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Learning Organisations: A Literature Review and Critique

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ABSTRACT

A literature review on the Learning Organisation field was conducted, examining the dominant assumptions and creating a solid foundation for the practical application of the learning organisation concept to the Australian Army. In order to examine the literature's dominant assumptions, we asked the following questions: (i) What are the various meanings attributed to learning organisations?; (ii) What sorts of learnings are privileged within the literature?; (iii) What are the key characteristics or "building blocks" that make up a learning organisation? We discovered that the learning organisation construct represents an evolution from bureaucratic and performance-based organisational form to innovative and flexible organisations. In surveying the literature, other factors found to impact on learning organisations included cognitive, social, cultural, technological and structural elements. For example, learning organisations apply increasingly sophisticated understanding of knowledge and personnel management to best exploit their social, intellectual and knowledge capital. In contrast, some factors are not adequately explored in the literature; for example, the significance of power relations, hierarchy and authority on learning within and by organisations has not been fully elucidated. There is an increasing number of studies investigating the direct impact of developing a learner-centric approach on organisational outcomes; the number of studies linking learning to improved organisational performance is growing. There are real, significant and measureable benefits of developing the learning capabilities of an organisation.

RELEASE LIMITATION

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Learning Organisations: A Literature Review and Critique

Executive Summary

The aim of this literature review is to describe and critique the seminal and latest works in the area of learning organisations. The review interrogated the dominant assumptions about learning and organisations within the literature. Critically reviewing these assumptions inherent within the learning organisation construct provided a foundation for understanding the practicality of applying such a construct to Army. The review of literature presented here describes the types of research undertaken within the learning organisation field and in particular asks the following research questions:

- What are the various meanings attributed to learning organisations in the literature?

- What sorts of learning are privileged within the literature?

- What are the key principles, or building blocks, essential for the development of learning organisations?

In surveying the literature, other related areas were found to impact on learning organisations including organisational design and transformation, together with the identification of facilitators and inhibitors of learning within organisations. For example, organisational improvements and change are characterised as being continuous in learning organisations, and as such, have consequences for strategic planning and choice of change management approach.

The review starts with a consideration of the various definitions ascribed to learning organisations within the literature, each with their own particular emphasis on learning, leadership behaviours and organisational structure. A Learning Organisation's salient characteristics of organisations are identified and, thus, are often defined in terms of organisational archetypes. The common characteristics, or building blocks, of learning organisations are next described. A common characteristic of learning organisations is that they look beyond the individual, to see the organisational and structural factors that affect learning. These include the importance specific leadership actions or practices, the utility of identifying and measuring specific practices within the organisation, how organisational structure effects learning and how teams' climate and practices impact on the learning within them.

The review critiques the prescriptive and normative character of the 'building block' discourse, as well as examining the assumptions within this discourse. This critique is followed by an examination of the differing types of learning offered within the learning organisation field. Particular attention is given to the significance of individual, team and organisational learning, and accompanying processes and mechanisms designed to facilitate learning across these levels. For example, there is a tendency by theorists to differentiate, for analytical purposes, individual and collective learning in learning organisations. In doing so, the individual and the organisation are assumed to be dichotomous (as if one can exist independently of the other), yet an organisation would not exist without the individuals that make up its workforce.

The review then examines the learning organisation construct within its historical context; within the literature, the learning organisation represents a shift from the traditional command and control style of management towards a greater reliance on modern management principles. These modern management principles draw on an increasingly sophisticated understanding of knowledge and personnel management, utilising current perspectives on how organisations best exploit their social, intellectual and knowledge capital. The assumptions within learning organisation literature are also examined and critiqued. These assumptions are linked, for example, accepting that 'learning is always a good thing' will lead to the following assumptions, such as, therefore 'learning needs to be actively managed and planned'. These statements may indeed be correct, and there is evidence that learning does lead to better outcomes, however, learning itself may not *always* lead to positive outcomes.

The role leaders' play in shaping the learning environment and in facilitating learning among organisational members is another dominant theme in the literature. The review of relevant literature examines some of the social and organisational implications for leaders as creators of supportive learning environments. The training and identity-formation implications for leaders as they adopt a facilitative stance to learning, along with the associated responsibilities of empowered learners, are also discussed. For example, the adoption of a facilitative approach to learning and empowerment (and associated roles of 'mentor' or 'coach,') recommended by the literature is complicated by the recognition that – as facilitators and coaches – managers and leaders would need to relinquish control over the learning process. The reliance on employee's initiative and creativity may challenge traditional management and leadership roles. This may result in resistance by those who have most to lose, including senior management and employees.

The implications for the Australian Army in becoming a learning organisation are considered in terms of the challenges it presents to organisational culture, structure and practice. A reflection on the risks associated by adopting, or not adopting, learning organisation principles are also provided. A synthesis of the dominant themes in the learning organisation literature suggests that building a learning organisation requires multiple perspectives. Multiple perspectives would allow for inclusion of all the components required: the cognitive, social, cultural, technological and structural dimensions.

The literature review and critique presented here provides the theoretical grounding upon which our research program is built. In this respect, the theoretical concerns outlined in this document have influenced the methodological stance adopted in our research program, including our chosen methods of data collection. These theoretical positions have also provided a rich backdrop for the dual tasks of interpreting and situating our data, leading to a greater understanding of learning in the Defence context. Utilising the multiple perspectives within the literature, and using a critical gaze, offers a more nuanced and sophisticated understanding of the learning organisation, thus providing more useful recommendations to our sponsors as we progress through our research program.

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1. Introduction

The aim of this literature review is to describe and critique some of the seminal works in the area of learning organisations, in order to interrogate the dominant assumptions about learning and organisations. Critically reviewing these assumptions provides a better foundation for understanding the practicality of applying such a construct to Army. The content of this review is organised according to subject matter and dominant emergent themes. While the general review of literature presented here provides an overview of the types of research undertaken, examining the significance of learning in and by organisations, the review of literature was also driven by a desire to address a particular set of research questions. This literature review asks the following research questions:

- What are the various meanings attributed to learning organisations in the literature?

- What sorts of learning are privileged within the literature?

- What are the key characteristics, or building blocks, that make up a learning organisation?

In surveying the literature, additional lines of enquiry surfaced. These included issues to do with organisational design and transformation, and their relevance to the types of learning occurring within organisations. Additionally, facilitators and inhibitors of learning within organisations were identified. For example, organisational improvements and change are linked with the continuous learning efforts of organisations, and as such, present challenges for strategic planning and sustained change management.

2. Background

The Army operates in increasingly complex arenas. Australian soldiers are required to participate, often simultaneously, in battle, humanitarian and peace-keeping operations, in a range of terrains (Australian Army, 2006). The exigencies of deployment can require Australian soldiers at junior levels to make decisions that have far reaching implications (Schmidtchen, 2007). The complex environments in which soldiers operate require high-functioning individuals who are able to adapt and apply their knowledge and experience in a variety of contexts. Thus, although a high level of training is required, other methods of learning are imperative to equip Australian soldiers for the demands placed upon them in deployment. Indeed, in order to adapt to challenges associated with increasing complexity and to take advantage of various knowledge bases, it is acknowledged that Army 'must transition to a learning organisation' (Australian Army, 2007: 1). A learning organisation is one that can modify their daily work practices in order to reflect new knowledge and insights generated from acquiring, transferring, and creating knowledge; in a contested environment, organisations need to learn in order to thrive (Garvin, 1993).

Learning has been recognised by Army as playing a vital role in enabling it to meet the challenges and issues raised above. But what sort of learning is implied here? Is learning an individual pursuit determined by cognitive abilities and participation in structured training and educative programs, or is it an organisational activity that enables organisations to readily adapt as intimated by the term learning organisation? Indeed, what is a learning organisation? How does a learning organisation differ from others, and why should organisations invest in their learning capabilities?

3. Defining the Learning Organisation

The Learning Organisation is a relatively new term to reflect a set of ideas which have been around for some time – that is, successful adaptation to change and uncertainty is more likely to occur through the learning efforts of individuals and the organisation as a whole (West, 1994 in Reynolds and Ablett 1998). The term has become a common phrase for describing a host of approaches to organisational development and activity, and reflects an interest in knowledge and learning by organisational and management theorists, practitioners, and consultants. The origins of learning organisations can be traced back to Schon's (1973) analysis of the learning system, or learning society. Schon argued that in order to cope with the transformations occurring in society, institutions must learn how to understand and manage these transformations, and become adept at learning. In this sense, institutions are viewed as being learning systems capable of undergoing continuous transformation in order to respond to changing situations and environments.

While different in their focus, all of these perspectives share the view that organisations, like individuals, have a capacity to learn. They also share the view that learning happens at individual, group, organisational, structural and system levels. As learning expectations are effected by the diverse roles, functions and divisions within an organisation, this would necessitate different and tailored approaches to support learning across an organisation. Thus, a holistic approach reflects the successful integration of various learning strategies for the purpose of achieving a common goal; improved organisational performance.

3.1 A Learning Organisation: An aspirational state

Since Schon's musings on the learning system, a plethora of definitions of the Learning Organisation have emerged, each with their own particular focus. The result of this proliferation of definitions is a degree of confusion over the term (Burgoyne, 1999; Garvin, 1993; Smith and Tosey, 1999). The most-often cited definition of the Learning Organisation is the one provided by Peter Senge (1990). In his work *The Fifth Discipline*, Senge (1990; 2000) describes learning organisations as places where:

> …people continually expand their capacity to create results they truly desire, where new and expansive patterns of thinking are nurtured, where collective

aspiration is set free, and where people are continually learning how to learn together (2000: 3).

Although criticised for having mystical and utopian connotations (Burgoyne, 1999; Garvin, 1993), and being 'maddeningly vague' (Peters, 1992: 385), Senge's definition of the Learning Organisation provides a composite theoretical ideal drawing upon social, behavioural, cognitive, technical, systemic and philosophical underpinnings for learning in organisations. Indeed, Senge argues that a learning organisation is one where *not* learning is not possible, because learning is so intrinsically a feature of organisational life. Senge's definition also reveals the extent to which the Learning Organisation should be understood in an aspirational sense, referring to a desired state of being, or a guiding concept for change initiatives. Hodgkinson (2000) also notes how the term learning organisation is given an aspirational quality to motivate organisations. Marsick and Watkins, for example, consider becoming a learning organisation to be an ongoing quest, or a 'never-ending journey'(1996: 4). In a similar vein, Wheatley (1992) views the Learning Organisation as an 'organizing principle' rather than an objective attainable reality (cited in Smith and Tosey, 1999: 74). In contrast, others like DiBella (1995) and Finger and Burgin Brand (1999) regard the Learning Organisation as a particular 'type' or 'ideal form' of an organisation.

While guiding concepts, new ideas and aspirations motivate individual and organisational learning, these guiding concepts, ideas and insights do not create a learning organisation in themselves. Concepts, ideas and aspirations provide *potential* for change. Within the theoretical and empirical learning organisation literature, two approaches to learning and transformation dominate: the behavioural (or adaptive-learning) approach which views behavioural change (adaptation) as evidence of learning, and the cognitive learning approach which equates learning and transformation with thinking processes and knowledge creation (Yeo, 2002). Each of these approaches will be discussed below.

3.2 A Learning Organisation: A behavioural approach

Reynolds and Ablett (1998), for example, define the Learning Organisation as a place where 'the taking place of learning…changes the behaviour of the organisation itself'(cited in Yeo, 2002: 111). The idea of learning as adaptation through problem identification and problem solving is attractive because it promotes the view that change is something which happens through design rather than by chance. Often the assumption here is that learning precedes behavioural change and transformation, ignoring the extent to which changes in behaviour, structures, or practice may result in learning. Another assumption is that learning also equates with improved organisational performance or progress which is not always the case (Cook and Yanow, 1993; Nair, 2001).

Indeed, McGill, Slocum and Lei (1992) contend that adaptive learners and organisations are 'learning disadvantaged' when it comes to building new sources of competitive advantage. This is because their focus on incremental change results in a predictable future strategy that can be decoded by competitors. Strategic redirection, regeneration and change in general are difficult, when combined with centralised and bureaucratic rules,

enforced conformity, routine and risk-avoidance behaviours which act to retard diversity of views and experimentation. Thus, McGill et al. (1992) and Senge (2000) contend that the adaptive approach enables organisations to harness learning so as to better *cope* with change.

An alternative to the competitive-advantage approach can be found within the point-of-difference approach. Here, strategic planning involves identifying points of difference (also known as divergence), or the identification of things that *should not* be done within organisations. Such a stance is less reactive in the sense that divergence can be seen as identifying, or visualising, points of difference, to enable innovation and allow organisations to stay ahead of their competitors (Kim and Mauborgne, 2002). Thus, although the adaptive organisation may not provide the ultimate path for maintaining the competitive edge, it may provide a useful context for establishing points of difference.

Within the behavioural or adaptation approach, we are also encouraged to regard change as something which is realised through stage evolution, and, as such, the Learning Organisation is a state of becoming (Di Bella, 1995). With this in mind, authors such as Ortenblad (2004), Tjepkema, Hors, ter Mulder and Scheerens (2000) and Leonard (2007) prefer the terms 'partial learning organisations,' 'learning-oriented organisations' and 'learning-centred organisations' respectively, in reference to those organisations which are in initial stages of development, or display some of the attributes of learning organisations.

3.3 A Learning Organisation: A cognitive learning approach

From the cognitive learning approach, the Learning Organisation concept is associated with capabilities to create, integrate and apply knowledge. Indeed, this capability makes organisations competitive (Bierly, Kessler and Christensen, 2000 in Thomas and Allen, 2006; Burgoyne, 1999; Slater and Narver, 1995), and facilitates innovation (Gerras, 2002). Hitt depicts the Learning Organisation as "…one that is continually getting smarter. In a never ending cycle, it gets smarter and smarter. The organisational IQ continually increases"(1995: 17). Garvin integrates the ideas of knowledge creation and adaptation in his definition of the Learning Organisation:

> A learning organization is an organization skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights (1993: 80).

Garvin's acknowledgement of the recursive relationship between knowledge creation, action and learning reflect Argyris' notion of theory in action. Argyris and Schon (1978) and Argyris' (1993) idea of theory in action is built around the premise that learning has to be accompanied by some action. This flow of knowledge to action is evidence of learning, and is often associated with competence (cited in Yeo, 2002: 118). The generative learning capacities associated with this approach enable organisations to *create* opportunities for change (Senge, 2000).

Accompanying an interest in knowledge creation and learning is a technical view of the Learning Organisation, which focuses on issues of knowledge capture and information distribution within organisations. Technical views of learning within organisations emphasise the significance of effective processing, handling, and interpretation of information both within and external to the organisation, and usually explicit information which has been codified and found within the public domain (Easterby-Smith and Araujo, 1999; Huber, 1991; Argyris and Schon, 1978). This can be contrasted with the social view of the Learning Organisation (Easterby-Smith and Araujo, 1999).

3.4 A Learning Organisation: A social systems approach

The social view of learning in organisations emphasises the ways in which people make sense of their experiences at work. Learning from this view is an emergent property, something that arises from social interaction within the work setting. This can include embodied forms of learning such as situated learning, learning through observation and socialisation into particular communities of practice. Attention here is given to collective learning and learning through participation instead of the acquisition of information (Blacker, 1993: Brown and Duguid, 1991, Cook and Yanow, 1993; Lave and Wenger, 1991).

Some authors view the Learning Organisation as being something which is initiated and/or developed by senior management/leaders (Buckler, 1996; Ellinger, Watkins and Bostrom, 1999). Pedler, Burgoyne and Boydell (1991), for example, suggest that the implementation of a learning organisation starts with getting the board of directors on-side. Within the Malaysian Army context, Ibrahim and Othman argue that the Learning Organisation must be initiated at the "highest level of the Army echelon that is at Army headquarters" (2006:5). This view can be distinguished from more egalitarian or 'bottom up' approaches which regard employees as empowered facilitators of learning in the organisation. For example, Tjepkema et al. (2000) describe the Learning Organisation as one which makes use of the learning of all employees. Watkins and Marsick contend that learning organisations can be characterised by "total employee involvement" in a process of "collectively accountable change"(1992: 118), with collective learning of employees enhancing organisational performance (Yeo, 2006). These two approaches, the top down and bottom up, can coalesce within the framework of social system. They are not mutually exclusive; in fact, both approaches are needed in order to fully engage across the organisation. However, the leadership needs to take the initial, critical step in supporting and enabling a learning environment (Edmondson, 2012).

3.5 A Learning Organisation: A structural systems approach.

In some instances, the structural underpinnings of learning are recognised. Dodgson (1993) defines the Learning Organisation as those "firms that purposefully adopt structures and strategies that encourage learning" (cited in O'Keefe, 2002: 133). Ellinger, Watkins and Bostrom also note that learning organisations have 'flexible' and 'organic' structures, as well as 'entrepreneurial cultures' and 'facilitative leadership' (1999: 108).

Authors like Senge (2000), Schein (1996), and Marquandt and Reynolds (1994), respectively, underscore the significance of systems thinking by organisational members, as well as learning by the organisation system as a whole, in their descriptions of learning organisations. In a more holistic fashion, McGill et al. (1992) identify systems thinking as being a feature of learning organisations, but also include qualities such as openness, creativity, personal efficacy and empathy as desirable practices/attributes to be encouraged and rewarded by senior leadership within organisations. Gerard (2008) also takes a holistic approach to learning, describing learning organisations as those which thrive on change, encourage experimentation, communicate success and failures, facilitate learning from the surrounding environment, and reward learning efforts.

A summary of the defining features of learning organisations is presented in Table 1. Following the lead of Tsang (1997), the table lists some of the definitions of learning systemic perspectives etc., and whether the definition refers to the Learning Organisation as an aspirational quality or type of organisation.

Table 1. Definitions of learning organisations and associated perspectives (following Tsang, 1997)

Author(s)	Definition	Perspective
Yeo, (2006)	Emphasises the role that collective learning of employees plays in improved organisational performance.	Behavioural
O'Keeffe (2002)	Stores belief systems, memories of past events, frames of reference and values.	Technical, cognitive, cultural
Senge (2000)	A learning organisation is one where: "people continually expand their capacity to create results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together" (3).	Cognitive, cultural, behavioural, generative, systems, aspirational
Reynolds and Ablett (1998)	"where learning is taking place that changes the behaviour of the organisation itself" (26).	Adaptive, behavioural
Tsang (1997)	Defines the learning organisation as an 'ideal form' of an organisation (81).	Desirable type of organisation
Marsick and Watkins (1996)	"…a learning organisation must capture, share, and use knowledge so its members can work together to change the way the organization responds to challenges. People must question the old, socially constructed and maintained ways of thinking. Learning must take place and be supported in teams and larger groups, where individuals can mutually create new knowledge. And the process must be continuous because becoming a learning organization is a never-ending journey "(4).	Adaptive, cultural, cognitive, technical, social, aspirational
Di Bella (1995)	Defines learning organisation as "a particular type or form of organisation in and of itself" (287)	Type of organisation
Hitt (1995)	"…one that is continually getting smarter. In a never ending cycle, it gets smarter and smarter. The organisational IQ continually increases" (17).	Cognitive, adaptive
Marquandt and Reynolds (1994)	Learning organisations are those where attention is given to learning by the organisation system as a whole.	Systems
Dodgson (1993)	"firms that purposefully adopt structures and strategies that encourage learning" (cited in O'Keeffe 2002: 133).	Structural, strategic
Garvin, (1993)	'A learning organisation is an organisation skilled at creating, acquiring, and transferring knowledge, and at modifying its behaviour to reflect new knowledge and insights' (80).	Cognitive, behavioural, adaptive
Watkins and Marsick (1993)	An organisation that "learns continuously and transforms itself" (8).	Behavioural, adaptive
Wheatley (1992)	Defines the learning organisation as an "organizing	Aspirational, generative

	principle" rather than an objective attainable reality – a space where new forms and practices can emerge, rather than an ideal state' (cited in Smith and Tosey, 1999: 74).	
Pedler, Burgoyne and Boydell (1991)	"an organisation that facilitates the learning of all of its members and continuously transforms itself in order to meet its strategic goals" (1).	Adaptive, strategic

3.6 Defining Learning Organisations: A critique

Much of the discussion surrounding organisational learning and building learning organisations is highly descriptive in nature, as is evident by the number of publications dedicated to identifying the characteristics (or features) of learning organisations (see above sections). The Learning Organisation is often spoken about as being 'idyllic' and 'desirable' on a rhetorical level, with authors describing the Learning Organisation in a metaphorical sense rather than providing details of practice. Subsequently, little attention has been paid to how one creates a learning organisation in terms of a framework for action, or concrete steps to be taken. With the exception of Ellinger, Watkins and Bostrom (1999), for example, the literature has tended to be quite abstract when it comes to explaining why learning is important, without providing empirically-based guidance on how exactly leaders can build learning capabilities in organisations. Confounding this further, is the lack of performance measures for assessing whether learning and change is occurring in real or observable ways (Thomas and Allen, 2006).

Some authors have noted the highly prescriptive (Argyris and Schon, 1996; Thomsen and Hoest, 2001; Tsang, 1997) and normative nature of the literature (DiBella, 1995; Kiedrowski, 2006; Ortenblad, 2002), which in part reflects the targeted audience (practitioners and consultants). Prescriptions provide frames for learning, or a guide to the types of frameworks, structures, conditions and processes that may be useful as enablers of learning, and as such can be viewed as being facilitators of the learning process (Thomsem and Hoest, 2001). By overgeneralising the importance of their theory onto *all* organisations, authors provide strong claims for why and how an organisation *should* learn. Garvin, Edmondson and Gino, for example, contend that "each company must become a learning organisation" (2008: 108). In a similar fashion, the Australian Army has noted that it too "must transition to a genuine learning organisation" (2007). The upshot of the prescriptive discourse is that the Learning Organisation is depicted as an essential 'must have' (Western) ideal suitable for any organisation (if it is to become more successful) irrespective of culture or kind. Indeed, within this discourse there is much talk of organisations needing to become learning organisations without pausing to consider if it is appropriate for them to do so (Ortenblad, 2002). Again, the literature does not provide examples, or answers, for how these frameworks, instruments and processes support and develop a learning environment in practice, nor does it address where this kind of learning would have the greatest impact (Thomsen and Hoest, 2001).

Normative accounts provide templates, or promote ideal forms of the Learning Organisation for other organisations to emulate, through the use of interventions (Easterby-Smith and Araujo, 1999). In the literature, normative perspectives for developing learning organisations are discernible through their provision of lists of desirable traits

required by organisations if they are to be recognised as being a learning organisation (Marquandt and Reynolds, 1994; Pedler et al. 1991; Senge, 2000). In its selection of traits and values, the normative perspective promotes a sense of vision (direction) which can be used to focus change initiatives or interventions (Di Bella, 1995).

Normative statements about idyllic conditions for learning are not prescriptive in principle, as reflections on underpinning value judgements can enable alternative conditions to be considered (Ulrich, 2005). However, within the normative discourse evident in the literature on learning organisations, normative approaches have presumed that learning will occur under those ideal conditions only and managers will face barriers to learning if the 'right' conditions are not present.

Di Bella's (1995) capability perspective provides an alternative approach to building and sustaining learning organisations. Rather than viewing learning as occurring as a result of the existence of a set of prescribed conditions, the capability perspective takes a more organic and less prescriptive view of the Learning Organisation. Here, recognition is given to the extent to which organisations, by their very nature, are places where learning occurs across multiple levels of the organisation irrespective of the existence of certain traits (a matter of being rather than becoming), thus recognising the heterogeneity of organisations.

Di Bella (1995) argues that organisations develop and learn from experience through their history as well as strategic decision making/choice. As they solve problems, take chances and make mistakes, organisations create cultures which act as repositories for lessons learned and competencies which reflect collective learning. Culturally embedded learning/knowledge and competencies are transferred between employees through socialisation. The point, therefore, is not if learning does or does not take place, or how an organisation becomes a learning organisation. Rather, the point is *all* organisations have distinctive learning capabilities and distinctive styles of learning, and thus the focus needs to be on identifying/understanding what those learning processes and extant mechanisms are, as well as how, where, and what gets learned. Thus, turning organisations into a predetermined and unitary notion of an ideal learning organisation runs counter to the diverse ways organisations behave. The normative perspective assumes that desired traits are beneficial for all organisations without taking into account their historical and cultural context. The capability perspective, in contrast, allows for the possibility of learning organisations (plural), and the application of different learning approaches where appropriate.

The capability perspective therefore concentrates on extant learning behaviours and processes within organisations. Di Bella (1995) favours this approach in the sense that it focuses on improving current (learning) capabilities rather than assuming the existence of learning barriers which may require major change initiatives to remedy (and thus prove highly disruptive to the organisation and its members). Di Bella (1995) suggests that action research would be an appropriate intervention tool to facilitate improvement. A goal of this kind of research is to promote an organisation's own capacity to identify problems and build upon/improve on existing practice.

3.7 A Learning Organisation: Synthesis

A review of the literature revealed an overwhelming array of definitions of the Learning Organisation. These often reflect attempts by authors to define the general characteristics and key behaviours of learning organisations. The key behaviours of individuals and organisations identified here include a collective willingness and ability to learn, a high tolerance for uncertainty and change, and an overall focus on organisational transformation. For the most part, learning organisation definitions tend to focus on the significance of creating, acquiring and transferring knowledge within organisations. Learning organisations are also characterised by their facilitation of individual and collective learning, as well as the modification of behaviour and practices of both individuals and the organisation as a whole as a result of learning. Learning organisations are therefore seen as having the ability to undergo a degree of self-diagnosis and change, based on reflections on their performance (George and Jones, 2002; Mahler, 1997; Schein, 1992). While much of the literature draws upon behavioural or adaptive approaches to learning, there is a growing recognition of informal learning practices, continuous or lifelong learning, and the social and cultural context where learning occurs (Sambrook and Stewart, 1999).

Overall, the learning organisation literature tends to be highly prescriptive. In this respect, authors prescribe a kind or type of organisation that *should* or *must* be created - a *learning organisation*, or they refer to organisations that are already learning and use them as examples or models for other organisations (Rifkin and Fulop, 1997). So readers are left with a set of 'differing prescriptions' (Burgoyne, 1999) in order to establish either the aspirational state. Within definitions, the importance of why learning matters, as well as the types of learning, are often stressed, yet little attention is given to the processes necessary to build learning organisations (Easterby-Smith and Araujo, 1999; Ellinger et al. 2002). One exception is Gerras (2002) who attempts to embed the *how,* to create change and facilitate learning in his definition of the Learning Organisation. He defines the Learning Organisation as:

> …one in which organizational thought, whether it be routine planning or high-level decision making, is conducted by teams led by leaders that facilitate a dialogue that values reflective thought[1], new patterns of thinking and a suspension of assumptions (2002: 4).

For Gerras (2002: 6-15), this type of organisational thought is produced through developing cognitive abilities which encourage "thinking outside the box", the identification of "dysfunctional" schemas or mental models, challenging assumptions underpinning practice, and creating cultures which support this level of inquiry.

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[1] Reflection is the habit of critically examining results of actions in order to assess the results and uncover new ideas (Edmondson, 2012: p. 55).

3.8 Key points: Defining a Learning Organisation

There are several broad approaches to defining a Learning Organisation. These definitions can be grouped into:

- Prescriptive approach (aspirational)

- Behavioural approach

- Knowledge generation, sharing, storage approach

- Social systems, including leadership, cultural and social approaches

- Systems structural approach.

In defining the Learning Organisation authors identify salient characteristics of organisations which promote learning and enable change. Consequently, the Learning Organisation is often seen as being an organisational archetype characterised by the existence of certain internal conditions and proclivities which facilitate learning and enable transformation. These conditions and proclivities are often understood as being the necessary building blocks for constructing learning organisations. The following section takes a closer look at the different sorts of building blocks and frameworks used to build a learning organisation.

4. Building Learning Organisations: Multiple frameworks

Our examination of the building blocks or frameworks required to construct a learning organisation commences with the work of Peter Senge (a prominent figure in the learning organisation field). Senge's framework is considered alongside Hitt's adapted S-7 model of a learning organisation. Other building blocks employed within the Learning Organisation literature are then considered. These building blocks include, networked learning, knowledge management practices and the generation of organisational climates and cultures conducive to learning. The result is a composite picture of those antecedents, practices and intangibles that have been identified as building learning organisations.

4.1 Senge's Learning Organisation framework: 'Five disciplines'

In *The Fifth Discipline*, Senge provides a list of five inter-related component technologies or disciplines required to establish a learning organisation (2000: 6). These disciplines include:

- personal mastery

- mental models

- building shared vision

- team learning

- systems thinking.

Each discipline is described in more detail below.

4.1.1 Personal mastery

Personal mastery refers to the ongoing process of self-evaluation, clarifying personal vision, and exercising objectivity in order to reach a "special level of proficiency" (Senge, 2000: 7). According to Senge (2000), this entails individuals continually assessing objectively the gap between their current and desired proficiencies, while practising and refining skills until they become internalised. More importantly, personal mastery is a vehicle for the personification of the Learning Organisation, where the person is the Learning Organisation in miniature. Like the Learning Organisation, personal mastery is a metaphor for promoting continuous self-development within an ever changing context (Starkey, 1996). Indeed, similar to the Learning Organisation, personal mastery is an aspiration rather than an attainable quality. It is something to strive for – an ongoing pursuit, and as such, it diminishes the likelihood for personal and organisational complacency.

Army's notion of professional mastery shares many of the characteristics of personal mastery. Professional mastery is also concerned with honing skills and competencies to reach a high level of proficiency. In turn, these skills need to be matched by increased self-awareness and the thoughtful application of knowledge derived from personal experience and formal education/training in changing contexts. de Somer and Schmidtchen define professional mastery as the:

> …ability to perform given competencies, the awareness of why they are being performed, the flexibility to perform them in a range of circumstances, and the self-confidence to apply them in conditions of risk and ambiguity (1999: 3).

In accordance with personal mastery, professional mastery is also concerned with learning expressed at an individual level. However, by embedding the knowledge of leaders and individuals derived from critical thinking, problem solving, action, reflection and feedback into organisational structures and systems, the learning that this knowledge generates can be experienced at the collective level of the organisation. Thus, by embedding individual learning/mastery into organisational structures, systems and processes, the ethos of professional mastery can be employed to 'build high-performance organisations' that can 'continually and dynamically adjust to the demands of the external environment' (de Somer and Schmidtchen, 1999: vii).

4.1.2 Mental models

Mental models are the internal images and 'ingrained assumptions' of how the world works which inform action (Senge, 2000: 8). Similarly, Argyris' (1978) theory of action pays attention to the mental models inside individuals' heads which inform behaviour/action. This relationship is an important one because it reveals the relationship between thought,

action and ways of organising. For example, a bureaucratic system would alert organisational members of the significance of rules and structure, while a cultural system would highlight the importance of shared norms and beliefs with a focus on meaning (Thomas and Allen, 2006: 127). In turn, these mental models inform practice. Using a machine metaphor for describing an organisation, for example, would invite a structured (or mechanistic) approach to learning, whereas a brain metaphor would encourage the creation of strategies to support innovation and learning. In this respect, each lens, mental model, or metaphor has its own mode of understanding, which in turn suggests a mode of action (Thomas and Allen, 2006: 127). These mental models, however, are subject to evaluation, and through inquiry can be modified or replaced.

One goal of learning organisations is to create shared mental models (Senge, 2000; Yang et al 2004). For Senge, one mechanism for generating shared mental models is team learning. However, just how the shared mental models created by teams are aggregated to form an organisational mental model is unclear (Nair, 2001). Effective teamwork (which focuses on clarity of purpose, good-will and cooperation, information sharing, trust, alignment of values, and inspirational project leadership) has been recognised as providing the building blocks upon which shared mental models can be built (Marshall and Lowther, 1997). Filion and Hedwig (1999), however, argue that striving for shared mental models (or sense-making processes) can produce cognitive homogeneity. Cognitive homogeneity can impede learning by alienating non-conforming views, which are seen as being illegitimate when compared to dominant ones and thus, produce conformity at the expense of adaptation.

4.1.3 Shared vision

The practice of shared vision involves the creation of shared "pictures of the future" that engender "commitment rather than compliance" (Senge, 2000: 9). For Senge, shared vision occurs when individual mental maps are aligned, and the primary vehicle for the creation of a shared vision is the leader. The leader encourages or facilitates the collective to shape and decide upon a vision, rather than imposing his or her own vision upon organisational members. In this sense, all organisational members are involved in setting, owning and implementing a joint vision (Watkins and Marsick, 1993, Marsick and Watkins, 1996). Deciding upon and creating a shared vision therefore requires participative openness, cooperation and commitment among all parties involved. This shared/mutually desirable vision guides people and the organisation through change. Moreover, Senge argues that sharing responsibility for the creation and implementation of a vision motivates learning. He states, "when there is a genuine vision (as opposed to the all-to-familiar 'vision statement'), people excel and learn, not because they are told to, but because they want to" (2000: 9). There is some empirical evidence to support the claims made above. A study of middle managers by Hodgkinson (2000: 159) acknowledged that the collective construction of the vision would generate acceptance and a degree of ownership of the vision, providing individuals with a sense of belonging.

4.1.4 Team learning

Senge contends that "teams, not individuals, are the fundamental learning unit in modern organizations…unless teams can learn, the organization cannot learn" (2000: 10). Individuals learn from each other in the group setting, raise questions as a group and receive feedback from their team members. Important decision making occurs in this group setting. Team learning therefore incorporates the spirit of collaboration, as well as the collaborative use of skills, for the production of effective teams. Collaboration of this kind needs to be valued by the organisational culture and rewarded (Watkins and Marsick, 1993, Marsick and Watkins, 1996).

Senge's notion of team learning is based on our capacity for conversation. In his view, effective teams have an ability to balance dialogue[2] and discussion. More specifically, group functioning, performance and learning is contingent upon the abilities of group members to put aside preconceived ideas about each other and participate in 'dialogue' rather than discussion (Senge, 2000: 10). Thus, the learning ability of the group is viewed as being greater than the learning ability of any individual (Yang et al. 2004). While this may be the case, the danger with all this emphasis on team learning and team work is that people may feel compelled to work as a team, even when the work required may best be carried out in an independent manner (Teare and Dealtry, 1998: 53). There is little research to date on learning environments that aid or hinder team learning. In his experiments of optimal team composition and size, Belbin (1981 cited in Hosley, Lau, Levy and Tan, 1994) found that ideally, cohesive teams comprise of six members. If the teams are larger, there is a tendency towards competition for talking space and they are fraught with continuous interruptions and monologues. If the teams are smaller, they become vulnerable to the nominal changes affecting their cohesion.

4.1.5 Systems thinking

Systems thinking is the cornerstone of Senge's learning organisation. In a simple sense, systems thinking is the ability to see the big picture. It is a conceptual framework which encourages people to see the relationships between many parts, to recognise patterns in organisational life, and start to identify processes, rather than focus on linear cause-and-effect types of relations. Through systems thinking, individuals become aware of the organisation as a whole as well as the individuals within the organisation. This contextual awareness gives individuals an appreciation of the consequences of their actions as felt by other parts of the system. Systems thinking facilitates collaborative interaction amongst organisational members and, taken further, between organisations (Hodgkinson, 2000).

Systems thinking theory has been shown to facilitate learning. Zulauf's (2007) study of graduate students' insights and application of systems thinking theory, for example, revealed that students armed with systems thinking theory were able to link their decision

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[2] Senge (2000) uses the term dialogue in reference to a group's capacity to engage in shared thinking and meaning making activities, which allows a group to gain new insights which otherwise would not emerge outside the interactive group context. It is this interaction by group members which facilitates learning. Indeed, learning about the ways in which groups interact enables group members to identify sets of behaviours which promote or impede learning within the group. Discussion on the other hand, connotes a more formal type of exchange wherein the goal of this exchange is to 'win' the discussion (10).

making with consequences, identify delays in a system, and move away from blaming others by considering the ways in which their own actions contributed to an issue or problem.

Systems thinking integrates the other four of Senge's 'disciplines' to form a whole system. Without systems thinking the other four disciplines would be isolated. For example, by highlighting the interrelationships between people and parts of the organisation, people can start to appreciate the consequences of their actions on other parts of the system. This appreciation of 'relatedness' could also assist in building a shared vision and team learning. Nair (2001) contends that managers who regard organisations to be thinking and creative systems are more inclined to encourage experimentation and creativity, question assumptions and practices, and encourage double-loop learning[3]. Indeed, techniques of personal mastery (such as self-analysis, review, and improvement) can be applied to the team in order to improve team performance and learning (Hodgkinson, 2000: 162). However, the reverse is also true; the other disciplines can reproduce systems thinking. In Hodgkinsons's (2000) study of managerial perceptions of the learning organisation concept, participants acknowledged team learning to be central to systems thinking and the development of a shared vision. Thus, the disciplines act on each other in mutually sustaining ways (Yang et al 2004).

4.1.6 Key points: Senge's 5 disciplines

Senge's work draws together the differing dimensions of learning within and by organisations, and draws our attention to the importance of integrating the different disciplines to achieve a cohesive outcome. This integration is made possible through systems thinking. While Senge alludes to the importance of structural and procedural mechanisms for increasing learning opportunities, much of the responsibility for learning is placed firmly at the individual level. Less attention is placed on the structural or situational factors that can influence an individual's ability to engage in team learning, develop shared mental models and vision.

Senge's ground breaking ideas have been expanded on by other proponents of the learning organisation. Hitt (1995), for example, also adopts a systems view of learning within organisations, but augments this focus with a consideration of structural, strategic and processual enablers of learning. A description of Hitt's model is provided below.

4.2 Further development of Learning Organisation framework: Hitt's adapted 7-S model

Hitt (1995) adapts McKinsey's 7-S Framework: shared values; style; strategy; structure; staff; skills; and systems, with the inclusion of another element, synergistic teams, turning

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[3] Argyris (2000) describes two contrasting types of learning; single loop learning in which actions are taken to achieve an intended consequence and to then suppress conflict about the control or governing of the whole process, and double-loop in which actions are taken not only to achieve an intended consequence as well these actions opening up conversations about these actions themselves, and to explore any conflict within the controlling or governing processes caused by the actions.

it into an 8 S framework to describe a learning organisation (see Figure 1). This modified framework provides a systems view of the Learning Organisation with the eight elements needing to be aligned to enable learning across the organisation. These elements are described below.
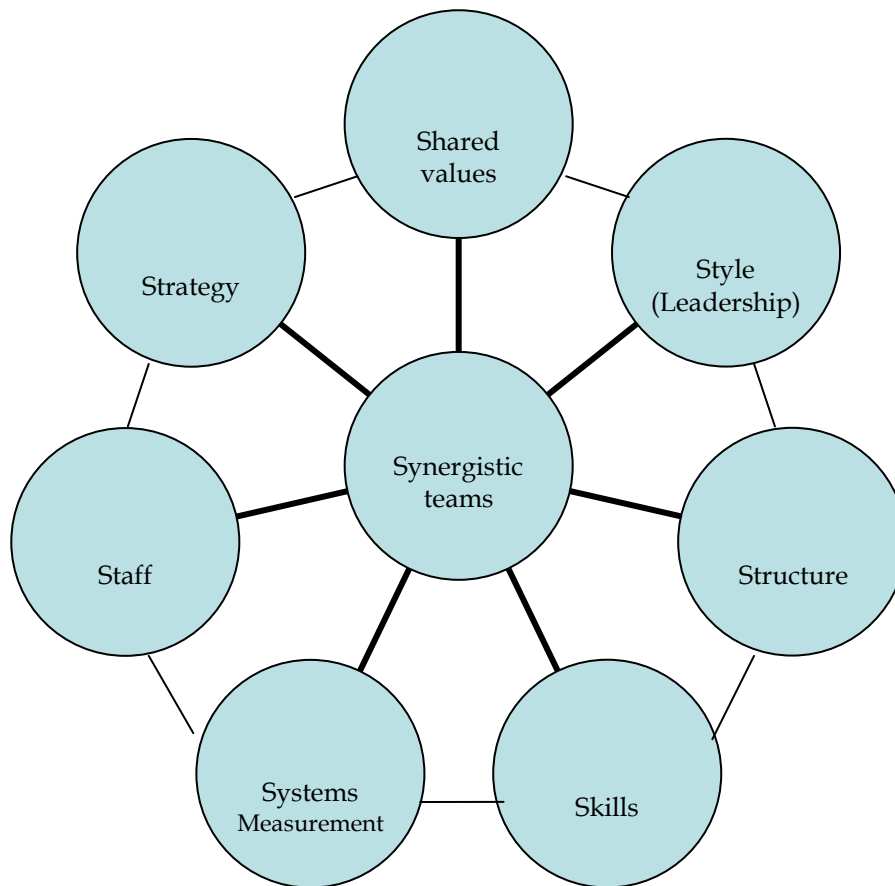
Figure 1: Framework for the learning organisation (adapted from the McKinsey 7-S framework by Hitt)

4.2.1 Shared values

Shared values, whether they are explicitly articulated or implicit, reflect the culture of an organisation. 'Healthy organisations are those which have congruence between espoused values and the daily behaviour of organisational members' (Hitt, 1995: 19). According to Hitt (1995) the primary shared values in traditional organisations are efficiency and effectiveness. In conjunction with valuing efficiency and effectiveness, learning organisations also value excellence and renewal. Excellence takes the form of striving for the highest standards in all activities. Drawing on Senge's definition of the learning organisation, organisational renewal refers to an organisation's capacity to create a framework where continuous innovation (changing patterns of thinking and doing), adaptation and rebirth can occur (Hitt: 1995: 20). In turn, continuous adaptation,

innovation (changing patterns of thinking and doing) and creativity necessitate a constant evaluation and re-evaluation of organisational values and identity (Filiop and Hedwig, 1999).

A learning organisation has cultures which promote inquiry and dialogue, which pertains to an organisation's ability to create a culture of feedback, reflection, knowledge sharing, questioning and experimentation (Goh, 1998; Senge, 2000; Thomsen and Hoest, 2001; Watkins and Marsick, 1993, Marsick and Watkins, 1996). Experimentation takes the form of systematically searching for, and testing, new knowledge, particularly for expanding new horizons through existing bodies of work or one-of-a-kind projects (Garvin, 1993). Indeed, in a mutually-sustaining sense, organisational culture can be seen as being a consequence, or product, of previous activities, experience and learning, while also providing the foundations for its present and future capacity to learn. In organisations, the creation and maintenance of shared values (culture) allows the organisation to effectively function and grow in spite of changing circumstances (Schein, 1996).

4.2.2 Leadership style

Building a learning organisation relies on the efforts of leaders and managers; learning organisations require both leadership and followership[4]. Drawing upon Senge's notion of facilitative leadership (see Section 8 for a more detailed discussion of the role of leaders in learning organisations), Hitt (1995) regards leaders in learning organisations as being 'organisational designers' who not only create environments where learning can flourish, but also act as 'catalysts' for individual learning within organisations by empowering staff. Leaders empower staff by cultivating a shared vision (Senge, 2000); providing resources, delegating authority and by being 'learning architects' (Hitt, 1995). Garvin et al. (2008) argue that leaders promote learning by:

- actively questioning and listening to employees and, subsequently, encouraging debate and dialogue

- 'reinforcing' the importance of knowledge transfer and reflection

- by demonstrating through their own behaviour a commitment to learning.

This may include a willingness to consider alternative points of view. Taking a similar stance to Senge, McGill et al. (1992) and O'Keeffe (2002) contend that building learning organisations requires leaders who can develop their personal mastery, collaboratively reframe problems and are eager to learn how to experiment, as well as encourage personnel to develop a systems view of the organisation. Thus, building a learning organisation can be seen as a voluntaristic exercise that requires the existence of willing leaders and subordinates to be realised (Filion and Rudolph, 1999; Kelley, 1988).

Overall, the literature paints an overly optimistic view of leaders' ability to become catalysts for learning in organisations, and use this learning to facilitate change.

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[4] Followership refers to the capacity of any individual to actively engage with a leader; followership is a reciprocal social process of leadership. Effective followers are characterised as enthusiastic, intelligent, ambitious and self-reliant (Kelley, 1988)

Nevertheless, just how leaders are supposed to manage the tensions between meeting their own needs for self-development and personal mastery, whilst acting as a catalyst for learning in others as well as meeting organisational expectations for performance, is not considered. Moreover, while leaders invariably play a crucial role in shaping the learning environment and culture of organisations through their own behaviour, the extant organisational culture must also provide the supportive space for this kind of leadership behaviour to occur. The behaviour of leaders, like other organisational members, is constrained by their location within organisational structures. In order to become fully effective shapers of learning experiences and catalysts for change, they would need to be given the authority, resources and necessary training to enact their new roles.

4.2.3 Strategy

Learning is a deliberate, conscious part of strategy in learning organisations (O'Keeffe, 2002). To this end, policy and strategy are developed as a learning process which incorporates both research and review. This learning approach strategy presumes awareness on the behalf of the organisation on whether current strategies are working or require revision. Thus, 'strategic learning' occurs when extant goals and drivers of change no longer match external challenges (Garrat, 1987). In the learning 'company' or organisation, employees are included in the strategy work. Employees not only take part in identifying the strategic drivers required for building a learning capability, they are also actively engaged in the creation of policy for the organisation (Pedler et al. 1991). (See Section 7.2 for a more detailed account of the role strategic planning plays in learning organisations).

4.2.4 Enabling structures

Within the literature, centralised mechanistic structures are not seen as producing the necessary learning environments associated with the Learning Organisation. These kinds of structures do not give individuals a comprehensive picture of the organisation as a whole, and can lead to the emergence of parochial and political systems which impede organisational learning. Conversely, organic/flatter structures with fewer layers of management are viewed as encouraging innovation and learning within organisations (Pedler et al. 1991; Thomsen and Hoest, 2001; Watkins and Marsick, 1993). Indeed, learning and organisational structure can be viewed as having a symbiotic relationship. Having flexibility and adaptability contained within the structures of an organisation encourages learning, while at the same time organisations need learning so that organisational structures remain flexible and adaptable (Ortenblad, 2004). In this sense, organisational structures shape, and are shaped by, learning.

4.2.5 Staff and skills

The Learning Organisation requires different skill sets and abilities from personnel than those required in traditional organisations. This difference can be explained in terms of a

focus on knowledge[5] or learning. Traditionally, organisations have focused on selecting people on the basis of their proven knowledge in a particular area as well as any relevant experience. The possession of such knowledge and experience is taken as being 'evident' through the successful completion of training and gaining relevant qualifications. Here knowledge is understood as being an outcome or a product to be harnessed and applied where required. In learning organisations however, the selection of people is based on their demonstrated abilities to learn, not necessarily what they know. In this regard, the ability to learn from mistakes, in group contexts, by being thrown in the deep end, or knowing how to learn, are valuable assets staff bring to the workplace and the organisation as a whole (Hitt, 1995: 22). These skill sets are further developed through opportunities for ongoing workplace learning and self-development (Thomsen and Hoest, 2001). In this latter case, emphasis is placed on staffs' ability to construct knowledge and regards learning as a process.

4.2.6 Systems measurement

Traditional measurement systems for assessing learning in organisations have primarily been occupied with evaluating the effect of learning on financial performance. Some studies for example, have concerned themselves with measuring the effects of learning on the organisations by linking learning to Returns on Investment (ROI), Returns on Equity (ROE), or assets (ROA), effectively `the bottom line' to convince stakeholders/managers to take the learning organisation journey (Ellinger, Ellinger, Yang and Howton, 2002; Hitt, 1995; Watkins and Marsick. 1997; Willis and Oliver, 1996). These studies are few and far between, and consequently, a coherent business case for adopting the learning organisation is missing.

While the impact learning has on an organisation's bottom line is an important consideration, focussing solely on financial outcomes may lead to operational measures (customer satisfaction, internal processes, organisational innovation) which impact on financial outcomes being overlooked. Hitt (1995) suggests that Kaplan and Norton's (1992) Balanced Scorecard approach is more attuned to the learning organisation because of its systems focus. Hitt (1995) proposes a balanced scorecard utilising three critical success indicators to emphasise and measure: excellence; organisational renewal and financial performance. This varies from the original Balanced Scorecard concept of financial, customer, internal business and innovation and learning. By employing these measures, Hitt (1995) bought together a combination of elements which contribute to organisational success with a focus on learning and improvement.

4.2.7 Synergistic teams

Hitt (1995) proposes synergistic teams as the 'flywheel' of the learning organisation. Learning organisations derive their power for adaptation and learning from high-functioning teams. Katzenback and Smith (1993) make a distinction between two

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[5] Knowledge can be thought of as either a product or a process, and the implications of these two different constructions for the structure of organisations are explored further in Section 4.4. Learning organisations use 'knowledge as a process' with learning as the mechanism while traditional organisations use 'knowledge as a product' and thus, assume that knowledge is static.

types of teams: the working group and the high-performance team. Where, working groups are low-synergy teams which fail to capitalise on the collective intelligence of the team/group due to sporadic and ineffectual communication/knowledge sharing practices by group members. Learning organisations, in contrast, ideally comprise of high-performing and synergistic teams who are adept at communication, and subsequently, are able to harness the collective intelligence of the group. The differentiation between working group and high-performance team may be due to the nature of the work, the stage of team development, as well as quality of team communications. This communication takes the shape of 'authentic dialogue' (Smith, 1998) driven by the goal of achieving mutual understanding among team members (Senge, 2000).

4.2.8 Key points: Further development of Learning Organisation models

The further development of Learning Organisation models is the identification and elucidation of key characteristics beyond the individual level to the organisational and structural aspects that impact on learning. These include the importance specific leadership actions or practices, the utility of identifying and measuring specific practices within the organisation, how organisational structure effects learning and how teams' climate and practices impact on the learning within them. These factors have moved beyond the individual (as Senge's original work suggests) to show how the whole organisation impacts on learning practices. Also, this literature has moved from the aspirational tone found within Senge's work to including empirically - based descriptive and normative work.

4.3 Networked learning

Garvin (1993) argues that building learning organisations necessitates the opening up of physical and symbolic boundaries to stimulate the exchange of ideas. If left intact boundaries encourage tribalism, knowledge hoarding and isolation. Boundaries of this nature can be overcome by encouraging the internal exchange of information across an organisation (between internal units, departments and divisions) through increased collaborative working opportunities, networking and the provision of feedback following such interactions (Pedler et al. 1991).

The learning organisation literature also makes reference to self-organising learning communities and networks which operate within and around organisations (Teare and Dealtry, 1998). Networks are effectively teams operating both inside and outside the organisation, and present ways of combining not only the existing knowledge of a group, but also abilities to create new knowledge (O'Keeffe, 2002). These networks operate under conditions of trust, and satisfy the advice and communication needs of organisational members.

By facilitating the interrelationships among organisational members and parts of an organisation, and collaboration between organisations, systems thinking provides the impetus for network cultivation and activity. Through external focussed networking, inter-organisational learning (awareness of learning that is occurring in other

organisations) can occur. Boundary workers (those who operate at the boundary between an organisation and others it serves) play a key role in scanning and connecting the organisations to the external environment. Overall, external collaboration and networking promotes a learning ethos and presents alternative sources of knowledge and learning (Pedler et al. 1991). Cross-organisational links and networking opportunities can be established through activities such as conferences, exchanges, and joint training exercises.

4.4   Knowledge Management framework

It is difficult to properly understand learning within and by organisations without a consideration of the product of learning: knowledge; and in particular, how knowledge is managed, generated, synthesised and created.

Many researchers are of the opinion that knowledge is the cornerstone of competitive advantage in organisations (Drucker 1993; 1995; Leonard-Barton 1998; Michalisin, Smith & Kline 1997; Nonaka 1991; Pemberton & Stonehouse 2000; James, 2005). The view that one manages knowledge (Knowledge Management) depends significantly on the perspective from which you define knowledge. The concept of 'knowledge' has many interpretations and is another subject which is the focus of much philosophical discussion. Knowledge can be seen as a process and as a product. Davenport and Prusak (2000) view knowledge as an evolving mix of framed experiences, values, contextual information, and expert insight that provide a framework for evaluating and incorporating new experiences and information. They acknowledge the embedding of knowledge in documents and repositories, but also note that for knowledge to have value it requires the intellectual input of individuals to provide context for that knowledge.

Nonaka (2005) suggests that Knowledge Management emerged from the synthesis of ideas from a range of disciplines and considers knowledge and management through assorted lenses including:

- knowledge and language

- economics

- psychology

- theory of the firm

- organisations

- knowledge creation

- strategy

- leadership

- human-resource management

- networks

- information and communication technology.

These various disciplines incorporate approaches from practical real-world business perspectives and academe and bring a range of potential definitions of Knowledge Management with them. However, there continues to be a lack of consensus about knowledge management definitions, theories, models and approaches.

Here in Australia, we have Australian Standard AS 5037-2005 which defines Knowledge Management as:

> A trans-disciplinary approach to improving organisational outcomes and learning, through maximising the use of knowledge. It involves the design, implementation and review of social and technological activities and processes to improve the creating, sharing, and applying or using of knowledge.
>
> Knowledge management is concerned with the innovation and sharing behaviours, managing complexity and ambiguity through knowledge networks and connections, exploring smart processes, and deploying people-centric technologies. (AS 5037-2005:2)

Knowledge Management, the AS 5037-2005 suggests, emerges from the foundations of management of explicit knowledge, information, documents, and records as well as the management of tacit knowledge, networks, skills transfer, learning and the like. The ability to combine the organisational elements comprising people, technology and content to address organisational capability are seen as the strengths of the discipline. The definition incorporates a broad range of knowledge management capabilities including the creation of knowledge.

Nonaka and Takeuchi (1995) discuss the two dimensions of knowledge creation, beginning with the ontological dimension: a perspective that knowledge is created only by individuals, with the organisation providing the context for the process of knowledge creation to occur. The epistemological dimension utilises Polyani's (1966) distinction between tacit and explicit knowledge. Tacit knowledge is linked to personal perspectives, emotions , experience , values and is hard to formalise and communicate, it includes cognitive elements presented as the individuals mental models of the world as well as technical components of knowhow and skills, it is often intangible and difficult to share. Explicit knowledge links to rational thought, sequential knowledge and is more easily captured, codified and communicated. Their Dynamic Model of knowledge creation is then discussed in terms of its critical assumption that human knowledge is created and expanded through social interaction between tacit and explicit knowledge. The term 'knowledge conversion' is then used to describe this process. Their SECI model articulates the four modes of knowledge conversion. Representing the different interactions between tacit and explicit knowledge, the SECI model describes the various transformational processes that contribute to the capture and sharing of knowledge. These are:

- **Socialisation** - (tacit to tacit) Sharing tacit knowledge through conversation, observation, practice and shared experience.

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- **Externalisation** - (tacit to explicit) Articulating tacit knowledge in explicit forms, concepts metaphors, hypothesis.

- **Combination -** (explicit to explicit) Systematizing concepts into a knowledge system, through media such as documents and information technology.

- **Internalisation** - (explicit to tacit) Learning by doing through internalisation of experiences from socialisation, externalisation and combination (Nonaka and Takeuchi (1995: 62).

These four transformational processes represent the different interactions necessary for the capture and sharing of tacit and explicit knowledge (Nonaka and Takeuchi, 1995). The practical opportunity to apply these interactions is highly dependent on the culture, structure, infrastructures and systems of the organisation.

Vera and Crossan (2005) suggest that the organisational learning and knowledge management research is characterised by the use of very different terminology with limited efforts to discuss concepts together. The practical implications of a failure to integrate the two schools of thought are reflected in the leadership of many organisations, the Chief Learning Officer has a human resource focus building on training, education, leadership development and change management while the Chief Knowledge Officer has an IT focus considering knowledge repositories, networks and the like (Stuller,1998). Further confusion is identified between the terms Organisational Knowledge and Knowledge Management though at an academic level it has been suggested that organisational knowledge research is descriptive and focussed on an academic audience while studies of knowledge management are prescriptive and targeted at managers and practitioners.

Pemberton and Stonehouse (2000) propose successful learning organisations create an organisational environment that combines organisational learning with knowledge management. The development of cultures, structures, infrastructures and systems are the key items to accelerate and sustain organisational learning and improve the efficiency and effectiveness of knowledge management. The same organisational attributes will advance both concepts; the creation of an environment conducive to organisational learning will also be conducive to knowledge management and contribute to the creation of a learning organisation.

4.4.1 Key points: Knowledge Management framework applied to Learning Organisations

Integrating sound knowledge management principles into an organisation is a key characteristic of building a learning organisation. Knowledge management, however, is a necessary but not sufficient condition for supporting learning in and by organisations. As noted above, the learning organisation literature incorporates ideas such as culture, strategy, structure, and systems, as well as considerations of knowledge management into its variety of frameworks and models. Whatever KM strategy adopted by organisations to facilitate learning across an organisation, this strategy needs to be aligned with

organisational values, norms and preferences for knowledge sharing if it is to be successful.

4.5 Learning culture and climate framework

A recurring theme in the learning organisation literature is the idea of putting in place certain sets of endogenous organisational preconditions which assist learning. These preconditions are often described in terms of culture, climate or environment which provides the basis for supporting or inhibiting learning. The differences and similarities between these terms and the types of behaviour they promote are outlined below.

Reviewing organisational culture across multidisciplinary domains shows that there are many and varied definitions, yet there are commonalities. Schien's (1992;2004) definition captures these commonalities by identifying three basic elements to organisational culture:

1. visible elements (artefacts)

2. stated rules, values and expected behaviour (espoused values)

3. deeply embedded assumptions about what and why we do what we do (assumptions and enacted values).

Thus, for Schein, organisational culture has both a material (artefacts, objects, symbols) and non-material basis (social norms, values and expectations).

For Garvin (1993) the first step in growing a learning capability involves fostering an environment that is both supportive and open. Such an environment:

- **Provides psychological safety**. Safe environments are those where people are not afraid to ask questions, admit to making mistakes, and can disagree with peers or authority figures.

- **Has an appreciation of difference**. Learning organisations recognise the value in competing or opposing ideas. Learning occurs when people are exposed to alternative world views or paradigms. Exposure to new paradigms invigorates learners and encourages fresh thinking.

- **Is open to new ideas**. While problem solving and correcting mistakes are important mechanisms for learning, supportive learning environments encourage risk-taking and discovering new or novel approaches to problems.

- **Makes time for reflection**. Abilities to think analytically and creatively, learn from experience, and identify problems are often undermined by deadlines, busy work schedules and associated time pressures. Supportive learning environments allow time for thoughtful reviews of personal performance and organisational processes (Garvin et al., 2008).

Managers and leaders can help create the conditions that help foster the learning environment; leaders are critical in developing the psychological safety within a team environment. Edmondson (1996; 1999; 2004; Edmondson, Bohmar & Pisano, 2001) examined surgical teams' uptake and performance of an innovative heart surgery

technique, and their climate or culture. Edmondson (1996; 1999; 2004; Edmondson, Bohmar & Pisano, 2001) found that there was significant differences in pace of improvements from team to team. The critical factors in how quickly the different surgical teams learned included: criteria for team selection (and continuity of staff within the teams); how the introduction of new technique was understood – as an organisational issue not merely a technical issue; and most importantly, team leaders who were accessible, asked for input and served as a 'fallibility model'. Thus, the environment is an arena that supports learning by allowing for questioning, mistakes to be discussed, personnel willing to try to experiment, and respect within a team to trust each other. So these characteristics endow the team or the organisation with a culture (defined as norms, attitudes, behaviours and shared assumptions) necessary for learning (Rifkin and Fulop, 1997: 3).

However, environments can also constrain learning in organisations to the extent to which personnel often *fit in* to the organisation by aligning their cognitive styles with organisational values and beliefs. For example, large traditional-style organisations which strive for consistency, efficiency and stability can be viewed as being conformance driven employers. Within this context, individual preferences for 'taught' learning styles match the qualities that are espoused within these sorts of organisations. Indeed, the static nature of this kind of organisation's processes, structure, procedures, culture and behaviours work to reinforce conformity and compliance to organisational norms. In turn, this culture is reproduced by recruiting individuals who fit the job and organisation as a whole (Teare and Dealtry, 1998: 3).

There is also an emphasis in the learning organisation literature on organisations facilitating learning by providing a 'learning climate' often expressed in terms of a directors/managers role to encourage learning from various activities (Garratt, 1990 cited in Ortenblad, 2002; Senge, 2000), and create conditions where people can interact more freely, exchange ideas, and value learning (Pedler and Aspinwall, 1998). de Somer and Schmidtchen, for example, view the organisational climate as a lever through which the leadership of an organisation can rapidly and effectively influence the performance environment (1999: 107). Learning climates are also characterised as places where open and fruitful dialogue can occur, and mistakes are viewed as being learning opportunities (Pedler et al. 1991). Thus, learning is understood as being an outcome of the climate and the supportive efforts of managers and leaders. In order for a learning climate to be resilient, the right sets of supportive organisational norms and values must exist in the shared mental models of the organisation. This learning climate, however, should not be imposed through formal structures. Rather, through the facilitative character of its structures and processes, the organisation provides 'space' for individual learning that is encouraged rather than controlled (Ortenblad, 2002, 2004).

4.6 Army's Learning Environment: An analysis

Army integrates individual, team and organisational learning within its conceptualisation of the Army Learning Environment (ALE). From a systems thinking perspective, this

integration extends to learning processes, and in particular, the linking of three dimensions:

- executive management (enterprise systems, policy and procedures governing executive management)

- knowledge management (incorporating social and technological activities to support knowledge creation and sharing)

- learning and assessment (the delivery, monitoring and assessment of formal and informal learning initiatives).

These dimensions are supported further by robust information, communication and technology (ICT) infrastructures designed to keep track of the flow, and manage the quality, of information within the integrated learning environment (Australian Army, 2007a).

Learning is shaped by those elements highlighted above in the ALE. A desirable consequence of this learning is observable changes in individual and organisational behaviour (Smith, 1999). Garvin (1993) and Reynolds and Ablett (1998) emphasise the importance of acquiring, transferring and developing new knowledge and solutions and the subsequent modification of behaviour to reflect this new knowledge as cornerstones of organisational learning. Indeed, aligned with principles of change management, learning and adaptation occurs through the creation of amenable learning environments (Marquardt and Reynolds, 1994). In this regard, the ALE provides the framework which supports the generation of an adaptive culture to better allow Army to operate in complex environments (Australian Army, 2007, 2007a).

4.7 Synthesis of Key Points: Frameworks for building Learning Organisation

A synthesis of the dominant themes in the learning organisation literature suggests that building a learning organisation requires a multiple-perspective approach - one which acknowledges the complementary individual, cognitive, social, cultural, technological and structural components required to create such an entity. On a (distributed) cognitive level, building a learning organisation necessitates an organisational mindset in the form of shared mental models, and a sense of connectivity derived through systems thinking. Flexible structures allow the formation of desired organisational learning processes and systems. A shared vision, combined with effective leadership, guides the organisation through change. Knowledge management allows the capture, assimilation and distribution of implicit and explicit knowledge so that the organisation can learn as a collective. Strategy enables the organisation to develop capability and competencies to realise its potential and remain competitive (Thomas and Allen, 2006). Strategic building blocks are further supported by an effective organisational design which is aligned to the building blocks highlighted above, as well as the possession of appropriate skills and competencies by employees to fulfil the roles within these blocks.

Cultural building blocks find their expression through such things as the formation and demonstration of shared organisational values, and the generation of learning environments or climates which provide the conditions for learning. However, with the discussion of learning environments and climates we are presented with a somewhat culturally deterministic view of learning and behaviour, particularly in relation to the learning experiences of employees or subordinates within an organisation. The cultural climate "drives behaviour" (de Somer and Schmidchten, 1999:107) and there is an expectation that people will adapt their behaviour to conform to this environment. Agency (ability to exercise power and authority to act) is only attributed to leaders and managers who are able to shape or create learning environments through their own efforts. Thus, the significance of power relations and its expression through organisations is not really touched upon in the literature.

Individual learning is undoubtedly an important component for building learning organisations. However, an effect of this focus within the literature on the learning abilities of individuals is that the structural underpinning of learning fades into the background. The organisation merely becomes the setting where this type of learning occurs. The literature would have us believe that learning is natural and individuals learn as a result of their own efforts, in an empowered and self-directed way, unfettered by organisational constraints. Such a view negates the extent to which such learning is shaped by one's location within the structure of an organisation – a structure which determines the allocation of resources and opportunities for learning. Moreover, while there is an assumption that *all* individuals learn in learning organisations, the effect gender, class, ethnicity (and for the Army, rank) have on shaping learning trajectories within organisations is under-explored.

5. Types of learning in Learning Organisations

To date, the discussion on the definitions and building blocks of learning organisations have revealed several ways learning is articulated in the learning organisation literature. Some of these include:

- learning about things (knowledge)

- learning how to do things (skills, competencies, abilities)

- learning to become oneself (personal development)

- learning to achieve things together (collaborative enquiry and team work) (Pedler and Aspinwall, 1998).

The different approaches regard learning to be a product (a result of well thought-out curricula, various teaching programs and instructional regimes producing observable changes in behaviour), and a process of acquiring and knowing how to interpret and apply information in changing contexts (Smith, 1999). As Hosley, Lau, Levy and Tan suggest:

there are two goals in any learning process. One is to learn the specifics of a particular subject matter and the other is to learn about one's strengths and weaknesses as a learner (1994: 8).

The following section explores further the significance of learning by examining the ways in which individual, organisational, adaptive (single-loop), and generative (double-loop) learning are understood within the literature. All the types of learning described (about things, how to do things, learning to become one-self and how to achieve things together) are all necessary foundations to learning within and by organisations.

5.1 Individual learning

As noted in the previous section, the Learning Organisation is predicated on individual learning, where learning is a culmination and a consequence of actions of individuals in an organisation. An aspect of 'action-based' learning is provided by the education philosophy of Revans (1982). The foundation of action learning concerns the integration and synchronisation of thinking and doing, as well as linking ideas with action. For Revans, action and learning are mutually sustainable concepts which lead to effective action. Revans (1982), however, also notes that while organisations provide many opportunities for action learning to occur, the culture of an organisation determines the success of this learning.

Organisational culture can also be viewed as being learned and reproduced through the articulation and adoption of organisational values, norms and expectations. Culture has been identified as contributing to organisational learning. Tsang (1997) contends that mechanisms for learning (or change for that matter) are unlikely to yield productive learning (desired changes in behaviour/results) if they are not embedded within an appropriate organisational culture – a culture where the shared values and beliefs shape how organisational members think, feel and behave. Thus, understanding and evaluating organisational culture can inform us as to why learning and change initiatives fail or succeed (Mahler, 1997).

For Kolb (1984), active participation is not enough. While individuals learn by doing, or through action, this action needs to be followed by reflection upon the activity if learning is to occur. For Kolb, Rubin and Osland (1991) experiential learning is conceived as a process incorporating a four-stage cycle (See Figure 2). This learning cycle comprises the following stages:

1. concrete experience (learning by doing)

2. observation and reflection

3. the formation of concepts and generalisations

4. the generation of hypotheses to be tested in future action.

This in turn paves the way for new experiences. The learning cycle is therefore recursive (Hosley et al, 1994).
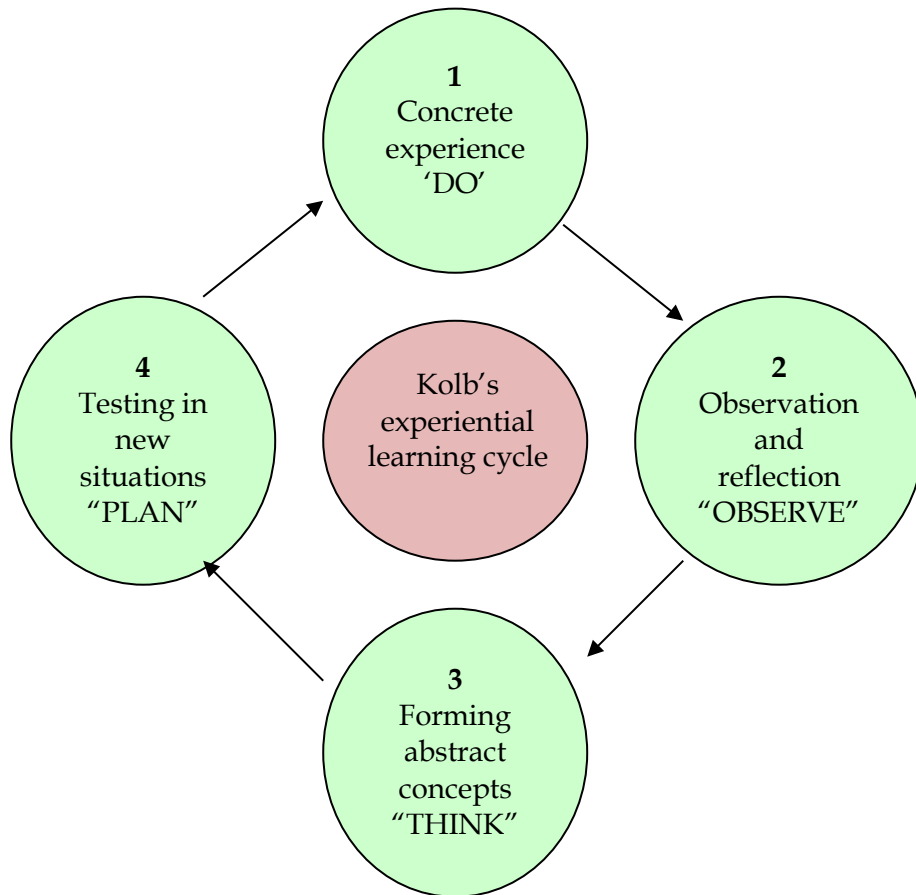
Figure 2: Kolb's (1984) experiential learning cycle

Individual learning not only occurs through participation in formal training courses and educational programs, but also occurs on the job, while at work. It may be derived from practice, and tacit knowledge developed through experience and self-development. Learning here is developed through participation in the daily life of the organisation, and situated within specific contexts (Lave and Wenger, 1991; Ortenblad, 2004). Individual learning can therefore be 'life-long' in nature; a continuous and integrated concern which occurs throughout an individual's life (Marquandt and Reynolds, 1994). Knapper (1994) describes the concept of lifelong learning as having:

> …the capacity to set personal and realistic goals; the ability to apply existing knowledge and skills effectively; the ability to evaluate one's own learning; skill at locating information from different sources, and the capacity to use different learning strategies (cited in Hodgkinson, 1998: 423).

The ability to exercise these lifelong learning skills however is somewhat determined by the nature of work practice, or more significantly, the levels of resources and support made available within the organisation to sustain this type of learning. Ortenblad (2004) argues that workplace and individual learning needs to be integrated within an encouraging learning environment where people are able to learn from their own mistakes or failures and the mistakes or failures of others and are not blamed for them.

Individual learning **can be** transferred to the organisation, or applied through shared mental models (Senge, 2000), double-loop learning (Argyris and Schon, 1978), and reflection. Furthermore, in order for other individuals and the organisation as a whole to benefit from individual learning, processes and structures need to be in place to capture and disseminate this learning throughout an organisation, as discussed in the following section.

5.2 Organisational learning: Integrating individual and organisational processes

The notion that an 'organisation could learn' independently from individuals within it was first proposed by researchers in the late 1950s to early 1960s (March and Simon, 1958; Cyert and March, 1963 cited in Easterby-Smith and Lyles, 2003). In their development of a theory of organisational learning, Cyert and March (1963) situate learning within the context of decision-making and organisational rules, procedures and routines which are either adhered to, or modified to achieve positive outcomes. In particular, they contended that organisational learning processes allow organisations to adapt and learn from experience. Later research has highlighted the extent to which organisational learning affords organisations a 'competitive advantage' over others (Field and Ford, 1995; McLean, 2000; Park, Ribiere and Schulte, 2004), and its survival in environments characterised by uncertainty and change (Popper and Lipshitz, 2000).

For organisational learning to occur, individual learning needs to be stored into the memory of the organisation. Organisational memory comprises such things as Standard Operating Procedures (SOPs), routines, documents (codified knowledge) and shared mental models (Ortenblad, 2004). With this talk of organisations having the ability to learn in their own right, or having a memory (brain), it becomes apparent that anthropomorphic assumptions often apply to organisational learning and the Learning Organisation. In this respect, organisations are attributed with learning skills, traits and memories (often ascribed to humans) which either facilitate or impede learning. This approach looks at organisations as though they are individuals.

Within the literature, organisational learning and learning organisation are terms that are often used interchangeably. It is a mistake to conflate these terms, as each pertains to different levels of learning. While often used interchangeably, the terms organisational learning and learning organisation are not functional equivalents. Organisational learning is one aspect of the learning organisation, and an idea in its own right. The Learning Organisation is concerned with building the learning and knowledge creation capacities in

individuals, while simultaneously allowing this learning to be shared throughout an organisation. Thus the Learning Organisation can be viewed as the:

> …product or result of a critical combination of internal change mechanisms concerned with structure, process and human capability allied to continuous environmental reviews intended to maintain or improve performance" (Thomas and Allen, 2006: 126-127).

Conversely, organisational learning is the capacity or process by which organisations acquire and develop knowledge and skills to achieve the above result (Yang et al. 2004). In a similar fashion, Finger and Burgin Brand (1999) refer to organisational learning as the processes and activities which allow organisations to achieve the goal of becoming a learning organisation. Thus, the idea of the Learning Organisation and organisational learning share a symbiotic relationship. If an organisation is to become a learning one, it requires organisational learning (Tsang, 1997).

The ontology of organisational learning (or the nature and subject of learning) is presented in the literature in two ways: at an individual and an organisation level (Curado, 2006). Argyris (1999:67) indicates that '[o]rganisations do not perform the actions that produce learning. It is individuals acting as agents of organisations who produce the behaviour that leads to learning.' The dilemma of this position is discussed by Kim (2004:35) when examining the paradox whereby organisations are not just collections of individuals, but there is no organisation without the collection. Thus, while organisations may learn through individual learning, organisational learning is more than the sum of individual learning. Learning in an organisational sense occurs when organisations synthesise and then institutionalise the intellectual capital and learning, as well as the understanding, shared assumptions, memories, core competencies, knowledge systems and routines possessed by its members. Organisational learning is a collective event, contingent upon the effective learning abilities of organisational members, including its weakest links. Effective learning is also predicated on the generation of an organisational culture which promotes inquiry, sharing and trust (OKeeffe, 2002).

Given the importance of learning, one might expect to find a general consensus as to what learning means within organisations, or at least what constitutes organisational learning that it will allow us to learn 'faster'. Fiol and Lyles (1985: 803) outline a broad range of theorists' views on organisational learning, indicating that learning is referred to as everything from new insights or knowledge of the organisation to new structures, new systems and adaptations. Definitions of organisational learning are considered by Dixon (1994:136) with a view to identifying common themes within the definitions. She suggests major themes relate to:

- an expectation that increased knowledge will improve action

- that a pivotal relationship exists between the organisation and the environment

- the idea of solidarity through common or shared understandings and

- a proactive change stance, suggesting self-correcting responses to environmental change.

The notion is one of employees and the organisation using quality knowledge, working synergistically through shared assumptions, by participating in a learning process in order to improve organsiational performances and outcomes.

Argyris and Schon are credited (Easterby-Smith and Lyle, 2005:10) with describing the field of organisational learning and identifying the distinction between organisations who learn and those who don't. This is discussed using the terms of Model I, and Model II, the Theory–in-Use Models. We are introduced to the single-loop learning approach which discusses the limitations faced by individuals who simply focus on solving current problems without consideration of learning behaviours, Argyris (Easterby-Smith and Lyle, 2005:20) has described this Model I or single-loop learning as maintenance learning, i.e. getting better at what we do. Model II or double-loop learning is focussed on problem-solving by asking if we are doing the right thing, and examining the underlying assumptions and values of the organisation.

A combination of shared mental models (Senge, 2000) and double-loop learning (Argyris and Schon, 1978) are seen as supporting the transfer and application of individual learning to the organisation. Much emphasis is placed on these mental models as, even given the abundance of standard operating procedures, rules, protocols and routines, there is much about an organisation that is embedded in the people rather than the system. By making mental models explicit, they can be shared and form a shared meaning for organisational change and improvement (Kim 2004: 48).

Fiol and Lyles (1985:804) also consider individual and organisational learning and present us with four contextual factors that affect the probability of learning occurring:

- corporate culture conducive to learning stressing the importance of the shared beliefs, ideologies and values that exist in the firm

- strategy that allows flexibility, determining the goals and objectives that the members of the organisation will pursue

- organisational structure that allows both innovativeness and new insights as they are conducive to conversations, sharing of knowledge and transparency of decision making

- the environment, that provides the balance between opportunity to stretch to new learning and the stability to trust that is the appropriate course of action.

As the discussion of organisational learning progresses, various theories and models of organisational learning are presented as we endeavour to understand the way organisations actively facilitate collective learning. Dixon's (1994) organisational learning cycle presents a four-level model incorporating the widespread generation of information, integration of new/local information into the organisational context, collective interpretation of information and the authority to take action based on the interpretive meaning. The cyclical nature of the model then integrates the new level of understanding.

This approach is not inconsistent with the view of the organisational learning system presented by Vera and Crossan, (2005:124) "continually evolving knowledge stored in individuals, groups and the organization and constitutes the fundamental infrastructure that supports a firms strategy formulation and implementation process." The Dynamic Organizational Learning Model presented by Schwandt (1995), Gorelick (2005) and Vera and Crossan (2005) endeavours to explain how learning moves between the various learning levels viewing organizational learning as a "system of actions, actors symbols and processes that enable an organisation to transform information into valued knowledge which in turn increases its long run adaptive capacity" (Schwandt 1995:370 cited in Vera and Crossan 2005:130). The four learning subsystems are detailed as environmental interface, action/reflection, dissemination and diffusion, and meaning and memory. These interdependent social actions of learning are synthesising and institutionalising learning and its systems and processes, converting information into valued knowledge.

The discussion to date and the prevailing position recognises that each of these models and perspectives go some way toward explaining the complex cycle that generates organisational knowledge. We must acknowledge researchers represented by Simon's (1991) alternate view that "all learning takes place inside individual human heads" (cited in Grant 1985:112), an organisation learns only from the learning of its members, or by finding new members with new knowledge. This approach endeavours to avoid concerns of misattribution, such as anthropomorphism[6] or reification[7] within and by an organisation. For example, attributing learning (which is usually only understood in terms of an individual cognition) to group situation can be problematic. However, this is not what these theories of learning organisations are suggesting. Rather, learning organisations refer to the more sophisticated understanding of the interaction between the environment, culture, structures and processes within an organisation and the individuals' learning.

An examination of the organisational learning literature also reveals an evolution from research equating organisational learning with the acquisition, distribution and storage of knowledge in the organisational memory (as described above), to a focus on the ways in which organisations process and integrate information, and generate new knowledge Dierkes et al (2003). With increased understanding of how information is shared, stored and accessed within a complex sociotechnical system (such as an organisation) has come an increasing sophisticated and nuanced understanding to how new information, knowledge and innovation are generated. As discussed previously Dixon (1994), for example, provides a model for the generation and integration of new knowledge into organisations to promote collective/organisational learning.

A review of the organisational learning literature highlights the contested nature of the term, creating a sense of confusion regarding the ways in which organisational learning behaviours can be compared across studies. Some clarity, however, is provided by the

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[6] Anthropomorphism is the misattribution of agency or human-like qualities to that which is not human nor has agency. For example, when discussing group learning, anthropomorphism is the error in assuming that the group does indeed have a collective brain within which learning would take place.
[7] Reification is the misattribution of treating an abstraction as if it has a concrete or material existence.

terms single loop and double loop learning. These learning approaches are discussed below.

5.3 **Single loop and double loop learning**

Within the organisational learning and learning organisation literature comparisons are often made between two primary forms of learning in organisations: firstly, adaptive (Senge, 1990) or single-loop learning (Argyris and Schon, 1978; Argyris, 1992), or tactical learning (Dodgson, 1993). These are often referred to as lower-level learning, as the organisation is passive and only adapts to the environment. Whereas, the second form, generative (Senge, 1990) or double-loop learning (Argyris and Schon, 1978; Argyris, 1992) or strategic learning (Dodgson, 1993) is considered a higher-level learning as it involves an active influence on the external environment (Dimonvski, Škerlavaj, Kimman, and Hernaus, 2008).

5.3.1 Single-loop learning

Traditional organisations are those which are adept at 'survival' learning (Nair, 2001). Also known as single-loop learning (Argyris and Schon, 1978; Argyris, 1992), this type of learning is more attuned to solving current problems without investigating the appropriateness of current learning behaviours (McGill, Slocum and Lei, 1992; Senge, 2000). Single-loop learning therefore provides individuals and organisations an opportunity to respond to changes in their internal or external environment (by detecting and correcting errors) so as to maintain the central features of the organisational norms. Argyris (1992) contends that most organisational learning is single-loop in nature (Hodgkinson, 1998).

Single-loop organisations tend to focus on incremental improvements to existing practice, services, products and technologies. Single-loop learners and organisations tend to exhibit characteristics of stimulus-response behaviour, making learning reactive in nature. In this regard, they react to environmental changes with discrete and mechanistic behaviours which often fail to address underlying problems in a direct manner. Experimentation, regeneration and change (all required in double-loop learning) is difficult when it takes place within a centralised bureaucracy; bureaucratic processes enforce conformity, routine and risk-avoidance behaviours which act to retard diversity of views and actions (McGill et. al. 1992).

Singe-loop learners and organisations are 'learning disadvantaged' when it comes to building new sources of competitive advantage. This is because their focus on incremental change results in a predictable future strategy that can be decoded by competitors. Indeed, routine behaviour, outdated reward systems and cultural values become obstacles to transformation. Consequently, single-loop learners or organisations are often required to rely on outsourcing to remain competitive and innovative. To this end, single-loop learning organisations can maintain their pattern of past success in so far as the external competitive environment remains static (McGill et. al. 1992).

5.3.2 Double-loop learning

While single–loop learning is focussed on problem solving, Argyris (1992) generative (or double-loop) learning is more concerned with determining how a problem surfaced in the first place and finding a workable solution so the same problem does not surface again. Indeed, generative learning is viewed as being a higher level of learning employed by learning organisations to enhance their creative capacities, and is central to effective organisational learning (Argyris and Schon, 1978; Hitt, 1995; McGill et. al. 1992; Senge, 2000). The characteristics of adaptive and generative learning organisations are presented in Table 2 below.

Table 2 Characteristics of types of learning organisations (McGill et al. 1992: 10)

	SINGLE LOOP	GENERATIVE or DOUBLE LOOP
Strategic Characteristics		
Core competence	Better sameness	Meaningful difference
Source of strength	Stability	Change
Output	Market share	Market creation
Organisational perspective	Compartmentalisation	Systemic
Developmental dynamic	Change	Transformation
Structural Characteristics		
Structure	Bureaucratic	Network
Control systems	Formal rules	Values, self-control
Power bases	Hierarchical position	Knowledge
Integrating mechanisms	Hierarchy	Teams
Networks	Disconnected	Strong
Communications flow	Hierarchical	Lateral
Human Resource Practices		
Performance appraisal system	Rewards stability	Flexibility
Reward basis	Short-term financial	Long-term financial and human resource development
Focus of rewards	Distribution of scarcity	Determination of synergy
Status symbols	Rank and title	Making a difference
Mobility patterns	Within division or function	Across divisions or functions
Mentoring	Not rewarded	Integral part of performance appraisal process
Culture	Market	Clan
Managers' Behaviours		
Perspective	Controlling	Openness
Problem-solving orientation	Narrow	Systemic thinking
Response style	Conforming	Creative
Personal control	Blame and acceptance	Efficacious
Commitment	Ethnocentric	Empathetic

Whereas single-loop learning is concerned with maintaining the status quo, double-loop learning is where the current organisational norms and assumptions are questioned to establish a new set of norms (Hosley et al. 1994). Indeed, double-loop learning represents a more pervasive kind of learning which entails an examination of the underlying assumptions and governing values of an organisation, culminating in more radical changes to systems, structures and strategies themselves (See Figure 3 below) (Argyris and Schon, 1978; Huber, 1991; Ortenblad, 2004).

Single-loop learning
Changing the current behaviour though problem solving

| Thoughts, patterns and assumptions. Variables guiding action (values and objectives) | Action models and strategies | Results and consequences |

Double-loop learning
Changing the assumptions and values
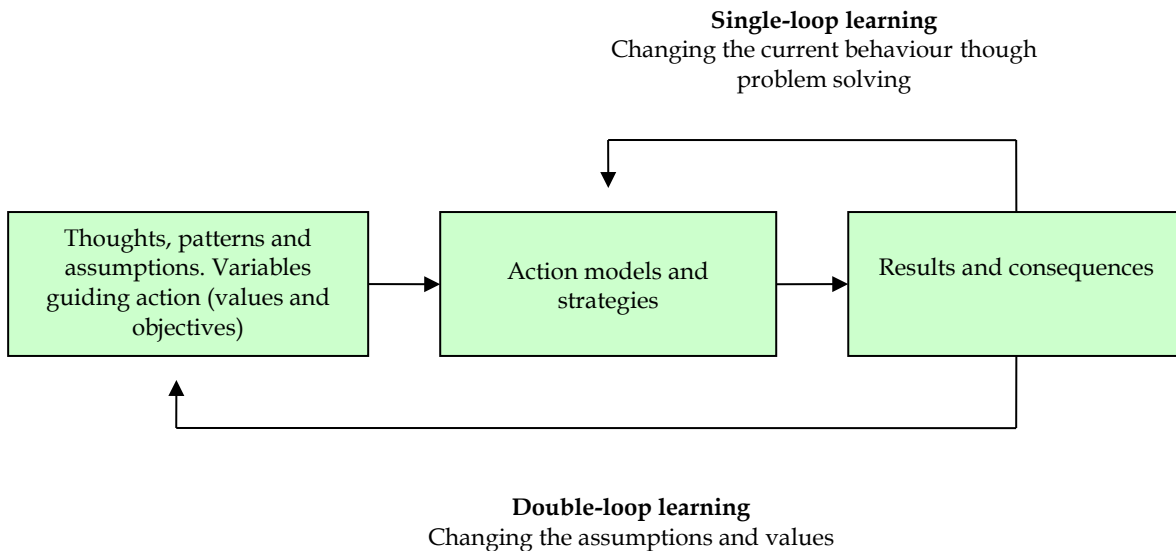
Figure 3: The Model of Organisational Learning (adapted from Argyris and Schön, 1978)

For Senge (2000), generative learning encompasses such things as continuous experimentation and feedback which are employed by organisations in their examination of the ways they go about defining and solving problems. Managers in these learning organisations demonstrate behaviours of systems thinking, openness, self-efficacy, creativity and empathy. In generative learning organisations emphasis is often given to how the organisation/manager learns, or the learning process, rather than what the organisation or manager knows (McGill et al, 1992). The principles of generative learning run counter to traditional reward systems and cultures that foster single-loop learning, and requires a degree of 'unlearning' to change the mind sets of managers to work against their experience and training (McGill et al, 1992).

Taken to a higher level of abstraction, generative learning also incorporates a degree of deutero-learning. Bateson (1987) coined the phrase 'deutero-learning' for the latter goal of 'learning to learn' and becoming more skilled at problem solving (cited in Hosely et al. 1994). Generative learning organisations have the ability to learn how to learn. They are able to experiment with new technologies, embrace difference/diversity and be flexible enough to incorporate difference/diversity into their structures and processes (McGill et. al. 1992).The notion of deutero-learning is evident in Senge's (2000) disciplines of personal mastery and mental models as outlined in Section 4.1.

5.4 Key points: Assumptions about learning in Learning Organisation literature

There are a variety of assumptions about learning, social interaction and the types of behaviours evident in the Learning Organisation discourse. Honey (1991) argues that there are five main (and often contradictory) assumptions underpinning learning in and by organisations. The assumptions are linked, in that, accepting the first assumption (learning is always a good thing) will lead to the following assumptions, such as learning needs to be actively managed and planned. These statements may indeed be correct, and there is evidence that learning does lead to better outcomes, however, learning itself may not *always* lead to positive outcomes e.g., learning to accept and condone fraudulent corporate behaviour within a workplace, such as found within Enron[8].

These assumptions include:

1. **Learning is a good thing**. There is a tendency in the literature to overplay the positive effects of learning on the organisation (i.e. improvements in performance, productivity, profitability and competitiveness). Positive learning outcomes are often a result of using good quality or accurate knowledge to inform action/behaviour. Negative learning can also occur in organisations (i.e. organisational members can learn not to report mistakes, or adopt unsafe practices to compensate for perceived inefficiencies in the workplace) through enculturation processes. Thus, a degree of 'de-learning' or unlearning may be required to overcome this sort of 'unhelpful' learning (McWilliam, 2005).

2. **Learning needs to be on the conscious agenda of organisations**: Both the quality and quantity of learning is improved if it is undertaken deliberately and consciously, rather than being left to chance. In this respect, behaviours which support learning such as reflection and the provision of feedback are valued by the organisation. Moreover, the design and description of processes which should support learning, such as appraisal systems and reviews, should emphasise the contribution to learning. Such a stance however ignores the extent to which powerful learning opportunities may occur through unplanned events, trial and error, and chance encounters.

3. **Learning needs to be planned.** Through careful planning, organisational members will learn required/desired behaviour rather than unwanted behaviours. Such a view operates under the assumptions that learning is not indigenous to organisational life (Di Bella, 1995); it supports the idea that learning (as a collective activity) only takes place under a set of certain, or prescribed, conditions or circumstances, rather than through chance or random occurrences. As a consequence, learning needs to be strictly monitored to ensure its realisation and to maintain control over it (Filion and Hedwig, 1999).

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[8] Enron Corporation was an American energy company that had claimed revenue of $101 billion during 2000, and Fortune magazine named Enron "America's Most Innovative Company" for six consecutive years. At the end of 2001, it was found that the company had sustained institutionalised, systematic and creatively planned accounting and corporate corruption and fraud (Palepu, & Healy, 2003).

4. **Learning is continuous**. Learning is an ongoing process for everyone with no beginning or end. While this is an admirable statement, such a position assumes that all organisational members want to learn, have the access to resources to enable learning to occur, are encouraged to do so, and are willing to modify their behaviour in accordance with learning. There is also value in pausing, taking stock of actions/behaviours, and letting ideas germinate to promote learning.

5. **Team learning is easier to sustain.** Teams are "fundamental learning units in modern organizations"; (Senge, 2000: 10). Shared learning in teams allows individual learning to expand as it becomes embedded in the team. This type of learning is viewed as being easier to sustain than individual learning efforts. Such a stance however negates the significance of power relations and competition over scarce resources which may inhibit knowledge sharing and cooperation among team members.

6. **Learning starts at individual level and is aggregated**. Authors have also noted the strong link between individual learning and building learning organisations (Applebaum and Gallagher, 2000 cited in McCaffrey, 2004; Elkjaer, 2001; McCaffrey, 2004). Garvin (1994), for example, see exposing individuals to new ideas so as to expand their knowledge base as being the first step to becoming a learning organisation. Senge (2000) refers to this process as contributing to 'personal mastery' – a term used to describe the results of individual learning. As individuals learn and create knowledge, the organisation amplifies this process through the provision of learning environments (Thomas and Allen 129). Indeed, it is through the efforts of individuals that individual beliefs and attitudes become 'shared visions' (Ellinger et. al. 1999: 439). Consequently, developing a learning organisation begins with individual learning and development rather than starting with changes in organisational structures and work practices. The assumption here is if individuals learn, and the organisation is made up of individuals, then the organisation learns (McCaffrey, 2004).

5.5 Synthesis of learning within Learning Organisations

There is a tendency by theorists to differentiate, for analytical purposes, individual and collective learning in learning organisations (Matlay, 2000), and in doing so, the dichotomous construction of the individual and the organisation (as if one can exist independently of the other) (Child and Heavens, 2001). Distinctions between the two are further accentuated through a reductionist stance which views individual learning as the basis of organisational learning, and a tendency toward anthropomorphism wherein organisations analogously learn like people.

However, the links or synergies between individual and organisational learning comprise the components of a learning organisation (Hodgkinson, 1998, 2000). Training, education and personal-development opportunities are mechanisms for individual learning. Nevertheless, while individual learning is an important feature of organisational life, unless this learning is shared or acted upon at the organisational level, the organisation will not learn. In turn, there are intimate links between the individual and the

organisation. The individual and the collective/organisation (and their learning for that matter) are mutually or co-constituted. Through their actions individuals reproduce the organisation, with the organisation providing the setting and context where this action makes sense. These individual/collective dialectic and associated micro-level interactions which shape learning experiences are under-explored in the literature (Lee and Roth, 2007).

Similarly, it can be argued that the synergies between single-loop and double-loop learning are also components of a learning organisation. While as readers we are encouraged to view double-loop learning in a more favourable light, in reality, both are features of the Learning Organisation. The detection and correction of errors (single-loop) should always remain an important component of organisational practice. Single-loop learning allows the organisation to react, or respond, to challenges as they arise, whereas double-loop learning allows the organisation to reflect on its performance and change in more fundamental ways. This reflection would need to take the form of an open and honest evaluation of performance (at individual and organisational levels) which leads to success and failure without fear of reprisal. Such an undertaking would also require brave and bold leaders who are willing to put the organisation's interests before their own.

6. Historical context: "old" and "new" organisational paradigms

The Learning Organisation represents a paradigm shift from the traditional notion of the organisation, particularly in regards to how organisations are structured, how they should function, how they should be managed, and how they respond to change (Hitt, 1995: p. 17). The shift from traditional organisation to a learning organisation requires a significant change in the way individuals, especially leaders, interact and think collectively (Gerras, 2002).

For many authors, the development of a theory of the Learning Organisation represents a departure from the modern industrial age, characterised by command and control styles of management techniques, and the beginning of the knowledge and information age (Daft, 2001; Marquandt and Reynolds, 1994; Moxley, 2000; Nevis, Dibella and Gould, 1995; Sugarman, 1997). Rifkin and Fulop refer to this development as a movement from an era of manufacturing and production by hands and machines, to a 'mentofacturing' era which emphasises production dependent on the mind (1997: 135). A result of this developmental discourse is to view the Learning Organisation as an advanced and 'new' form of organisational development. However, Garratt (1995) argues that the necessary antecedents for the material, philosophical and intellectual aspects of the Learning Organisation existed in the mid-1940s. In particular, Garratt contends that the effectiveness of autocratic, laissez-faire and democratic work-group principles attributed to Lewin, provided evidence that people would learn and self-manage in an appropriate organisational environment.

The Learning Organisation (the 'new' organisational configuration) represents a paradigm shift from the traditional (old) notion of the organisation, particularly in regards to:

- how organisations are structured

- how they should function

- how they should be managed

- how they respond to change (Hitt, 1995: p. 17).

6.1 Historical and structural transformations: Pathways to the Learning Organisation

Organisational structure is most commonly understood as pertaining to the structure and/or hierarchy of an organisation, and how associated lines of authority, responsibility and social relations enable the organisation to function and achieve common goals (Tempus, 2001). Within a given organisational structure, individuals, groups or sets of social relationships can be differentiated by task specialisation, otherwise known as the division of labour. This differentiation and specialisation is seen as a mechanism for the functioning of organisations and the maintenance of order (Merton, 1968). Organisational structures can be viewed as being both an outcome of interactive processes between elements within the organisation, and a determinant of these interactive processes (Macmillan, 2006). In this respect, organisational structures can enable or constrain the behaviour of organisational members.

Drawing upon Western and Eastern case studies, Bolwijn and Kumpe (1990) chart a four tiered model of the developmental life of organisations, highlighting the structural and cultural requirements occurring in each overlapping tier (see Figure 4). Each tier represents a type of organisation:

- the efficient organisation

- the quality organisation

- the flexible organisation

- the innovative organisation.

These tiers do not represent a complete departure from the previous type of organisation. Rather, they represent an amalgamation of performance characteristics so that:

- quality organisations incorporate efficiency along with a focus on quality

- flexible organisations integrate characteristics of efficiency and quality along with a focus on flexibility

- innovative organisations include characteristics of efficiency, quality, flexibility and innovation (Burns, 1995).

Thus, as the organisation matures in its development it retains useful features of earlier stages of development (such as some hierarchical structures and bureaucratic practices)

and enhances these with newer features (such as self-managing teams, as well as fluid and adaptive networks) (Harung, 1996).

In describing these four types of organisational development, their relevance to Harung's (1996) notion of task-based, process-based and values-based organisations, bureaucracies and the Learning Organisation will be discussed.

6.1.1 Efficient organisations

'Efficient firms' are characterised by an organisational structure designed to enable the manufacturing of goods by means of repetitive tasks. Division of labour within these firms is organised around task performance and skill bases (specialisation), with planning and control functions performed by management (Burns, 1995). Efficient firms/organisations are otherwise known as "task-based" organisations. Task-based organisations are those which have command and control hierarchies with a comparatively small number of senior managers making key decisions and designing policies, with the rest of the workforce adhering to top-down initiatives. Workers perform one or more isolated tasks, have relatively low competency levels and, as such, can be easily replaced. In these 'power-driven organisations,' employees are inclined to be promoted by behaving in prescribed ways (Harung, 1996: 23).
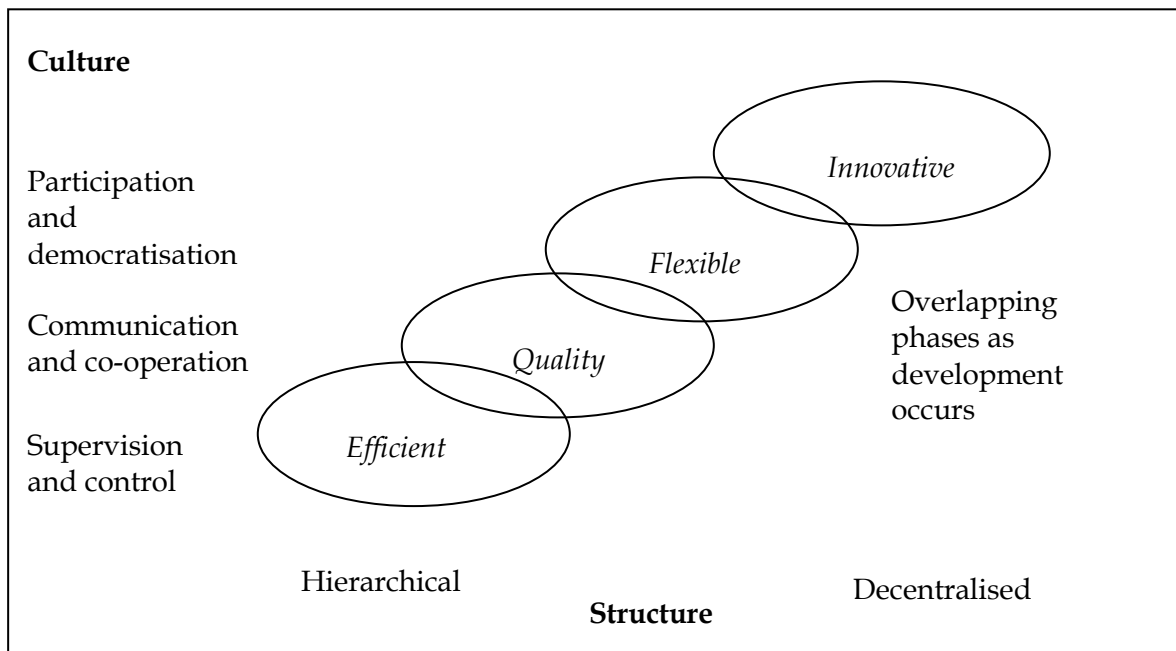
Figure 4: Culture and Structure in the Organisation (Bolwijn and Kumpe 1990 cited in Burns, 1995: 70).

The machine metaphor is often applied to efficient and task-based organisations. This type of organisation is often associated with Taylorist modernism.[9] A concern for efficiency is

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[9] Frederick Taylor is famous for his principles of scientific management which entailed managers measuring and analysing the time and effort required to do work so as to discover the best way of doing work. This 'best

also a feature of bureaucracies. Bureaucracies have arguably remained a dominant organisational model since the birth of the industrial revolution in the early 1800s. Bureaucracies originally emerged as state apparatus, large industrial enterprises which extended further into the realms of everyday social life (Wagner, 1994). Initially, bureaucracies brought with them some advantages over tribal, kinship-bound, patrimonial and traditional organisational forms due to their emphasis on rationality and impartiality, particularly in regard to the provision of services and products (Weber, 2003a). However, the rational underpinning of bureaucracies has been problematised, and most enthusiastically by the German sociologist Max Weber.

Weber wrote extensively about the notion of the bureaucratic organisation – a paradigm which drew heavily on the ideas of rationality and efficiency. Weber applied the term rationalisation (in reference to Western societies) to capture a process of disenchantment, or disillusionment with the world; a world where action was reduced to banal levels of calculation which found their form in routine administration, and the specialised division of labour within large scale organisations Weber, 2003). For Weber (whose father was a bureaucrat), bureaucracies and the rationality they entailed, represented an 'iron cage' which restricted individuals' abilities to exercise autonomy and innovation (Weber, 1994; Sugarman, 1997). Some of the characteristics of bureaucracies include:

- **Hierarchy of control.** The established ranking of superior and subordinate offices of which lower offices are under the control and supervision of higher ones. Thus, decisions are made above those levels where work is done. In extreme cases, the bureaucratic office generates oligarchy, where the economic and political power resides in the hands of a few officials (Ashworth, Boyne and Delbridge, 2007; Bidwell, 1986; Sugarman, 1997; Weber, 1978). Indeed, people who reach senior positions in bureaucracies tend to stay there for a long time.

- **Specialisation of function.** Each section within a bureaucracy is given its own area of duty or competence, with complex tasks broken down and assigned as duties. In turn, duties are differentiated from one another and are led by specialists (officials). While this leads to some efficiency, it also results in the production of 'silos,' or subcultures, who do not effectively share information (Ashworth et al. 2008; Bidwell, 1986; Sugarman, 1997; Weber, 1978).

- **Centralisation of information and control.** (Leading to a reduction in creativity and knowledge sharing). Communication up the hierarchy becomes distorted as a consequence of reporting only good news and not reporting bad news to the boss (Ashworth et al. 2008; Bidwell, 1986; Sugarman, 1997; Weber, 1978).

- **Rules, policies and procedures.** There is an omnipresent and continuous rule-bound conduct of official business. These rules are codified and delineate the authority of officials, as well as limiting their personal discretion. While these rules allow consistency in behaviour/performance, they also create structures which are

way' resulted in jobs being broken down into small components so that each part could be performed with a minimum level of skill by a variety of workers. Taylor's manual workers are viewed as capable of monotonous and routine tasks. In this respect, the knowledge once held by individuals is redirected or transferred into organisational systems. This approach was later adopted and refined by Henry Ford (Fordism) (Waters and Crook, 1993).

immune from change (Ashworth et al. 2008; Bidwell, 1986; Sugarman, 1997; Weber, 1978). These rules often become ends in themselves rather than means for realising organisational goals. Weber contended that this rule-bound environment (inside the cage) compelled people to become narrow specialists who sought security in routines rather than exercising their creative imaginations (Weber, 1978).

- **Impersonality.** In bureaucratic organisations the official becomes the instrument of policy. There is little room for personal desires, subjective interests or wishes when it comes to performing official duties. Accordingly dealings with clients must occur in an impersonal way. This emphasis on impersonality and objectivity produces bureaucratic personalities (methodical, prudent and disciplined) (Ashworth et al. 2008; Weber, 1978).

From the discussion on efficient and task-based organisations and bureaucracies, organisational structures are viewed as being mechanisms for achieving order and stability, ensuring the systematic arrangement and undertaking of activities. Orderliness is realised through clear divisions of labour, the compartmentalisation of tasks, the establishment of a hierarchical structure, and controls on the flow of information (Hitt, 1995: 21). Such a view draws on structural-functionalist theories which regard structures as playing a crucial role in maintaining the functionality or equilibrium within organisations (Parsons, 1951), often to the detriment of organisational flexibility and innovation. The significance of organisational flexibility and innovation and its relevance to learning is discussed below.

6.1.2 Quality organisations

The quality firm/organisation is one where the whole organisation is involved in improvement, and quality is a strategic issue to be dealt with by senior management. Improvement is enabled through internal mechanisms for data collection, feedback, and increased horizontal and vertical communication within the organisation. Customer orientation is a primary focus. Hierarchical control is loosened to facilitate greater co-operation among employees and leads to the formation of work-groups (Burns, 1995).

In the mid-1960s Peter Drucker introduced the concept of the performance based organisation, a paradigm which stressed results and effectiveness. For Drucker, the pursuit of effectiveness, or 'doing the right things', is distinct from the pursuit of efficiency, or 'doing things right' (1966). In order to measure effectiveness, Drucker was famous for introducing the performance indicator and auditing as management functions within the quality firm. In this sense, better organisational effectiveness is achieved through the careful management of time, particularly time spent performing tasks. Although concerned with developing the strengths or making the most of workers, Drucker's performance-based organisation still contains features of efficient organisations, especially with their emphasis on bureaucratic functions of controlling, planning, and organising.

Elements of it (the flexible and innovative organisation) are intimated in the Total Quality Management (TQM) approach associated with Deming. While still concerned with organisational effectiveness (doing the right things the first time), the TQM approach:

- strives for constant improvement

- adopts a systems view of the organisation

- institutes on the job training

- encourages greater collaboration across the workplace within cross functional teams

- institutes programs for the education and self-development of employees

- views organisational transformation to be the responsibility of all members of the organisation (Deming, 1986).

However, how managers are supposed to realise and promote these kinds of behaviours and initiatives among personnel and the organisation as a whole is an underdeveloped feature of Deming's work (Chan, 2004). Nevertheless, with its emphasis on systems thinking, individual and organisational learning, leadership and teamwork, Deming's TQM approach shares some of the hallmarks of innovative or learning organisations.

6.1.3 Flexible organisations

Within flexible firms organisational design incorporates fast feedback loops to ensure responsiveness. The hierarchical structures become flatter, and work functions are performed by autonomous units (Burns, 1995). A combination of elements from Burns' quality and flexible organisations can be found in Harung's notion of the 'process-based organisation. Within process-based organisations there is an emphasis on information sharing. This type of organisation requires a more open and participative framework. Task performance and productivity is often structured around self-managing teams, with each team responsible for holistic processes, integrating the types of task performed within the organisation. Due to wide-spread participation in decision making, it is essential that all personnel and teams have access to necessary information. The transfer of information is facilitated through a reduction in layers of management (Harung, 1996). The flexible organisation represents a transition from the old Taylorist model, where the worker is viewed as an 'unthinking cog', by emphasising workers' capacities for creativity.

6.1.4 Innovative organisations

The ability to successfully co-ordinate technological developments and harness the creative potential of multidisciplinary teams are key features of innovative organisations. This type of organisation is also characterised by a decentralisation of power and flat organisational structures. Indeed, the strong team ethos removes the necessity for line management distinctions, with managers taking on roles as co-ordinators. Knowledge and expertise are privileged and, accordingly, the contribution of employees is determined by their 'know-how' rather than their position (Burns, 1995).

In addition to having a strong technological and team focus, the values-based organisation is concerned with providing ongoing opportunities for personal development and satisfaction. Empowerment and self-management are promoted, and both individual and organisational performance is linked to knowledge creation, individual 'wakefulness,'

'alertness,' 'comprehension', and 'clarity of mind.' Here the cognitive abilities of individuals are paramount, with organisational members being active and participative decision makers. These individual abilities, however, are embedded in to the organisation as a whole, producing a 'collective consciousness'(Harung, 1996: 24).

6.1.5 Key Points: Pathway to a Learning Organisation

Like innovative and values-based organisations, learning organisations recognise that organisational structures need to allow both stability and flexibility. Flexibility is provided through the incorporation of dynamic social networks within the vertical/hierarchical structure. Thus, the hierarchical structure promotes stability, while the dynamic networks allow flexibility. These networks permit the speedy flow of information and decisions horizontally across the organisation, enabling members to more readily tap into the collective intelligence of the organisation (Hitt, 1995: 22).

Learning organisations also derive their power for adaptation and learning from high-functioning teams. Katzenback and Smith (1993) make a distinction between two types of teams: the working group and the high-performance team. Working groups are low-synergy teams which fail to capitalise on the collective intelligence of the team/group due to sporadic and ineffectual communication/knowledge sharing practices by group members. Learning organisations, in contrast, comprise of high-performing and synergistic teams who are adept at communication, and subsequently, are able to harness the collective intelligence of the group. This communication takes the shape of 'authentic dialogue' (Smith, 1998) driven by the goal of achieving mutual understanding among team members (Senge, 2000).

For Hitt (1995), the evolution from the bureaucratic organisation (Weber) to the performance-based organisation (Drucker) to the Learning Organisation (Senge) reflects a shift in organisational focus from efficiency, to effectiveness, to learning. While values such as efficiency and effectiveness remain important in 'modern' organisations, they alone, are not sufficient to allow organisations to flourish in competitive and changing environments. In conjunction with valuing efficiency and effectiveness, learning organisations also value excellence and renewal. Excellence takes the form of striving for the highest standards in all activities. The learning organisation paradigm integrates the features of efficiency and effectiveness into a learning framework so that an organisation can expand its capacity to 'do things right'(efficiency) and 'do the right things'(operate in an effective manner) (Hitt, 1995: 18).

Organisational efficiencies, effective processes, and innovations do not spontaneously occur all by themselves; these are practices initiated and maintained by managers and leaders. The processes that underpin learning within and by organisations are managed.

6.2 Management, managers and strategic planning in 'old' and 'new' organisations

An organisation's viability is somewhat determined by its ability to make changes happen. Rowden (2001) suggests that the Learning Organisation is the latest in a trend of strategic change management models (See Table 3). As described in Table 3, each version of strategic planning can be seen as having its own particular focus:

- a formal planning focus

- an implementation focus

- a readiness focus

- an integrated organisational learning focus.

Each of these versions and their implications for managers and employees are discussed below.

Table 3 Versions of Strategic Planning

VERSION	PURPOSE	EMERGED
First – Formal Planning Focused	Formal, Fixed Planning Documents by Senior managers	1940s - 50s
Second – Implementation Focused	Complex Implementation of Strategic Change Plans	1970s – 80s
Third – Readiness Focused	Creation of Readiness for Change Along with Planning	late 1980s– early 90s
Fourth – Integrated Organizational Learning Focused	Integrates readiness, Continuous Planning, Improvised Implementation and Action Learning	mid – 1990s

6.2.1 Formal planning models

The 'formal planning-focused model' emerged in the 1940s and 1950s. In this model, strategic planning was primarily the task of senior management. This model operated under a 'predict and plan' premise, which assumed that emerging trends could be detected through environmental scanning methods. Evidence of strategic planning could be found in the generation of numerous formal and fixed planning documents, produced by senior executives on a yearly basis (Rowden, 2001). Similarly, Mintzberg (1994) suggests that traditional approaches to strategic management have a focus on outcomes, where strategic management is a top-down activity performed by senior managers in the creation of rational, intended and long term plans (cited in Hodgkinson, 2000). When considered in relation to the characteristics and functions of efficient organisations, managing in the 'old' paradigm is more attuned to the bureaucratic functions of reductionism, controlling, planning and organising, as opposed to the entrepreneurial focus on new ideas (Sugarman, 1997).

6.2.2 Implementation focused models

The 'implementation-focused model' of the late 1970s and early 1980s tried to overcome the limitations of the planning dominated (previous) model. This model recognised that the generation of plans was not sufficient for generating change. Instead, focus shifted to the implementation of plans for achieving change. This model incorporated middle management into the formulation of strategic plans and recognised the importance of communicating the strategic direction to all affected employees. However, as a result of wider systemic concerns (culture, norms, policies and management styles), the implementation of plans often took longer than anticipated, with new and unanticipated problems and challenges emerging in the interim (Rowden, 2001).

6.2.3 Readiness models

The readiness-focused model, drawing upon lessons learned from the previous models, paid attention to the ways in which wider systemic issues, such as organisational norms, culture and management styles prohibited change. In this sense, creating an organisational culture and enacting new sets of behavioural norms which support change initiatives is an important part of the change management process. As Teare and Dealtry suggest, many organisations try to build a learning organisation on "top of a culture that is traditional, hierarchical and competitive and then they wonder why their efforts fail?" (1998: 5). Here, managers play an important role in modelling the types of behaviour which support change initiatives.

6.2.4 Management models: A synthesis

Change, however, was further thwarted in the previous two models by reward structures which reinforced the status quo and by a general lack of recognition of a need for change by all personnel in the organisation. In response to these issues, the readiness-focussed model placed emphasis on creating an organisation's readiness for change, through a series of steps designed to enhance readiness. These include:

- communicating a vision

- generating an awareness of the need for change

- creating a climate which is supportive of change

- equipping individuals throughout the organisation with skills so they can partake in planning and implementing strategic change (Barger and Kirby, 1995 cited in Rowden, 2001: 14).

The quality-improvement approaches associated with Deming (1986) and flexible organisations are reflected in this model. Like the readiness-focussed approach to strategic planning, quality management programs are also concerned with creating organisational readiness for change, and in particular quality improvement through:

- creating conditions for change

- up-skilling or re-skilling managers and the workforce in general

- providing education and training in quality improvement techniques and philosophies; as well as

- encouraging employee involvement in planning, decision making and improvement processes (Rowden, 2001).

The readiness-focussed approach however has several limitations. Emphasising the importance of being ready, and creating necessary conditions, for change, lead to an expectation that change will occur, and occur rapidly. Moreover, quality improvement approaches to change have traditionally been internally focused, and relied upon incremental improvement in past ways of doing business, rather than challenging the overarching assumptions behind these practices. Teare and Dealtry (1998) observe that when problems arise in traditional organisations, the organisation tackles them by applying its well-trodden normative patterns and adapting what they already do. Such conditioned responses (normative behaviour) to problems stifle empowerment, innovation and creativity. Learning organisations, in contrast, are more inclined to view organisational norms, or standard approaches to problems, as being the problem and, thus, encourage creativity. Quality-improvement approaches also convey the sense that change is something that can be 'transplanted' on, rather than being a 'grown' or emergent feature within organisations (Rowden, 2001).

6.2.5 Integrating learning into the 'old' and 'new' models

The integrated organisational learning-focused model of strategic change attempts to address the problems associated with the previous models. In this model, all members of the organisation are involved in the identification and solving of problems, allowing the organisation to experiment, learn, grow and change. Unlike the readiness-focused model, the learning organisation is in a constant state of readiness for change. Rather than creating fixed plans by those in positions of authority, the learning organisation favours continuous revisions of flexible and open strategic directions which are embraced by people involved in making them happen. The implementation of plans occurs in an improvised manner. Individuals and teams act in autonomous ways to interpret and implement strategies. Learning within the organisation occurs on collective and individual levels and occurs through ongoing cycles of action and reflection (Rowden, 2001).

The Learning Organisation represents a new social and managerial model for organisations, offering a more optimistic view of the relations between individuals and the organisation. The integrated organisational learning model views strategic thinking as a processual activity, where attention is given to process and involvement of organisational members, producing emergent strategies (Mintzberg, 1994 cited in Hodgkinson, 2000). Within the learning-organisation framework, planning still remains an important part for achieving goals, objectives or outcomes. Planning processes still draw upon traditional planning methods such as the creation of 'road maps' (in the form of written goals, objectives, action steps, and necessary resource allocations), but extend their scope with the inclusion of 'learning maps' in the overall planning process. These learning maps take the form of sharing individual mental models, so as to construct a collective mental model which can be modified according to current requirements (Hitt, 1995). In this regard, the organisation takes a learning approach to strategy, wherein policy and strategy are

developed through a learning process which involves research, review and the collective input of organisation members (Rowden, 2001).

The Learning Organisation therefore necessitates a holistic and systems approach to management, and recognises the importance of managing both hard (structural) factors and soft (human, cultural) factors within organisations (Sugarman, 1997). Within this context, managers attempt to balance the organisation's needs for economic success, innovation and high performance, as well as individual needs for fulfilment, development and growth. Ultimately, managers and leaders will need to take a greater interest in the process of learning. For some managers or leaders, this approach will present a challenge, particularly for those who have benefited from their usual ways of doing business. As Hitt reveals:

> [e]mbracing and implementing the paradigm of the learning organisation will be no easy task. There will be obstacles. And one of the most challenging obstacles will be to overcome the resistance of those managers who have fully embraced the traditional organization paradigm – and are successful. Why should they change? There is an important reason why they should change. And that is the quest for excellence. In this quest, managers want to know how to achieve excellence and how to maintain it. The learning organization points the way: excellence through organizational renewal (1995: 25).

Gaining the support and commitment of managers and leaders is thus a vital step in realising the learning potential of organisations, "particularly as the changes demanded by the learning organisation approach cannot be mandated, but they can be led" (Sugarman, 1997: 566).

6.3 Key Points: Comparison between traditional and Learning Organisations

The structural and cultural characteristics of traditional (task-based and bureaucratic) organisations and (innovative) learning organisations (and associated behavioural implications) are summarised in Table 4 below (Burns, 1997; Harung, 1996; Hitt, 1995).

Table 4 Structural and cultural characteristics of traditional and learning organisations

	Traditional Organisation	**Learning Organisation**
Structure	Hierarchal and rigid (vertical); top-down initiative and control; chain of command	Collegial; dynamic networks (horizontal); self-organising; flexible; functional collaboration; team based
Authority	Based on position, hierarchical	Based on knowledge and cross-functional networks
Management philosophy	Control through coercive power; cautious; error to be avoided	Function to release energy of personnel; high risk taking; errors to be learned from; emphasis on personal development; sharing of resources
Metaphor	Organisations as mechanical structures	Organisations as dynamic organic systems
Function	Control	Commitment and cooperation
Decision making	Top levels; decisions are final	Close to required action; relevant participation by those affected; collaboration; decision making by problem solving
Human development	Indoctrination; training	Enabling and empowering; learning
Leadership style	Controller	Catalyst; facilitator; designer
Work	Sharp division of labour; specialisation	Overlapping and multidimensional work
Team	Working group	Synergistic team

Organisational theory is being extended into a more nuanced understanding of how people work within organisations; Learning Organisation theory starts to address the differences between, for example, mandating organisational change through exercising direct power and engaging with personnel so as they – themselves - own and practice any organisational change. A learning organisation aims to reconfigure the organisation's authority, power, and control, to include the necessary cultures, structures and processes in order to support a personnel's willingness to contribute, to learn and to engage. Reconfiguring an organisation is not an easy or simple process; how organisations manage to shift the emphasis from being task focused to learning focused would need to encompass multiple factors. The factors that drive the shifting emphasis will be described in the following sections; key authors identify the critical building blocks within organisations that support learning at the individual level, at the team level and across the organisation.

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7. Leadership and the Learning Organisation

The direct and indirect impact of leadership on learning processes and outcomes (at both individual and organisational levels) has been recognised as playing an integral part in the creation of learning organisations (Burgoyne, 1999; Burns, 1995; Garvin, Edmondson, and Francesca 2008; Gerras, 2002; Hitt, 1995; Senge, 2000; U.S. Army, 2003; Marsick and Watkins, 1996; Yang, Watkins and Marsick, 2004). Whether transformational (Bass, 1990), or otherwise, there is agreement in the literature that the role of leaders in learning organisations is to develop employees (both professionally and personally), articulate a shared vision of the organisation, encourage collaboration, and facilitate learning among their staff.

Senge (2000), for example, suggests that leaders foster learning, provide vision and create climates for learning. In this regard, leaders, whether they are managers, company executives, commanders, or other designated authority figures, not only are required to demonstrate their own commitment to learning, but also have the ability to recognise and encourage the learning potential in others. The following discussion explores this aspect of leadership in relation to the generation of learning environments, the facilitation of learning, and empowerment.

Garvin, Edmondson, and Francesca argue that organisational learning and adaptability are reliant upon three inter-related factors which comprise the building blocks of Learning Organisations. These factors include:

- concrete learning processes and practices
- a supportive learning environment
- leadership behaviour that provides reinforcement for learning.

Concrete learning processes and practices include those processes associated with Knowledge Management which enable the generation, collection and dissemination of information,[10] but also consist of experimentation, and the provision of education and training to develop personnel (2008: 113).

A supportive learning environment and leadership behaviours that reinforce learning are mutually sustaining ideas. Garvin et al. describe supportive learning environments as those where people are not afraid to ask questions, admit to making mistakes, take risks, and are open to new or competing ideas. Supportive learning environments are also those which provide time for reflection (2008: 111).

The idea of leadership behaviour reinforcing learning, quite simply put, refers to the ways in which individual and organisational learning is often influenced by the behaviour of managers. In this respect, managers promote learning by:

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[10] In the Army, lessons move up and down the chain of command, as well as laterally through sanctioned websites offered by the Defence Intranet. The Centre for Army lessons (CAL) iss primarily responsible for the codification and distribution of lessons/learning through Army.

- actively questioning and listening to employees, and subsequently, encourage debate and dialogue

- reinforcing the importance of knowledge transfer and reflection

- demonstrating through their own behaviour a commitment to learning.

This may include a willingness to consider alternative points of view (Garvin et al, 2008: 113).

The supportive learning environment provides the socio-cultural context (expressed in terms of organisational values, expectations and norms of behaviour) for leadership behaviour. In turn, leadership behaviour helps shape/sustain the supportive learning environment through leaders demonstrating (and encouraging others to demonstrate) behaviours which promote learning.

In accordance with Senge (2000) and Garvin et al (2008), Buckler (1996) contends that effective learning is dependent upon the learning environment and, in particular, the efforts of leaders in creating and sustaining environments where learning can occur. In much of the literature this is achieved by leaders adopting a facilitative approach to learning and empowerment.

7.1 Facilitative Leadership and Empowerment

Facilitative leadership represents a departure from a command-control style of leadership that has traditionally been a feature of organisations. This newer style of leadership draws upon the idea of empowerment where managers and leaders develop their staff and facilitate learning (Ellinger, Watkins and Bostrom, 2000). The following discussion explores the ways in which facilitative leadership and empowerment are understood within the Learning Organisation literature.

7.1.1 Facilitative leadership

Senge (1990, 2000) promotes a style of leadership which is more aligned to notions of stewardship and facilitation, rather than focusing on the transformational and heroic male leader. For Senge, the notion of the leader does not equate with the, "leader as authoritarian expert whose job it is to teach people the correct view of reality" (1990: 11). Rather, the leader's role is to assist others to gain insightful outlooks of the current reality, which is more suited to the role of "leaders as coaches, guides, or facilitators" (1990: 11). However, in promoting this new and preferred style of leadership, Senge replaces the instrumental leadership figure with another male archetype: the leader as steward and facilitator, rather than providing a model of leadership which takes into account diversity within the workplace (Rifkin and Fulop, 1997: 4).

Senge's notion of the facilitative leader resonates within the wider learning organisation and management literature. Slater and Narver (1994) and McGill and Slocum, (1998), for example, also liken the facilitative leader to a coach. For Weaver and Farrel (1997),

managers in learning organisations will take on roles as teachers who are responsible for facilitating learning. Similarly, Steiner (1998) likens the new role of managers in learning organisations to that of the 'tutor' or 'helper'. While the promise of learning as a result of facilitation is featured heavily in the literature, the teaching component associated with this form of leadership has been overlooked.

The types of behaviours that contribute to the role of managers as facilitators of learning, however, have been explored in the literature. In their examination of perceptions of managers as facilitators of learning for their employees, Ellinger, Watkins and Bostrom (1999) identify key facilitating behaviours that pertain to the creation and promotion of a learning environment. Facilitative behaviours include:

- broadening employee perceptions

- using analogues, scenarios and examples to assist learning

- setting and communicating expectations

- working things out together and talking things through

- encouraging employees to step out of their own mental models (Senge, 2000) and into another person's to gain a different perspective

- providing feedback to, and soliciting feedback from, employees (Ellinger et al. 1999).

It is apparent from this set of behaviours that facilitative leaders are effective and frequent communicators who are adept at motivating and encouraging others to learn. To this end, managers/leaders become one of the primary sources of development for their employees, and thus part of the overall learning infrastructure.

However, it is also unrealistic to expect staff to engage in action or team-learning, or building a shared vision when they see their leaders/managers engaging in 'old' or traditional practices (Teare and Dealtry, 1998). Or in other words, managers and leaders cannot expect to have staff as continuous learners, without having these same characteristics themselves. As McHargue states:

> Organizations can only become effective if the people who run them are capable of learning continuously themselves and of giving direction and support the learning of others (2003: 203).

Consequently, as facilitators of learning, managers and leaders are not only required to advocate the importance of learning for the organisation as a whole (by being a conscious and generous provider of learning and development opportunities for staff), they must also demonstrate enthusiasm for learning and development through their own actions and behaviour (Mumford, 1996). Thus, irrespective of seniority or experience, leaders and managers should seek learning opportunities wherever they arise.

Becoming a learning organisation therefore supposes changes in roles of managers and leaders as the organisation becomes more learning-oriented and learner-oriented. Indeed,

the facilitated character of learning represents a departure from traditional or 'transactional' views of learning (with an emphasis on the teacher and instruction) to a more learner-centric view that regards learning as a process (Holmes, 2004: Honey, 1998). This 'learning turn' (Holmes, 2004) is captured in Table 5 derived from Ratner (1997).

Table 5: Old and New Answers to How We Learn (Ratner, 1997 cited in Cors, 2003)

Old Answers	New Answers
Knowledge is a 'thing' that is transferred from one person to another.	Knowledge is a relationship between the knower and the known; knowledge is 'created' through this relationship.
Knowledge is objective and certain.	Knowledge is subjective and provisional.
Learners receive knowledge.	Learners create knowledge.
Knowledge is organised in stable, hierarchical structures that can be treated independently of one another.	Knowledge is organised "ecologically"; disciplines are integrated and interactive.
We learn best passively, by listening and watching.	We learn best by actively doing and managing our own learning
We all learn in the same way.	There are many different learning styles.
We learn alone, with our minds, based on our innate abilities.	We learn in social contexts, through mind, body, and emotions.
We learn in predictable sequences from simple 'parts' to complex 'wholes.'	We learn in wholes.
Our 'intelligence' is based on our individual abilities.	Our intelligence is based on our learning community.

Within this learning- oriented and learner-oriented climate, leaders and managers will be required to adopt roles as teachers, facilitators, mentors or coaches. Ellinger et al. (1999) noted that the adoption of these roles has implications for the everyday practice of managers and leaders alike.

In adopting their new roles, managers and leaders will be obliged to interact in new ways with their employees. Managers and leaders who are used to the command and control, or authoritative style of leadership, for example, will have to incorporate a more communicative and inclusive approach to decision making (Steiner, 1998). If not already a feature of their leadership style, these managers/leaders may be required to acquire and develop facilitation or mentoring skills. Furthermore, management/leader development programs will need to be adjusted to reflect these changes in roles and responsibilities. Training program content would have to shift from an exclusively competency-based, business-function focus, to include different course content, different delivery formats, a human-resource development focus, and incorporate new learning practices (Ellinger et al. 1999). Within a military context, these desired behaviours and qualities would need to be taught through such things as officer education and self-development programs (Gerras, 2002). This presents an additional training impost onto the organisation.

Where traditional approaches to leadership have been a feature of established practice, the adoption of the new facilitative or teaching role can represent a significant challenge to the identities of leaders and managers. For the participants in the Ellinger et al. (1999) study, the roles of manager and facilitator of learning (or coach) were understood to be dichotomous, with identity formation occurring through a series of transitional stages along a role distinction continuum (see Figure 5 below).
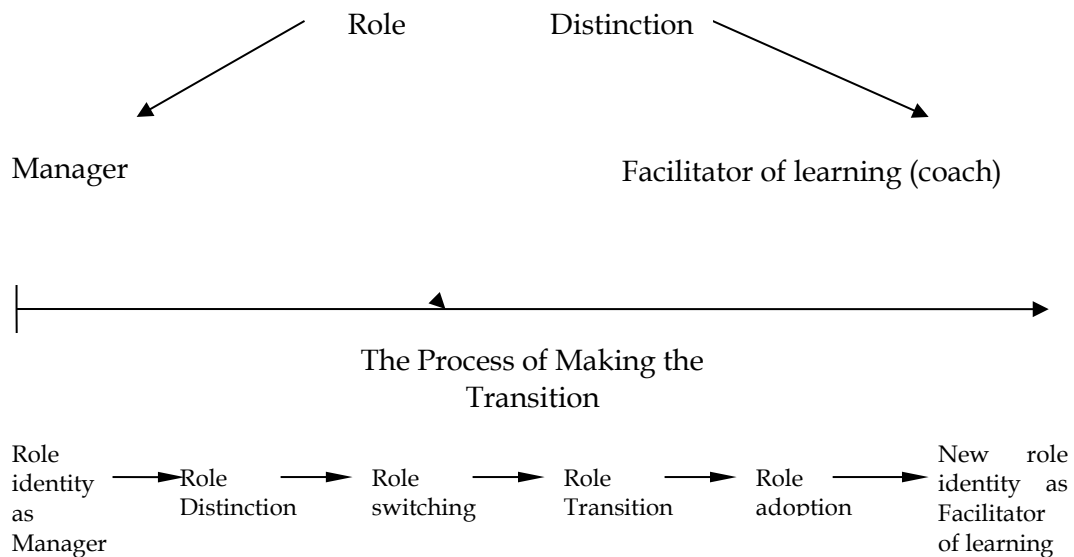

Figure 5: Transition from a manager to a coach in a learning organisation (Ellinger, 1997 cited in Ellinger et al. 1999: 113)

Initially, managers entertained the idea of becoming a facilitator. The transition to facilitator of learning, however, required a more substantial mental shift, or modification of their mental model, which triggered a shift in identity from manager. This entailed a transition phase where managers switched between roles of manager and facilitator, eventually becoming more comfortable with their latter role. Indeed, the authors noted the difficulty for managers in transitioning to the role of coach, with managers often feeling awkward and self-conscious in attempting to enact their new role. The final step along this continuum is role adoption, where managers fully identify with their new role as facilitators of learning. This transformation of identity is necessary to not only facilitate learning, but also to create a learning organisation (Ellinger et al., 1999: 114). Once again, organisational structures, processes and cultures must also support the adoption of this new role.

With the exception of Ellinger et al. (1999), the relationship between leadership, identity-formation, role-enactment, and build-learning capabilities in organisations has been under-examined within the learning organisation literature. More research is required to

examine specifically those actual processes and behaviours required by managers/leaders to facilitate learning and their relationships to self-identities.

7.1.2 Empowerment

Another behaviour exhibited by facilitators of learning is empowerment. In the learning and learning organisation literature there is a close link between empowerment and learning (Burns, 1995; Ellinger et al., 1999; Eylon and Bamberger, 2000; Gaertner, 2000; Harung, 1996; Johnson and McIntyre, 2000; Lashley, 1999; Laurie, 1997; McGill, Slocum and Lei, 1992; Marsick and Watkins, 1996; Miller, 1993; O'Keefe, 2002; Richardson, 1995; Senge, 2000; Teare and Dealtry, 1998; U.S. Army, 2003; Watkins and Marsick, 1993). Some authors highlight the cultural significance of empowerment which is felt at an organisational level. Richardson (1995), for example, views empowerment as being a central component of the learning community culture. Similarly, Watkins and Marsick (1993) speak of learning organisations having a culture of empowerment, and, indeed consider empowerment to be one of seven interrelated dimensions of a learning organisation.

Senge (2000) extends the notion of empowerment to the functioning of teams. For Senge, teams and teamwork are powerful vehicles for mental models and an organisation's vision to be shared amongst group members, as well as throughout an organisation. Here empowerment within teams is understood in an altruistic sense where team members demonstrate conscientiousness, loyalty, good working relations with others, commitment to the organisation, and put their own needs behind those of the organisation in general. In this respect, empowerment is exercised and realised through face-to-face interaction among team members (Teare and Dealtry, 1998).

Although some psychological studies have examined the idea of empowerment from the employee perspective, emphasising employees' perceptions and cognitions (Lee and Koh, 2001; Peccei and Rosenthal, 2001), the empirical investigation of empowerment has generally emphasised management perspectives. With this emphasis on the management perspective, attention is given to accompanying practices, policies and organisational structures which enable employees to exert a degree of influence over their work, enabling a redistribution of power between employers and employees (Eylon and Bramberger, 2000; Greasely, Bryman, Dainty, Price, Naismith and Soetento, 2008).

Similarly, the learning-through-empowerment literature also explores the ways in which leaders and managers attempt to facilitate learning for their employees by adopting an empowerment paradigm. In a behavioural sense, empowerment is expressed in terms of facilitators not providing answers upon request; question-framing to encourage employees to think through issues (respond to questions by asking thought-provoking questions to encourage employees to come up with their own solutions) (Ellinger et al., 1999), and managers/leaders transferring ownership of work and decision making to employees (O'Keefe, 2002). Thus, through the efforts of managers, supervisors and leaders, employees are able to take control of their learning experiences through self-directed problem solving, and creativity in thinking (Senge, 2000; Teare and Dealtry, 1998).

Studies have shown that empowerment has a significant impact on job satisfaction and performance (Harung, 1996; Johnson and McIntye 1998). Similarly, leadership behaviours such as inspiring teamwork, challenging tradition and setting positive examples, enabling others, and rewarding high performance have been found to have an effect on job satisfaction (Gaertner, 2000 cited in Egan, Yang and Bartlett, 2004: 284). The impact of empowerment on job satisfaction and performance has been shown to vary by gender (Eylon and Bamberger, 2000).

In the Ellinger et al. (1998) study of senior-level managers as facilitators of learning in organisations, the empowering behaviour of managers was viewed as being beneficial in the sense that managers were able to:

- develop new learning skills

- form better relationships with employees

- acquire new learning about themselves and others

- learn to delegate

- trust their intuition.

Managers also observed that employees were able to learn through their application of learning into the workplace, and by being given opportunities to integrate learning into future activities.

7.1.3 Empowerment, power and control

From its conceptualisation highlighted above, empowerment in the workplace can be seen as having a dual meaning. On the one hand, empowerment is understood as the process where employers/management dispenses power to employees. This interpretation is the most common description of empowerment employed within the literature. As mentioned above, the literature pays particular attention to the virtues of managers/leaders giving employees/subordinates freedom to explore new ways of doing things, equipping them with new skills and knowledge to increase their learning potential and performance, while allowing them to create or design their own learning experiences. Indeed, the focal point of Senge's work is its attempt to introduce learning into organisations, primarily through the efforts of managers. In this regard, *The Fifth Discipline* prescribes ways in which managers can approach diversity, power, teamwork, and issues concerning leadership in an organisation (Rifkin and Fulop, 1997).

While couched within an egalitarian discourse of increased opportunity, growth and human development, this conceptualisation of empowerment conveys a downward application of power; becoming empowered is a state of being which is imposed on employees by their managers (Laurie, 1997). Miller (1993) contends that a view of empowerment which relies on patronage is disempowering. However, the idea of imposing an individual's capacity to exercise power is contradictory. At best, managers can set those conditions or create those environments where employees are encouraged to exercise power (cited in Laurie, 1997).

On the other hand, empowerment is also understood in the workplace to represent a process where employees assume a degree of autonomy or power. 'Empowering' employees is viewed as facilitating learning since control over the direction, flow and process of learning moves away from the manager/leader, so that learning is not something which is *done* to employees - diminishing the agency of the learner (Ellinger et al., 1999). Thus, the locus of control shifts from managers/leaders to workers/subordinates. Workers become responsible for their learning actions, while managers/leaders encourage and co-ordinate the workers through their efforts as coaches (McGill et al. 1992). Moreover, the egalitarian ethos supporting shared responsibility for learning allows workers and managers to learn from each other (Watkins and Marsick, 1993).

On the surface, the link between empowerment and learning seems to make sense. If people are empowered, they are more likely to act and, thus, learn from that experience/action. This premise, however, is built upon the assumption that managers want to relinquish control over subordinates, and that employees want to take on the extra responsibility associated with becoming empowered. A study conducted by Laurie examining the implications for empowerment for managers and employees with the Australian manufacturing sector found that this was not necessarily the case. Managers in Laurie's study felt insecure and were threatened by the prospect of employee empowerment and learning. For these managers, employee empowerment and learning represented a possible loss of power, control and status. In response to this threat, managers acted in ways to preserve their power and maximise their job security by tightening their control of, and undermining, activities that facilitated employee learning (1997). Employees in Laurie's study were also cautious of empowerment and learning because of the perceived potential for hostility from managers. From an employee perspective, the risks associated with being empowered were viewed as being high (i.e. hostility from the boss, increased conflict, pressure to develop new skills) while the returns were viewed as being low (Laurie, 1997). Thus, while empowerment presents new opportunities for employees, these same opportunities connote a change in usual practice which may prove overwhelming for some. As Trist (1989) observes, when it comes to workplace-reform initiatives, people often do not seek to grab power when it is presented, but draw back, preferring the known or familiar over something new (cited in Laurie, 1997).

Findings like these draw attention to the disparity between the rhetoric of empowerment and actual practice. They also highlight the extent to which exercising power (in this case making people assume roles and behave in new ways through efforts to empower) is often met with resistance within power relations. As Foucault asserts, 'power creates its own resistance'(1995: 73).

7.2 Key points: Leadership within Learning Organisations

Building learning organisations requires leaders who can develop their personal mastery, collaboratively reframe problems and are eager to learn how to experiment, as well as encourage personnel to develop a systems view of the organisation. As experimentation and calculated risk-taking form part of the learning agenda, leaders need to be courageous, farsighted and protect subordinates from repercussions of failures. They must provide support, rewards, direction and feedback (Buckler, 1996; Nair, 2001; Senge, 2000).

Leaders and managers within learning organisations have the dual responsibility of creating learning environments where the supportive behaviours highlighted above can occur, as well as creating learning opportunities for subordinates/staff by adopting a facilitative approach to learning and empowerment. Empowered staff are able to take on more responsibility, which leads to increased experience and the development of new competencies and, as a consequence, learning.

While the literature presents an optimistic account of the virtues of facilitative leadership and empowerment, building flat organisations, creating environments of trust and openness, and self-managed teams, realising these requires managers/leaders and employees/subordinates to let go of long held assumptions. Indeed, the unlearning and relearning process is often a 'painful and slow' process (Schein, 1999: 106) which needs to occur in levels of management, as well as the rest of the organisation (Dymock, 2003: 192). Indeed, the transition from leader, manager or instructor, to facilitator or coach, not only necessitates an organisational investment in training and education for this to occur, but also requires a degree of 'self' work as leaders and managers adjust to their new identities and redefine roles.

The literature also reveals that the adoption of a facilitative approach to learning and empowerment, and associated roles of 'facilitator' or 'coach,' is further complicated by the recognition that as facilitators and coaches, managers and leaders need to relinquish control over the learning process, while simultaneously channelling the benefits derived from it (Mills and Ungson, 2003). The need to rely more on employee initiative and creativity may challenge traditional management/leadership roles, and as suggested by Laurie (1997), may result in resistance to learning by those who have most to lose, or feel threatened by proposed changes (senior management), as well as employees.

Thus, the idea of empowerment seems to provide a conundrum. If employees are empowered to act in autonomous ways and learn, how do managers attempt to maintain control in organisations? Indeed, the development of the facilitated and collaborative learning environment is predicated upon the idea of reciprocal trust relations with managers and employees sharing a common goal – better organisational functioning/learning. The assumption here of course is that managers and employees are going to voluntarily give up self-interest for the greater good of the organisation/collective (Laurie, 1997).

8. Measuring the Learning Organisation

So far, this paper has provided an overview of the different definition and key characteristics of a learning organisation. An examination of the literature suggests there is agreement that successful learning organisations must be able to cope, deal and adapt to change. History has illustrated that it is necessary for organisations as diverse as the Army, government, educational institutions, for profit and not for profit businesses to anticipate and deal with constant change. This is reflected in Sun Tzu writing, which is over 2000 years old:

> So a military force has no constant formation, water has no constant shape: the ability to gain victory by changing and adapting according to the opponent is called genius" (cited in Campbell, 1994: 10).

Many learning organisation definitions and characteristics discussed in this paper have attempted to capture the essence of a learning organisation. However, it is acknowledged that it is difficult to find synthesis between the definitions and key characteristics in the literature, possibly as each researcher perceives and defines the LO differently (Dimovski, Škerlavaj, Kimman, & Hernaus, 2008; Lähteenmäki, Toivonen and Mattila, 2001; Campbell, 1994; Goh and Richards, 1997; and Ellinger, Ellinger, Yang and Howton, 2002). One reason for this may be that the researchers in this area are not building on previous knowledge, but seem to be starting from the beginning (Lähteenmäki, Toivonen and Mattila, 2001). Consequently, little effort has been made to develop consistent valid measures for learning organisations and organisational learning. Another reason may be the fragmented and incomplete empirical research in this area (Dimovski, Škerlavaj, Kimman, & Hernaus, 2008; Tsang; 1997 and Lähteenmäki, Toivonen and Mattila, 2001).

Tsang (1997) observes that most literature in this area tends to be prescriptive. A further explanation for the shortage of methodological discussion and the underdevelopment of measures of learning organisations is the concept itself is vague. As Lähteenmäki, Toivonen and Mattila state "it is of course impossible to measure the phenomenon without knowing what it is" (2001, 114). In the literature there has been considerable conceptual debate about the nature of learning at the organisational level and related organisational variables (Clegg, Kornberger and Rhodes, 2005; Tsang, 1997). Campbell and Cairns (1994) concurs and suggests that the learning organisation concept has not been operationalised well, as it is loosely defined. The lack of concise definitions has made the implementation of it more difficult. Thus, due to all of the above challenges, the literature is unclear how to move from theory and concepts to reality or implement the learning organisation's characteristics. Finally, the above discussion highlights a requirement to develop a systematic, measurable approach for researchers and/or practitioners to use in order to implement and measure the learning organisation characteristics or concept.

As stated above there are no well-defined measuring methods or roadmaps for organisations to take and become a learning organisation; each organisation must find its own way by identifying, applying and measuring the characteristics of a learning organisation (Campbell and Cairns, 1994). This requires challenging key fundamental

beliefs and operating characteristics which takes sustained commitment, effort and time to change individual, group and organisational behaviours, perceptions, and beliefs. The changes require time and are referred by Senge (1990) as a `deep learning cycle', as there is a fundamental paradigm shift both at the individual, group and organisational levels and this forms the basis for a learning organisation. According to Garvin (1993) a learning organisation needs to be meaningful, manageable and measurable, each independent but also interdependent of each other. Campbell and Cairns (1994) suggest each `M' is like an apex of a triangle, together they form a whole. Therefore, a learning organisation is a multi-level concept; as it occurs at the individual, group/team and organisational level, and the measurement used must capture all levels.

There is a theoretical difficulty in measuring learning or, more specifically, the relationship between learning processes and learning outcomes (Holmes, 2004). Learning processes pertain to those processes by which we come to know or are able to do things, and learning outcomes refer to the end states that are a supposed result of these processes. The difficulty lies in attempting to provide empirical evidence of this relationship. Learning is something which cannot be seen as such – it is an internal cognitive process - other than through observations of performance or behaviour which connote learning of some kind has occurred. Holmes (2004) argues that behaviour cannot be objectively observed because it is subject to the meanings the viewer gives it, and thus can be interpreted in a myriad of ways according to the viewer, and the social context where this behaviour takes place. As such, determining cause and effect relationships for human behaviour is problematic. Another difficulty lies in the temporal quality of learning. To say someone has learned implies that someone may be able to apply their new knowledge and skills in future situations beyond the scope of empirical observation. As Holmes contends, 'there is no empirical observation that we can make over a period of time that would constitute observation of learning taking place'(2004: 631).

Holmes' (2004) assertion that learning can't be directly observed is correct; all that is directly observable is the outcome (or a change) in the behaviour that is then attributed to learning. Holmes (2004) then argues that the social context and interpretation of the attribution of the observable behaviour means that we are unable to draw conclusions is not necessarily a valid argument; interpretation and context can be accounted for when measuring and observing behaviour changes. Acknowledging the theoretical concerns and empirical shortcomings when examining learning is important since it provides a much clearer understanding of the strengths and weaknesses of the approach. Explicitly addressing the weaknesses within a construct will ultimately provide a stronger argument, thus, acknowledging that it is difficult to directly observe learning, and that any observable behaviour is open to interpretation and can be context-dependent, allows these issues to be directly addressed. While behaviour is interpretable and context-dependent, we can use established methodologies to make the interpretation and context explicit.

8.1.1 Approaches to measurement

In the literature different methods and approaches have been used to measure learning organisation characteristics. This section will provide a brief overview of some the methods and approaches used previously. Several practioners recommend that effective

measurement tools should assess current culture, learning attitudes and "learning disabilities" in an organisation, in order to determine which actions to take to manage the progression towards a learning culture (Campbell and Cairns, 1994; Garvin, Edmondson and Gino, 2008; Marsick and Watkins, 1996). The measurement tools developed for the organisation need to be ongoing and part of the learning process. In their paper they describe a method called behaviourally anchored rating scales (BARS) which is well known in the human performance analysis literature. BARS is a survey instrument which "examines behaviours displayed in an organization by comparing them with a range of predetermined behaviours….this provides a measurement of the gap between actual and desired performance" (Campbell and Cairns, 1994: 11). However, this tool needs to be validated with the organisation and as a result is expensive and complex to construct. In addition, the main focus of this tool is the behaviours of the individuals and not so much on the social or external factors effecting the organisation.

Authors such as Yang, Watkins and Marsick, (2004) and Marsick and Watkins (1996) have sought to measure learning in organisations through an examination of the dimensions or primary characteristics of learning organisations. Here, the authors employed the Watkins and Marsick framework of the Learning Organisation for the further development of the 'Dimensions of the Learning Organisation Questionnaire' (DLOQ) (1993). The seven dimensions of the learning organisations identified by Marsick and Watkins (1996) relate to an organisation's ability to:

- create continuous learning opportunities

- promote dialogue and inquiry

- promote collaboration and team learning

- establish systems for capturing and sharing learning

- empower people to create a collective vision

- connect the organisation to its environment

- provide strategic leadership for learning (Marsick and Watkins, 1996).

The questionnaire comprises 55 statements concerning organisational practices. Respondents are invited to indicate the extent to which they perceive these practices occurring within their organisation by way of a six-point Likert scale. The strength of the framework provided by Marsick and Watkins is the attention it pays to the cultural underpinnings of learning within organisations, and its ability to situate the seven dimensions of learning within an individual, team, and organisational context. However, while the DLOQ has the potential to provide rich data about organisations in terms of their characteristics, and whether they have the necessary conditions in place to facilitate learning, the questionnaire does not allow an exploration of learning processes within organisations.

This omission is addressed by the Organisational Learning Profile (OLP) and the organisational learning tool employed by Garvin, Edmondson and Gino (2008). The OLP seeks to measure organisational learning and associated learning processes. Like the DLOQ, the OLP asks respondents to specify the extent to which they agree or disagree

with a series of statements (concerning perceptions of how learning factors are implemented within the organisation) employing a six-point Likert scale. Learning factors, which when taken as a whole represent the elements of learning in an organisation, include:

- information-sharing patterns

- inquiry climate

- learning practices

- achievement mind-set.

As the name suggests, information-sharing patterns pertain to the extent to which people share information. Inquiry climate concerns the ways and extent to which experimentation, challenging and inquiry characterises the behaviour of organisational members. Learning practices refer to the specific activities organisational members engage in to learn. Finally, organisational members' desires to achieve in the organisation, or their achievement orientation, are examined by the achievement mindset factor (Dorai and McMurray, 2002 cited in Lin and Kuo, 2007; Pace, 2002). These building blocks represent the main sections of the on-line diagnostic survey instrument.

The first two sections of the instrument comprise a series of self-assessment statements. Respondents are required to rate the extent to which a given statement describes the organisational unit in which they work, on a seven-point Likert scale. In the third section of the survey instrument, respondents are asked to rate how often their manager(s) exemplify the behaviours described. Scores for each building block are synthesised and converted into a zero to 100 scale for ease of comparison with other work units in the organisation, or with scores from benchmark data provided. Initial baseline data for the survey was derived from a population of (100) senior executives who completed a general management program at the Harvard Business School. This initial application of the survey allowed an evaluation of the statistical properties of the survey and an assessment of underlying constructs. This was followed by another survey of 125 senior executives (from where) to generate benchmark data.

- To what extent is your unit functioning as a learning organisation?

- What are the relationships among the factors that affect learning in your unit? (Garvin et al., 2008: 114).

At an individual level, the survey can be used to provide a 'snapshot' of a workgroup or team. At the group level, several members of a work group can complete the survey and average their scores. At the organisational level, the aggregation of individual or group scores can be used to compare how the organisation compares with benchmark scores from the baseline group of organisations. The survey allows a quick identification of areas that are working within the organisation/group, as well as areas for improvement.

Together, these diagnostic tools and techniques attempt to assess the type and level of learning (if any) occurring within and by organisations. Assessments of this kind provide

information about an organisation's current learning state which may act as an impetus for change decisions.

9. Learning Organisations: Organisational Performance

Learning within and by organisations is not merely a "nice to have"; learning is critical to improving organisational performance. The organisation of the future will generate its competitive advantage from its ability to learn faster than its competitors (DeGeus, 1998); successful companies of the future are those that can "learn fast, can assimilate this learning and develop new insights" (Porter 1997:59; cited in Starkey, Tempest and McKinlay 2005:3). Whilst there is much prescriptive work on how a learning organisation 'should' work in order exploit the utility of learning (Goh, Elliot & Quon, 2012; Edmondson, 2004 ; Yang, Marsick & Watkins, 2004), there has been relatively less work to the relationship between learning capabilities and improved organisational performance.

Recently, Goh, Elliot and Quon (2012) conducted a meta-analysis of the learning organisation literature, examining published empirical research papers linking measures of learning capacity to organisational performance. They found 33 articles that met criteria for inclusion into their meta-analysis, which included specific measures of organisational performance. These measures were categorized into either financial performance-objective, financial performance–perceptual or non-financial performance. For the purposes of the meta-analyses, Goh, Elliot and Quon (2012) collapsed multidimensional measures of learning capability into a single measure. All the studies included in the meta-analyses included some aspects of the following:

- knowledge transfer
- experimenting culture
- a learning orientation
- knowledge acquisition and sharing
- teamwork and group problem solving
- shared vision
- leadership that supports learning
- open mindedness.

The meta-analysis found a significantly positive relationship between learning capabilities and financial performance, both objective and perceptual, as well as non-financial performance such as job satisfaction and innovation.

One study that shows the links between organisational learning characteristics to both financial and knowledge performance was conducted by Yang, Marsick and Watkins (2004). The study tested a factor structure of the dimensions of a learning organisation and

confirmed that the learning organisation, as conceptualised by Marsick and Watkins (1993, 1996), was indeed a multidimensional construct and also fitted the data reasonably well. Their model of seven learning organisation dimensions accounted for 66% of the variation of financial performance and 74% of knowledge performance of their sample organisations.

Moving from the broader organisational level into the team level, offers a way of examining the mechanisms of how – exactly – learning improves organisational performance. Team performance has been examined by Edmondson and colleagues' work (1996; 1999; 2004; Edmondson, Bohmar & Pisano, 2001). Studying medical teams' performance in terms of reported 'near misses', adverse patient outcomes; Edmondson linked team performance to team characteristics. Edmondson and colleagues have consistently found that successful outcomes within medical teams (reduced adverse events, increased speed of newly introduced surgical procedures, and increased reporting of 'near misses') is directly linked to the characteristics of team functioning, namely, the extent to which team members are comfortable to try and fail. As Edmondson reveals:

> Team members who felt comfortable making suggestions, trying things that may not work, pointing out potential problems, and admitting mistakes were more successful in learning the new procedure. By contrast, when people felt uneasy acting this way, the learning process was stifled (2004: 131).

Edmondson's work has shown that the 'psychological safety' of a team is a critical factor in determining team performance. Psychological safety is characterized as willingness to admit mistakes, 'no blame' attached to mistake making, trusting other team members, and open leadership. Psychological safety is fostered directly through the team leadership. This is particularly important "given the explicit hierarchy within the operating room" (Edmondson, 2004: 131).

The capacity to learn is a key to improving organisational performance. There is a large body of research examining the learning capabilities of organisations, with some studies linking these learning capabilities to positive organisational outcomes or performance.

10. Conclusion

This literature review examined the learning organisation as a theoretical construct; the theoretical components that make up the construct were scrutinised, linking to a critique situating the construct within a broader historical context. This was conducted in order to provide an understanding of the strengths and weakness of learning organisation construct; appreciating the strengths and weaknesses of the construct will, ultimately, enable a more nuanced application to Army.

Learning within and by organisations is important, not just for its own sake; learning is a key driver of improving organisational performance. Learning is a critical factor in

innovation and organisational adaptation. Army operates within a complex warfighting environment that necessitates adaptation, creativity, and innovation which resonates at an individual and organisational level. On an individual level, adaptation, creativity and innovation encompass the abilities of personnel to generate new ideas through critical thinking, identify and apply new solutions to problems in a variety of contexts. Reflecting on the impact of their behaviour within a system of operations embodies professional mastery, and is personified in Army's 'strategic corporal' concept. On an organisational level, organisational values must support individual adaptation, creativity and innovation. More importantly, organisational structures and processes need to incorporate a degree of flexibility to not only enable the organisation as a collective to benefit from individual learning, but also allow the organisation to adapt where required. To this end, Army has stated a desire to 'transition to a genuine learning organisation' (Australian Army, 2007).

The literature review has highlighted the evolution of organisational theory: first came the bureaucratic organisation; second, the performance-based organisation; and most recently, the Learning Organisation. These three phases reflects a shift in organisational focus (respectively) from efficiency, to effectiveness, to learning. Understanding that Army's desire to shift towards greater learning capabilities is not an isolated example is important; it allows us to build on the theories and the practices within the broader historical context. While values such as efficiency and effectiveness remain important in any 'modern' organisations, they alone are not sufficient to allow organisations to flourish in competitive and changing environments. Such flourishing rarely occurs without being initiated and maintained by the active management of key building blocks within an organisation.

A synthesis of the dominant themes in the learning organisation literature show that building a learning organisation requires multiple perspectives – those which acknowledge the complementary individual, cognitive, social, cultural, technological and structural components required to create such an organisation. The review identified and elucidated key building blocks or characteristics from the literature. These building blocks include:

- Specific leadership actions or practices that support learning by individuals and teams such as mentoring, coaching, together with viewing failures or mistakes as an opportunity to learn rather than an opportunity to blame.

- Identifying and measuring specific practices within the organisations known to support learning, including capturing lessons learnt, information distribution systems such as capturing and disseminating innovative practices.

- Organisational structure (as it supports learning): at the individual level, training courses; at the collective level, examples such as team rewards and recognition; and at the institutional level would include learning through policy changes.

- Teams' climate and practices impact on the learning occurring within the team. For example, a high level of psychological safety within a team leads to greater provision of honest and open feedback, thus improving overall team performance.

- Utilising knowledge management principles; knowledge management is a necessary but not sufficient condition for supporting a learning organisations.

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> Knowledge management allows the capture, assimilation and distribution of implicit and explicit knowledge so that the organisation can learn as a collective.

- At a cognitive level, building a learning organisation necessitates an organisational mindset in the form of shared mental models, and a sense of connectivity derived through systems thinking.

Organisations do not need to start from scratch when becoming a learning organisation; drawing upon DiBella's (1995) capability perspective acknowledges the extent to which organisations, by their very nature, are places where learning occurs. Organisations can improve current learning capabilities and implement learning approaches which are suited to their specific needs. However, as suggested in this paper, adaptation and adaptive learning represent only one piece of the Learning Organisation puzzle. The Army Learning Environment framework provides the context where single-loop and (to a lesser extent) double-loop learning occurs. This framework draws upon some of the building blocks identified in this paper. The ALE aims to foster systems thinking through:

- recognising the interrelationships between the knowledge-management, learning and assessment (such as measurement and feedback mechanisms and systems)

- executive-management dimensions and their associated information

- communication and technological underpinnings (to facilitate organisational learning)

- articulation of a vision to be shared across Army – a vision of a learning environment which promotes individual, team and organisational level learning.

The systems-thinking approach, in conjunction with personal mastery is personified in the strategic corporal concept, articulated within *I'm an Australian Soldier* (Australian Army, 2006). These documents provide an integrated view of the individual, the organisation and the environments in which they operate. The challenge for Army is to create a learning environment which embeds desired behaviours, values, and principles so that they become a demonstrated feature of daily practice.

However, perhaps the biggest challenges for Army becoming a learning organisation are cultural. Culture shapes, and is shaped by, the mental models employed within an organisation, influencing the ways in which an organisation not only views its practice, but also the nature of practice itself. In the discussion of learning environments and climates we are presented with a somewhat culturally deterministic view of learning and behaviour, particularly in relation to the learning experiences of employees or subordinates within an organisation. The cultural climate 'drives behaviour'(de Somer and Schmidchten, 1999: 107) and there is an expectation that people will adapt their behaviour to conform to this environment. Agency (ability to exercise power and authority to act) is only attributed to leaders and managers who are able to shape or create learning environments through their own efforts. Thus, the significance of power relations and its expression through organisations is not really touched upon in the literature. As active participants in the learning process, 'empowered' learners are encouraged to ask questions, challenge ideas (and authority), make decisions, and take control of their own learning trajectories. Such a stance comes into direct conflict with command and control

environments which favour obedience, compliance and conformity. Thus, there is a tension between traditional roles and relationships based on a respect for authority designed to maintain order. The requirement in the Learning Organisation is for free-thinking, creative agents whose role is to challenge assumptions behind tried and tested ways of doing business. How an organisation manages the tension between these completing requirements is not fully explored in the literature. In the case of the Army, it will require a degree of organisational soul searching by examining what traditional elements of its culture are sacrosant, or inviolable, or alternatively, open for interpretation.

The conundrum highlighted above demonstrates the extent to which a one-size fits-all approach to building a learning organisation is destined for failure. Organisations such as Army need to tailor a range of interventions which reflect the diversity of practice within the organisation. Finding the balance and right mix of ingredients is the trick, and not getting disheartened when attempts at transformation fail, as they invariably will. It is the organisational *responses* to failure (by individuals, by teams and by the organisation) that demonstrates a capacity to learn rather than the *occurrence* of a failure. Learning from failures is a key indicator of a learning organisation; implementing a learning organisation construct is *not* an all-or-nothing exercise. Learning requirements need to be attuned to specific contexts, across and within organisations. Assistance can be sought, from those who can provide the knowledge, skills and techniques to help organisations find their own solutions to the task at hand.

One approach to deal with the tension between the need for structure and the need for flexibility may be to build on existing practices within Army. For example, learning organisations recognise that organisational structures need to allow both stability and flexibility. Networked learning represents an opportunity for Army to build upon existing practice. Army provides an ideal structure and processes that allow for the generation of social networks; through training course participation and posting cycles, social networks flourish across the organisation. These social networks are viewed as being a valuable source for information sharing and knowledge creation by networkers, enabling network members to overcome some of the disrupted knowledge flows presented by bureaucratic structures and requirements (O'Toole and Talbot, 2011; Stothard and Drobnjak, 2009). Flexibility is provided through the incorporation of dynamic social networks within the vertical/hierarchical structure. Thus, the hierarchical structure promotes stability, while the dynamic networks allow flexibility. These networks permit the speedy flow of information and decisions horizontally across the organisation, enabling members to more readily tap into the collective intelligence of the organisation (Hitt, 1995: 22).

As we have unpacked the concepts, constructs and assumptions within the literature we have uncovered the underlying tension between opposing forces. These tensions need to be identified and understood in order to have a chance to manage them. The critical tensions that we have identified within the learning organisation theory and organisational theory are:

- organisational requirement for clear structure yet also need flexibility
- hierarchical authority yet also need empowered subordinates

- power and responsibility vested within leader yet also need leaders as a facilitator and coaches.

That there is a tension between these critical factors does *not* mean we should abandon all hope of using these concepts; rather, the aspirations of applying a learning organisation framework needs to be tempered by an appreciation of the tensions inherent within the theory. The realistic appraisal of the limitations of applying a learning organisation, and the difficulties within changing any organisation, provides a far more useful stepping stone than a wildly aspirational and ambitious vision. In the same manner, there are real and significant benefits of developing the learning capabilities within an organisation, and these benefits are worth fighting for.

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19. ABSTRACT
This literature review describes and critiques seminal work within the Learning Organisation field. Critically reviewing the dominant assumptions within the field provides a foundation for the practical application of the learning organisation concept to Army. In order to examine the literature's dominant assumptions, we asked the following questions: (i) what are the various meanings attributed to learning organisations?; (ii) what sorts of learnings are privileged within the literature?; and finally (iii) what are the key characteristics or "building blocks" that make up a learning organisation? In reviewing the literature, several key issues were found. The learning organisation construct represents an evolution from bureaucratic and performance-based organisational form to innovative and flexible organisations. This reflects a shift in organisational focus from efficiency to learning. The significance of power relations, hierarchy and authority is not adequately touched upon in the literature. As active participants in the learning process, 'empowered' learners are encouraged to ask questions, challenge ideas (and authority), make decisions, and take control of their own learning. In turn, leaders and managers are expected to embrace their new roles as facilitators of employee learning. How an organisation manages the tension between replacing traditional roles and expectations with more learner centric ones is not fully explored in the literature. The benefits of developing a learner centric approach is starting to be examined in the field. There are a growing number of studies linking learning to improved organisational performance; there are real, significant and measureable benefits of developing the learning capabilities within an organisation.