source data were coded into respective node categories. Through the coding process, it was necessary to adapt occasionally the decision rules for data coding. Simply, as the researcher became familiar with the process it was possible to discern deeper themes and consequently additional sub-nodes were periodically added. The eventual coding process resulted in 203 nodes. The root nodes (major categories) that emerged in the coding process included: people (cadets, senior officers), culture, structure, curriculum, teaching practices, assessment, leadership, leadership development, learning approaches, and learning outcomes. While it is difficult to verify these procedural decisions, as Miles and Huberman (1994) suggest, attempting to verify procedural decisions "is unnecessary" (1994: 248). Experience, they say has shown that plausibility is often a reasonable guide for procedural
decisions such as collapsing data into a summary table, or to change a decision rule for data coding. Conversely, they do recommend that all procedural decisions made are logged and reported.

A first step to support the qualitative data analysis in this study was the construction of an array profile. Arrays are constructed from source data - listed in three categories of all documents, senior officers, and cadets - showing the percentage occurrence of selected coded nodes in the project. The aim was to provide broad evidence of the three main components of the development process: purpose, teaching/learning process, and learning outcomes. An array profile thus can comprise responses for selected root nodes and their various sibling and child nodes. For example, Table 6.4 shows that eighty-three (83) percent of cadet based data sources identified Type A leaders, while fifty (50) percent identified behaviours coded as Type B. There is as such a plausible quantitative indication of the prevalence of themes in the qualitative data. Allied later to qualitative comments, the data ideally should provide a logical chain of evidence to support the study conclusions and what is deemed useful knowledge for future leadership development.

Officer cadet responses concerning the presence of specific supporting conditions in the development process are displayed in Table 6.3. This table also highlights corresponding quotes for supporting conditions that illustrate polar views on the specific item. The responses illuminate themes in terms of cadet perspectives and experiences of specific elements of the educational process. In terms of the duality of leadership styles that underpin this study, both styles are prominent. However, there is a contrasting mirror image in the emphasis placed on Type A and B styles by the senior officer and cadet respectively. Based on responses, senior officers appear to emphasise a Type B style (75 percent coded responses), while cadets responses report significantly more Type A practices and behaviours (83 percent coded responses).
Table 6.3: Coded responses for elements of the development process (Percent)

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Support</th>
<th>Personal Growth</th>
<th>Personal Qualities</th>
<th>Time &amp; Maturity</th>
<th>Team Based</th>
<th>Type A Leaders</th>
<th>Type B Leaders</th>
<th>Purpose Personal</th>
<th>Purpose - Task</th>
<th>Purpose - Social</th>
<th>Experience</th>
<th>Practical</th>
<th>Challenge</th>
<th>Active/Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Documents</td>
<td>33</td>
<td>26</td>
<td>33</td>
<td>15</td>
<td>41</td>
<td>52</td>
<td>67</td>
<td>41</td>
<td>30</td>
<td>7</td>
<td>44</td>
<td>41</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Senior Officer</td>
<td>25</td>
<td>42</td>
<td>67</td>
<td>25</td>
<td>50</td>
<td>33</td>
<td>75</td>
<td>33</td>
<td>0</td>
<td>0</td>
<td>33</td>
<td>25</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Cadets</td>
<td>83</td>
<td>17</td>
<td>17</td>
<td>0</td>
<td>50</td>
<td>83</td>
<td>50</td>
<td>67</td>
<td>83</td>
<td>0</td>
<td>83</td>
<td>100</td>
<td>83</td>
<td></td>
</tr>
</tbody>
</table>

There seems a broad recognition by cadets of the value of *challenge* and of *practical experiences* in the development of leadership, with all cadet documents recording these elements of the development process (100 percent). As well, the importance of *support* in terms of the instructional environment and organisational structure is highlighted (83 percent). The purpose of training seems to acknowledge the tacit value placed on *personal development* (senior officer 33 percent and cadets 67 percent), albeit within a task based emphasis (cadets 83 percent). Notably, senior officers do not place any emphasis in the interviews on the task-based purpose to training. There was no recorded consideration of social (dialogic) learning. This counter-intuitive outcome needs some explanation, and given the prevalent influences of culture (and structure), any conclusions needs to consider the wider institutional context that suggests social learning is taken for granted as part of the socialisation process within the Academy.

Table 6.4: Summary of coded responses for educational mechanisms (Percent)

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Type A Leaders</th>
<th>Type B Leaders</th>
<th>Curricula Type A</th>
<th>Curricula Type B</th>
<th>Hidden Curricula</th>
<th>Learned Helpless</th>
<th>Performance</th>
<th>Knowledge</th>
<th>Understanding</th>
<th>Pedagogy Type A</th>
<th>Pedagogy Type B</th>
<th>Evaluation Type A</th>
<th>Evaluation Type B</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Documents</td>
<td>52</td>
<td>67</td>
<td>22</td>
<td>11</td>
<td>33</td>
<td>22</td>
<td>37</td>
<td>19</td>
<td>22</td>
<td>22</td>
<td>15</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Senior Officer</td>
<td>33</td>
<td>75</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>0</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cadets</td>
<td>83</td>
<td>50</td>
<td>67</td>
<td>17</td>
<td>50</td>
<td>50</td>
<td>83</td>
<td>50</td>
<td>33</td>
<td>67</td>
<td>17</td>
<td>50</td>
<td>0</td>
</tr>
</tbody>
</table>
A summary of coded responses for specific elements related to the three educational mechanisms and associated learning outcomes are shown in Table 6.4. The summarised data in this table reveals that on face value, both Type A and B leadership styles are evident in the general conversation. Notably however, a Type B style of behaviour is given more prominence by senior officers, as well as in Defence leadership documents. In contrast, cadets seem to report behaviours that accord in greater proportion with a Type A leadership style. In terms of educational mechanisms, there is a noticeable paucity of comment by senior officers on all three mechanisms. This is reasonable to expect, given that theirs is a practitioner viewpoint and not a teaching viewpoint. However, in conjunction with the data displayed in Table 6.4 above, it is possible to infer that senior leaders place greater emphasis on activity and behaviours more closely associated with a Type B style.

Turning to personal development, weighing the occurrence of coded evidence from Table 6.3 as well as Table 6.4, it is possible to infer that personal qualities and personal growth are twin requirements (with task-based development) of the overall development process. Personal development is given considerable emphasis in literature, and is assumed to be within the broad training mandate of the Academy. However, it is important to note the requirement for different teaching and evaluative approaches, to the more didactic techniques normally applied in a task-based environment. These alternate teaching and evaluation approaches for the personal development (and social) dimension accord with learning approaches suited for knowledge-based environments and so with a Type B leadership style. The methodology emphasises active and flexible teaching practice, and includes reflective strategies and on-going assessments that extend a shared responsibility by student and teacher for analysing progress towards higher levels of performance.

This completes a general analysis of the data based on sorting the coded responses into data arrays. The subsequent sections consider specific elements of the learning and development process. These sections will also include direct quotes from selected focus groups and interviews. These comments provide a richness and complexity to the research. They form the tapestry behind the emergence of several metaphors, which are invaluable devices used by cadets to try and make sense of their experiences, and by the researcher to
synthesise data into a single generality or to connect findings to theory (Miles and Huberman 1994).

### 6.3.2 Purpose of the Program

Quantitative responses for aspects of purpose are shown in Table 6.5.

<table>
<thead>
<tr>
<th>Data Sources</th>
<th>Type A Leaders</th>
<th>Type B Leaders</th>
<th>Personal Growth</th>
<th>Personal Qualities</th>
<th>Purpose - Personal</th>
<th>Purpose - Task</th>
<th>Purpose - Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Documents</td>
<td>52</td>
<td>67</td>
<td>26</td>
<td>33</td>
<td>41</td>
<td>30</td>
<td>7</td>
</tr>
<tr>
<td>Senior Officers</td>
<td>33</td>
<td>75</td>
<td>42</td>
<td>67</td>
<td>33</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cadets</td>
<td>83</td>
<td>50</td>
<td>17</td>
<td>17</td>
<td>67</td>
<td>83</td>
<td>0</td>
</tr>
</tbody>
</table>

Based on coded responses corroborated by Defence documents particularly the Review (ADFA 1998), education is not considered of major value. In terms of the weight of coded responses, a task-based purpose (83 percent) is clear. There is an explicit link with personal development in the purpose of training (67 percent), while social dialogic development (0 percent) is not accorded any attention. As discussed in the previous section, this aspect is clearly met by the culture and process of the Academy and single Service training institutions. Thus, it is plausible to infer that this aspect of training - socialisation into the military workplace - is taken for granted by all concerned.

The coded responses by cadets indicate a strong instrumental link between the Academy and their future work (task - 83 percent). It seemed that the educational and development process, at least for this group of cadets who had also been subject to an unprecedented period of change, had been put on hold until after graduation. As one group expressed it:

"we just think well you know this is ADFA, its own little world, it is not part of the rest of the Defence Forces, we just want to get out here and be in the real Defence Force (ADFA, Navy Focus Group 1)."
The purpose of pre-commissioning courses such as the Defence Academy, as stated in an ADF Submission to a 1994-95 Parliamentary inquiry into officer education is to:

"...provide the minimum technical skills and knowledge to begin the first stage of commissioned service. Greater emphasis is placed on instilling the attitudes and behaviour patterns, which engender teamwork, loyalty, and selflessness. The training is structured to encourage self-confidence, self-discipline, initiative, enthusiasm and the will to see the task through" (JSCFADT 1995).

It is worth noting the behavioural (character) and functional (competence) emphasis of the ADF statement. The statement arguably defines a Type A leadership program in purpose and content. It is also interesting that the 1998 Defence Academy Review in citing this statement interprets the role for staff as "moulding attitudes and behaviour" (ADFA 1998: 7-35). Thus, even this critical review of the Defence Academy processes tacitly enshrines the role of the Academy as one of socialisation to a culturally determined ideal over personal development for its own intrinsic sake.

The emphasis of the above documents is in contrast to the weight of comment by senior officers in favour of what is closely aligned to a Type B style of leadership. Moreover, they are in contrast to the needs of what the Defence White Paper describes as a 'knowledge-based environment'. Such an environment places a greater emphasis on self-understanding, hence on personal growth and personal qualities and on teaching strategies that are active and critical pedagogies, while at the same time not diminishing task and social acculturation outcomes. Consistently, senior officers valued personal resilience and the ability to communicate both vision and purpose in junior leaders.

Other valued personal attributes included cognitive and attitudinal skills such as the capacity for analysis, decision-making, judgement, and openness to learning that also supports the later need for officers to transition from the operational military world into the bureaucratic jungle, a common metaphor used to describe Russell Offices in Canberra (Defence HQ). The metaphor is apt, as many competent 'field' officers find the office environment of higher defence headquarters unfamiliar and not to their liking. These office environments are like jungles, dark and mysterious, and holding hidden challenges and
threats by the nature, for example, of the diversity in tribal styles (Defence civilian, Navy, Army and Air Force) and the complexity in requirement. Despite an operational preference, the reality is that all officers will encounter at some stage the need to shift to fulfil a 'staff' role in headquarters. Despite operational competence the transition can prove to be difficult and beyond some. As one senior officer says there are:

“…stages of an officer’s career: warrior, technical and a bureaucrat. Not everyone can make the translation from the operational world …into the bureaucratic world” (SO6).

On a similar theme but much wider scale, the Joint Foreign Affairs and Defence Committee review (1995), noted the system of providing academic studies and professional military education to officer cadets and officers of the ADF needed to be capable of producing officers who could operate effectively in the changed (strategic) environment. To illustrate the requirement, some areas of knowledge (within eleven subject areas) identified by Smith (1998) as having practical relevance and essential for inclusion in officer education under the rubric of professional studies include:

"Ethics… focuses on the moral duty of the officer to develop and exercise qualities of personal integrity and loyalty, but must be based on a deeper understanding of moral reasoning rather than mere doctrine.

“Military law needs to emphasise not just the formal requirements but the nature and basis of legal obligation [as well]" (Preparing Future Leaders, Smith 1998).

The general concern is that the system is not asking people the types of questions that allow individuals to develop as leaders, a task that is not exclusively at combat leader level. The Committee (1995) noting the long lead times involved in producing middle and senior ranking officers in the ADF, comments on the imperative for the system of officer education to prepare these future leaders to be in place today. The need also prompted them (the Committee) to question the format of delivering military and university-based education at the same site (Defence Academy). Comments by senior officers illustrate continuing challenges in defining the purpose of the Academy program.

“…they have to come to understand themselves and find within themselves that which is the gift of their leadership potential. They really need to have that central
core [self]… they will be able to influence, inspire and get people to serve their best if they can get in touch with that essence and that needs some introspection" (SO4).

"too much obscuration of what the real problem is and what our real business is. …I think training [is needed] in this staff environment, because that’s where leadership is increasingly [practiced]. …so we have to confirm our staff environment and practice people in achieving this" (SO6).

Arguably, debates about the nature and purpose of military centres of learning such as the Defence Academy are likely to continue. Nor are these debates confined to Australia, and institutions, which have their origins in the nineteenth century, are likely to face major reassessment in the twenty-first century. Evans, a military historian, calls for “an enlightened approach to the education of future leaders” (Evans 1998: 140). In terms of leadership development, the following comments add further insight.

“Selecting and developing our future leaders to be creative, intuitive and dynamic is the most important task we face” (Sanderson 1998: 230),

“…it is an illusion to believe that leaders gain in profundity while they gain in experience. The convictions which senior officers form before reaching the pinnacle of their careers tend to remain unchanged” (Evans 1998: 140).

“…professional studies is the area which at present needs most attention from armed forces concerned to improve the level of learning in the officer corp” (Smith 1998: 166),

“To deal with the … revolution, military organisations need to make not only technical adjustments but also a cultural adaptation towards the values of cooperation and inquiry” (Smith 1998: 152).

The study of leadership perhaps more than any topic needs to be intellectually stimulating rather than simply exhortation to emulate the eminent. In terms of program purpose and the Type A and B debate that is the subject of this study, the study of leadership can be reframed as a balance between foundational skills directed at task accomplishment and learning that is characterised 'by replication or conformity' (Type A), and the development
of cognitive abilities and other, by definition, Type B creative approaches. The latter approach emphasises intellectual stimulation, critical thinking, as well personal growth, and personal qualities. The emphasis is consistent with the views of senior officers on leadership capability (see Table 6.5). This capability was previously described (in chapter 4) as meta-abilities.

Senior officer responses reported both Type A (33 percent) and Type B (75 percent) and no recorded emphasis on task related activity, which seemed to be taken for granted. The emphasis was on personal qualities (67 percent) and on development of higher order meta-abilities or skills. Cadet responses in this table are broadly distributed between reporting both Type A (83 percent) and B (50 percent) elements in program focus. Cadet responses also acknowledge a strong personal (qualities) development aspect (67 percent) to training beyond the task-based emphasis (83 percent). This dual emphasis is consistent with the intent of the ADF statement cited earlier. The qualities being emphasised are evident in the following statement:

"values was a big one… yeah, and also the, it’s either values of um, thinking of ethics and how to decide what is more important … being confident and decisive… taking responsibilities for decisions as well - they're the bottom ones we stick with, that’s for sure…” (ADFA Army Focus Group 1).

These qualities are somewhat different from those articulated by senior officers. In the context of development, these qualities are more akin to the development of externally based behavioural qualities of confidence. This is contrasted with the qualities associated with a deeper inner confidence (self-awareness) and personality attributes of strong internal locus of control and self-efficacy that is associated with resilience and the capacity to take control of events. People with an “external loci of control” (life is controlled by outside forces) are likely to be more passive and feel helpless (Robbins 2001: 568). Noting the task and socialisation focus of the program, the following response flags the apparent naïve level of development and the perceived basis (external versus internal) for leadership influence:

"I think it affects you … how things are … and who does what and who tells who what to do. But, I think as far as our personal development and everything goes by
the time we get out and actually commanding people we’re going to know what we have to do and they are going to do what we tell them just because we are in a position to."

In addition, more from the same group:

" ...at the same time we also learnt that we know who is higher than us and we know that if they do tell us what to do that we have to" (ADFA AF Focus Group 1).

Arguably, the unintended consequence is conformity and compliance with a strong default towards a command and managerial (Type A) style. This is unlikely to be the intent of the program. Rather, it seems reasonable to infer that the result is in greater measure due to the weight of the Academy and Service military training processes. Overall, when asked what they perceived the purpose of the training to be, responses indicate cadets were unclear. Some offered the party line, suggesting it was "to prepare us to be officers in the Australian Defence Force. That’s what they all say." When pressed to identify what they thought was the purpose, responses highlight a shorter-term focus.

“...I think it [is] to prepare us to get through the leadership challenge [exercises in the Academy program] (ADFA AF Focus Group 1).

"Most of them [opportunities] are more admin than even leadership, they just listen, yeah more admin..." (ADFA Army Focus Group 2).

"I actually sometimes wonder whether ADFA knows where it is going with its leadership training or whether it has been written in the doctrine that ADFA is an institution for training leaders and therefore that is what they do" (ADFA Navy Focus Group 1).

Cadets see a stark difference between Service and Academy leadership training approaches. For example, the perceived limited behavioural intent of the Academy leadership focus compared to the parent Service approach is evident in this next passage.

"I think that in terms of characteristics of leadership I have been taught 2 things, one set from here, and one set from my OTS. Here I know that when I go out …I know exactly… [not audible]…that I can carry a pack, I can carry as much as they
can, I can walk as far and I won’t whinge, I won’t complain and that is all I can check, I won't squeeze [academy slang for complain]” (ADFA Navy Focus Group 1).

The characteristic Army bias in the leadership approach of the Academy is a repeated issue and the issue is stated succinctly in the following cadet observation.

"I think that they need to make the leadership more tri-service, like it is not relevant to the Navy and it is not relevant to the Air Force, the leadership exercises that we do" (ADFA Navy Focus Group 1).

Whatever the flavour of the leadership approaches in the Academy, there is a reasonable basis to infer some uncertainty over program purpose. A strategic element to the challenge is to also understand why people join the Defence Forces and reconcile recruitment strategies with the 'hidden curriculum' that is given life by endemic beliefs such as "service" to the country, the popular view of several senior officers (see SO 7). On the evidence, service is not the prime motivation for cadets. The risk, as one senior officer noted, in this disconnect is that: "we can go along developing all these people thinking that’s [service] what they’re here for and find that they’ve been developed completely the wrong way, that they are here for something else" (SO7). At an operational level, the following statement provides an insight into expectations, impressions, and program purpose.

“…one of the biggest driving factors here is the regiment and it’s probably one of the few units within the Army that has an operational focus, probably the whole time" (SASR Focus Group).

Within the Defence Academy, despite the Academy charter and other public documents, the clouded issue of purpose is reflected in the tension between academic process and professional military education. While this issue was not examined directly, it is evident in the many of the documents reviewed. It is also evident in the following remarks by a former Defence Academy cadet:

[the academics]" were constantly wrestling for control of the cadets. They saw it as university and … [name mentioned] …I studied under him and I had a lot of respect for him but he was… one of those guys who said if I had my way you guys
would come to university in civilians, you’d be called Mr and in your holidays you’d go off and play in the bush, and that would be the only time you’re exposed to the military" (SASR Focus Group).

It is reasonable to infer that the academic, who presumably had an interest in and regular contact with cadets, could see another, and in his mind better, educational option. However, as the same cadet goes on to clarify: "Now I fundamentally disagree with that because we’re not a university, we’re a Defence Force College and the academics are getting stronger every year..." (SASR Focus Group). That is, there appears to be a strong desire for vocational clarity. The comment highlights an endemic them-versus-us relationship in academic and professional military education.

Aside from the need for clarity and alignment within the component parts of the institutional structure, the vocational pressure is inherent in the philosophical debate between utilitarian and more liberal views of education. The debate is not a new one in relation to the Academy. In 1980, when the Defence Academy was in prospect, the recently retired Secretary of the Department of Defence, Sir Arthur Tange, voiced strong concerns about the trap of relevance, as the following passage illustrates.

"… I beg the academics to resist oversimplified Service faith in utilitarian and career oriented studies. The quest for relevance would undermine the disciplinary rigour that future officers required. Tange was appealing to the “classic enlightenment model of education, rather than an engineering model" (Moskos and Wood, 1988, p. 279, cited in Smith, 1998).

While this debate is a long running one, the job of the military officer has also shifted significantly. The responsibility of a military officer is now acknowledged as being more demanding. This is due to matters such as the changing strategic environment, closer regional ties, new technology, and complex resource and management issues. The implications for future leaders are also most evident, based on the following passages:

"The intellectual demands on the military profession are without precedent"

“…soldiers, from the highest rank to the lowest, need to be able to think independently but still act as part of a whole" (Smith, 1998).
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In addition, even more recently, a comment attributed to the current Chief of Army, Lieutenant General Peter Leahy, "the strategic corporal is a reality, not a cliché".\textsuperscript{29}

The points being made favour flatter command structures to support rapid decision-making in a digitised battlefield, and which will challenge hierarchy and Service-based parochialism. These remarks arguably reinforce the intellectual element of leadership over the more direct physical style that is also underpinned by a qualitatively different value structure. These apparently well-recognised arguments presuppose a lesser-recognised need for profound transformation in the military and in its leadership ethos. The role of education has a large part to play in achieving this transformation. Some methods suggested by Smith (1998), for example, include adapting the military ethos towards one that shares a commitment to learning, developing habits of mind that allow debate without dogma and facilitating equality within a hierarchy. As such, education is about inculcating values as much as 'vocationally focused' expertise.

A thought provoking capstone to the purpose of the development program is provided by the following observation by Elliot Jaques on cognitive abilities (Jaques 1998). Jaques observes how people's problem-solving abilities develop through youth and maturity in predictable patterns. This means that each person has an inherent potential for cognitive development and is thus equipped to rise only so high, and no higher, in an organization. Learning and experience, he says, will enhance skills and knowledge, but no amount of positive thinking can change our potential to approach problems in increasingly sophisticated ways. The bottom line to what Jaques is saying is that some people are born with the ability to attain senior management and some are not. In a culture obsessed with self-improvement this amounts to a major heresy (Jaques 1998).

\textbf{6.3.3 Prior Expectations and Cadet Impressions}

For students exiting year 12 with no military experience, there is a consistent stereotypical view of military culture, partly informed by movies. Cadet expectations included the anticipated impositions of discipline, a belief that the system would place people under immense pressure, the need to work long hours and a lot harder than they were used to.

\textsuperscript{29} Paul Dibbs, 'Defence Policy is on the Money,' Opinion, The Australian, Wednesday, November 13, 2002
Another common belief was that cadets needed to be fit, and that if they could run and ‘stuff like that’ it would be okay. There is a utilitarian motive of expecting to be paid, and the need to get used to a different culture seemed the price to be paid.

To paraphrase the words of a cadet, as far as leadership was concerned there was a definite preconception that it was going to be a very authoritative - a 'do as I say' mentality. This expectation turned out to be more than true for the six or so weeks of initial induction training, when cadets are introduced into the military life. Yet, despite this early and apparently somewhat harsh experience, it is noted that subsequent experiences through the years were reported as being disappointing as well as being significantly different from the general expectation of the cadet group.

"I was expecting to be put under pressure rather than just being told to go and do things and being left to do what was expected. I expected people to be continuously coming up and seeing what was happening and putting pressure on us to succeed" (ADFA Air Force Focus Group 1).

"Yes. I was expecting that we would get yelled at heaps but then we went out …and did normal … stuff. It was a buzz and it was a big shock as I [had] already prepared myself for being yelled at" (ADFA Army Focus Group 1).

The question inviting cadets to outline their subsequent impressions of the Academy - you expected those sorts of things, what did you get - provoked what have I done amusement and derisive laughter. One student, who could easily have been speaking for his whole cohort, noted the Academy did not fill out expectations and that as the years progressed the place had basically "just become a university" (ADFA AF Focus Group 1). Other notable comments in terms of the espoused purpose to develop professional abilities, and qualities of character and leadership include:

"There has been no real military training" and "don’t think it has [a] real leadership curriculum, the first year had a leadership curriculum, other years they’ve had … all that sort of things but we’ve sort of been forgotten about" (ADFA AF Focus Group 1).
"…you think what the hell has this got to do with the Army" (ADFA Army Focus Group 1).

"… overall, I think you expected a more set down program and more consistency because everyone was doing different things (ADFA Navy Focus Group 1).

These observations gain greater perspective when they are considered in context with the following comment in the report by the Review into Policies and Practices of the Academy (ADFA 1998). The report notes: "of the time that any cadet spends at the Defence Academy, the most crucial is the first eight week period. ... By about the eighth week, the average cadet looks like, thinks like and to a very great extent 'passes for' an ordinary Defence Academy cadet". For these cadets, there is a plausible argument that the teaching and instructional strategies actually practiced are at cross-purposes with the espoused goals of development. Overall, socialisation processes seem to prevail.

With few exceptions, cadets expressed strong dissatisfaction with Defence Academy leadership processes, preferring their respective single Service approaches instead. Comparing these positive and negative responses to development shows that realism and context are fundamental to leadership development processes. Simply, cadets responded positively to practices situated in the kinds of environments they expected to work in. Coincidentally, respective Service teaching approaches were also preferred. While difficult to verify, the many comments and anecdotes suggest that, aside from realism and context, some other factors influence the negative reactions by cadets. The explicit Service preference also reflects the degree of respect shown to the trainee, the perceived distance of people in authority and training staff not being directly associated with evaluation (compared to the Academy). The clear cultural bias for their Service is exacerbated by the prevalence of a transplanted foreign (Army) and perhaps uncertain Defence Academy culture.

"ADFA and OTS … they are very, very different approaches to leadership training. ADFA does it with the airy, fairy, like stuff, scouring around the topic you know a couple of brainstorming sessions and at OTS they say “This is a leadership world,
this is what you have to do”, they show you videos, and they take you out to do countless ...(ADFA Air Force Focus Group 1).

"It’s definitely a different style between the way the navy teaches and the way ADFA teaches" (ADFA Navy Focus Group 1).

"I think the … officer has got a much more personal approach to discipline and in his training and all that whereas a lot of the Army staff are like they’d take action straight away like no doubts about this" (ADFA Army Focus Group 1).

“There is a great divide between the divisional staff and the boss and you're given no respect that you would give any person…” (ADFA Navy Focus Group 2).

One conclusion seems clear: the teaching environment is not an accurate representation of ideas that emerge from adult learning theory. As a foundational experience, in-practice theory is characterised by a Type A style. One imagines that if these cadets were able to access other options in leadership development they might have elected to take them.

### 6.3.4 Culture and Structural Influences

Many of the cultural features identified in the Review (ADFA 1998) are still relevant to this study. Further discussion is focused on specific themes that emerge in the context of student engagement with the teaching/learning process as highlighted in Table 6.6.

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Cynicism</th>
<th>Physicality</th>
<th>Type A</th>
<th>Type B</th>
<th>Symbols</th>
<th>Service Aspects</th>
<th>Double Standards</th>
<th>Changes</th>
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</tr>
</tbody>
</table>
Maintaining the balance between control and freedom, between conformity and creativity is one of the more difficult challenges facing any Army (Smith 1998). Reframing this challenge in the context of a duality of leadership styles, the choice is between fine-tuning mechanisms to ensure induced (Type A) behaviour that conforms to established strategy of the organisation, and autonomous (Type B) behaviour that falls outside established strategy. While education and development are generally regarded as core in preparing future generations of officers, the challenge between conformity and creativity or between induced and autonomous behaviour is very much in evidence in the Academy structure and culture. The observation by Dr Downes in reference to the institutionalised nature of professional officer education (in JSCFADT, 1995) is symptomatic of the paradox present in Academy processes:

"We require people who can demonstrate huge amounts of initiative on the battlefield. Yet we spoon feed them in developing their own minds in this particular instance [the Academy]" (Downes in JSCFADT, 1995: 138).

Duality or paradox, which is a common sociological concept, presents a clear challenge to leadership development in the Defence Academy. The culture appears to be a task-oriented and pragmatic (either/or thinking) approach, with little evidence of accommodation or flexibility (both/and thinking) in Academy practice. The need is for a broader even lateral perspective to addressing the issue. As a comment cited earlier observes: " …we can go along developing all these people thinking that [service to country] is what they’re here for and find that they’ve been developed completely the wrong way; that they are here for something else" (SO7).

The downside to taking a one size fits all approach rather than also addressing individual development needs is evident in the following cadet remark.

"I am pretty scared about going out there in less than 5 weeks time and having to do my job and I think that is pretty scary and looking back on it, I don’t think I have learnt that much leadership wise at ADFA" (ADFA Navy Focus Group 1).
The challenge is to meet the perceived needs of the Defence institution, as well as the individual developmental needs of the cadet body. When these two variables are compared, there is little evidence of different teaching methods and assessment strategies being put into place. What seems to prevail is Type A methods - didactic, task focused, and a preference for decisive (managerial) action, with little administrative latitude. Typically, military training schools such as the Defence Academy have a command structure and are staffed by primarily uniformed personnel. The inherent power and authority within the Defence Academy culture permeates the language, the forms of address and the behaviour. For example, military rank and titles are used in the educational environment as well as within the cadet hierarchy. There is also an absence of educationally oriented staff in these institutions (Wilkinson 1998). The fundamental concern is with moulding new recruits and this focus is reflected in this next passage.

"In the first six weeks you basically just polish shoes and learn how to walk… dressing, learn how to walk, talk, everything is reconstruction, total” (ADFA Army Focus Group 1).

However, it is also apparent that cadets adapt to the system over time, and the system subsequently does not appear overly radical.

"I think that’s got to do with adapting to the culture though… but over time a lot of things because you’ve been here 3 years you sort of get used to the culture and you start to see things as the norm" (ADFA AF Focus Group 1).

As well, there is considerable personal development that occurs despite the perceived (by cadets) absence of a formal leadership program, as is evident in these comments:

"we don’t have a formal leadership program as such, …I don’t know how much that actually counts for, I mean sure it might have helped us in LC3 if we had a few lessons about how to give instructions out in the bush but at the same time I think it’s more personally developing over the 3 years and being around officers and being within a hierarchy that you know. You learn your own leadership style and develop personally"
"I found that the majority of leadership skills were learnt over the years or developed and comes through sport…going out with mates [and] working out challenging situations …"(ADFA Navy Focus Group 1).

The program obviously works at some level, with evidence also of an aspect of the hidden curriculum. For example:

"…on the back of the toilet doors there’s a list of leadership qualities, and there’s fifteen of them and there’s things like ability to communicate and honesty, and integrity and responsibility and stuff like that" (ADFA Army Focus Group 1).

As another cadet comments: It’s all subliminal …developing your leadership style" (ADFA AF Focus Group 1). In this sense, the question is what socialisation role does the Defence Academy serve? There is an overall sense of confusion in observing the process. This remark by a serving officer [and not on staff at the Academy] after one of the focus groups is noteworthy:

"they [the Defence Academy] are producing a good officer despite their efforts" (Journal note: 5 Dec 00).

What this perceived quality equates to and how it might be best developed is open to argument. There appears to be little clarity on this subject. However, what is clear is that for many of the cadets there is a deep sense of frustration with Defence Academy culture and the existing organisational structural features.

"I think at the moment most of us really do not care what happens, we just want to get out there and… been frustrated by all these little things that go on and we just think well you know this is ADFA, its own little world, it is not part of the rest of the Defence Forces, we just want to get out there and be in the real Defence Force (ADFA Navy FG 1).

A broad alienation experienced by these cadets is evident. One issue that emerges is over the quality of cadet 'engagement' with the teaching process and the consequent outcomes in the learning process. As the Review of Academy policies and practices (ADFA 1998)
explains, cadet culture has formed to "protect cadets from the ultra-critical, rigid, unsympathetic eyes of an over-expectant institution which does not accept failure as a part of life and the learning process, and does not consider encouragement and personal interaction as part of being a good leader" (ADFA 1998: para 822). Under the circumstances, the following summation of the development process is also understandable.

"You either conform to the cadet culture and believe in all the bullshit you are shovelled, or don't and play the game; either way you die as a person" (ADFA 1998: 822-825).

Cadets allude to the overwhelming influence of ADFA culture in many comments. The paradox of the Academy is best articulated by a comment from the 'Report of the review into policies and practices to deal with sexual harassment and sexual offences' (ADFA 1998). On the positive side, the Review concludes it is difficult to spend any time at the Defence Academy without being struck by the quality and commitment of the people there. Nonetheless, the Review also concludes that the Academy does not fully achieve its potential. On the negative side, the Review flagged the evidence of seemingly "decent and personable young men and women engaged in extraordinarily nasty and brutish activities". Overall, there was a evident lack of balance and/or realism with regard to roles and other aspects of the broad culture, including what it terms as a preoccupation with preparation for combat (ADFA 1998). One can only speculate over the possibility that another aspect of the hidden curriculum, perhaps unconsciously, is the subliminal recognition of brutalisation as a necessary part of combat readiness?

Turning next to instructional (or directing) staff, their role is described as being in part to guide and mentor cadets. However, it is clear that cadets fail to perceive their directing staff (obviously with some exceptions) in this role. Nor do cadets view them as agents of positive influence. The 1998 Review identified this issue, citing workload and the lack of adequate skills as factors in diminishing the role of staff. The responses from many cadets would suggest that the solutions are much deeper than more "Defence Academy specific
Training" that presumably precedes or overlaps a posting into the Academy (ADFA, 1998: 7-35). Three issues related to Directing Staff (the ADFA instructional staff) emerge:

- the unclear and mixed roles for instructional staff,
- the perceived credibility or lack thereof of instructional staff, and
- the lack of knowledge and skills, and necessary experience to support their teaching role. This latter point is also noted in another earlier study of Naval instructional processes (Wilkinson 1998).

These three issues are evident in the 1998 ADFA Review. The problematic nature of the issue and the strong cultural influence is illustrated in the proposed solution by the Review. Having noted that staff could benefit from studying academic units in leadership and management, the Review recommends:

"...this would allow staff to monitor more closely cadets’ attendance and behaviour at lectures and to interact with cadets in tutorials" ADFA, 1998: 7-36).

The primary motivation appears not to be a training issue but a cultural and structural need to monitor cadets to ensure desired behaviour. It is unlikely that any interaction is likely to be viewed as safe and the proposed solution, under the circumstances, is likely to be counter-productive to the desired learning outcomes for both cadet and officer. From the staff's perspective, ADFA is under such scrutiny and pressure that staff were described as "just wanting to survive" (Journal note: Tue 5 Dec 00). Thus, the environment seems to contradict basic needs for successful learning - such as a safe place and the need for timely and positive feedback. The overall process also seems to be directly opposed to what several senior officers idealize as the primary aim of leadership development: "to find your own voice" (SO 4 quoting Admiral Chalmers, ex Chief of Navy).

Coded responses (see Table 6.7) reveal an interesting coincidence of cynicism, them-and-us beliefs, and Type A styles of leadership behaviour. That aside, two features that appear to stand out in the coded responses to Academy culture are an apparent cynicism by cadets and a more widespread attitude of them-and-us. The latter feature has previously been alluded to in the context of academic versus military relationship. A them-and-us attitude is also characteristic: in the relationship between cadet and instructional staff in the
Academy; in the enduring inter-service rivalry across the wider Defence community; and in the endemic tension between uniformed and Defence civilian staff.

In terms of the staff-cadet relationship, the following comments are indicative:

"...we tried [to exercise initiative] ...throughout the year and we organised everything, all we needed was a staff signature on the bottom of the admin instruction and they stopped it in all 3 cases. So while they were preaching to us okay have initiative, do things for yourselves, create your own opportunities, they were not signing anything, they were not trying to facilitate what we had tried to achieve ourselves" (ADFA Navy Focus Group 1); and

"The more trouble you’re in the more contact you have with them" (ADFA AF Focus Group 2).

Interestingly, despite the criticism of the Defence Academy culture and leadership style being too Army-like, the Army cadets themselves appear disaffected. The next passage provides an insight into this disquiet with Academy processes.

“...the academy system… their own little order and niche you think what the hell has this got to do with the Army"; and

“...the only reason we ask how high to jump and we jump is because we want to graduate and get out of here. It’s not because we want to" (ADFA Army Focus Group 1).

Another noteworthy aspect of the culture is the emphasis on physicality in the leadership. While there is a positive aspect to this, the emphasis on physical challenge to the exclusion of other forms of challenge is apparent and regarded poorly by cadets.

"I found that a lot of people found it challenging and that’s good because you realise things about yourself …but I think it was more a physical challenge instead of a leadership one because we are not very often going to be put in situations where we will have to lead under those [physical] circumstances" (ADFA AF Focus Group 1).
"…if you had a lower fitness standard then … you automatically didn’t get as much respect from your peers just because you couldn’t keep up" (ADFA AF Focus Group 1).

"…leadership characteristics that were indirect and passive, but we also believe that at ADFA leadership is basically more physical and that [if] you can hump a pack or do a stretcher carry, you’ll get more respect out bush and things like that so you will be able to be a leader a bit better and that it shouldn’t be as physical but a bit more mental …activities where you are require to actually think" (ADFA Navy Focus Group 2).

Considerable changes have been made in the culture and structure of the Academy since the 1998 Review. However, there is still a split paradigm between the, on the one hand, relaxed university lifestyle and on the other the occasional frenetic activity of military training. Noting the Academy did not fill their initial expectations, cadets comment that from induction training through to first semester academics, the place 'totally changed', in their words "basically becoming a university" (ADFA AF Focus Group 1). The split and hugely different approaches required are evident in the following passage:

"…and then when we go and do things like Leadership Challenge 1, 2, or 3,… they want to change our whole way of thinking for just a week…[ then] it seems to become like it was… we just slip right back into our normal lifestyle" (ADFA AF Focus Group 1).

Cadets also contrast academy structures with the perceived more reasonable, down-to-earth styles evident in a working ship or military unit. For example, a naval cadet reflecting on his experience of a very personable approach by the ship's Captain in the wardroom (eating quarters) contrasts it to what he encounters in the Academy.

"[If] you see someone come up to you and you’re like shit what have I done wrong or something like that, I just reckon there is a bit of a divide between staff and it is not necessary and....." (ADFA, Navy Focus Group 2).

The approach to control and freedom and to conformity and creativity by the Defence Academy when compared to an operational workplace or ship appears to be in stark
contrast. Some instructive insights into another developmental approach can be gleaned from the following comment from a trooper in the SASR.

"Yeah, most of the guys that come here anyway are reasonably mature… By the time they actually start exercising in any type of leadership [position] they’ve been here maybe three or four years, they’ve probably been in the army for three or four years and have got seven or eight years … beforehand. So when they start exercising [leadership], they’ve got a fair bit of an experience base… and this base will generally give the guys, if they have the ability, they’ll do it, rank’s not a big issue" (SASR Focus Group).

While the context is different, the points to draw from this comment are the emphasis on time and maturity and on learning in the workplace. It is also clear that leadership is not associated with rank but rather with ability. While not stated specifically, the comment on ability alludes to possessing deep personal qualities founded on a core level of competence.

There is a broad appreciation amongst cadets of tangible differences in practice between the Academy and the workplace. An Army cadet, ostensibly operating in the least foreign culture of the three Service groups in the Academy, comments:

"You think what the hell has this [the academy system] got to do with the Army. No-one in the Army does it [have to stand]; they [ADFA] think we still [need to] excuse ourselves (sic) to walk through a room…." (ADFA Army Focus Group 1).

Awareness of the difference and a clear preference for their parent Service style is common for all three cadet groups. This preference is usually explained in terms of a perception of program credibility that seems founded on practices equating more closely to real [Service] life. Cadet cynicism is given further impetus by the common perception by Navy and Air Force cadets of the bias towards Army leadership styles. The Army style in teaching methods of directing staff (DS) is caricatured in the following passage:

"…all the academic basis and theory behind leadership that they do down at OTS, … has got credibility to it, but at ADFA, a lot of briefs that we get, you can see that an Army DS has sat there and said “Okay what makes a good leader? Okay they have to have physical courage, they have to have …and they make up their
Overall, the perception of the cultural and structural environment is not a positive one. Cadets, discussing a comment made by an external participant observer of the process, noted that: "he thought it was utterly ridiculous that people although younger than him (cause he’d just done a degree) assumed sort of responsibility and positions without any sort of particular competence, and that the system would grant them the right to do that". The observation provoked the following insightful, self-critical response:

"It made us look at it in a different way and we saw his perspective as well, just a bunch of people living out some sort of leadership fantasy world" (ADFA Army Focus Group 1).

This observation of a 'fantasy world' seems an apt note to close the discussion of the culture and structural processes in the Defence Academy. Noting the tension between desired Type A (predictable) behaviours and emerging Type B (autonomous) behaviour, there might be a tendency to try and fine-tune structural context to ensure desired outcomes. Over time, these increasingly elaborate structures can successfully reduce the probability of failure, in this case presumably the incidence of unpredictable behaviours. However, Reeves, Duncan et al., citing Burgleman (1983), point out the results can also be that the range and scope of strategic behaviours become narrower (Reeves, Duncan et al. 2000). As well, over the same time, autonomous behaviour, which provides the raw material for strategic renewal is also likely to decrease. That is, if autonomous behaviour and a capacity to undertake strategic renewal are valued and desired, the constant fine-tuning of existing structures will eventually be a self-defeating activity.

### 6.3.5 Views on Curriculum, Teaching Practices, and Assessment

This section considers in turn the specific responses by cadets to curriculum, teaching practices, and assessment components of the program. Table 6.7 highlights selected responses for the three mechanisms, in context with responses to indicative leadership styles. Reviewing all categories (curriculum, teaching practice and assessment), the clear weight in coded responses by cadets is towards Type A styles of behaviour. Conversely,
senior officers who have little to say about the three educational mechanisms are noticeably inclined towards a Type B style of leadership. Overall, the bias towards Type A over B styles is consistent with quantitative data, but is more pronounced in trends.

Table 6.7: Summary of Curriculum, Teaching Practices, Assessment (Percent)

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<tr>
<th>Data Source</th>
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<th>Leadership - Type B</th>
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<th>Curriculum - Type B</th>
<th>Curriculum - Hidden</th>
<th>Teaching - Type A</th>
<th>Teaching - Type B</th>
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The 1998 Army conference on *Preparing Future Leaders* (Smith, 1998), notes that to operate effectively, junior leaders require a deep understanding of strategic issues. The document also notes that it was ironic that, just as Army is accepting the need for greater autonomy in conducting non-linear operations, it is being confronted with enormously high levels of accountability at all levels of command. It is somewhat unsurprising that a common theme in terms of leadership responsibility is that "it is getting more complex" (SO9). In contrast, the following remark illustrates what a cadet perceived as being emphasised all the way through training.

"On the back of the toilet doors there’s a list of leadership qualities, and there’s fifteen of them and there’s things like ability to communicate and honesty, and integrity and responsibility and stuff like that, and that’s all I had written down. That’s something that’s been emphasised all the way through the training, yeah, integrity and all that stuff." (ADFA Army Focus Group 1).

Not only is strategic perspective an issue of concern as we move into a more complex world, but arguably leaders from sub-unit level upwards also need to have a much greater understanding of the political imperatives (SO9). However, what were the messages about leadership? In the data gathered, there is reference to behaviour and character, but a total
absence of the bigger contextual picture. Some typical comments from cadets, highlighting a value-based emphasis on an ideal leader is shown.

"What values, knowledge and skills is the curriculum trying to impose on us? We said lateral versus logical thinking, um, good/bad attributes of an ideal leader …” (ADFA Army Focus Group 1).

It was all about walking, how far you could walk, and how well you could carry a pack, and quite frankly, it was just irrelevant…” (ADFA Air Force Focus Group 1).

Aside from physical capability and a character-based values emphasis, there is other evidence of a hidden curriculum. For example, when tasked to build a bridge as part of a leadership activity, a cadet having no idea sought out the advice of another member of his group, who he knew to be a civil engineer. He remarks the directing staff (DS) commented:

"I should have come up with the idea myself instead of using the talent in my group" (ADFA, Navy Focus Group 1).

In terms of the general leadership curriculum, there is considerable uncertainty judging from comments such as the ones that follow.

"I don’t think it [ADFA] has a real leadership curriculum; the first year had a leadership curriculum, [in the] other years they’ve had … all that sort of things but we’ve sort of been forgotten about" (ADFA, Air For Focus Group 1).

"Overall, I think you expected a more set down program and more consistency because everyone was doing different things"; and "I found it challenging in terms of there was not a consistency of standards and we were learning what seemed like useless stuff" (ADFA, Navy Focus Group 1).

There was however considerable certainty about the closed aspect of the curriculum. When a cadet attempted to arrange an externally based work experience opportunity, the negative response by the Academy is recorded in this cadet comment.
"...work experience which was outside, ...organised for a civilian company [military contractor] to do my military work experience, ...I organised almost everything and went to the staff with a massive big minute saying look it's all there, you don’t have to pay for a thing, can you sign it and they said no it’s not military and they never even gave me a reason" (ADFA Navy Focus Group 1).

Aside from discouraging initiative, there is the potential, albeit unintended infantalization of the cadet and the loss of a potential developmental opportunity. This latter point needs to be viewed in terms of a later insight of the clear benefit of extra-curricular activity to leadership development. This aspect, not simply related to sport, is repeated frequently by cadets and echoed by senior officers.

"Trying to get people to do stuff [while organising a sports day], that’s what leadership is all about, it is not just standing up there directing people" (ADFA, Navy Focus Group 2).

"I am unusual and the Navy is a little unusual in that we give our people opportunities to get out of the legal service and experience a lot of other jobs and to develop broadly generally" (SO4).

"It [chair a community group in local government] was just an unbelievable learning curve" (SO5)

Notably, the perceived value is not shared by all elements of the Defence organisation, nor is this closed view limited only to cadets in training as the following comment indicates.

"I was told in doing that [being involved in the local government community based action] was one of my major weaknesses [self-interest]" (SO5).

The same senior officer (in apparent defence of his motives) disagreed with that judgement on the basis that Army, as the largest employer in the city, had a social obligation to be engaged with other members in the community. Other arguments offered included the need to build community links: "we are the ones that go bang [make a noise] in the night, so we need to be out there" (SO5) and to use some of the inherent skills military leaders have. It is voluntarily, it is unpaid, so there is no conflict of interest here. Echoing the earlier
remarks of the cadet in training, he comments: "I think we should relish the fact that they have asked us, not criticize me for it" (SO5).

The repeated inference drawn is to the minutiae that made up Academy life - ranks, forms of address and the overwhelming emphasis on physical aspects of leadership. In contrast, the Defence Academy has constructed an image of preparing the junior leader for successful transition into their respective Services. This preparation is clearly a shaping of individuals in terms of leadership skills and attitudes. Oddly, the candidates themselves appear to not be regarded, as is telegraphed by the following (military staff) comment.

"they're inexperienced; they don't know what they want" (Journal notes Tuesday 5 December 00).

The cadets’ role seems to be to learn the right values and attitudes, to "get motivated", to appear committed, and not draw attention to themselves. In cadet language, this survival behaviour is termed "going grey" (ADFA 1998). In this aspect, it would seem the curriculum in practical terms emphasises certain perceived attitudes and values. The complexity of the context and the weight of leadership challenges likely to confront these future leaders are seemingly bypassed. Below are some cadet comments on their perceptions of the content of the Academy leadership program. These cadets were within days of graduating into their respective Services.

"You [learn] ... what you are supposed to say in leadership things, you are supposed to put your hand up and say things like 'moral courage, physical courage', everyone goes yeah, yeah, well done (ADFA, Navy Focus Group 1).

Turning next to teaching practices, the process appears to be characterised by didactic methods and passive, surface and achievement oriented learning approaches. The coded responses of survey data for cadets indicate a Type A bias over Type B (67: 17 percent). There is limited comment by senior officers on teaching practice and responses for 'all documents' show a lesser but consistent bias toward Type A over Type B (22:7 percent). Looking more generally at the overall teaching process, there is evidence of unconscious learning. However, there is no process of reflection to tap into this learning and ensure it is
accurate or leveraged across the whole group for greater insight. There also appears to be a lack of timely non-evaluative feedback.

As has been noted earlier, there is a preference by cadets for respective Service military training institutions over the Defence Academy. This preference appears linked closely to teaching practices. The following passage highlights several issues about practice.

"ADFA and OTS …they are very, very different approaches to leadership training. ADFA does it with the airy, fairy, like stuff, scouring around the topic you know a couple of brainstorming sessions and at OTS they say “This is a leadership world, this is what you have to do”, they show you videos, and they take you out to do countless… [exercises]" (ADFA Air Force Focus Group 1).

On a positive note, what worked in terms of the acquisition of leadership skills involved aspects such as time (developmental process), collaborative, and shared extra-curricular activity, including sport. Cadets regarded the use of case studies, reflection and timely review and feedback, where these techniques were applied, positively. Some comments by cadets illustrate these points.

"I found that the majority of leadership skills were learnt over the years or developed and came through sport; going out with mates working out challenging situations" (ADFA, Air Force Focus Group 1).

"I also feel exercises like the LC2 and LC3 where we get out there and actually practice what we’ve been taught or can experiment with our own leadership styles in front of our peers, within our peers. I found the environment in which they did it, it really did push us" (ADFA, Air Force Focus Group 1).

"When it comes to leaders and whom you are watching … you just pick up on things. I had [junior officer name] in LC2, LC3, and just watching him and the way he does things - I just learnt so much. …mostly you’re just watching people and you know who you want to be like or who you can choose as role model from what they’re like" (ADFA, Navy Focus Group 2).
"He asked really detailed questions like what was good about it and what was bad about it and went into depth and not only listened but was giving feedback as well" (ADFA, Army Focus Group 2).

"Case studies are good and they make you really think about it" (ADFA, Army Focus Group 2).

One notable experience highlighted below, shows the value of including both challenge and risk in training. The activity, a river fording exercise included an unplanned training accident. The ensuing process resulted in a very positive learning outcome, as is illustrated in the following comment by one of the cadet’s involved.

"We lost one of the radios down the bottom of the river ...a guy had really bad hypothermia as we were in the river from looking for it [the radio] and stuff like that and I was still getting assessed at the time and try to maintain control. "I’ll never forget it" (ADFA Navy Focus Group 2).

The broad characteristics of Type B teaching practices include active forms of learning, greater involvement of the learner in the teaching and learning process, and timely feedback. Methods that accord with Type A teaching practices are more didactic; list based forms of instruction and rote learning. The use of Type B techniques is not widespread. It also appeared to depend on the specific ability of particular directing staff as the following comment illustrates.

"[It] largely depended on your DS and his/her understanding of the leadership package" (ADFA, Army Focus Group 1).

The lack of opportunity by cadets to shape and influence the program is highlighted by the following comment.

"There is definitely not a lot of opportunity for us to give our opinion to what we think" (ADFA, Army Focus group 2).

Aside from lack of cadet involvement, what did not work in terms of teaching practices was the stereotypical military form of delivery, the use of static activity, and an overwhelming emphasis on physical challenge. The use of physical challenge seems to be overused. While it served a purpose in cadets knowing how far they could push
there is also a sense that it is used without discernment and to the exclusion of other learning options. The following comments by cadets illustrate the point.

"We all had been starved for a couple of days and we were all so tired, that was the only reason that it seemed really hard on the decisions … it was really hard just because we were exhausted …more [need to] exercise your decision making, mental side of it, you know what I mean" (ADFA, Air Force Focus Group 1).

They say oh you have got to work under stress but you’re not really stressed you’re just tired and bored shitless (ADFA Army Focus Group 2).

There also seems a need to balance workload in terms of the demands across the different (military and academic) Defence Academy programs. The following comment illustrates the competing tensions and potential misunderstanding.

"The officer who was briefing us was going on about how wonderful and positive this experience was going to be and all we could think about was “Oh my God, I have got an exam in a week and I can’t study for it”. He said, “Who is looking forward to this?” and all of us just kept our hands down. We just thought no I am not going to lie to make him happy and he went off [angry], he just went “You WILL [emphasis added] enjoy this experience, you WILL [emphasis added] get something out of it” (ADFA, Navy Focus Group 1).

The most commonly suggested and preferred teaching technique by cadets was methods that characterised experiential learning. What is also repeated is the need to balance the formal (cognitive) side of learning with practical experience, an issue that is in need of some attention (SO9). Another issue is in the apparent practice of separating cognitive and psycho/social development. The professional military study process places an emphasis on behavioural factors, without the capacity to link the various elements of development. As outlined in Chapter 4 these developmental processes are closely linked. The use of storytelling is a powerful process that captures the personal experience and it appealed to many cadets. Storytelling, allied by the study of personal biographies in order to understand another person's experiences or what is happening in human life are identified as valuable teaching techniques (SO8).
Turning finally to the **assessment process**, there are several themes to be discerned. Looking first at the coded responses (see Table 6.7), the clear bias is towards Type A over Type B styles of behaviour (50: 0 percent). Instructor subjectivity and bias is a theme that needs to be considered in the context of the broader influence of the Academy power structures. This subjectivity, allied with the desire by cadets to succeed (graduate) can cause behaviours such as conformity, risk aversion, and 'more of the same type of learning'. The process is reported to influence the ability of cadets to think independently and as the 1998 Review observed, it can diminish their ability to feel and express emotion. The comments below illustrate the influence of power and subjective assessment.

"In the field as opposed to in lectures it can depend a lot more on the instructors’ relationship, because if there is a clash even if you perform well …they might not see that because of a personality clash" (ADFA, Army Focus Group 1).

"We also learnt that we know who is higher than us and we know that if they do tell us what to do that we have to" (ADFA, Air Force Focus Group 1).

The pressure to conform and the general discouraging influence on cadet behaviour can be reasonably inferred. Other cadet perceptions of assessment strategies are based on what behaviours that they considered as having merit in the ‘systems’ eyes. These include the high value placed on physical prowess and attendant assertive and stoic forms of behaviour, all within a broader frame of clear peer group pressure. The following passages illustrate the context of things cadets perceived as being meritorious.

“I can carry a pack, I can carry as much as they can, I can walk as far and I won’t whinge, I won’t complain...” (ADFA, Navy Focus Group 1).

"If you had a lower fitness standard then because you couldn’t keep up with the group you couldn’t put in as much effort as the group (though obviously you have to be at a certain standard because we are in the military). But, you automatically didn’t get as much respect from your peers" (ADFA, Air Force Focus Group 1).

In terms of a hidden curriculum associated with service preferences, the following comments highlight characteristic aspects of organisationally valued leader behaviour.
"I think the Army staff recognise more being assertive than authoritative rather than … more democratic; [Navy] ...expect to draw everyone in and use the group skill as a whole whereas the Army sort of expect you to do it on your own sort of thing" (ADFA, Navy Focus Group 1).

"Make or break decisions you make really tough decisions where if you make the right choice it’s all good but if you don’t then you’re really stuffed it" (ADFA, Air Force Group 1).

"Command is just as important and I think they are always confused. Command and leadership are two distinct things" (ADFA, Army Focus Group 1).

What is not regarded as having merit is essentially the reverse of that viewed as being meritorious. Thus, if being assertive, conforming, minimizing risk and physicality are valued, it can be inferred that being perceived as passive, different - for example, being concerned with the human element - non conforming and showing weakness (expressing feelings) are aspects that appeared discouraged by the process.

"Yes, you do what the system wants you to do" (ADFA, Army Focus Group 1).

"If it was outside of their [academy DS] sort of sphere of control, they did not want to sign it and it happens all the time and unless there is a set control structure there they do not want to approve anything outside that" (ADFA, Navy Focus Group 1).

One consequence of the pressure to conform is the risk entailed in doing things differently. There is also the clear development of an external referencing form of assessment. That is, rather than encourage cadets to apply what they know, to monitor and to promote progress, what is apparent by their language is a concern to please the staff. As a cadet remarks, "when told to jump, the reason why they ask how high and then do it, is simply because they want to get out of this place" (Army FG 2). When a staff member, with only limited contact with the cadet is required to report on them, it can be disconcerting as well as performance inhibiting. For example: "your DA, sees you three times a year or something and then he writes a report on every time he saw you, so if you said ...." (ADFA, Army Focus Group 2). Overall, the general assessment standard shared by both staff and cadets is
an unspoken but widely understood *performance norm* of what is appropriate and inappropriate 'officer' behaviour. This performance norm would appear to encourage Type A behaviour.

The final point in this section is in relation to understanding command and differentiating it from leadership. Given the overarching structural influence there is an understandable (mis) perception by some cadets. Command, as a concept does not have any pejorative connotations of authoritarianism and coercion in the military. Rather, the concept is generally used in reference to a command appointment, which is directly linked to career advancement. Thus, command is associated with success and is a highly prized commodity. However, some (particularly Army) cadets appear confused in their understanding of the concept, as the following comment illustrates.

"…well who cares if you’re not a true leader; if you’re a good commander what’s wrong with that as well. I don’t think there is any problem with being either. But I think it’s very unclear and can confuse" (ADFA, Army Focus Group 1).

This comment illustrates the cultural emphasis in Army at least on command and managerial behaviour - a Type A style. It's a concept that is deeply embedded in the very ethos of Army and perhaps but to a lesser degree in Navy and Air Force. When tempered with experience and maturity the concept of command is less likely to confuse. In the hands of inexperienced and impressionable cadets without suitable role models and mixed cultural influences, the notion of command can be misunderstood.

### 6.3.6 Learning Outcomes and Performance

Table 6.8 is a summary of coded responses for learning outcomes and performance. As illustrated by the table, the coded responses are generally inconclusive for senior officers. This is understandable as this aspect of the research was not the focus of their interviews. For cadets, it is possible to infer the outcomes. However, there is little insight from the summaries in terms of the level of understanding - naïve, novice, apprentice, or mastery.
The underlying theoretical assumption is that the learning process used by cadets is important when addressing content and learning outcomes. It has been argued that reproducing or surface learning is determined by the intention that is extrinsic to the real task. These approaches can result in an increase in knowledge through memorization and reproducing, as well as the application of facts and processes in particular contexts. A more transformative or deep learning approach reflects an intention to gain understanding by relating to the task in a personally meaningful way, or in a way that links with previously existing knowledge. The aim is to understand, see something in a different way, and/or change as a person.

This continuum is evident in the approaches by cadets. Surface approaches seem to be characteristic of the general cadet approach, although this is difficult to assert based on the research focus. A limited engagement with the task and a focus on replication of procedures seems endemic with many cadets. There is a reported absence of reflection, and the aim stated repeatedly by some cadets is simply to graduate. Three examples are provided to illustrate surface approaches.

"Yeah, you learn very quickly if you play the game you’ll be fine, you’ll get through. If you do what you have to do and if you say yes and no to what you have to say you’ll be fine, you’ll get through;" and "We’ve had lots of chances to [observe good and bad examples] … but because we don’t have anybody under us
so to speak we can’t practice how we are going to lead people" (ADFA, Air Force Focus Group 1).

"Even if you give it a fair go it’s very insecure and hard to get a handle on what they are after" (ADFA, Army Focus Group 1).

"…and by the end of it I just said why should I even bother" (ADFA, Army Focus Group 1).

The recognition of what cadets regard intuitively as unsatisfactory learning and a desire to alter their participation is evident. However, the absence of suitable teaching practices such as reflection, obstruct deeper learning outcomes. The following are some examples.

"We need to do a lot more practice at it before we actually understand what it is that we are getting our gut instincts from" (ADFA, Navy Focus Group 1).

"It’s all subliminal in developing your leadership style" (ADFA, Army Focus Group 1).

High quality learning outcomes are associated with deeper approaches. Such approaches are more satisfying for the learner and as the examples provided show, there is an integration of knowledge, a connection with their future roles and an understanding of abstract relationships. Two examples are provided.

"…[the band] was one of the best leadership things I have had ever. I have had to work … amongst 700 people who hated the band and continually told them that they were shit and I had to motivate them to come, I had to motivate them to want to clean the band room, I had to motivate them to come on a weekend to practice and I had to keep telling them that they were good, I had to make them feel good. I had to lead a bunch of people with no power and I had to gain their respect" (ADFA, Navy Focus Group 1).

"…you live with those people out bush, at the start of the year was for a couple of weeks, everyone was starting to get a little bit tense and you start to learn the strength and weaknesses of you’re classmates that you’re going to work with later on in your career. It’s about small group dynamics (ADFA, Army Focus Group 1).
The deeper approach tapped a complex, more abstract level of understanding and motivation. It would be interesting to evaluate the program to determine if students who gave these higher or lower level responses were also more or less deeply engaged with the program. It would also be useful to identify if these students corresponded with gifted or below average performers.

6.3.7 Summary of Broad Themes

A summary of the general themes to emerge from the qualitative data include:

- A cultural and structural dimension that includes a competing paradigm between the military and academic processes. The duality that tends to respectively correspond broadly with the Type A and B styles of leadership behaviour. An added complexity in the cultural and structural dimension of cadet life is a them-and-us relationship between cadets and military instructional staff of the Academy.

- There is also a duality in the tension between single Service (Navy, Army and Air Force) and Defence Academy leadership development styles and processes. While it is difficult to differentiate the two training locations according to a Type A or B preference, it is clear that Service based training is seen by the participating cadets as culturally and contextually more appropriate.

- The purpose of the professional military training program is broadly a utilitarian one. The changes in individual behaviour that characterise this purpose appear incremental and typically more of the same replication of desired behaviour. By contrast, cadet responses in regard to the academic program suggest a deeper cognitive development associated with a Type B model of behaviour. In this sense, the balance between control and freedom, and between conformity and creativity in developmental processes (Smith, 1998), appears tacitly to be divided as follows: military (Type A) and academic (Type B). Thus, the military model teaches using a transmission model, where discrete units of knowledge are transmitted from the staff to the students.

- In terms of the three educational mechanisms:
Chapter 6: Data Analysis

- **Curriculum** - refers to the general aims and objectives, and the subjects and content, methods and media of instruction appropriate to the subject content. On the evidence, the Defence Academy operates as a centralised model (competency based) that appears to include content associated with both Type A and Type B styles of leadership (as theory actually in practice). Responses suggest Type B content is emphasised in documentation as well as by senior officers as espoused theory.

- **Teaching practices** - ideally student descriptions of understanding should not be seen as something that exists out there (a target understanding) but rather a feeling of confidence that understanding can be reconstructed from ideas and information. On the available evidence, student understandings are limited and appear to favour Type A style of leader behaviours and task-based methods.

- **Assessment** - there is limited evidence of understandings constructed by students, the learning processes used, and change in conception about the subject. The (novice level) understanding is typically a Type A performance-based norm of what is appropriate and inappropriate 'officer' behaviour. Both staff and cadets share this unspoken but widely understood norm. The theory in operation values assertive leader-centric strategies (command and managerial behaviour), discourages risk taking, and encourages conforming and stoic forms of behaviour.

- The learning process seems to be in accord with the engagement of cadets in a perverse way. By disenfranchising participation, the cadets’ purpose is simply to graduate, when they assume they get to be leaders and managers. Performance is characterised as saying and doing what is required and by doing enough so as not to draw attention towards them. The use of timely and constructive feedback, as opposed to evaluative feedback, appeared to be limited. It seems unconscious learning is rarely brought to the surface by skilled facilitation. Therefore, the processes arguably miss opportunities to leverage deeper understanding beyond replication and incremental change towards desired behaviours.
• Consistent with theory the learning outcomes are characteristically surface based approaches concerned with task achievement. Understanding appears to be no more than novice level, due to a lack of opportunity to practice leadership in the workplace. Overall, it would appear that there are many lost opportunities for learning as well a strong element of chance (access to the right staff, workload). Many insights were based on the perceived value of perhaps dubious feedback from peers and a one-dimensional physical and action based leadership model.

• There is considerable evidence to support effective development based on varied opportunity (including through participation in extra-curricular activity), supportive structures and practical experience that was clearly linked to context. The preferred context is Service based environments that arguably are where cadets expect to perform. Hence, there is a sense of positive engagement by participants. Common elements to success in development, regardless of context, include the need for challenge, risk, realism of context, and credibility of process and perhaps most significantly, the credibility of instructional staff.

• At the individual level, there were several notable observations:
  o Despite negativity towards many aspects of their developmental experiences, cadets displayed a good, albeit cynical, sense of humour, which enabled them to draw lessons from both good and bad examples. Shared stressful and challenging experiences contribute to a measure of professional growth in terms of a strong self-esteem.
  o Social support, that is collegial relationships with co-workers or supervisors, can also moderate the effects of stress (Robbins 2001). Arguably, both humour and social support appear to have been given little emphasis in educational literature, yet they would appear to have a significant effect on student preparedness and ability to learn and change.
  o Similarly, in the context of stress proofing people for high stress jobs (such as the military) humour and social support are two attributes that could be used to buffer the impact of stress, as people adapt and develop their stress coping mechanisms.
It seems that despite the program aim and objectives being exclusively based on competencies, that the primary requirement articulated by senior officers is for meta-abilities. While data collection did not focus on this aspect directly, based on responses and documentary evidence the greater need appears to be intellectual and character based qualities. From an educational perspective, competence might be viewed as the necessary foundation for further development of desired meta-abilities through scaffolded learning in the Academy and later continuing professional development programs.

6.3.8 Leadership Development Insights

Based on coded responses for specific content and context of leadership development across all documents (cadet focus groups, interviews and documents) some elements clustered together to define what worked in development. Figure 6.6 highlights those elements coded within this category.

**Figure 6.6: Elements Contributing to Development**

- Cognitive skills
- Decision making
- Other competencies
- Personal Growth
- Personal qualities
- Humour
- Character
- Development of meta-abilities
- Pre-training expectations
- Observation
- Challenge
- Realism
- Credibility
- Feedback
- Success breeds success
- Practical
- Peer-group support
- Alignment of educational Processes
- Opportunity: extra-curricular, external and three-track development

Reported student development seemed to accord most strongly with aspects of the environment, rather than content. Broad clusters of elements include manager skills (cognitive, decision making), personal growth, personal or individual qualities (including
humour, stress tolerance). The development process includes pre-conditions, observation (of role models), practical challenge, and success as a precursor for later success. The environment included reference to peer-support, opportunities such as those provided through sport and extra-curricular activities, and learning through teaching.

There is considerable emphasis on individual qualities. These personal qualities were not value based or describing aspects of external confidence, but rather suggestive of self-awareness and temperament to handle change, a capacity for objectivity, good personal skills, maturity and being able to maintain some sort of broad perspective. Personal growth as an element of development is also emphasised. Both cadets and representatives in the workforce speak of the growth in confidence over time. One example, which also confirmed a positive impression of challenge and practical exposure, can be seen in the following remarks.

"...one of the main things was coming of age and growing in confidence, I’ve got no real [experience] ... [I] had heaps of fun ...survival... you’re chucked into a front situation and you just have to deal with it" (ADFA, Navy Focus Group 2).

In terms of positive development process, the observation of specific people appears to be given considerable emphasis by cadets. The exposure to role models and credible leadership exemplars early in life can have a profound effect. Exposure to negative examples also appeared to have a learning benefit, although the lack of critical reflection might limit the benefit gained from this avenue of learning. Senior officers confirmed the role of leadership exemplars in their life, suggesting the effect in retrospect is not limited to one person but to an amalgam of attributes subconsciously taken on and then reinforced through positive experiences. Some positive attributions include leaders who offered intellectual challenge, support in learning from mistakes, and a balance between task and people.

"I think the greatest influence on me has been the sheer quality of the people that I’ve worked with over time. Other than that I would have to say that there has been a lot of negative stereotypes have influenced me too" (SO 2).
"We talked it [mistake] through and we talked through what lessons I had learnt and he left it there saying well I’m giving you my support …and I’m not going to over react to this …you are never to do it again and …I was left in no doubt (SO 7).

"He had a way I guess of saying this is what we have to do to achieve our mission and everyone felt involved" (SO 7).

"He was the guy who actually said, …never try to be someone else, …he certainly took a great interest in the junior officers not just talking, but actually exposing us to anything that he did" (SO 5).

"They were people who put an intellectual objective out in front of the people that they led" (SO 2).

A valuable component of the development process was the perceived benefit of extracurricular activity on learning and leadership capability. Adventure training and sports aside, seemingly quite mundane activity such as organising sports days, band practice and end-of-year social activities are all viewed positively in developing capability. As a cadet observed: “trying to get people to do stuff, that’s what leadership is all about, it is not just standing up there directing people” (ADFA, Navy Focus Group 2). This theme is continued within the senior officer ranks as well. Drawing attention to a previous Chief of General Staff who had been seconded for 12 months with some civil engineering company, a senior officer related his very positive experience being involved on the Board of a local government development unit.

"I was a member for a year and chairman for a year. Being on the Board of Directors - it was just an unbelievable learning curve. Those sorts of [development] activities also need to be included" (SO 5).

Another senior officer also reflected positively on the benefit of experiencing widely and of the direct benefit, this experience had on later duties.

"I have done parliamentary enquiries on a range of things that I have [also] had command [responsibility] so you get a different feel for the organisation, you understand what CO’s are doing and the pressures on them" (SO 4).
These 'out of the box' opportunities are rare and need to be taken. As noted, aside from the community service aspect, the experience of dealing with government has been of great subsequent professional benefit to both senior officers and the military bureaucracy.

Section 6.4 Closing Remarks

As Ramsden makes it clear, an institution needs to understand how students learn. There is now substantial literature that describes the ways the educational environment, and particularly teaching practices and assessment strategies can influence the quality of learning. This chapter examined evidence of the teaching and learning process in operation at the Defence Academy. Validation of the process (Type A or Type B) was considered in the context of the three main components of the process: purpose, learning process, and learning outcomes. Cadet perceptions of learning practice and the general educational environment provided practical examples of how the development process is activated.

Qualitative learning is a complex interaction of teaching environment, student characteristics, their motivation, and learning strategies. In this complex mix, students can be assisted towards achieving more complex levels of understanding by shaping the curriculum. Thus, for example, qualitative learning can help students to see different ways of conceptualising reality, help consolidate and automate unstructured knowledge and encourage the ability to do more with this knowledge base. The current approach in the Defence Academy curriculum shows both Type A and B content is being espoused and implemented in the curriculum. However, the wider educational environment has a significant role in determining learning outcomes. For this reason, the environment needs to be congruent with the aims of the program. This study set out to identify the relative emphasis on Type A and Type B styles in the influence of curriculum, teaching methods, and assessment. While curriculum espoused Type B and A styles of behaviour, it was noted that teaching practices were biased towards Type A.

Finally, the charter of the Defence Academy requires the Academy to provide military education and training for officer cadets. The purpose of this training is to develop the professional abilities and the qualities of character and leadership that are appropriate to
officers of the Defence force. On the available evidence and despite the rhetoric, the noted learning outcomes suggest a process that is well short of the espoused ideals. The following comments are characteristic of the gap between espoused theory and practice.

From one cadet: “[You] learn very quickly if you play the game you’ll be fine, you’ll get through;” and from another cadet: "[You] learn how to appease your DS. I don’t think that helped me at all. I know exactly what to say to please my DS and get a good mark" (ADFA, Navy Focus Group 1).

Thus, while the Academy program gave cadets many opportunities, these cadets were generally constrained by an educational environment where the relative emphasis is on Type A biased teaching practices and assessment strategies. The effect is a contradictory mix of achievement-based surface learning performances by cadets more concerned with graduating than learning. The underlying strategic behaviour seemed, in large part, intentionally focused on conformity to normative expectations (Type A) rather than with exploring autonomous (Type B) leadership behaviour. Lennon's anthem *Working Class Hero* seemingly captures the inherent contradictions evident in the Defence Academy system: "They hate you if you're clever, and they despise a fool, till you're so f--- crazy so you can't follow their rules."
CHAPTER 7: CONCLUSIONS AND RECOMMENDATIONS

Section 7.1  Introduction

The relative emphasis in the Defence Academy program on Type A and B leadership behaviour has been reported and discussed in Chapter 6. This chapter considers the study outcomes in terms of the theoretical framework and the specific research question investigated. Noting a dilemma facing the Defence Academy in terms of developing capabilities that go beyond training based competence, the chapter presents a synthesis of ideas from development literature and insights in a framework that seeks to bridge theory and practice. The chapter closes with reflections on the research process and methodology used, identifies some possible implications for further research and a statement of the contribution to knowledge in the field.

Section 7.2  Facing the Challenge: A Paradox for Development and Learning

A starting premise for this study is the transformation of organisations as work has become more knowledge and information-based. Organisations that successfully meet this challenge in an increasingly turbulent environment are more likely to ensure the conditions necessary for ongoing competitiveness. Faced with the realities of the environment, leaders have had to adapt in order to remain effective. The change is categorised in this study as a shift in emphasis from command authority and compliance to contingent based leadership approaches that emphasise group knowledge and a collective creative capability. These changes underwrite the recognition and growing awareness of the important role (executive) development has in creating and maintaining knowledge or learning-based competitive capabilities. For the future, OD will have a major role in helping individuals and organisations face the challenge of shifting to and sustaining the new paradigm.

In the military, this fundamental change and its implications have been encapsulated in the discussion over the so-called revolution in military affairs (RMA). The attention appears mostly directed towards strategic considerations and the application of high technology in such things as surveillance, precision-guided weapons, and stealth weapons. However, the strategic circumstances present a much wider dimension to the leadership challenge. The
clear implication for the 'soldier's profession' involving 'the ordered application of force' is to make it a far more challenging task than might be first imagined. This reality is consistent with the key requirement espoused in the Defence White Paper for "highly competent professionals" (Defence 2000: 61).

As the military and other organisations come to terms with the changed assumptions of leadership, there seems a clear need to reconsider leadership development, which is defined as any process aimed at expanding a person's capacity to be effective in present and future leadership roles and processes. By the definition, the clear focus of any program is the learner rather than the learning per se. Arguably, it presumes an active learning process (Argyris 1992; Argyris 2000) and a pedagogy that reflects the understanding that process matters as much as the content (Rogers 1989). In terms of intent, this process might reasonably be described as providing the individual with "opportunities for learning, growth and change" (DeSimone and Harris 1998: 513). Consistent with these broad intent, capability outcomes might be defined as an on-going process of cognitive, psychomotor and affective development in levels of understanding. With time and experience, this level of understanding might be expected to move progressively from naïve, to novice, apprentice and mastery (Wiske 1998).

Reframing the paradox of the operational environment - centralised control versus decentralised flexibility - the challenge for leadership is to balance control and conformity with freedom and creativity. In terms of development outcomes, this paradox suggests a choice between fostering induced versus autonomous behaviour. Induced behaviour conforms to cultural norms and established strategy and procedures of the organisation. Conversely, autonomous behaviour is an ability to recognise and adapt appropriately to novel situations, consistent with general strategy and organisational principles. The leadership paradox is presented in this study as a duality between:

- The conventional command and managerial compliance (Type A) style, which emphasises control and induced or domesticated behaviour, and
- The emerging contingent and creative (Type B) style, which emphasises flexibility and autonomous (as well as relational, and entrepreneurial) behaviour.
The challenge facing leadership development programs is to develop the capacity to balance the paradoxical demands of both styles. A core consideration is the need to develop individuals with the foundation in professional development that will enable them to deal with change and ambiguity, while at the same time ensuring the necessary character and competence to fit into the way of life and functioning of the military. This potentially competing dual requirement that has immediate and longer-term significance, places a greater demand on the capacity of the individual and collective (organisational capability) to learn and change. The need is for more than adaptive or single-loop learning that equates to first-order or incremental change. This form of change is necessary simply for the survival of the organisation. However, where issues are long-term and systemic the need is second order or transformative change in the capacity, both individual and collective, to engage in generative or double-loop learning.

Section 7.3 Theoretical Framework and Research Approach

This thesis is a case study of the relative effect (in terms of Type A and Type B styles) of educational mechanisms (curriculum, pedagogy, and assessment) in the leadership development program of the Australian Defence Force Academy. The theoretical framework for the study – a changing emphasis in leadership style - is founded in the gap implicit in studies that show theories-in-operation or in-use as being different from espoused-theories (Argyris 1992; Savage 1996). These theories in-use reflect parts of personal and social culture and invite an understanding that development is not entirely an individual issue. Thus an important strategy, in order to bridge the gap between espoused and in-use theory, is to understand learning within the social context.

Having determined any evidence for a changed paradigm of leadership in conversations within the organisation, the primary concern of this study is to identify the relative emphasis on the two styles in the educational mechanisms. The research aim, founded on the gap between theory and practice, is to explore in-use theory in the Defence Academy leadership development program. The specific research question is:

What is the relative emphasis on the two leadership styles in the operation of the three educational mechanisms of curriculum, pedagogy, and assessment?
Chapter 7: Conclusions and Recommendations

The intention is to extend an understanding of the relative effect of culture and structural influences across the educational process. The study seeks to determine the extent to which the Type A and Type B styles are incorporated into educational practice and if any bias exists in the operationalisation of the program towards either the command and managerial compliance Type A style or the emerging contingent and creative Type B style. The wider social context acknowledges the warning by Argyris et al., that to the extent that programs fail to distinguish between espoused and in-use theories they may champion (espouse) contingency and creative (Type B) models, but unknowingly educate leaders to primarily produce command and managerial compliance (Type A) models (as theories-in-use).

Section 7.4 Study Outcomes

This section outlines the study outcomes based on the quantitative and qualitative data analysis presented in Chapter 6. These outcomes are presented initially in terms of evidence supporting a changing paradigm of leadership and the relative emphasis on Type A and Type B styles in the three educational mechanisms. This is followed by a consideration of the relative emphasis on styles across the broad educational process of the Defence Academy professional military studies program. This encompasses the program purpose, teaching and learning processes and learning outcomes.

7.4.1 Changed Paradigm and Relative Emphasis on Leadership Styles

The data show that a broad understanding of both Type A and Type B leadership styles is evident in the general conversation of the organisation. This duality is evident in the curriculum for the Defence Academy and in Defence documents and senior officer comments. Turning to the primary research question that is concerned with the relative emphasis in the educational mechanisms on the two leadership styles, the data confirm a clear bias towards a command and managerial compliance (Type A) style as theory-in-use in the Defence Academy process. Specifically, the curriculum reflecting espoused theory by the organisation shows equal support for both Type A and Type B styles. Conversely, the contingent and creative (Type B) style of leadership appears to be given heightened prominence as espoused-theory in related Defence documents including leadership doctrine and in the comments by senior officers. In contrast, the command and managerial
compliance (Type A) approach appears to prevail as the *theory-in-use* in teaching practice and in assessment strategies of the Academy's professional military studies (PMS) program.

These findings are consistent for all cadet service groups in ADFA and in ADF work groups representing personnel with some 10 years and more working experience. Data suggests that teaching processes operate in a characteristically formal, rules-based (Type A) environment that prescribes control and less flexibility. Assessment criteria appear to be largely subjective, placing an emphasis on task and physicality that is more characteristic of the Type A leadership style. The consequent reported performances by cadets are characterised by conformity and predictable behaviour in practice, as these appear to be the most valued and rewarded.

Overall, it seems that the predominant influence on cadets is from the environment and context of the learning process, rather than the curriculum. This environment and associated context includes individual and cultural/structural factors such as student engagement, culture, staff values and operating structure, teaching methods, and assessment strategies. The observation adds further insight to the assertion by Watkins (1991) that studies have shown that it is *difficult to isolate skills from their "cultural and biographical context"* (Watkins 1991: 15). This study suggests that it is equally *difficult to isolate skills development from this context*.

Findings that illustrate the influence of cultural and structural context on skills development include:

- The tendency for cadets to regard single-service leadership programs more favourably than Defence Academy based leadership development activity. One element of this observation relates to a perceived clearer structure, purpose, and program of the single service offerings. The other, perhaps overriding element for the Navy and Air Force cadet groups at least, is that the Defence Academy culture and training processes is regarded as being 'very Army'. This perception causes them to question the program's relevance. The 'Army' nature of the ADFA program is described as emphasising going ‘bush’ and physicality to the
detriment of other leadership (cognitive, moral) aspects. Non-Army (Navy and Air Force) cadets describe the effect as de-motivating and the focus as irrelevant.

- More generally the ADFA program is described as one that ignores student feedback and suggestions, offers poor reward structures, and is characterised by a lack of individual recognition and a common practice of double standards. The program is also reported as discouraging an exhibition of spirit, and fostering a 'them and us' (staff vs students) attitude. The sum effect is to encourage a 'fifty-one percent' minimalist approach, with cadets striving to not attract attention and using the cadet term, 'going grey'.

Not surprisingly, there is a consistent theme in the cadet comments that the program is fragmented and over eighty (80) percent report a low level (rating of 2 or 3 out of 5) of satisfaction. The negative cultural attitude to the perceived value of development opportunities external to the organisation is another notable aspect of the difficulty of isolating skills development from social context. When a cadet attempts to arrange an external to the Defence Academy training opportunity, the initiative is rejected without explanation. Nor is this apparent closed view limited to cadets and the Academy. A senior officer recounts a similar negative response to his participation in a voluntary community based activity. This activity is assessed by his then senior as being driven by 'self-interest' and as evidence of an apparent major personal weakness. Ironically, the exposure is noted as having been of enormous value to Army many years later.

7.4.2 Espoused and In-use Theory in the Educational Process

This section considers the operationalisation of the two styles in terms of the broad context of program purpose, teaching and learning process, and learning outcomes. Separating these three broad aspects of the development process is useful for clarity and for any critical consideration that is intended to keep them in balance. When things are going well focusing on the outcomes of the development process is useful. However, if there is uncertainty over the effectiveness of the program, the focus of attention needs to shift to program purpose and process rather than fixating on goals. This in turn also encourages an
understanding of learning within a social context. Specific considerations related to these three elements are detailed in the following paragraphs.

7.4.3 Program Purpose

Studies by Bennis et al., and others describe the purpose of a leadership development program as having essentially three tracks: task based competence (technical), as well as knowledge of business conditions (practical) and knowledge of self (Bennis and Goldsmith 1997). The research findings from this study suggest the context and setting for the curriculum in the Defence Academy appear antagonistic to the purpose and goals of the institution, which is stated as developing their professional abilities and the qualities of character and leadership. Despite espoused policy that arguably is consistent with a three-track (practical, social/business context and self) development approach, the in-practice focus of the Defence Academy program appears to be task oriented or instrumental (practical) and emphasising conformity (socialisation) in practice.

The development approach appears to support 'more of the same' learning or learning by replication, based on an apparent one-size-fits-all approach. While the theory may suggest individualised consideration within a development paradigm concerned with providing the individual with opportunities for learning, growth, and change, this is arguably not evident at the Defence Academy. The qualitative research data suggest an emphasis in the process towards cadets adapting to the culture of the Academy and military rather than learning in preparation for workplace-based challenges. Not surprisingly, many cadets express a frustration with the limited emphasis on leadership development, and apparent in-barracks leadership opportunities are largely seen as being merely concerned with administrative duties.

Cadets are also critical of the traditional program structure with its inflexibility and infrequent feedback. Because of these perceived limitations, it is usual for cadets to display uncertainty over their preparedness for when they 'get out' (graduate) from the Academy. Equally, many express a desire to get out into the 'real' world and away from the artificial Defence Academy structures, so that they may practice and learn.
Based on the data it is a plausible inference to suggest that the primary purpose of training (in-use-theory) is a task-based socialisation of cadets into the military workplace. This purpose appears to be taken for granted by all concerned - the cadets, work groups, military staff and senior officers.

7.4.4 Teaching and Learning Process

In setting about developing the self, Bennis et al. (1997) explain that the process of becoming a leader is much the same as the process of becoming an integrated human being. That is, the process is highly personal and the growth that leads to transformation of character takes time. Overall, the Defence Academy process appears to favour immediate utility at the expense of promoting activities that are educational and transformative in nature. The trend lines suggest a consistent bias in the three educational mechanisms towards a Type A leadership style or behaviour as theory-in-use. Notably, Army shows a stronger bias towards a Type A theory-in-use in assessment than the other services, with Army cadets recording a stronger relationship than their Navy and Air Force cadet counterparts.

The overall bias towards a Type A style is confirmed in a number of informal discussions with participants following the focus groups. Because of the informal nature of those discussions, some relevant and insightful data are not recorded. However, many cadets and work group representatives readily concurred that had they been aware of the research intention to explore the gap between theory and practice in terms of the two styles, they would have strongly emphasised a bias towards a Type A style. These repeated observations add further confidence to the validity of the research findings noting the relative emphasis in the three educational mechanisms consistently towards a command and managerial compliance Type A style.

Conversely, although the general theme by cadets is critical, there are also some strong positive aspects evident in the ADFA program. Peer-leadership is a novel approach that is reported by cadets as presenting a challenge and on reflection a very positive learning experience. The novelty was in the absence of familiar rank and authority structures to add
legitimacy to tasking and responsibility. A number of cadets seemed able to see past immediate difficulties and draw positive lessons from poor leadership examples (by staff and other cadets), or see opportunity for development in what others perceived as simple administrative activity (such as organising a band or social function). Such opportunity and insight unfortunately appeared rare among the cadets interviewed. That aside, ‘realism’ is noted as an important attribute in training activity. It is also attributed more to unplanned events, such as a boating accident that provided a lesson that a cadet considered would stay with him for life. Another positive element in the program is the credibility factor in hearing people with real (operational) stories. On-the-job-training (OJT), which is generally linked to single service training, is also a positive element. The use of real stories and OJT opportunity are particularly well regarded by cadets for their development value.

Reflecting the instrumental (or practical) skills bias in context and process, teaching practices appear limited in pedagogical technique and arguably at cross-purpose to the goals of education. Military instructional staff generally apply a task-based, didactic instructional training methodology that is suited to a competency based training approach. There is an apparent lack of awareness in the Academy of strategies and development activity consistent with espoused Type B style behaviours that appear to also to be included in the curriculum. In contrast, while the academic program is not the primary focus of this study this program and in particular the English and Politics Departments, are very well reported for the opportunity to learn and apply critical analysis and thinking.

In sum, there appears to be considerable merit in applying wider pedagogical techniques within a comprehensive strategy of providing more opportunities that take cadets ‘out of their comfort zones', but within a supportive learning environment. Consistent with the trend noticed in program purpose, the teaching and learning process can be described as being focused on competence and foundational technical skills that encourage performance replication and incremental learning. It would also be reasonable to suggest that in terms of character and leadership development, the Academy achieves results despite its best efforts. The teaching and learning process of the professional military studies program, which has the primary responsibility for leadership development, is at best limited and perhaps contradictory to the espoused need. As Swieringa et al. comment there is a directly
proportional relationship between content and process. The better the process, the better
the content (Swieringa and Wierdsma 1992).

7.4.5 Learning Outcomes

Within the training based methodology of the professional military studies program as
distinct from the academic program in ADFA, cadets appear to be generally passive
learners. There seems little apparent opportunity for them to explore their thinking and
understanding. Their expectations and prior experiences also appear to be largely ignored.
Teaching performance in the professional military studies program can be characterised as
a process of transferring knowledge from teacher to student. Accountability of training and
controlled student behaviour appears to have the highest value, rather than student
learning. Learning outcomes therefore appear to be surface learning based, with the task
seen as an external imposition to be complied with, without question. This learning
approach is described in theory as being associated with learning strategies that typically
involve memorization, reproduction of factual information and the reproduction of
endorsed behaviour (Ramsden 1992).

The theory is endorsed by cadet responses. Consistent with surface learning approaches,
cadet performances appear to be consistently based on reproduction of knowledge and
behaviour that is generally task oriented and assessed as unlikely to move in understanding
beyond novice levels. This (novice) level of understanding is characterised by limited
evidence of understandings constructed by students, little awareness of the learning
processes used and no change in conception about the subject (in this context, leadership).
A typical novice level of understanding by cadets is a Type A performance-based norm of
what is described as appropriate and not appropriate officer behaviour.

7.4.6 Summary of Research Outcomes

In summary, if the goal of development is to create access to knowledge, skills and
attributes that will support the emerging leader’s role in the 21st century, there are some
considerable challenges facing the Defence Academy process. On the evidence, isolating
knowledge and skills development from their cultural and biographical context is
problematic. This study affirms the predominant influence of contextual aspects, as opposed to curriculum-centred development, on the learning process. Specifically, the study flags a relative unchanged bias (reflecting in-use theory) towards a command and managerial compliance style of leader in the operation of the educational mechanisms. In contrast, the curriculum and organisational need appear to espouse and endorse a contingent and creative style of leadership.

Another notable insight is the prominent albeit unintentional influence of what is described as an Army (Type A) culture in the Defence Academy. This could be attributed in part to Army cadets being in the majority. It may also be partly a cultural and structural influence reflecting the number of Army staff posted to the Academy and the close proximity of the Army's Royal Military College, which is situated on the other side of the hill (Mount Pleasant). Nevertheless, Navy and Air Force cadets report considerable disenchantment with the culture and training processes of the Academy, while expressing a strong preference for their parent service approach. Reinforcing this tribal cultural preference, Army cadets in the Defence Academy report a stronger relationship between Type A style and assessment strategy than their cadet counterparts from Navy and Air Force.

In terms of the wider research objectives, the study identifies the need to align the purpose and goals of the institution with the context and processes that include teaching practice and assessment strategies. This sympathetic alignment of the various educational components in the development process is arguably one of the surest ways to bridge the gap between espoused and in-use theory. Another strategy towards ensuring the desired learning outcomes is to understand that a task focused, training methodology is unsuited to achieving broader social and 'transformation of self' learning objectives.

Such an approach, it can be argued, is more likely to provide a Type A - performance replication outcome that is not useful in the uncertain and ambiguous environment of today. What is more appropriate for the development of the desired capabilities is a methodology that supports a Type B outcome, defined as an active and experimental approach, which supports a capacity by the learner to understand principles, recognise novel situations and adapt appropriately to them. This (Type B) outcome fits well with the
three-track development objective identified as the ideal purpose for leadership development programs. The methodology that is needed to achieve these broader outcomes is identified as being based on an education and development curriculum model.

Section 7.5 Implications for Defence Academy

The research outcomes have clear implications for the Defence Academy program. Of particular note is the warning by Argyris et al. about programs that fail to distinguish between espoused and in-use theories. The risk is that they may champion (espouse) in this case a contingency and creative (Type B) model, but unknowingly educate leaders to primarily produce a Type A command and managerial compliance model as theory-in-use. This study suggests the presence of a gap between espoused and in-use theories in the Defence Academy. The evidence indicates the curriculum content of the Defence Academy places an equal emphasis on Type A and Type B (espoused) styles. However, the trend lines across the three educational mechanisms suggest a consistent bias towards a Type A command and managerial compliance style as theory-in-use.

This study supports the understanding that the learning process is an important determinant of successful development. Because it is difficult to isolate skills from their cultural and biographical context, in order to bridge the gap between espoused and in-use theory an important strategy is to understand learning within the social context. There is also a need to recognise that development is not entirely an individual and task-based concern. Aside from the implicit need for a parallel organisational development intervention, at the individual level there is a need to see learning need as more than an ‘instrumental’ one – that is job focused and aimed at skills development. Learning objectives must encompass learning about the organisation and one’s relationship to it, including mission, coaching, role modelling. As well, there is need to build in self-reflective learning that involves understanding oneself in the workplace, as well as socialization and the building of inner-confidence. These learning domains have been previously discussed in what is described as a three-track development process.
7.5.1 Specific Implications for Educational Process

Specific implications for the educational process in the Defence Academy include:

- The need for development processes to fully embrace the organisational strategic need for leadership capacity that is both physical and intellectual that is consistent with emerging themes in literature. The future leader must be able to adapt and act autonomously, as well as be able to foster creative and innovative responses. This broad meta-abilities based need is endorsed by the comments of senior officers and by relevant Defence policy and training documents (as espoused theory).

- As part of the solution, there is a need to reduce the mismatch between knowledge and the social context of its use. For example, as this study shows leadership exemplars describe (espouse) a preference for empowered behaviour and meta-abilities by junior leaders. However, the Academy as the pre-commissioning institution with a pivotal role in a career-long development process appears to support and reinforce imitative learning and predictable behaviour (theory in-use). Another evident mismatch is in the imposition of an Army cultural model across the broad cadet population. This (Type A) model is arguably limited in its relevance and is inconsistent with the emerging knowledge-based work environment. Overall, any reduction in mismatch between knowledge and social context can only serve to assist in the successful transfer of learning.

- The need to consider the development of both foundational task-based skills for operational competence (Type A), and the social, affective and cognitive skills and learning norms that equate to Type B capability. This requirement includes the development of suitable skills in the individual, and the development of a capacity for collaborative effort and generative change at individual and collective levels.

- The need to develop an integrative framework that is suited to the three-track development requirement of task specific (technical) skills, business specific

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30 Meta-abilities - cognitive and personal - as well as character-based abilities that supported the capacity for autonomous and self-directed behaviour
(practical/social) knowledge and self-knowledge. The current training methodology is unsuited to developing the latter two learning domains, which are essential to an effective contingent and creative style of leadership. This new framework should also support development initiatives at both the individual and collective levels.

- The need for the Defence Academy to develop an awareness of teaching strategies and development activity (pedagogy) consistent with espoused Type B theory and curriculum content. Notably, the three development tracks each require specific and different teaching methods and assessment strategies to achieve the desired learning outcomes. To this end, there is an elaborate, albeit unconsolidated knowledge base available to inform teaching practice (CBSSE-NAP 1999).

7.5.2 Specific Implications for Culture and Structure

Specific implications for the Defence Academy in terms of culture and structure include the broad need to take greater account of cultural and structural influences in the learning process. These influences, as this and other studies show, can impede the development of desired outcomes. The cultural and structural influences need to be moderated within a general curriculum model for education that would ideally emphasise a better balance between immediate and long-term learning and development objectives.

It is apparent that leadership development and the associated processes in the Defence Academy face a dilemma. While theoretical knowledge is a useful thing, it is only part of the solution. The most important learning is usually ‘situated in practice’ and so, arguably, 'learning through experience' is most important. Yet, learning through experience is also a limited form of learning. This form of trial and error learning is of little use where the consequences of actions cannot be observed (Senge, 1995). Moreover, this kind of learning is largely imitative, which perhaps was suitable in a simple world but is inadequate for a complex and constantly changing environment. The emphasis needs to be on learning from experience, where progressive challenge and collective inquiry require a reflective capacity as well as the facility for timely feedback. This more active emphasis on learning
places considerable responsibility on the individual and collective capacity to learn and on teaching staff to facilitate this learning appropriately. Moreover, as Argyris (2000) advises, while collective inquiry may work for routine issues, when faced with complex problems this form of inquiry can cause managers to feel threatened if they have to admit to not having a ready answer. Their consequent defensiveness in the process can stop learning and can result in what Senge (1995) called skilled incompetence.

These matters are core issues related to socialisation and culture. Aside from a willingness to change, what is necessary to counter self-defeating routines is a different and safe environment where people can unlearn earlier habits as well as learn new behaviours and attitudes. Hence, the integration of espoused doctrine with the culture and processes that shape future leaders is one of the most obvious and fundamental challenges facing policy planners. Given the formative role played by the Defence Academy, this integration process would seem to require some priority.

Part of the answer may reside in how the institution operationalises the required knowledge and understanding through the three educational mechanisms. To do this successfully, it is clear that some heightened understanding of the process of teaching and of assessment is necessary. Another part of the answer seems to be in the underpinning values of the Academy program. Perhaps integral to any successful curriculum reform is the capacity to question the Academy's predominant beliefs and attitudes to training practice. One example is in the context of instructional staff selection and their preparation. Given the complexity of the learning/teaching relationship, it seems clear that the instructional staff role is unsuited to people who do not have a teaching background or other appropriate experience. In terms of developing future leaders, it can be argued that this task is too important to be left to well meaning amateurs.

7.5.3 Summary

The wider implications of this study relate to the connection between how students experience teaching and what they learn. Without rejecting formal training approaches, this study shows the impact of underpinning values and beliefs (the mental models or theories-
in-action), over and above the actual content of the program, on the process of education and development. To this end, training approaches that in the military tend towards mainstream behaviourist and cognitive competencies are arguably in need of modification to support a capacity for learning and generative change. Overall, a commitment to education and development, as opposed to the emphasis on training, must be the basis upon which a curriculum model for education in the workplace is built. Two primary areas of reform are identified: the Defence Academy educational processes and the wider cultural and structural environment. Another part of the answer appears to reside in the underpinning values of the development program.

Section 7.6 A Bridging Framework for Development

This study has presented research data regarding the content, character, and processes of a successful leadership development experience. **Figure 7.1** represents a bridging framework that is a synthesis of learning processes and activity related to successful development experiences.

![Figure 7.1: Bridging Framework for Planning the Developmental Experience](image)

These three major activities apply continuously in a dual learning loop as learning advances in a continuing spiral from naïve and novice levels of understanding through to a deeper integration of knowledge at apprenticeship and mastery level. The inner loop relates to the learner whilst engaged in the developmental experience. It involves a progressive
series of learning experiences and the cyclic process of feedback, reflection, and assessment. The outer loop reflects the on-going nature of individual and collective learning through progressive levels of complexity. This loop is not limited to the immediate developmental experience, but will be informed by each individual learning experience in a career, even life-long, developmental approach.

The illustration provides the conceptual framework to link social, affective, and cognitive aspects of development. There is an implicit understanding that what is being taught and modelled to the individual is replicated and supported in the wider organisational environment. The illustration shows that learning and development is not a single activity or process but a family of activities unified by a common process (Garavan 1997). Both individual and organisational outcomes as shown are the products of developmental experiences, both conscious and unconscious, consolidated with time and suitable experience.

Planning the development experience includes two specific considerations. Firstly, as people are inclined to act in socially acceptable ways, the environment is the key. Generative learning is more likely to develop in an environment where organisational members feel secure to present new ideas. Similarly, it is only when people feel secure and can trust the social environment that they are able to build new cognitive structures through accommodation rather than simple adaptation. Secondly, developmental experiences usually involve a challenge to current competence and existing capacities. This challenge develops an individual's ability and leads to heightened confidence in their intellectual, physical, and affective capacities. Importantly, what constitutes challenge and/or improved ability varies with the individual and the particular circumstance. In this tailored approach, both teacher and student share an on-going responsibility for analysing progress towards high levels of performance. Ultimately, this assessment process must develop a capacity for individuals to assess their own and other performances in relation to clear criteria.

31 Faced with cognitive dissonance an individual can restore equilibrium by assimilation, which results in the new information being absorbed into existing schema, or alternatively the individual can respond by accommodation, where existing schema is modified (see chapter 3)
Section 7.7 Policy Considerations in Educational Planning

Leadership is prone to subjectivity, difficult to measure and the least likely to be evaluated in quantifiable terms. Moreover, an industrial view of leadership is also inadequate for educational purposes. It does not address the complex social relationships and intellectual capabilities involved, or the influence of the individual’s purpose, motives and intentions. A clear distinction between the practices of training, education and development is the first step to understanding the “complex social relationships” in the preparation of leaders (Rost and Baker 2000: 3). The next step is a clear commitment to education and development, as opposed to the current emphasis on training. Any future curriculum model for education in the workplace should be built upon this basis.

For sustained success in educational interventions, there is a need to plan, design and conduct a program within an overall institutional context (Rost and Baker 2000). Thus, the reform that is needed in developing military leaders is much wider than the educational process of the Academy. The integration of the educational curriculum with culture and structural processes is a fundamental need for policy planners, because the social context will determine how the Defence Academy operationalises the capability need through the three educational mechanisms. For this integration to succeed in the long term, the underpinning values of the Academy program must align with the operating values of the educational institution as a whole, as well as those of the wider organisation (Defence). At the individual level, leadership (and leadership development) is a process “that engages the whole person” (Burns 1978, cited in Rost and Barker 2000: 11). Organisationally, the proposed shift in scope and direction of leadership development represents change in the way we practise, so that it may match what we preach in leadership and education.

Within this broadened scope of educational reform, some of the policy and doctrinal issues to be addressed in an evolutionary process include:

- Agreeing on a post-industrial definition of leadership. This definition must include the complex social relationships required in an influencing process among people who need to collaborate to effect changes that reflect their mutual purposes;
Based on this re-definition of leadership, and shift from an emphasis on command and (managerial) control, the military will need to determine what their respective cadets (and future officers) need to develop in terms of desired meta-capabilities and foundational skills. The curriculum for leadership education will ideally be based on the three intertwined learning domains: task, social and self, and clearly stated desired meta-capabilities and pre-requisite foundational skills. The issue is clear goals and then the structure that connects these goals to the students’ previous experience, with accurate and timely feedback. This feedback will support self-development plans intended to develop leadership performance in the Academy and then through their military career;

- Arranging teaching and learning around the foundational skills and meta-abilities that the goals must address, with a clear understanding of required performances. Teaching approaches that in the military have so far tended towards more-of-the-same learning will need modification to support a learning and generative change capability;

- Determining whether the learning goals have been achieved by “assessment strategies” that seek ultimately to develop an ability to self-assess, based on defined criteria, not only their own work but also the work of other people (given these leaders will on graduation be responsible for developing and mentoring military personnel under their charge); and

- Determining the effectiveness of teaching and how this may be improved through regular “evaluation” (Ramsden 1992: 124). On this point, the Defence Academy, and arguably the other military education and training institutions, must reconsider the role of instructional staff, which has been identified as unsuitable to developing future leaders. Experienced, motivated staff with a sound teaching background is a fundamental for such an important responsibility.

Few issues are as important to the future of the ADF as the quality of education and development of its officer corps. With the increasing demands on the role of the military officer, ensuring the quality of their education and development is essential. The challenge is to build an environment in which the student learner feels safe and is able to build confidence based on an intrinsic motivation to learn. Both elements are implicit pre-
conditions if the espoused policy of education and training as a "critical investment in future capability" is to be enacted successfully in practice (Defence 2000: 68).

Section 7.8  Research Retrospectives

The initial focus of this thesis was on leadership development from a student's perspective, taking what is a constructivist approach to education. The review of literature consequently addressed a range of issues across educational and business human resource development literature. As the study progressed, it became clear there is an imprecise definition of what comprises leadership development and there is an obvious multiplicity of terms used in relation to the subject. This issue came to a head when trying to reconcile the duality in leadership behaviours, described in Chapter 2 as 'Type A' and 'Type B' styles. It became progressively clear that what is required is a broader perspective, one that requires a methodological shift from an either/or to a both/and position. Practically, a leader will need to adapt and choose between the two broad approaches. This choice will need to be contingent on the context of the situation and not the result of an ingrained either/or bias.

Leadership development permeates a great variety of activities, from weekend outdoors experiential programs to school-based classroom programs and continuing professional development activities in universities. As I refined my own ideas, it emerged that there is a tendency to separate development into discrete compartments, primarily to suit specific vocational needs. As a result, there is considerable focus on developing behaviours, as if this can somehow be separated from cognitive, social, and affective aspects of development. The interconnection is well understood in some domains (primarily medical), but it does not seem readily apparent in business development practice, and the interconnection needs to be made explicit.

Thus, behaviours can and should be seen as being shaped by cognitive, social, and affective skills. The implicit view in the literature, and one that permeates this study, is that professional development encompasses professional, social and personal development. Such a three-track model for development involves shared and collaborative adventure, experimentation, and purposeful enquiry in an on-going spiral of development. It would
suggest a shift from primarily behaviourist and content-based approaches towards a learner and learning-centred approach. This learning-centred viewpoint also invites a better understanding of pedagogical content and the actual influence on teaching practice.

Appendix 6 summarises characteristics of development programs, including their apparent purpose, and the key themes presented in selected literature. The material is reconstructed into a matrix that categorises development activity broadly in terms of a vocational and a higher order or meta-abilities focus. The weight of effort in business interventions appears clearly to be towards a vocational skills based development, despite research evidence that supports the view that meta-abilities leverage the effect of foundational capabilities. What is also apparent when exploring leadership development is that while there is considerable effort devoted to curriculum and instructional technology, there is less awareness of the effect of the components identified in the teaching and learning process. The necessary shifts are both individually based as well as cultural and structural. Another important insight in terms of development programs is the need to use teaching techniques appropriate to the specific learning domain. As noted in Chapters 1 and 4, a task-based training methodology is not suited to developing business (practical) and self-knowledge.

Finally, in terms of a methodological retrospective, the 'case study' method appeared well suited to examining the twin aspects of the individual and culture in the learning process. The method is well suited to observing a community and it supports the use of qualitative data analysis, a method that offers a capacity to get rich data that is "strong in reality" (Cohen and Manion 1994: 123). Thus, it allows a deep probing and exploration of multiple elements in the learning process. Such an in-depth approach did not appear likely through other methods such as the application of a standardised list of questions through a survey to a representative group. Conversely, the use of a combination of methods - survey, focus group, and interview - permits a valuable triangulation on the research question. The consequence is a greater confidence in terms of the validity and accuracy of the research findings.
Section 7.9 Implications for Future Research

The focus of this study is on the wider learning process, rather than curriculum and instructional design. Based on this research, there is an attractive proposition using a refined questionnaire to examine whether the gap between espoused and in-use theory in the Defence Academy is replicated across the other ADF educational institutions. This same exercise could be repeated beneficially for the respective military academies in the U.S., U.K., and Canada.

Another more challenging and organizationally unlikely research idea would be to explore an education and development (Type B) based intervention relative to more conventional training based (Type A) program. The aim would be to determine comparative student responses and learning outcomes. Such a study could be supplemented by a longitudinal study that charts the subsequent career progress of high and low performers as described by Academy assessment criteria.

A final research idea for the future is a pedagogical review as an adjunct to any change towards a learning-centred approach. The research interest might be in determining a better understanding of pedagogical content and the actual (in-use) influence on teaching practice. The influence of content knowledge on pedagogy is yet another consideration.

Section 7.10 How to Improve the Research

From the perspective of improving the process, as the doctoral research process is a journey it is problematic to look back and describe ways that the study might have been improved. Each diversion and each tangent served a purpose, realised or not, adding to the richness of the experience for this budding researcher. From the perspective of improving the research in terms of validity and effectiveness, there are many lessons. For one thing, having a clear research focus is invaluable. The journal entry in early August 2000 records a comment from my supervisor that "you can't [try and] master all areas of Western education". On reflection, the research challenge is as much about determining what should be excluded as it is about what needs to be explained. Yet, this is a deceptive concept to grasp and one that seems best gained through first hand experience.
The design of the questionnaire was a major learning experience. The initial design was over-complex and a condensed version based only on the questions that clearly differentiated between the two styles would have been ideal. An idea that did emerge through the process was the identification and parallel analysis of a smaller core set of questions that addressed less ambiguous aspects of the paradox in Type A and B styles. This second core set of questions could have formed the litmus test in determining differences between Type A and B responses. However, this strategy was not pursued, as the survey results were strongly validated by the qualitative responses in focus groups with the cadets and by interviews with senior officers. The use of a response scale of five (1-5) is less useful in differentiating a bias one-way or the other between Type A and B styles. In retrospect, a forced choice through a response scale of four may have been better, particularly as it appeared some respondents may have elected to sit on the fence by scoring down the middle.

Overall, the questionnaire did not return as rich a research outcome as the focus groups and interviews. This may be in part due to the limitations of this quantitative methodology, as well as a reflection of this researcher's limited capability. However, the survey provided quantifiable results of trends in the relative emphasis of the three educational mechanisms, and so was invaluable in its own right. When these results were considered in conjunction with similar outcomes from the qualitative data, there was profound value in the use of the survey method. Conversely, when there are many interesting elements to be explored directly and there is immediate opportunity to follow-up emerging themes, there is clearly great value in adopting a qualitative approach. What is most important of course is to ensure the accuracy and validity of research findings. Thus the use of a multi-dimensional approach, as was used, is a sensibly middle way.

Methodological issues aside, on a technical note the recording of comments in the focus groups was somewhat problematic. There was a key difficulty with recording and capturing the at times quite animated voices in the focus group sessions. Trying to control the communication flow would have negated the spontaneity and consequently some rich ideas and comments may have been captured inadequately. Nonetheless, the strategy of using sub-groups and student recorders to synthesise what they deemed were key points
enabled the main points to be reaffirmed by the cadet voices. That aside, growing familiarity with the qualitative software (NVIVO) added great confidence to the qualitative research process.

The primary limitations of this study are in the perceptual nature of the data and the one-company approach of the study. Another issue relates to the purposeful focus on process and consequent disregard for performance, which has only been alluded to in terms of learning (surface and deep) approaches. As explained, the reason for this focus is to understand the influence of social context, a key strategy in bridging theory and practice. These limitations aside, this study confirms the significant role of organisational systems and culture as part of the learning environment relative to the curriculum in determining student-learning outcomes. These findings partially explain the action-gap alluded to in management literature and which prompted the comment attributed to Weick ‘that while management is about action, no one understands why they act’.

**Section 7.11 Contribution to knowledge in the field**

In terms of putting research into practice there is perhaps a grave need to place this research into the wider political contexts of our lives and our workplaces. This is because our work and private lives are integrally related (Brunner 1994). To this end, the identification of the gap between espoused and in-use theory in the relative influence of the three educational mechanisms is the initial and primary contribution of this study. This gap between theory and practice is a reflection of the individual biographical and wider cultural context. The findings concur with Argyris's research that to the extent that leadership interventions fail to distinguish between espoused and theories-in-use the likely outcome is to promote the status-quo, with little impact on actual theory-in-use.

Documenting and enabling replication of successful development effort were identified as critical challenges in leadership development literature. This study documents the connection between how students experience teaching and what they learn. The contribution to knowledge is in identifying the value of considering contextual as well as personal factors in the development process. The relative effect identified in this study, in
terms of espoused and in-use theory, is an equal emphasis on Type A and B styles in the curriculum (espoused theory), but an increasing in-use theory bias in teaching practice and assessment towards a command and managerial control (Type A) style of leadership. This qualitative insight into educational process is a small step towards overcoming the difficulty of expanding micro-social experience into larger interventions (Zimmerman-Oster and Burkhardt 1999).

By merging educational and learning theory with leadership development and change, other contributions to knowledge in the field include:

- Identifying a broad support for both Type A and B styles of leadership. Moreover, leadership exemplars in the form of the senior officers interviewed appear persuaded that a Type B contingent and creative style that emphasised individual character and meta-abilities is the way of the future leader.
- Highlighting the higher explanatory power of an emphasis on educational process over curriculum-based points of reference. By considering the three mechanisms in the educational process it is possible to demonstrate their relative influence in determining desired outcomes.
- Identifying a framework for planning development experiences, supplemented by a model that shows some of the important elements for positive development experiences in the military environment.

Section 7.12 Concluding Remarks

From an educational planning point of view, while increased education and training is being advocated to enable people to cope with the changes in the workplace, both the uncritical push for higher education, and the context and supporting processes need to be questioned in Defence. Fundamentally, as Langenbach (1994) warns, if the context and setting for the curriculum are antagonistic to the purposes and goals of the curriculum then "there is little hope that the curriculum will ever be developed", or if this curriculum were developed it is suggested that it is unlikely to "ever accomplish its purposes and goals" (Langenbach 1994: 16). The study results, particularly in terms of affecting a contingent and creative (Type B) style of leadership, would seem to verify this dire prognosis.
In implementing any strategy to improve the quality of education and development, there is arguably considerable benefit in studying the program's effect on students and looking at the experience through their eyes. As teaching and learning is a constantly interchanging activity, Ramsden's (1992) observation that they are two sides of the same coin is a useful metaphor to guide both educational research and practice. This study lends credence to a questioning of the extent to which educational processes change in practice relative to what is being espoused in policy, in leadership doctrine and in the curriculum. The gap between espoused and in-practice theory reflects defensive routines and cultural influences that present a challenge to effecting successful change. In the example of the Defence Academy processes, this challenge is evident in enabling creative and autonomous behaviour that is characteristic of Type B leadership. By understanding and considering the cultural and structural context, the institution may go some way to bridging the gap between theory and practice.

In terms of determining a suitable curriculum for the Academy professional military studies component, it is relevant to note that there is a widespread debate over the use of competencies and a questioning of the instrumental value of vocational education. The shift in a rapidly changing world is towards life-long learning and continuing professional development to maintain personal and organisational effectiveness. This demands knowledge and a set of intellectual skills that go far beyond vocational skills and requires an integration of individual and organisational capability in what is a time-based dynamic process. The implicit requirement is for a more holistic leadership development process that is able to deliver the desired command and managerial (Type A) style and the creative and contingent (Type B) style. To this end, as Swieringa et al. (1992) comment, there is a directly proportional relationship between content and process and so the better the process the better the content. The insight is reaffirmed by Belbin in relation to adult learning.

Looking beyond the immediate task oriented and character-building focus of the Defence Academy, there is a wider foundation of professional development for future leaders that is the responsibility of this institution. Given this dual role for the Academy, there is good cause to be concerned about the immediate efficiency as well as longer-term efficacy of the program. Competing pressures in the Defence Academy place in doubt the efficiency of
the professional military studies component. Research also suggests that training and learning from experience\textsuperscript{32} are both limited processes because they are largely imitative and of little use when leaders are faced with novel and ambiguous situations. In such circumstances, the objective of professional development must be to enable creative and autonomous behaviour. It would seem clear that a more suitable developmental framework is needed to both facilitate the design of a suitable learning environment and to guide teaching practice.

The implication for military development processes is a need to shift from an instrumental purpose and socialisation to a wider and longer-term professional development goal. The consequent framework would need to integrate the pedagogical practices suited for higher order cognitive (Type B) skills with those more apt for job specific (Type A) competencies. Practically, and without rejecting formal training approaches, the educational approach would ideally be a scaffolded one that is based on a qualitative understanding of how people develop. Such an approach would see Type A skills as foundational and Type B skills and capability built upon this foundation by applying adult learning principles and having learners as active participants of the process.

The purpose of this integrated development approach would be to develop future leaders who understand broad organisational principles and strategy and are able to adapt and respond to novel and ambiguous situations that demand different behaviours. Development strategies would involve cognitive, psychomotor and affective aspects of development, or more simply involve learning by thinking, doing and by feeling.

The development and learning approach outlined in chapter 3 offers practical strategies to achieve this integration. Rather than the traditional transmission style of instruction, the proposed approach would merge pedagogical technique and assessment strategy suited to the respective three learning domains. Ideally, the program would emphasise continuous learning and would develop the skills of the learner to construct meaning using intellectual

\textsuperscript{32} A distinction is made here between learning from experience and learning through experience; the latter process involving active reflection and consequent re-conceptualisation of mental schema at both individual and collective levels.
frameworks. The curriculum rather than being objectives-based would be characterised by a flexible curriculum based on project and group-based work in a learning environment that encouraged reflection and experimentation. Qualitatively, the process would involve teaching staff skilled in facilitation and providing constructive feedback, with the aim to engage students to apply what they know, to think critically and reflectively, and to self-monitor their progress.

The transition in performance to a level of mastery at the individual learner level would represent deep learning, as learning advances from naïve and novice levels through to deeper level of understanding. It involves a cyclic process of developmental experience and learning through feedback and reflection, over the lifetime of the individual (see Figure 7.1). This level of performance, and the associated necessary cultural change, would come with time, a depth of understanding and considerable investment in terms of will, practice and reinforcement.
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Appendices:

APPENDICES 1-17
Appendix 1: Summary of Military College Officer Education Programs

<table>
<thead>
<tr>
<th>Place</th>
<th>Program Description</th>
<th>Length</th>
<th>Staff</th>
<th>Level</th>
<th>LDP Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADFA (Australian Defence Force)</td>
<td>Military education and training; Pre-commission training is based on a 36 month structured program. The academic curriculum is not controlled to the same degree as US/CAN academies;</td>
<td>36 mth + 12mth SST</td>
<td>Mil</td>
<td>UGM A</td>
<td>Leadership development as part of professional military studies program as well as concurrently with SST training activity; No cadet hierarchy Officer education - a career long process; initial three years in ADFA, then single service institutions for 12 months</td>
</tr>
<tr>
<td>RAN College HMAS Creswell</td>
<td>Single Service Training (SST) plus conduct of all New Entry Officer course</td>
<td>12 mth</td>
<td>Mil</td>
<td>Mil Accr</td>
<td>Program runs over three years of academy program, plus covers elements of the New Entry Officer’s course. Curriculum includes leadership and management theory, situational leadership, plus Navy specific &amp; military induction topics</td>
</tr>
<tr>
<td>RMC Duntroon</td>
<td>Single Service Training (12 months), plus New Entry Officer course (18)</td>
<td>12/18</td>
<td>Mil</td>
<td>Mil Accr</td>
<td>Program runs in parallel over 3 years to ADFA program, plus a further 48 weeks before commissioning. Leadership and character development are programmed through the process.</td>
</tr>
<tr>
<td>RAAF Point Cook</td>
<td>Single Service Training plus New Entry Officer course</td>
<td>Mil</td>
<td>Mil Accr</td>
<td>Program runs in parallel over 3 years to ADFA program, plus induction training that covers Command, Leadership &amp; management topics; all training viewed as part of ‘leadership thread’.</td>
<td></td>
</tr>
<tr>
<td>USMA (US)</td>
<td>Military education and training – WestPoint, US Objective: broad, liberal education via a very extensive controlled education program Officer Education over a full career</td>
<td>47 Mil &amp; Aca</td>
<td>UGM A</td>
<td>Very structured program taught by a combined academic and military faculty staff; process based on an active learning and includes personal leader philosophy; future development includes focus on qualities and attitude and includes reflection, 360-degree feedback, and growth with mentor support. Program has broken away from rigid class system, there is still a cadet Corp hierarchy</td>
<td></td>
</tr>
<tr>
<td>Place</td>
<td>Program Description</td>
<td>Length</td>
<td>Staff</td>
<td>Level</td>
<td>LDP Characteristics</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------</td>
<td>-------------</td>
<td>--------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>RMC (Canada)</td>
<td>Military education and training – Kingston, CAN Objective: broad, liberal education via a tailored education program Officer Education over career</td>
<td></td>
<td>Mil &amp; Aca</td>
<td></td>
<td>Structured program taught by a military and academic faculty; Use leadership opportunities for evaluation and development of cadets; Level of responsibility within a cadet hierarchy; cadet council elected by cadets but controlled IOT not undermine chain of command</td>
</tr>
<tr>
<td>RMC (United Kingdom)</td>
<td>Military education &amp; training – Sandhurst, UK Officer Education over career</td>
<td></td>
<td>Mil &amp; Aca</td>
<td></td>
<td>Sandhurst does not provide tertiary level academic program</td>
</tr>
<tr>
<td>NDA (Japan)</td>
<td>Military education and training, National Defence Academy, Japan Officer Education over career</td>
<td>48</td>
<td>Mil</td>
<td></td>
<td>Academic program includes theory of OB and psychology from both West and East perspective; strong emphasis on tradition and values; Practical leadership training includes cadet hierarchy;</td>
</tr>
<tr>
<td>NDA (Singapore)</td>
<td>Military training, Defence Academy, Singapore Officer Education over career</td>
<td>9</td>
<td>Mil UGM</td>
<td></td>
<td>Academic program sub-contracted to UWA; values based program based on knowledge, action and qualities model much like the Australian Army</td>
</tr>
</tbody>
</table>

Post-graduate military educational institutions

<table>
<thead>
<tr>
<th>Place</th>
<th>Program Description</th>
<th>Length</th>
<th>Staff</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC&amp;SC</td>
<td>Army Command and Staff College, Weston</td>
<td></td>
<td>Mil &amp; Aca</td>
<td>PG</td>
</tr>
<tr>
<td>USWC</td>
<td>US Army War College, Carlisle, USA</td>
<td></td>
<td>Mil &amp; Aca</td>
<td>PG</td>
</tr>
<tr>
<td>Naval WC</td>
<td>Naval War College, USA</td>
<td></td>
<td>Mil &amp; Aca</td>
<td>PG</td>
</tr>
<tr>
<td>ACSC</td>
<td>Air Command &amp; Staff College, USA</td>
<td></td>
<td>Mil &amp; Aca</td>
<td>PG</td>
</tr>
</tbody>
</table>

Legend:

Length          Duration of program
Staff:           Mil – Military, Civ – Civilian academic
Level:          UG (Undergraduate), PG (postgraduate), M (military), A (academic), Accr (accredited)
Appendix 2: Typology of the Leadership Process/EI Framework

The list of implications is indicative and not intended to be exclusive. It reflects the contemporary view of leadership adjusted for emerging leadership roles as discussed in Appendix 3 and depicted in Appendix 4.

<table>
<thead>
<tr>
<th>Leader Roles</th>
<th>Key Characteristics</th>
<th>Implication for Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>Personal and Professional mastery</td>
<td>Character &amp; Competence</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learn conceptual, interpersonal and creative capacities;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seek personal &amp; social competence</td>
</tr>
<tr>
<td>Inter-personal</td>
<td>Interpersonal process</td>
<td>Model</td>
</tr>
<tr>
<td>(Relationship behaviour)</td>
<td>affected by the situation (or context)</td>
<td>Be able to adapt behaviour</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Emphasise teamwork</td>
</tr>
<tr>
<td>Influencing others towards</td>
<td>Define purpose</td>
<td></td>
</tr>
<tr>
<td>achieving a specified task</td>
<td>Focus your team</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inspire and motivate team</td>
<td></td>
</tr>
<tr>
<td>Followers are an active</td>
<td>Build the Team: People &amp; Culture</td>
<td></td>
</tr>
<tr>
<td>component of the process</td>
<td>Grow interdependent members able to</td>
<td></td>
</tr>
<tr>
<td>Knowledge workers</td>
<td>make decisions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Coach &amp; Mentor people and develop</td>
<td></td>
</tr>
<tr>
<td></td>
<td>relationships</td>
<td></td>
</tr>
<tr>
<td>Achieve the Task</td>
<td>Goal Setting</td>
<td>Plan and Manage the Team</td>
</tr>
<tr>
<td>(Task behaviour)</td>
<td>Continuous Change</td>
<td>Plan long-term &amp; focus on results</td>
</tr>
<tr>
<td></td>
<td>Make decisions</td>
<td>Take appropriate risks</td>
</tr>
<tr>
<td></td>
<td>Evaluate changes in the environment</td>
<td>Diagnose problems accurately - think systemically</td>
</tr>
<tr>
<td></td>
<td>Leaders at all levels</td>
<td>Open &amp; widespread information sharing; joint accountability</td>
</tr>
<tr>
<td></td>
<td>Plan and execute assigned tasks</td>
<td>Apply critical thinking to arrive at reasoned judgements</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adapt plans and implement change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communicate: In a way that people can understand and accept</td>
</tr>
</tbody>
</table>

**EMOTIONAL INTELLIGENCE**

**PERSONAL COMPETENCE**
(How we manage ourselves)

- Relates to inner states of being, self-awareness, self-motivation, meta cognition, spiritual realities

**SOCIAL COMPETENCE**
(How we manage others)

- Operates via person to relationships and covers range of social competencies

- Self Managing Self Empathy Social
- Awareness Feelings Motivation Skills
## Appendix 3: Comparative General Framework of Leadership Styles

<table>
<thead>
<tr>
<th>Conventional Leadership Paradigm (A)</th>
<th>Underlying Assumptions</th>
<th>Emerging Leadership Paradigm (B)</th>
<th>Underlying Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command based leader-centric</td>
<td>Equilibrium, stability and control (reflecting 19th century physics and deterministic dynamics)</td>
<td>Adaptive team based systems approach</td>
<td>Self-organising structures and a life cycle</td>
</tr>
<tr>
<td><strong>Individualised reward and recognition (mechanistic)</strong></td>
<td>People are separate and different</td>
<td>Interconnection (organic)</td>
<td>People are individuals, different yet inter-connected. Relationships are important</td>
</tr>
<tr>
<td><strong>Minimise and control externalities</strong></td>
<td>But for external influence all things being equal we can achieve Nirvana</td>
<td>Externalities are a driving force (open)</td>
<td>The system is constantly unfolding There is no Nirvana</td>
</tr>
<tr>
<td><strong>Content (how to do it) based (task dependent)</strong></td>
<td>Key elements are people and rewards</td>
<td>Process (what to do not how) based (path dependent)</td>
<td>Key elements are participation and Responsibility</td>
</tr>
<tr>
<td><strong>Leadership is situational</strong></td>
<td>No dynamics, everything is at equilibrium</td>
<td>Leadership is constantly at the edge (evolving)</td>
<td>Influence moves; structures change, coalesce, decay and emerge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Linear, static, simplicity</td>
<td>Non-linear, evolving, complexity</td>
</tr>
<tr>
<td><strong>Decision-making leader driven</strong></td>
<td>The team is a resource used by the leader to achieve the assigned tasks</td>
<td>Decision-making shared process</td>
<td>The use of multiple task teams that are people dependent</td>
</tr>
<tr>
<td><strong>Motivational influence: Transactional</strong></td>
<td>Carrot and stick approach; conventional wisdom did not recognise the advantage of nurturing an early advantage</td>
<td>Motivational influence: Transformational</td>
<td>Inspiring, challenging; You cannot treat a highly skilled knowledge worker the same as a low skilled (technology) person</td>
</tr>
</tbody>
</table>
Appendix 4: Defence Leadership Model (Illustrated)

At the senior officer level in Defence, recent action saw the development of a formative Defence Leadership Model. This model (see Figure A4.1) is a summation of collective activity by all one-star and above officers of the ADF at what was termed the senior Leadership Recall Day on 23 Jun 2000.

The five leadership performance principles and leadership capabilities in this model were developed prior to the 'Recall Day' by the Chief of Defence Force and the Secretary of Defence, the senior most Defence military and civilian leaders, respectively. The senior officers who attended this activity compiled the leadership values and set of behaviours.

As an internal Defence communication reflects, the model that is intended to be included in the draft Defence Personnel Plan is different in framework and words, but similar in theme to what the single Services are using.

---

Figure A4.1: Defence Leadership Model (illustrated)

<table>
<thead>
<tr>
<th>Leadership Behaviours</th>
</tr>
</thead>
<tbody>
<tr>
<td>(List of sixteen behaviour, four per capability)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Leadership Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Set Standards, Direction, Communication, Climate, Persist)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Performance Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Challenge, Elbowroom, Feedback, Self-esteem, Pride)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Professionalism, Loyalty, Innovation, Courage, Integrity, Teamwork)</td>
</tr>
</tbody>
</table>

---

Appendix 5: Components in Team Leadership

Based on Appendix 2 and 3, the process of team leadership can be illustrated as comprising activity broadly within the components shown in Figure A5.1. The elements within these components illustrate broad areas of capability required for team leadership. The list is indicative and not intended as an exclusive list. However, because people are more likely to carry out those decisions that they help make, the value of participation is emphasised in the overall process.

Figure A5.1: Team Leadership - Broad Areas of Development

1. **Leadership Keywords:**
   - Process of influence
   - Involve people - seek to empower them
   - Basic competencies:
     - Leadership & management skills
     - Systems diagnosis
     - Adaptability & communication
   - Meta-competencies:
     - Willingness to expose oneself to new challenges
     - Willing to learn from experience
     - Meta-cognition

2. **Context**
   - Accurate Diagnosis
   - Plan & allocate resources
   - Adapt Plans

3. **Purpose**
   - Personal and Professional mastery
   - Environment of ambiguous, complex and dynamic change

4. **Followers**
   - Communicate
   - Mentor/Coach
   - Delegate

5. **A Leader’s Manifesto**
   - Clear Expectations and Participation
   - Identify Goals and develop strategy
   - Create the environment
   - Style: Values based adaptive enabler
Appendix 6: Key Characteristics of Leadership and Leadership Development

<table>
<thead>
<tr>
<th>Leadership</th>
<th>Summary Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modern military leadership methods provide valuable lessons for leaders</td>
<td>Command &amp; control architecture still remains but decision-making authority has been pushed down to the lowest level; (Overby 2002) Characteristics: about understanding human behaviour; inspiring and influencing individuals Brigadier General Robert Shea (USMA) in Overby (2002)</td>
</tr>
<tr>
<td>Managerial leadership has become more complicated</td>
<td>Development of leadership theory has not kept pace with the changes in the nature of work and the implications of these changes; (Hooijberg, James G. Hunt et al. 1997)</td>
</tr>
<tr>
<td>Managerial leaders have to learn to lead in situations of no command authority</td>
<td>Learn to lead in situations where they have no command authority, where they are neither controlled or controlling (Drucker 1994) (Mirvis 1996)</td>
</tr>
<tr>
<td>Managerial leaders need to lead upwards, and laterally as well as leading downwards</td>
<td>Leadership for change is a long way from 'valuing those who ran a tight ship'; (Fullan 1997) (Hooijberg, James G. Hunt et al. 1997) citing, Congers, 1993, Sayles, 1993, Imagine you are working with volunteers; Kouzes and Posner in (Auble 2002) (Manz and Sims 1987)</td>
</tr>
<tr>
<td>Change in conceptualisation of leadership in team-based organisations</td>
<td>Traditional view of leadership, demonstrated in the interaction between leaders and subordinates Leadership skills, knowledge and cognitive ability (Bass 1981) Effective leadership behaviour depends on the ability to solve problems that arise, (Mumford, Zaccaro et al. 2000)</td>
</tr>
<tr>
<td>Leadership as a interpersonal phenomena</td>
<td>Leadership as the ability to solve complex social problems General cognitive ability is the individual characteristic most often and consistently associated with leadership; Stogdill (1948) reported 23 studies that found leaders to be brighter than followers; (Bass 1981; Yukl 1998; Mumford, Zaccaro et al. 2000) Need crystallized abilities (oral &amp; written) to acquire, exchange and manipulate information (Bass 1981) 3 characteristics - willingness to 1) face difficult issues, 2) exercise influence, and 3) social commitment (Mumford, Zaccaro et al. 2000) citing Howard &amp; Bray (1988), Dweck (1986), House &amp; Howell (1992)</td>
</tr>
<tr>
<td>Change in conceptualisation of leadership in team-based organisations</td>
<td>Personality attributes that allow leader to use resources effectively in a turbulent and stressful environment Personality characteristics related to complex social problems: such as openness, tolerance of ambiguity, curiosity, confidence, risk taking, adaptability and independence; (Mumford, Zaccaro et al. 2000)</td>
</tr>
<tr>
<td>Leadership as the ability to solve complex social problems</td>
<td>Leading in the 1990's The four I's of transformational leadership: individualised consideration, intellectual stimulation, inspirational motivation, and idealised influence; (Avolio, Waldman et al. 1991)</td>
</tr>
<tr>
<td>Intelligence Cognitive abilities Solve ill-defined problems Leader (individual) motivational characteristics:</td>
<td>Leadership Practices Five practices shared by successful leaders: challenge the process, inspire a shared vision, enable others to act, model the way and encourage the heart; (Kouzes &amp; Posner, The Leadership Challenge)</td>
</tr>
<tr>
<td>Personality attributes that allow leader to use resources effectively in a turbulent and stressful environment</td>
<td>A typology of organisational leadership roles Leadership is a context dependent phenomenon; Based on internal and external focus and change vs stability: four roles of a leader: integrator, entrepreneur, administrator and producer; Recognition that leadership is to some extent detached from the functional requirements stated in theory - managers perform in accordance with normative demands &amp; combination of demands unfilled in an organisation</td>
</tr>
<tr>
<td>Leadership</td>
<td>Summary Comments</td>
</tr>
<tr>
<td>------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Leadership operations and Leadership Attributes</td>
<td>Six factors of leadership common to successful business leaders; tasks and activities represent Leadership Operations and innate personal qualities and traits are Leadership Attributes; (Sarros 1995)</td>
</tr>
<tr>
<td>Authority of knowledge rather than hierarchical power</td>
<td>See (Argyris 1970; McMaster 1996)</td>
</tr>
<tr>
<td>GE action learning programs (Workout)</td>
<td>Constructivism: the discipline concerned with the relationship between knowledge and reality &gt; individuals construct their world view and impose their order on &quot;objective reality&quot;; (Mirvis 1996: 17) Change in an interpretive system is not only influenced by new cognitive inputs; emotion in invoking threat and instilling confidence are other ways to unfreeze and move an organisation; shared vision(Mirvis 1996)</td>
</tr>
<tr>
<td>Learning Organisation</td>
<td>Concept works at individual and group level, but we do not know how to work at the organisational level (Quick and Kets de Vries 2000)</td>
</tr>
<tr>
<td>Skills based approach to leader performance in the 21st century</td>
<td>Need to account also for the organisational, situational and contextual factors, as well as team dynamics; (Yammarino 2000) Knowledge, problem-solving, solution construction skills and social judgement to solve organisational problems; (Mumford, Zaccaro et al. 2000; Mumford, Zaccaro et al. 2000; Yammarino 2000) Leadership: is a complex multi-level phenomena; Each theory has value for understanding aspects of leadership; each theory frames leadership in a certain way All focus is on leader-follower interactions as the essence of leadership; (Mumford, Zaccaro et al. 2000)</td>
</tr>
<tr>
<td>Skills are increasingly manifest at higher levels of the organisation Leader traits we admire</td>
<td>Organisations are progressively more loosely knit entities Need to permit leadership on a distributed net - post industrial organisation; (Mumford, Zaccaro et al. 2000) Honest, competent, forward looking and inspiring (Auble 2002)</td>
</tr>
<tr>
<td>Leadership (the term): Trailblazing Transformational Great man model Potential in many people</td>
<td>Expanded notion of leadership - implies finding new ways. At individual level (their own boundaries), organisational (internal systems) and societal (better social, equity, justice). (Klagge 1996) Social movement (good citizen), (Zimmerman-Oster and Burkhardt 1999); Using PDCA cycle and values to move from Model1 to Model 2 non-routine learning (Mink 1991) Leadership as the province of a few gifted individuals (Bass 1981) Leadership skills and subsequent performance emerge through experience and the capability to learn and benefit from experiences (Mumford, Zaccaro et al. 2000)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Development characteristics</th>
<th>Summary Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>Expansion of a person's capacity to be effective in leadership roles and processes. It requires development of self awareness, systemic thinking &amp; creativity (synonymous with personal development) (CCLH 1998)</td>
</tr>
<tr>
<td>Explaining underlying processes</td>
<td>Constructivist development (CD) - adult development theory can bridge the gap in explaining underlying processes which enable an</td>
</tr>
<tr>
<td>Knowledge and skills</td>
<td>individual to be more effective; (Lucius and Kuhnert 1999) Need to question basic assumptions around leadership development (Zenger, Ulrich et al. 2000)</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Senior Leaders</td>
<td>Are capabilities that emerge over time as a function of education and experience, (Mumford, Zaccaro et al. 2000); Skills based approaches have practical advantages Curricula of personal mastery &amp; team learning (Mirvis 1996) Schein thinks regular meetings to formulate strategy with senior managers was more to do with anxiety reduction; (Quick and Kets de Vries 2000) Shifted from targeted few with high potential to major tool for the revitalizing organisations and building learning oriented competitiveness; (Ready, Vicere et al. 1994) Assess leadership capacities in realistic exercises, or identify requisite developmental interventions; criticised for limited behavioural samples, method variance, expense They generally focus on observable performance (not other key (hidden) capabilities Structured focused exercises can yield effective leader assessment; (Mumford, Zaccro et al. 2000)</td>
</tr>
<tr>
<td>Executive Development</td>
<td></td>
</tr>
<tr>
<td>Assessment centres</td>
<td></td>
</tr>
<tr>
<td>vs</td>
<td></td>
</tr>
<tr>
<td>Constructed response structured exercises</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>LD program characteristics</th>
<th>Summary Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two ways to experience something</td>
<td>You can read about it and look at what formal science teaches you, or you can experience those same things directly; there is a huge gap between what you experience and what you know conceptually from research; Edgar Schein in (Quick and Kets de Vries 2000) Better sense of social systems and complexity of working with groups (referring to T groups and therapeutic model)</td>
</tr>
<tr>
<td>The role of trainer - a low-key facilitative interventionist</td>
<td>OD is a clinical process: any intervention is because there is a sense that something is not right; Organisations produce toxins and residues: in human systems these are a normal by-product of growth and development; Organisation's low grade fever - normal level of toxicity; In organisations, the equivalent of kidneys &amp; liver (the immune system) are humans - they absorb and process anxiety and compensate for pathological things others do. Schein in (Quick and Kets de Vries 2000) Use the calm of war to reflect on the turmoil of the coming peace - this is the challenge (Dolan 2002)</td>
</tr>
<tr>
<td>Use of metaphor:</td>
<td></td>
</tr>
<tr>
<td>Need to develop key 'hidden' capabilities</td>
<td>Using model of leadership performance (Mumford, Zaccaro et al. 2000); Hidden capabilities - principal based knowledge, mental models &amp; identification of consequences Training programs &amp; exercises can be devised to develop powerful interventions over time; (Mumford, Zaccro et al. 2000)</td>
</tr>
<tr>
<td>It is not culture free</td>
<td>Techniques and activities need to be adapted to the local environment; growing interest in the possibility that cultural differences may be at the heart of much of the failures of strategies imported from abroad; Bruce Irwin from The Cultural Imprint for Leadership (PSMPC 2000)</td>
</tr>
<tr>
<td>Management education</td>
<td>MBA - described as the nursery of organisational leadership (Mellahi 2000)</td>
</tr>
<tr>
<td>LD program characteristics</td>
<td>Summary Comments (continued)</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>University based programs:</td>
<td>Evidence of success only in isolated studies and limited to institutional reports</td>
</tr>
<tr>
<td>They do develop students</td>
<td>Small number of potential senior leaders accessing training vs the larger numbers who assume lesser positions of responsibility in groups, organisations &amp; society</td>
</tr>
<tr>
<td>Ethical issue</td>
<td>Students who participated in development projects showed greater gains (self assessed - leadership abilities and civic sense) compared to non-funded school students</td>
</tr>
<tr>
<td>Kellogg's Foundation funded schools improve academic performance and develop civic responsibility</td>
<td></td>
</tr>
<tr>
<td>Literature</td>
<td>Heavy reliance on US literature; studies cited in (Mellahi 2000); theories are masquerading as universal theories; at best ethnocentric and at worst colonialist</td>
</tr>
<tr>
<td>International students</td>
<td>Students coerced into adapting to the majority western management paradigms and frequently struggle to make sense of material from their perspective (Mellahi 2000)</td>
</tr>
<tr>
<td>Role in corporate management</td>
<td>Growing demand for award and non-award programmes of study run by a University with involvement by a corporation (Prince and Stewart 2000)</td>
</tr>
<tr>
<td></td>
<td>University courses lack focus and relevance that tailored company programs possess and lack of control &amp; ownership firms are wanting; (Prince and Stewart 2000)</td>
</tr>
<tr>
<td>Personal development</td>
<td>Self-esteem, Coping skills, Positive assertion, Locus of control, Conformity, Sympathy, Self-efficacy, Caring</td>
</tr>
<tr>
<td>&quot;hallmarks&quot; for success (Maslow's Third Force Psychology) - Maslow, 1959, Bandura, 1997)</td>
<td>Use of feedback (360 degree &amp; performance evaluation), use of recognition and reward systems, use of training in required KSAs, course evaluation (Klagge 1996)</td>
</tr>
<tr>
<td></td>
<td>Get an autonomous workforce via PDPs but are resource intensive and can mean different things to employers and employees, (Tamkin 1996)</td>
</tr>
<tr>
<td>Personal development (PD)</td>
<td>Growing need for PD in light of change and evidence it contributes to organisational success; Self - inner - confidence: self-knowledge, self-love, clear personal goals, and positive thinking. Training will depend on staff motivation and expertise of trainers. (Lindenfield 1995)</td>
</tr>
<tr>
<td></td>
<td>Individual needs aspect of education has the longest tradition (of management education). (Prince and Stewart 2000)</td>
</tr>
<tr>
<td>Meta-abilities: such as cognitive skills, self-knowledge, emotional resilience &amp; personal drive</td>
<td>Both personal and professional; often seen as part of style or maturity of the manger. Inappropriate even impossible to separate development of meta abilities from career development. Developed from within; (Butcher and Harvey 1998)</td>
</tr>
<tr>
<td>Self development</td>
<td>Importance of self-direction and personal responsibility in the development process; mutually beneficial to individual and organisation</td>
</tr>
<tr>
<td></td>
<td>Two dimensions: focus is qualitative change, innovation, and learning (of knowledge and skills) and has personally meaningful goals. (Antonacopoulou 2000)</td>
</tr>
<tr>
<td>Professional development</td>
<td>Development strategy must be congruent with profile of the group Personal and professional growth arguably has the greatest impact on student learning. To be effective need a supportive climate (Law 1999) Organisational, business and individual needs must come together in a professional body context (Browell 2000).</td>
</tr>
<tr>
<td>LD program characteristics</td>
<td>Summary Comments (continued)</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------</td>
</tr>
</tbody>
</table>
| Continuing professional development | Focus is still external courses rather than the effective management of a learning environment at work (Jones and Robinson 1997)
Link personal development to business strategy;
Ensure you and the team take time to reflect so that lessons are internalised;
Hold yourself accountable have an action plan for improvement;
discuss it with a mentor (Yost and Plunkett 2002) |
| Corporate Management Development | Typically MBA, Diploma, or Graduate Certificate; Survey indicate 96 \% of companies in UK undertake management education;
Orientation: strategic, performance driven and individual needs driven (Prince and Stewart 2000); this coincides with the three tracks process of (Kur and Bunning 1996) |
| Education and Socialisation | Education: The intellectual foundation for the transformation of the military.
To sustain competencies, but increasingly towards leader development. (Shelton 2001)
Experience at an academy is less a process of inculcating new and different values than of reinforcing the institutionally compatible values of those who choose the military. (Stevens, Jr. et al. 1994) |
| Education and Socialisation contd. | "Leadership not a class but a way of life".
"...they cut your hair off, stick you in uniform…. start humiliating you…go get sworn in and … [then one of the] guys says… one of you is not going to make it through.”
(Stirling 2000)
GE's "corporate glue" (Evans, Pucik et al. 2002: 350); |
| Programs: content focus and processes adopted | Focus on functional competencies & specific tasks
Learning process situated in an organisational context (CCLH 1998)
Leaders must develop leaders; emphasis on story telling about the future of the organisation and teachable point of view (Cohen and Tichy 1997)
Emerging leadership perspectives: diffusion of leadership vs elitism; transformational and empowering vs top-down and total control concepts; (Hackman, Olive et al. 1999)
Leadership and workforce development are tied together (Hackman, Olive et al. 1999)
Model of core components and meta-competencies for professional development (Cheetham and Chivers 1996)
360-degree assessment instrument, learning contract, learning team guide, learning plan. (CCLH 1998)
Develop skills related to business issues by participation on programs such as developing business strategy, competing globally, diversity and globalisation, leading teams and change, (Evans, Pucik et al. 2002: 350)
Learning set: a collaborative process between a group of executives who take responsibility for identifying and managing their own development needs, meeting regularly with a facilitator (PSMPC 2000)
Adult learning principles: Student autonomy, respect, value of active learning, student centred learning;
Practice of teaching to address product and process
Kolb Learning cycle: to use of personal experience, but requires a skill to reflect on that experience (learn through experience rather than from experience); Learning is NOT organised - it is a pattern. |
<table>
<thead>
<tr>
<th>LD program characteristics</th>
<th>Summary Comments (continued)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs: content focus and processes adopted contd.</td>
<td>USMA use of role models, &quot;followership&quot;, hands-on leadership experience through cadet leader roles, and study of past and present leaders. Instructional strategies emphasise <em>&quot;critical thinking skills&quot;</em>, where &quot;cognitive skills is pre-eminant over mere knowledge&quot; and the integrative development of higher order cognitive skills (McNally, Gerras et al. 1996: 176-177) Assessing complex problem-solving skills, solution characteristics skills, social judgement skills, and knowledge; nomological validity of battery of questions to measure leader ability; (Zaccaro, Mumford et al. 2000)</td>
</tr>
<tr>
<td>Domains of learning: Task oriented technical domain, Practical - social interaction, and Emancipatory - self knowledge; perspective transformation</td>
<td>Ways of knowing will vary with Habermas' three domains; The behavioural change (competencies) model for adult ed. is suited to task oriented technical domain, but has been applied indiscriminately to other domains; (Mezirow 1981) Educators must master the demands of all 3 domains &amp; work with learners in ways that are sensitive to inherent differences &amp; interrelatedness among them (Mezirow 1981)</td>
</tr>
<tr>
<td>Types of Learning Type 1 knowledge based Type 2 Competency Type 3 Self development</td>
<td>Learning varies according to the nature of the subject discipline; type 1 is based on absorption of factual information - depends on memory; type 2 builds on this factual info and results in altered skills based behaviour; type 3 implies a whole person process - can range from minor to major change and depicted as transformational learning. (Wills 1994)</td>
</tr>
</tbody>
</table>
Appendix 7: Understanding Organisational and Individual Learning

Figure A7.1 Understanding Organisational and Individual Learning

<table>
<thead>
<tr>
<th>Organisation</th>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Concept(s)</th>
<th>P. Senge</th>
<th>C. Argyris</th>
<th>J. Bruner</th>
<th>J. Piaget</th>
<th>R. Kegan</th>
<th>L. Vygotsky</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Systems Thinker</td>
<td>Theory in Action – Human beings as actors</td>
<td>Constructivism</td>
<td>Naturalistic research Genetic development</td>
<td>Constructivism</td>
<td>Social Cognition</td>
</tr>
<tr>
<td></td>
<td>Adaptive Learning</td>
<td>Single and Double Loop Learning</td>
<td>Construction of knowledge in interaction with culture</td>
<td>Learning in interaction with community knowledge constructed in social context</td>
<td>Five Stage model of Thinking</td>
<td>Knowledge constructed in social context Language primary form of interaction</td>
</tr>
<tr>
<td></td>
<td>Generative Learning</td>
<td>Espoused and Practiced theory</td>
<td></td>
<td>Assimilated Learning</td>
<td></td>
<td>Culture acts as the prime determinant of individual development</td>
</tr>
<tr>
<td></td>
<td>Creative Tension</td>
<td></td>
<td></td>
<td>Accomodated Learning</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Essence</th>
<th>Mental models</th>
<th>Routine Behavior</th>
<th>Extrinsic Problem Solving</th>
<th>Internalised Argumentation Cognitive Stuctures Trust in Social Environment</th>
<th>And / Both thinking</th>
<th>Communica tion Internalised social relations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Systems Thinking</td>
<td>Intelligent System Vision</td>
<td>Intrinsic Problem Solving</td>
<td></td>
<td>Many ways of constructing reality</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shared Vision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personal Mastery</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Problem in Organisation or Individual today</th>
<th>Too much Adaptive Learning</th>
<th>Defensive reasoning</th>
<th>Extrinsic problem solving</th>
<th>Internalised argument Defensive reactions in social context</th>
<th>No self-reflexivity or critical stance – thinking is essentially collective and traditional. Reality common to a culture</th>
<th>Problem solving is reinterpreted in an established social context</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No shared vision</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No systems thinking</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Learning Contextual Learning Developmental
Appendix 8: Summary of Cognitive and Social Development Theory

1. Development is concerned with the qualitative changes (i.e. changes in complexity) that accompany the simple increases of growth. This form of change relates to learning because of experiences. Development processes are considered in two dimensions: cognitive development - the building of mental skills\(^{34}\) and social development - the development of emotions, personality, inter-personal relations and moral reasoning across a life span. A summary of cognitive and social development theories is shown in the table below.

<table>
<thead>
<tr>
<th>Cognitive Development Theorists</th>
<th>Nature vs Nurture</th>
<th>Domain specific of general</th>
<th>Development process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piaget</td>
<td>Biological maturation is crucial; environment plays a secondary but important role. Four stages of development</td>
<td>Development occurs across domains simultaneously; some domains may change slightly ahead of others.</td>
<td>Equilibrative processes of assimilation and accommodation.</td>
</tr>
<tr>
<td>Neo-Piagetians</td>
<td>Emphasised the role of environment more than Piaget; a possible fifth (problem finding) stage and question ages of stages.</td>
<td>Like Piaget - development occurs across domains simultaneously, with some slightly ahead of others.</td>
<td>Same as Piaget</td>
</tr>
<tr>
<td>Vygotsky</td>
<td>Social and physical environment are crucial. The zone of proximal (or potential) development (ZPD) is the range between a child's observed ability &amp; potential undeveloped capacity. Development is continuous (not in stages)</td>
<td>The zone of proximal development (maturational readiness) may apply to many domains, but the environment supports development only in specific domains, thus affecting development.</td>
<td>Internalisation (absorption of knowledge) that results from interactions between individual and environment, occurring within an individual's ZPD.</td>
</tr>
<tr>
<td>Information processing theorists</td>
<td>Nature provides physiological structures and functions (memory) and nurture the environmental supports that allow the individual to make the most of existing structures. Development is continuous (not in stages)</td>
<td>Various; some theorists focus on processes that generalise and others on specific domains</td>
<td>Internal changes in cognitive processing because of physiological maturation, events and individual's shaping of cognitive processes.</td>
</tr>
</tbody>
</table>

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\(^{34}\) While brain weight may decrease by 5 percent between the peak in neural growth (in early adulthood) and about age 80 years, the brain, which is remarkably plastic, can continually increase neural connections as long as an individual remains active (Sternberg, 1995, citing Coleman and Flood, 1986)
Encompasses four areas of personal growth: emotional, personality, interpersonal, and moral development. Psychologists have developed several theories to account for personality, identity, self-esteem, life structure, and moral development, across three stages of life. These are not culturally generalizable, but provide a still useful analysis of transitions in our lives.

<table>
<thead>
<tr>
<th>Social Development Theorists</th>
<th>Early adulthood novice (17 - 40)</th>
<th>Middle adulthood (40 - 65)</th>
<th>Late adulthood (65 onwards)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Personality:</strong> Erikson</td>
<td>Intimacy vs isolation (Ability to love and connect with a significant other)</td>
<td>Generativity vs stagnation (Productive in work and contributes to the next generation vs self-centred)</td>
<td>Integrity vs despair (Make sense of life and gain wisdom vs despair at lost opportunities)</td>
</tr>
<tr>
<td><strong>Identity:</strong> Marcia</td>
<td>Identity achievement (who you are), foreclosure (on occupation), identity diffusion (lacking direction), moratorium (identity crisis) and possible alienated achievement</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Self-Esteem:</strong> Harter</td>
<td>Self-esteem based on intelligence, sense of humour, job competence, morality, athletic ability, physical appearance, sociability, intimate relationships, nurturance and adequacy as a provider</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Life Structure:</strong> Levinson</td>
<td>Evaluate nature of the world and their place in it; establish families and careers and attempt to build a better life</td>
<td>Evaluate achievements; sometime change marital status, career or attitudes; consider retirement and old age.</td>
<td>Awareness of changing physical and mental abilities; stay connected to family, friends, interests; come to terms with mortality.</td>
</tr>
<tr>
<td><strong>Moral:</strong> Kohlberg</td>
<td>Conventional morality and, in rare cases, post conventional morality</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Appendix 9: Summary of Development Terminology and Activity

1. Development terminology and scope of development activity are illustrated in the table. There is little in-depth documentation of the results of development efforts.

<table>
<thead>
<tr>
<th>Terms</th>
<th>Higher Order Meta-skills</th>
<th>Focus of Associated Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive leadership</td>
<td>Leadership and personal tracks</td>
<td>➞ Business track (?)</td>
</tr>
<tr>
<td>Leadership and workforce development</td>
<td>Transformational &amp; empowering</td>
<td></td>
</tr>
<tr>
<td>Leadership development</td>
<td>Cognitive &amp; social development</td>
<td>➞ Behavioural skills</td>
</tr>
<tr>
<td>Personal leadership</td>
<td>Individual, organisational and societal change</td>
<td></td>
</tr>
<tr>
<td>Personal development</td>
<td>Self (inner) confidence</td>
<td>➞ Autonomous workforce, Social (outer) confidence</td>
</tr>
<tr>
<td>Self development</td>
<td>Change, innovation, learning, Personally meaningful goals</td>
<td></td>
</tr>
<tr>
<td>Professional education</td>
<td>Teaching learning skills</td>
<td>➞ Update on subject content</td>
</tr>
<tr>
<td>Professional development</td>
<td>Developing excellence (best by action learning)</td>
<td>➞ Developing foundational - competence by training &amp; instruction</td>
</tr>
<tr>
<td>Continuing professional development</td>
<td>Personal and professional learning and growth that contribute to objectives</td>
<td></td>
</tr>
<tr>
<td>Continuous professional development</td>
<td>Lifelong learning (process)</td>
<td>Learning (product)</td>
</tr>
<tr>
<td>Staff development &amp; professional education</td>
<td>Self-directed learning, implicit longer term benefit for both individual and organisation</td>
<td>➞ Training to update professional knowledge (?)</td>
</tr>
<tr>
<td>Career development</td>
<td>Meta-abilities</td>
<td>➞ Technical and interpersonal skills</td>
</tr>
<tr>
<td>Professional Competence</td>
<td>Meta-competencies, meta-skills or meta-qualities&lt;sup&gt;36&lt;/sup&gt;</td>
<td>➞ Core skills (functional, behavioural, cognitive, value competence)</td>
</tr>
<tr>
<td>Meta ability development</td>
<td>Cognitive and social skills</td>
<td></td>
</tr>
<tr>
<td>Summative broad development trends</td>
<td>US - transformative, values based &amp; outer self confidence</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UK and Europe - learning &amp; integration of individual &amp; organisational goals</td>
<td></td>
</tr>
</tbody>
</table>

<sup>35</sup> Self-confidence: <i>Inner</i> - self-love, self-knowledge, clear personal goals and positive thinking; and <i>Outer</i> - communication, self-presentation, assertiveness and emotional control.

<sup>36</sup> Self development, creativity, communications, problem-solving and analytical ability, mental agility, and balanced learning skill
Appendices

Appendix 10: Developing Talent Principles and Developing Framework

People develop through challenging assignments. However, "risk management is necessary to avoid failure and other costs" that the organisation naturally wishes to avoid, but not so much that success is guaranteed and that people do not "learn to deal with hardship" (Evans, Pucik et al. 2002: 354). Three guiding principles are evident:

- **Challenge:** At the heart of development is the basic logic that people learn most by doing things they have not done before.

- **Risk Minimization:** While mistakes are a good tool for learning, there is a need to minimize the risk to operational performance. Coaching, feedback, training, mentoring, and expectation setting are part of a risk minimization strategy.

- **Hardship Experiences:** As people will move into leadership positions they ultimately need to stand on their feet and the need to be held accountable. This leads to dealing with hardship experiences.

Merging these principles with development considerations identified by the Centre for Creative Leadership (CCLH 1998), provides a useful planning framework.

<table>
<thead>
<tr>
<th>Element</th>
<th>Motivational aspect</th>
<th>Resource Consideration</th>
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</thead>
<tbody>
<tr>
<td>Assessment</td>
<td>Desire to close the gap between current and ideal self</td>
<td>Clear goals about necessary changes; feedback to mark progress and tools to assist</td>
</tr>
<tr>
<td>Challenge</td>
<td>Activity that moves people beyond their comfort zones.</td>
<td>Stretch goals and hardship experiences; Provide organisational context</td>
</tr>
<tr>
<td>Support</td>
<td>Value placed on change</td>
<td>Feedback, mentoring and other confirming messages that open them to learning</td>
</tr>
<tr>
<td>Development process</td>
<td>Novel experiences, Learn by doing, Learning to learn</td>
<td>Opportunity to experiment; start-up ventures, variety of challenges</td>
</tr>
<tr>
<td>Strategies</td>
<td>Variety of experiences: that provides assessment, challenge, and support; enhance ability to learn and integrate &amp; embed development experiences into organisational context.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Cynthia McCauley, Russ Moxley, Ellen Van Velsor (Ed), The Centre for Creative Leadership Handbook of Leadership Development (CCLH 1998)
Within this planning framework, strategies for the guiding principles might include:

### Table A10.2: Strategies for the Guiding Principles

<table>
<thead>
<tr>
<th>Assignment Challenges</th>
<th>Risk Minimization</th>
<th>Hardship Testing</th>
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<tbody>
<tr>
<td><strong>Expanded scope</strong>: vertical development in responsibility (numbers of people, dollars and functions to manage).</td>
<td>Assessment of skills, motive and attitudes of the individual</td>
<td>Business failures and mistakes</td>
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<tr>
<td><strong>Project/task force</strong> assignments to develop by delivering results to unclear needs of sponsors</td>
<td>Clarification of goals and targets of assignment</td>
<td>Missed promotions and jobs</td>
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<tr>
<td><strong>Cross-functional assignments</strong>: to develop integrative skills and ability to lead people with more expertise than themselves</td>
<td>Coaching (by supervision or informal)</td>
<td>Confronting a subordinate with a performance problem</td>
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<tr>
<td><strong>International assignments</strong>: to develop integrative skills</td>
<td>Mentoring</td>
<td>Breaking out of a rut such as by taking on a new career in response to discontent with the current job</td>
</tr>
<tr>
<td><strong>Building something from nothing</strong>: responsibility for a start-up venture</td>
<td>Exposure to role models</td>
<td>Experience of personal trauma - such as being fired, divorce, or death.</td>
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<tr>
<td><strong>Change projects</strong>: fix or stabilize or otherwise change an operation</td>
<td>Training development</td>
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<tr>
<td><strong>Being given an entrepreneurial project</strong></td>
<td>Access to people with experience</td>
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<tr>
<td></td>
<td>Timely Feedback</td>
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</tbody>
</table>

**Developmental outcomes** identified for development programs include: self-awareness, self-confidence, ability to take a broad, systemic view, ability to work effectively in social systems, and an ability to work creatively, and an ability to learn from experience (McCall 1998).

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Appendix 11: Vicere's Seven Stage Framework for Planning Development

There are varieties of approaches to leadership development, although organisations, HR professionals and consultants have their own preferred approach. An integrated seven-stage model is shown below (Vicere 1997).

**Figure A11.1: Vicere Seven Stage Model**

This model identifies a set of logical steps to developing a program. Using this or any other framework, there are three major elements to an effective leadership development program. These are enhancing self-development and self worth, enhancing leadership and team skills, and contributing to improved organisational performance. Importantly, all three elements must be included to some degree.

Step one involves articulating the strategic imperatives determining and defining the key objectives that are vital to the success and growth of the organisation (Conger 1997, Tichy and Devanna 1986, Vicere 1997). This step is the focus for criticism of development programs. Arguably, while any program may benefit management skills, it is incorrect to assume these skills will have relevance to organisational purpose and so to the company's success.

Step 2 requires a precise definition of the objectives and competencies desired as well as any specific issues and constraints.
Step 3 is concerned with content, method and timing of the program. This process may also include consideration of follow-up activities and on-the-job tasks or work based projects to ensure successful transfer of skills to the job. The follow-up sessions transform learning events into an on-going process. It is useful to bring participants back six – eight months after attending a program for a follow-up session to reinforce concepts and skills, to provide an opportunity to reflect on learning and successful application of the skills.

Step 4 involves selecting the providers and design of specific learning program, followed by conduct of the particular program.

Step 5 requires an evaluation of the program delivered and its effectiveness, using a framework such as the Kirkpatrick model (1959).

Step 6 requires a process that integrates the contents of the leadership development program into the organisational systems. So for example, particular skill sets can be added to the performance appraisal system and promotion criteria. This supportive workplace environment is a most effective way to ensure transfer of skills into the job.

Step 7, which involves on-going review of the program to see that it continues to delivers value, to see if it still fits the objectives of the organisation and a general examination of the philosophy on how, when and where it is run.
Appendices

Appendix 12: Open Systems and Learning Organisations

The open systems model by Mink advocates a new organisational form with three characteristics: *integrated wholeness*, *internal responsiveness* and *external responsiveness* examined at the *individual*, *group* and *organisational* levels (Mink 1991: 21). It highlights the importance of continuous improvement and in turn points to the vital role of learning. The new frontiers will require adaptive behaviour and flexibility and will call on the capacity to reshape the organisation with adaptive strategies and flexible structures that transform and self organise.

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**Figure A12.1: Mink's Open Systems Model (Source: Oscar Mink, (1991)**

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38 Integrated wholeness refers to self-concept and personal values at the individual level, concern, and commitment to team goals at the group level, and purpose and sense (vision) of where the organisation is headed (Mink, 1991).
Appendix 13: Framework for Understanding Performance

A teaching for learning performance view of understanding defines understanding as the ability to use knowledge in novel situations (Wiske 1998). By this definition, knowledge becomes a reflective tool for solving problems, making judgements and transforming everyday life. This conception contrasts with the more widespread factual approach to knowledge.

The framework outlined below, invites teachers and students to ask new kinds of questions about domain based knowledge. Four dimensions of understanding (knowledge, methods, purpose and forms) and four levels of understanding (naïve, novice, apprentice and master) are described. This is a conceptual tool to examine students' understanding and to orient future work. It is intended as a working tool and will need to be adapted to the content, context and level of instruction being used.

<table>
<thead>
<tr>
<th>Levels Dimensions</th>
<th>Naïve</th>
<th>Novice</th>
<th>Apprentice</th>
<th>Master</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge: Transformed intuitive beliefs and coherent &amp; rich conceptual webs</td>
<td>Concepts are intuitive, based on mythical beliefs; Knowledge seem dull, blurred or undifferentiated; Students see examples and generalisations as unconnected; Even when prompted they either see from the point of view of specific examples or broad generalisations</td>
<td>Eclectic; mixed intuitive and fragments of disciplinary knowledge; rephrased connections between concepts; When prompted can move from examples to generalisations;</td>
<td>Theories and concepts prevail; knowledge is still unrelated to common sense and unable to reason creatively; Knowledge is still unrelated to commonsense beliefs; Fertile network of ideas, some gaps or contradictions; not able to reason creatively within disciplinary frameworks</td>
<td>Concepts prevail, organised networks of ideas, examples &amp; generalisations support one another; knowledge can refine commonsense beliefs; New interpretations are consistent with frameworks; highly organised networks of ideas; fluent movement between examples &amp; generalisations that support each other; create new associations, examples or responses consistent with disciplinary frameworks</td>
</tr>
<tr>
<td>Naïve</td>
<td>Novice</td>
<td>Apprentice</td>
<td>Master</td>
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<tr>
<td><strong>Methods:</strong>&lt;br&gt;Healthy scepticism towards own beliefs and other sources of knowledge; build reliable knowledge in domain using strategies, methods similar to professionals</td>
<td>Knowledge &amp; the world are undifferentiated; no apparent method to building knowledge beyond trial &amp; error; No validation criteria apparent; things are evidently true - because it is so</td>
<td>Knowledge is humanly constructed; can be self-critical but nihilistic, thus putting any belief under question; sees value of and can use simple methods to build knowledge; Sees importance of validating knowledge, values; validity is grounded on external authority - texts, experts or teachers; Validation tends to be based on experience or authoritative assertions unrelated to rules or traditions in the domain</td>
<td>Knowledge is humanly constructed, framework driven and provisional; multiple methods perceived and used; they use a variety of methods Validates knowledge, values, going beyond relativism to explain how criteria relate to broader framework; Can see criteria as open to questioning and revision over time</td>
<td></td>
</tr>
<tr>
<td><strong>Purposes:</strong>&lt;br&gt;Awareness of the purposes of knowledge, uses of knowledge, and ownership &amp; autonomy</td>
<td>Unaware of essential questions &amp; purposes that drive inquiry in the domain; do not explore potential of what they learn beyond prescribed tasks; their performance show little relation to what they learn &amp; life experiences; their use of knowledge requires support &amp; depends on authority's instruction; do not see the need to develop a personal position about what they learn.</td>
<td>Aware but not clear of essential questions that guide inquiry in a domain; use of knowledge tied to school rituals (essays/presentations), with support can connect learning with life experiences; need support to use knowledge in novel situations; when supported, can see authors' position &amp; interests, but seen as unrelated to a personal position on the topic</td>
<td>Spontaneously search &amp; identify essential questions and purposes; recognise these questions as a part of their own lives; use knowledge in multiple &amp; novel ways; reinterpret daily life through these lenses; own what they have learned &amp; able to use this knowledge, with careful consideration of multiple perspectives &amp; concerns</td>
<td></td>
</tr>
<tr>
<td><strong>Forms:</strong> Effective use of symbols (reports, presentations), use of symbols to represent their knowledge; and consideration of audience and context</td>
<td><strong>Naïve</strong></td>
<td><strong>Novice</strong></td>
<td><strong>Apprentice</strong></td>
<td><strong>Master</strong></td>
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<tr>
<td>The genre or types of performances by which they communicate their ideas appear irrelevant; unaware that genres have specific rules; symbols are used non-reflectively, so flat &amp; unclear representations; communication is egocentric - audience not taken into account and possible miscommunication are not apparent.</td>
<td>Performances are ritualistic; when prompted can perform in a different genre; familiarity with symbol systems, but tend to use one system to express what they have learned; audience taken account of but through egocentric lens (they assume the burden of understanding). Communication equals transmission; No attention to specific ways context may shape communication.</td>
<td>Engage in rich understanding performances; move expressively &amp; flexibly within genres or types of performances; flexible mastery of a symbol system - expressive metaphors, careful body movements; can use more than one symbol system when prompted; with support take audiences into account - gender, needs, cultural backgrounds, but not able to provide thoughtful feedback; initial awareness of context affecting communication; do not have a realistic sense of difficulties in communicating - still a matter only of intent.</td>
<td>Engage in rich understanding performances; move expressively &amp; flexibly within genres or types of performances; produce novel &amp; acceptable changes to ways of performing; demonstrate a clear personal style; flexible mastery with different forms of representation of what they know; purposeful use of symbols to support representational goals; use more than one symbol system to serve the purpose; take audiences into account by being sensitive to gender, interests, needs, levels of expertise and culture; aware of demands that context impose on communication and of difficulties of communicating.</td>
<td></td>
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</tbody>
</table>
### Appendix 14: Core Learning Principles and Implications for Teaching

**Table A14.1: Learning Principles and Implications for Teaching Practice**

<table>
<thead>
<tr>
<th>Core Learning Principle</th>
<th>Implications for Teaching Practice</th>
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</thead>
<tbody>
<tr>
<td>First, students come to the classroom with preconceptions about how the world works. There is a need to engage their initial understanding, otherwise new concepts and information may not be grasped or they may surface learn for a test and then revert to preconceptions outside the classroom. Effective teaching elicits students pre-existing understanding of the subject and provides opportunities to build on or challenge the initial understanding.</td>
<td>To draw out and work with pre-existing understanding, teaching staff must: Discard the view that a student is an empty vessel to be filled; Inquire into student thinking and create opportunities in the classroom where thinking can be revealed; Use of frequent assessments to make student thinking visible to themselves, their peers and the teacher; and Use assessments that tap understanding rather than repeating facts (CBSSE-NAP 1999: 15-17).</td>
</tr>
<tr>
<td>Second, to develop competence in an area of inquiry, students must 1) have a deep foundation of factual knowledge, 2) understand facts and ideas in the context of a conceptual framework, and 3) organise knowledge in ways to facilitate retrieval and application. Deep understanding transforms factual information into usable knowledge and by organising information into a conceptual framework it allows for much greater transfer by the student.</td>
<td>To teach subject matter in depth and provide a firm foundation of factual information that leads to changes in understanding, teachers must: Cover fewer topics in depth rather than a wider but more superficial coverage; Encourage in-depth study in a subject domain by carrying ideas beyond a year through active coordination across the curriculum; Have experienced in-depth study of the subject themselves so they understand the relationship between information and the concepts that help organise that information in the discipline; Develop teaching expertise, including the use of course supplements, to aid the development of student thinking about specific concepts; and Assess for depth of understanding while seeking to retain objectivity.</td>
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<tr>
<td>Third, a meta-cognitive approach to instruction can help students take control of their own learning by self-defining learning goals and by monitoring progress towards these goals. These monitoring activities are an important component of what is called adaptive expertise. Many strategies reflect cultural norms and methods of inquiry rather than individually based ones and people can be taught strategies incorporated into the subject matter being taught. Reciprocal teaching is one example of a successful meta-cognitive technique (CBSSE-NAP 1999: 10).</td>
<td>To integrate teaching of meta-cognitive skills teachers must: Emphasise the varying meta-cognition needs required in each discipline. For example, monitoring in history may involve asking who wrote this document and how does it affect the interpretation of events. Conversely, in physics it may involve asking knowledge of underlying physical principles; and Integrate meta-cognitive instruction with discipline-based learning as a standard feature in the curriculum.</td>
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39 Thinking about your thinking - an internal conversation to advance understanding
Appendix 15: Survey Instrument

GENERAL SURVEY

Dear participant,
I would like to identify your views and general perceptions concerning leadership training and development. This questionnaire is part of a doctoral thesis and obviously your complete honesty and cooperation is important. To support this objective could you please return your completed survey form directly to me at the focus group (5-6 Dec 2000), in an envelope if necessary.

Your Name (optional)____________________ Gender (circle one):   male   female
Your Service/Corp_______________________ Grade/Rank _________ Years of service______
Plain Language Statement (Received): Y / N  Consent Form (Received and completed):  Y / N

Instructions (Please read this section before answering the questionnaire):

Section 1 examines three areas (curriculum, teaching techniques and evaluation). The list of options reflects characteristics of two approaches (Type A or Type B). My aim is to try to identify which approach is generally emphasised. A secondary aim is to see if there is a difference between what is ‘espoused’ and what is actually ‘in practice’. That is, we may say we prefer one thing but (unknowingly) do something else. By the way, both Type A and B approaches may be appropriate behaviours.
The following pages correspond with the three areas - in order curriculum (what you were taught), then teaching techniques (what techniques you saw employed) and then evaluation (what in your view was valued and rewarded). A leading statement will prompt your response.

To illustrate (example only):

Teaching: Mark (✓) to show the emphasis placed on the need to –

<table>
<thead>
<tr>
<th>Very Unimportant</th>
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<th>Important</th>
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<tbody>
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1. Travel in order to broaden the mind

Section 2: Invites brief written comments to specific questions.
Please turn over the page and answer the questions. It should take you no more than 40 minutes:
Curriculum: Mark (✓) to indicate what you believe was emphasised in the program:

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<th>Very Unimportant</th>
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</table>
**Teaching methods / techniques:** Mark (✓) to indicate the emphasis evident in the teaching methods used:

1. allocating specific roles and functions for team members 3a
2. consistency and control 5a
3. flexibility and self-organised activity 6b
4. a mixed approach (using both formal and informal methods) 2b
5. the use of standardised and structured approaches 1a
6. activity coordinated by the staff 9a
7. feedback opportunities influenced by the participants 10b
8. change and adaptation 5b
9. directive styles to coordinate activity 7a
10. the use of varied and adaptive approaches 1b
11. task oriented and content focused approaches 4a
12. uniformity and standardised activity 6a
13. formal approaches used 2a
14. activities coordinated by the student group 9b
15. encouraging spontaneous allocation of teams roles & functions 3b
16. process oriented & interpersonal approaches 4b
17. instructors summarize position with no need for enquiry 13a
18. objective and logical analysis 12a
19. applying rewards and punishment 8a
20. less risky standard approaches 14a
21. expression of individual needs and feelings 12b
22. trial and error and risk taking experimentation 14b
23. learning objectives determined by the program 11a
24. commitment gained by a sense of shared purpose 15b
25. participative styles to coordinate activity 7b
26. providing challenge and opportunity 8b
27. feedback opportunities were determined by the institution 10a
28. compliance enforced by rules and procedures 15a
29. learning objectives influenced by the participants 11b
30. instructor drew conversation into a summation prompted people to pursue the topic further 13b
Evaluation: Mark (✓) to indicate what you felt is emphasised or well regarded and rewarded positively:

1. exercising control of the team 4a  
2. engaging in simultaneous (and contextual) activity 6b  
3. facilitating distributed decision making 7b  
4. flexible, experimental behaviour 1b  
5. a challenging vision 15b  
6. differences in cultural norms 13b  
7. expression of individual need and feelings 12b  
8. intellect and interpersonal skills 14b  
9. the use of informal structures (networks, contacts) 10b  
10. a clear task related order 15a  
11. engaging in sequential controlled activity 6a  
12. a willingness to adjust the program as necessary 11b  
13. command presence and authority 14a  
14. objectivity and emotional control 12a  
15. being clear and simple 9a  
16. willingness to accept the existing process 3a  
17. risk minimization 5a  
18. enquiry and desire to discuss instruction 2b  
19. structured, consistent behaviour 1a  
20. allowing self-organisation by the team 4b  
21. taking charge and making the decision 7a  
22. cooperation and readiness to follow instruction 2a  
23. successful planning and coordination of activities 8a  
24. having broad conceptual vision (open and dynamic) 9b  
25. willingness to challenge the existing process 3b  
26. active encouragement of individual and collective responsibility 8b  
27. the use of formal structures (things within the hierarchy) 10a  
28. risk taking 5b  
29. strong, shared cultural norms 13a  
30. sticking with the set program (status quo) 11a
SECTION 2: Please comment in response to the following statements:

a. In terms of leading and influencing people, I learned (on the program) to:

b. Reflecting on your experience, how do you feel (level of satisfaction) about the leadership development aspects of the program?

Can you mark your level of satisfaction on the scale:  

<table>
<thead>
<tr>
<th>Low</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>High</th>
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</thead>
</table>

 c. Reflecting on your experience, was there any major influence (people/events/activities) in shaping your leadership style? (use the reverse side of this page if necessary)

People
(appointment):_______________________________________________________

Events:_____________________________________________________________

Activities:___________________________________________________________

d. Assuming leadership and learning is an on-going process, what is the one most important future area for your leadership development?

Anything last thing you would like to add?

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________

___________________________________________________________________

THIS Completes THEQUESTIONNAIRE

(I appreciate your honesty and contribution. Thank You)
Appendix 16: Focus Group Questions

FOCUS GROUP QUESTIONS

Facilitator to explain:

**Purpose**: I would like to identify your views on leadership and leadership development. The estimated time required for this focus group is 60 minutes.

**Group Appointments**: Select three volunteers. A spokesperson/scribe - to take notes and present the team views. Two **undeclared** positions: (observers – communications and team operation)

**Ethics**: Confirm a Plain Language Statement been seen and a consent form signed. Advise group that the results from this study will directly inform ADFA leadership training.

Questions to explore:

1. What are the characteristics of leadership in the organisation (ADFA – or as they experienced it in their Services)?
   - Aim: to get them to think broadly on the subject.
   - What are the evident Values and operating principles
   - What is their general assessment of it
   - Are they satisfied with it? Why? Why Not?

2. What were your most notable first impressions (of the structures/culture) on joining the organisation?

3. What were your expectations (preconceptions) on joining the organisation?

4. What things contributed to a successful leadership development experience? For example:
   - Content, methods, support mechanisms
   - Emotional energy – edge (stories/decisions)

5. What were the major influences that shaped your personal approach to leadership?
   - Tip: Role model, Support, Latitude, and Directional Pressure
   - Ask: Actual value of a role model? Mentor?

6. Of all the issues we have discussed, what is the most important thing to you when we develop our leaders?

**Debrief in large group** (allow 15 minutes):

Facilitator to invite the observers to declare their role and comment briefly (2 minutes) on observations. Note the feedback style and encourage reflection by the group. Invite clarification, discourage need to defend.
Appendix 17: Individual Senior Officer Interviews

GENERAL SURVEY QUESTIONS

**Purpose:** I would like to identify your views on leadership in the context of the organisational requirement. The estimated time required for this survey is approximately 60 minutes.

**Ethics.** See footnote below.\(^{40}\)

1. What are the Army’s strategic imperatives?

2. What leadership capabilities contribute directly to these strategic imperatives?

3. What is the philosophy of the program? For example:
   - Reaction / Satisfaction of participants
   - Learning / Knowledge
   - Behaviour change required for improving skills on the job?
   - Situation specific vs generalised

4. What is the approach to determining content, method and timing of the program?

5. What support is available to you in preparing and implementation?

6. What latitude is available to you in implementing the program?

7. What factors (in your view) contribute to a successful leadership development experience?

8. Can you comment on follow up measures to ensure development (assuming leadership and learning is an on-going process) and successful transfer to the job?

9. Can you describe the key components of a ‘go forth and teach others’ approach?
   - Ideas (for adding value)
   - Values / operating principles
   - Emotional energy – edge (stories/decisions)

10. Can you describe your leadership approach (as practiced)? Are there any tensions between your personal (staff) and program expectations.

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\(^{40}\) Should you have any concerns about the ethical conduct of this research project, please contact the Secretary, Ethics Committee, Research Services, Deakin University, 221 Burwood Highway, BURWOOD VIC 3125; Telephone: 03 9251 7123