TOWARD A LEARNING ORGANIZATION: GUIDELINES FOR BUREAUCRACIES

DAVID FRANKLYN FORD

TOWARD A LEARNING ORGANIZATION:
GUIDELINES FOR BUREAUCRACIES

by

David Franklyn Ford, B.A., B.Ed.

A thesis submitted to the School of Graduate Studies
in partial fulfilment of the requirements for the degree of
Master of Education

Educational Administration
Memorial University of Newfoundland
April 1997

0-612-23134-8

ABSTRACT

Today, organizations find themselves faced with constant change resulting in re-organization, downsizing, rightsizing, outplacement, mergers, and an ever increasing pressure to become more competitive and better able to do more with less. This has become a challenging task for leaders in many organizations.

Research is showing though, that some organizations are enjoying significant success. The leaders and the employees are dealing much more effectively with the onslaught of change. Many of these are what Peter Senge (1990) calls "learning organizations". In these organizations there is a shared vision, teamwork, open-ness, and a deep rooted commitment to the principle of learning at all levels.

For many other organizations such as government, steeped in the conventions of traditional bureaucracy, it appears to be an almost impractical approach to leading an organization. These large bureaucratic machines have struggled perhaps more than others, to adapt to new demands and become more change-agile. The reasons for this are numerous. This paper examines the bureaucracies, clarifies some of the challenges it faces, and outlines a set of principles and guidelines which would move an organization toward the concept of a learning organization.

Prior to that however, a comprehensive review of the literature reveals what Senge and others are saying about the learning organization. Senge is used as a benchmark against which other opinions are explored, compared and contrasted. The five disciplines which Senge outlines are fully explored and discussed, with a view to developing a definition of the learning organization. Throughout this review, there is continuous reference to the bureaucracy and the unique problems it faces in becoming more of a learning organization.

Also, as part of the literature review, the concepts of organizational learning and the learning organization are examined. This is necessary in order to develop an appreciation for the overall process of becoming a learning organization. The inter-relationship and interdependence of these concepts are discussed.

Finally, as these appreciations and understandings are fully developed, a set of principles and guidelines are compiled which recapitulate the ideas and perspectives presented throughout the paper on how to move toward the concept of the learning organization.

ACKNOWLEDGEMENTS

I would like to express sincere thanks to my advisor, Dr. Jean Brown, who has provided not only extremely helpful advice, but also encouragement and support throughout the whole process of my research and writing.

I would like to thank Dr. Bruce Sheppard, whose guidance and suggestions were also most helpful.

I wish also, to thank Dr. Frank Riggs for his administrative assistance and advice, and Ms. Dorothy Joy whose administrative expertise in the process made matters so much easier.

I wish to thank all members of my family for their interest and encouragement, especially my wife, Cheryl, who has always been very supportive and my young daughter, Ellice, who always had the interest to inquire as to my progress, and the patience for me to finish.

Dedication

This thesis is dedicated to the loving memory of my father, Franklyn Ford, whose support, encouragement, and confidence in me was instrumental throughout my years at Memorial University.

TABLE OF CONTENTS

LIST OF TABLES

Figure Captions

PAGE

CHAPTER 1

Nature of the Study

The Problem

Ideas on how organizations should operate in today's world are diverse and varied. Organizations are faced with constant change involving re-organization, downsizing, rightsizing, outplacement, mergers, and an ever increasing pressure to become more competitive and better able to do more with less. We are in the midst of a fundamental paradigm shift. "Perhaps the clearest evidence of this is that organizations that once perceived people as long-term assets now often see people as short term costs" (Noer, 1995, p. 16). Many argue that this approach does not have a long term positive impact. "It may improve financial results in a short time, but may cut too deeply and leave the company even less capable of providing long term value" (Delavigne and Robertson, 1994, p. 126).

Senge (1990) argues that organizations must learn in order to make it in today's climate. They have to become what he calls a learning organization, more likely to encourage new and innovative ways of doing business, and be more focused on human relations. This is difficult for bureaucratic organizations. Becoming a learning organization means relinquishing power that comes with higher level positions in these hierarchies, and that is something not all the power-holders have been anxious to do. Using government as their example, Osborne and Gaebler (1993) state plainly that "in today's world, things simply work better if those working in public organizations have the authority to make many of their own decisions" (Osborne and Gaebler, 1993, p. 251). While this is very important, those in more traditional organizations have found it a difficult step.

In many organizations however, a more humane workplace and a commitment to lifelong learning have become the norm. For others, it has remained an elusive goal. Companies like IBM, Mobil Oil, and AT&T have, over the past several years instituted enormous change in the way they do business, and consequently have reaped the benefits.

Governments are much more difficult to modify and in many ways are very resistant to change. This paper will examine the concept and principles of the learning organization as described by Senge (1990) and others. It will present to the reader concepts that if implemented, would initiate the transition from a large bureaucracy such as government toward a learning organization. The hierarchical structure that underlies bureaucracies like government makes this challenging. However, that is not the only challenge. Bass (1985) recognized that "transformational approaches are less likely in large bureaucracies like government" (p. 160). Rather, leaders in bureaucracies have clung to traditional, authoritarian-based approaches. Consequently, moving a bureaucracy toward the concept of the learning organization is difficult.

In his book, The Fifth Discipline Senge points out that in today's world characterized by constant change, organizations that are excelling are those that have adopted new management styles and philosophies. The process of adapting to rapid change has led to success in a chaotic world. Large bureaucratic organizations have been slower to adapt. Conner (1992) states that major change cannot simply be announced. He says that "an organization should never issue a directive saying every division must reduce its head count by 15% during the next three months. This would lead to major dysfunction" (p. 83). Yet, many large bureaucracies such as government have adopted just that approach. Marris (1986) agrees with Conner. "People must have real input to accept and assimilate change" (p. 157).

Senge (1990) states that people do not really resist change, but they do resist being changed. If we are to agree with this, then much depends on "how" the leader decides to approach the task of change management. The art of leading in times such as these becomes a much more difficult art to master. The range of skills that are required by a leader is very broad. Skills that until recently were more commonly used in the home are today very much a part of the world of work. Senge (1990), Kline & Saunders (1993), Anderson (1992) and Swieringa and Wierdsma (1992) all refer to how today's leader must coach, teach, counsel, encourage, support and motivate. They must have the skills to change the attitudes and convictions of the people they lead, and to lead the creation of a shared vision that all can be committed to. They must in fact have a "transforming" effect on those they lead.

Research is showing evidence of the significant success enjoyed by organizations which resemble Senge's learning organization. In these organizations there is a shared vision, teamwork, open-ness, and a deep rooted commitment to the principle of learning at all levels. Senge is not alone in his assertions. Kreisberg (1992), Marris (1986), Bass (1985), and Argyris and Schon (1978) all purport that for organizations to be truly effective, leaders must focus on the human factor more attentively. "The process of human relations is of major concern to managers because it determines how well the work of the organization is accomplished" (Deep, 1978, p. 4). Governments, if they wish to be more effective, must work toward becoming learning organizations, with an increased emphasis on their human resources. Successful organizations realize that their most valuable resource is their human resource.

The benefit of government utilizing what has been learned about learning organizations is far reaching. Over the past several years in government, emphasis has been focused on responsible fiscal management and quality service. These years have been characterized by change. Tremendous change has occurred in the way divisions are structured and the manner in which individuals are required to carry out their duties.

In today's work environment, more is demanded of the public servant. With less financial incentive to motivate staff and an increased emphasis on delivering higher quality service to the public, leaders within the public service are faced with new challenges. What methods do they employ and what techniques do they use to meet these new challenges? Much of the literature in the field refers to the transformational approach.

> Transforming leaders are those who have inwardly decided to grow into becoming more conscious, developed, skilled, sensitive, and creative participants. They strive to make positive differences in organizations and in the lives of others wherever they go. (Anderson, 1992, p. 1)

A transformational approach hinges on meeting new challenges and effectively adapting to change. It emphasizes a mutual stimulation and elevation to new levels of needs. Bass (1985) says that managers can experience results beyond expectations when integrating this approach into everyday practice.

Background to the Study

In government, as in all organizations, there is often one division that is much better able to adapt to change and better able to motivate it's staff than others. These more adaptable divisions often have leaders who are very proactive in the training and development of staff. They tend to be more progressive and allow for some sharing to occur in the decisions that are made. Other divisions, whose leaders employ more traditional management styles, born out of bureaucracy and authoritarianism, often endure frustration. Staff are often more difficult to motivate and confrontation is more common.

Senge (1990) asserts that while situations like this are common in many organizations, the learning organization is characterized by just the opposite. Leaders in the learning organization are better able to adapt approaches in these changing times. The human element must become the focal point.

Some managers in government may feel they do not have the right skills. Burns (1978) reminds us that the necessary skills to become more transformational are more common than we generally recognize. As a leader in these turbulent times, leaders need to be able to care, to counsel, to listen, and to inspire. The leader is appreciated for the value he or she brings to the organization and its people, and is followed in the organization voluntarily, not necessarily because she or he is the boss. They must also show a genuine psychological commitment to their followers.

These feelings are foreign to many workplaces, especially bureaucracies, and are usually the types of feelings reserved for one's family, or one's children. These are the very skills that are imperative to leadership success in the workplace today, and many leaders already possess them. Such leaders encourage free thinking and creativity in approaches at work, they nurture and counsel their followers as they would their children and they create in their followers higher level needs that are satisfied only by higher expectations from the leader. Rolls (1994) says that although it is a gradual process, there is a movement in a new direction.

> We are moving toward whole self-integration
> with no separate selves for work and personal

> lives. The new leader supports an intimacy that believes in disclosing true selves in an environment of nurturance. As people seek heightened authenticity, compassion, wholeness, and meaning outside work, their new found growth and expectations will come to work with them. We need to provide workplaces that nourish and foster both personal and organizational change. We need to discover how deeper meaning can be accessed in our worklives (p. 107).

Rolls (1994) senses that there is already movement in that direction. In the type of workplace she envisions, there is less separation between our personal lives and our worklives. In many workplaces, this is not the case. There is usually a very clear distinction between personal and work selves. Many of the skills that an individual may have are never utilized in the workplace. Jobs are designed in such a fashion so as to encourage employees to do only what is specified in their position description. In many cases it is regarded negatively if one undertakes anything outside what one is supposed to be doing.

The need for more progressive leadership styles is evidenced not only in government, but in many arenas. In a national Occupational Health and Safety Conference in October, 1995, one of the plenary sessions was entitled "Managing Health and Safety in a Learning Organization". A senior consultant with Canadian Imperial Bank of Commerce discussed how Senge revolutionized our understanding of corporate culture. It is obvious that Conference organizers felt that the concept of the learning organization, as presented by Senge, is a significant turning point in how we view the art of leading and is integral to the implementation and maintenance of a successful program. This illustrates a growing awareness and appreciation for the concept of the learning organization.

This research will synthesize the steps that government could take to accommodate the change processes that are ongoing, to move toward the practices characteristic of the learning organization. It will illustrate the unique role of the leader and the need to share more of the decision making, and the need for team approaches to problem solving.

Significance of the Research

Much of this research revolves around the types of problems and issues facing organizations today, and provides a synthesis of what some of the most influential thinkers and writers are saying. Most of the literature will be contemporary, as some of the concepts being examined such as the learning organization and transformational leadership, are relatively new. However, some of the philosophies behind these concepts such as the importance of recognition, empathy, and understanding have been around for many years. Consequently, it is essential to explore, for example, Mary Parker Follett whose thoughts on management in 1925 were akin to many of the ideas being expressed in 1996. This research will provide examples of specific organizations that have learned to meet the challenges of the nineties quite successfully. The leadership styles that have enhanced these change management skills will be examined and the learning organizations that have developed will be explored.

There will be much reference to bureaucracy and the difficulties they face with today's stark realities. There will also be much discussion about how they could be more effective by beginning the transition toward a learning organization.

Hopefully the paper will provide some optimism to those working in large bureaucratic organizations. There can be a great deal of frustration working in bureaucracy, and this research will highlight specific steps leaders within can take to begin the process of moving toward a more progressive organizational structure. It will provide an examination of the type of leadership that is required, a synthesis of the literature, and a set of guidelines which could be utilized to begin the movement of a bureaucracy toward the concept of the learning organization.

The reasons for a leader wanting to do this could be manifold: "To launch new and superior products, to continually improve operating efficiencies, and to create more value for customers requires the ability to learn" (Thompson, 1995, p. 85). This is becoming more recognized and the more enterprising organizations have leaders with styles that affect the bottom line greatly. These organizations are often flatter, more egalitarian workplaces, and the leaders place people first. The result is a much more productive, energetic and resourceful group of employees. The literature review for this study has found nothing to dispute that. Thus, the study will represent a compilation of information from a wide variety of sources and will also be very practical in that it utilizes real examples of the bureaucracy of government.

Rationale for Research

In government today, as in all organizations, emphasis is being placed on effectiveness, efficiency and trying to do more with less. In many cases, decision-making still rests at the senior levels, and there is minimal participation by the general staff complement in determining their work objectives and goals. The system is still very hierarchical (see Appendix A).

Swieringa and Wierdsma (1992) state that "as long as the arrangement of organizations is based on classical principles such as a hierarchical structure, sharp division of labour, and centralized decision-making, then ineffectiveness will prevail" (p. 145). If this is correct, what implications does this have on government's drive to be more effective in the delivery of services? One conclusion is that the challenge of changing a huge structure such as government will be much more demanding than changing smaller organizations.

In government departments, there are thousands of employees geographically dispersed over broad areas (see Appendix B) There is also a vast array of leadership styles and approaches. However, the challenge of recasting a department as a learning organization is not an impossible task. While there are differing points of view on how the act of leading should be carried out, there is a general recognition that:

- Teamwork produces better quality decisions.
- Motivation of employees is critical to success.

- Managing change effectively is an crucial skill.
- Effective leadership is absolutely essential.

The Public Service Commission of Newfoundland is the central training agency for government. In their Training Course Calendar, several courses that are listed focus on many of the concepts that have been discussed thus far (see Appendix C). So, it would be inaccurate to say that there is no recognition of the need to change management approaches.

Government however, is so extensive and diverse that it is very difficult to initiate a process that would cause leaders in all departments and in all locations to recognize the benefits of transformational leadership. Leaders need to discover themselves that to lead in these turbulent times, they must have the full support and encouragement of staff. Staff must be committed to their work and enjoy doing it. Burns (1978) says that the function of leadership is to "engage" followers, and not merely activate them, and this is precisely the challenge facing today's leaders. While admittedly it may be challenging in a large bureaucracy that is very resistant to new ideas and methods, it is still very desirable and indeed possible.

Design of the Study

This study will review the literature on the learning organization. After providing a brief historical account of organizational theory, the principles of the learning organization will be explored fully through a comprehensive review of the literature. Senge (1990) will be used as a benchmark for the review. When these principles have been clearly explored and outlined, the focus will change to the process of transforming a bureaucracy into a learning organization. Using Senge (1990) as a focal point, issues such as leadership will be examined. A set of guidelines will emerge which could be utilized in building a learning organization. Throughout the paper, any reference to the term "government" will denote the Government of Newfoundland and Labrador.

Chapter 1 will provide the nature of the study outlining the background, significance, rationale and design for the research.

Chapter 2 will provide a brief historical overview of organizational theory, from the era of classical organizational thought in the 1920's with Taylor, Fayol and Gulick, through the dawn of the human relations era with Mayo and Follett and right up to the 1970's with Bennis, McGregor and Ouchi. This overview reveals how modern government bureaucracy was influenced by different theories, over a period of time. However a brief review of the current postmodern era reveals that government bureaucracies are being forced to consider other forms of organization.

Chapter 3 will examine organizational learning and the learning organization. The purpose of this chapter is to examine the difference and the relationship between the two concepts, and to develop, by examining the thoughts of various authors, a definition of each.

Chapter 4 will explore thoroughly the literature on the learning organization. Senge's The Fifth Discipline will be the focal point, examining the five disciplines individually and comparing the ideas of Senge to a vast collection of other writers such as Casey (1993), Kanter (1995), Kline and Saunders (1993), Rolls (1994) and Swieringa and Wierdsma (1992). The primary purpose of this chapter will be to develop an understanding of what a learning organization is, and to synthesize ideas expressed by all the authors in developing a thorough appreciation of the learning organization.

Chapter 5 will bring together all of the discussion on the learning organization outlining principles and guidelines for a bureaucracy to move toward becoming a learning organization. This chapter will take a practical approach and will recapitulate the ideas as examined in preceding chapters.

Overall then, this study will be a comprehensive review of the literature, searching both empirical and theoretical studies, with a view to addressing the following question, particularly focusing on government as a bureaucracy.

The general research question:

> What is required in order for a bureaucratic organization, such as government, to move toward becoming a "learning organization" ?

CHAPTER 2

Evolution of Organizational Thought

Organizational theory has undergone many changes in this century. There has been a shift in emphasis to the human element of managing and a recognition by many leaders of the importance of the individual in making an organization successful.

> The characteristics of the best organizations tend to bring out the best in people. All of these characteristics deal with human relationships. No mention is made of technology, economic considerations, or the product. The entire focus is on human qualities - how and why people work well together. (Ouchi, 1981, p. 156)

However, Mary Parker Follett was proclaiming the benefits of more humane organizations seventy years ago. "Follett believed that the fundamental problem in all organizations was developing and maintaining dynamic and harmonious relationships" (Hoy and Miskel, 1991, p. 12). This chapter provides a very brief and general overview of some of the concepts that preceded the learning organization. The purpose is to explain various perspectives and also to demonstrate some of the influences that impacted on current management philosophies, and to provide a sharp contrast to what is being presented in the learning organization.

Classical Management

Frederick Taylor

The early twentieth century was characterized by attempts to apply scientific principles to work and production. One of the most prominent theorists of the day was Frederick Taylor. "Frederick Taylor, an engineer who became known as the father of scientific management for his work in the early part of this century, recorded and then taught the exact motions of the most productive workers in a factory so that everyone else doing that task could make the same motions" (Pinchot, 1994, p. 27). Taylor became well known for his time and motion approach. Table 1 outlines the four basic principles that reflect Taylor's beliefs about the nature of work. (Hayes, Wheelwright and Clark, 1988, p. 38)

Table 1

Taylor's Guiding Principles

Find the One Best Way	Guided by scientific principles, Taylor believed that the first step was to find the best (i.e. most efficient) way to do a job.
Match People to Tasks	People are different and one is suited for some things and not for others. Pick the right people for the right task.
Supervise, Reward and Punish	People must be supervised to ensure that the "one best way" was employed consistently. Reward production above the standard and penalize production below.
Use Staff to Plan and Control	Workers were to focus only on the work itself and receive their instructions and directions from people who specialized in these support functions.

This division of labour resulted in jobs becoming very narrow in scope and responsibility. Taylor felt that workers would respond to an incentive wage. Therefore, his approach to motivation was primarily economic.

> Although Taylor's work had a narrow physiological focus and ignored the psychological and sociological variables, he did demonstrate that many jobs could be

> performed more efficiently. He also helped the unskilled worker by improving productivity enough to raise the pay of unskilled nearly to that of skilled labour. (Drucker, 1968, p. 272)

Much of Taylor's approach was directed at the worker. In fact his attention was first attracted to the problem of improving working conditions and raising the standard of living of the individual workman. While many today tend not to think of Taylor's approach as being focused on human relations, in his time, Taylor's principles were renowned.

> No man in the history of American industry has made a larger contribution to genuine cooperation and juster human relations than did Frederick Winslow Taylor by his principles of Scientific Management. He is one of the few, very few, creative geniuses of our time. (Tarbell, 1924)

Many organizations began to establish frameworks based on Taylor's ideas. The concepts of time and motion became very important.

> The Ford Motor Company embraced Taylor's work. It resulted in the development of production lines and high wages for the workers. Lines

> moved increasingly quickly, however workers found it difficult to maintain the pace. (Duray, 1988)

Henri Fayol

In the early part of the century Henri Fayol, like Taylor, took a scientific approach to administration. Both tended to share an almost mechanistic view of humanity. However, whereas Taylor created tools to solve operational problems, Fayol attempted to define principles that would be applicable to all possible management situations (Hoy and Miskel, 1991, p. 10).

Fayol took a process approach to managing and is remembered for being one of the first to promote the importance of teaching the philosophy of management. Urwick (1937) points out that Fayol broke the administrative role into five functions. Those functions were "to plan, organize, command, coordinate and control" (Urwick, 1937, p. 47). Urwick later built on these five functions to develop the role of the chief executive.

Max Weber

Another major influence on many organizational theorists was German-born Max Weber. Weber created the first fully articulated theory of authority structure in formal organizations. Weber had an intense interest in understanding why people obeyed orders. Table 2 illustrates how Weber (1947) distinguished between three types of authority.

Table 2

Weber's Types of Authority

Charismatic	Tends to be non-rational or emotional and rests heavily on the leader's personal qualities and characteristics.
Traditional	Obedience is owed to the sanctioned position of authority. The person who occupies the position inherits the authority.
Legal	Obedience is not owed to the person or the position but to the laws that specify to whom and to what extent people must comply.

Scott (1987) points out the significance of Weber's work.

> Although it is clearly possible to criticize and improve upon many specific aspects of Weber's formulation, he remains the acknowledged master of organizational theory: the intellectual giant whose conceptions continue to shape definitions of the central elements of administrative systems. (Scott, 1987, p. 72)

Table 3 provides an overview of Weberian thought and outlines Weber's model of bureaucracy.

Advocates of scientific management such as Taylor focused on labour efficiency. Fayol, Urwick and Weber, while very similar in many respects, focused also on managing the total organization. While many meaningful field studies during this time led to the development of a significant framework, the era is often most noted for the very limited role of the individual in organizations.

Table 3

The Weberian Model of Bureaucracy

Characteristic	Description
Division of Labour and Specialization	The regular activities required for the purposes of the bureaucratically governed structure are distributed in a fixed way as official duties.
Impersonal Orientation	Decisions are based on facts not feelings. Impersonality on the part of the administrators assures equality of treatment and facilitates rationality.
Hierarchy of Authority	Bureaucracies have a well established system of superordination and subordination, which ensures the disciplined compliance to directives.
Rules/Regulations	This covers the rights and duties inherent in each position, and ensures uniformity and stability of employee action.
Career Orientation	There is a system of promotion according to seniority, achievement and the judgement of superiors.
Efficiency	Committed experts make rational decisions that are executed and coordinated in a disciplined way. Administrative efficiency is maximized.

Behavioural Management

Mary Parker Follett

As far back as the early 1920's, a number of people beginning with Mary Parker Follett emphasized the importance of developing and maintaining dynamic and harmonious relationships in organizations.

Follett felt a fundamental problem in most organizations was that they could not maintain a harmonious relationship. Organizations were designed to encourage a struggle for power which was one of the central issues. Follett astutely pointed out that what often creates discontent in organizations is that managers want to have "power over" as opposed to "power with" (Follett, 1924, p. 72). This struggle to control and dominate causes much dissatisfaction among employees.

Many feel that Follett's work was brilliant and in terms of organizational theory, the ideas she expressed were years ahead of her time.

> In a time of unprecedented change and intensified competition for physical and human resources on all levels, there is reason to ask how we can energize dormant talent, control without stifling, resolve conflicts that can frustrate the ablest of men, inspire personal commitment to constructive lines of action, and supply a managerial leadership worthy of the challenges facing all forms of organized enterprise today. Mary Follett was

> developing answers to these questions over half a century ago and began to apply them specifically to business problems during the mid-1920s. (Fox and Urwick, 1982, p. vii)

Many of her ideas were remarkably similar to those expressed currently, such as Senge (1990), Ouchi (1981) and Kline and Saunders (1993). Follett stressed a collaborative approach to solving problems, an approach that involved both employee and manager, comparable to the participative management style advocated by Ouchi.

Also, Follett talked of management in a manner that was not common during those years. She talked of the importance of more interaction between manager and employee and the need for a more level playing field. "Long distance orders were not as effective as face to face suggestions" (Follett, 1925, p. 25). This statement had two implications. First of all, we note that she contrasted orders and suggestions implying that suggestions are more effective. This was an obvious deviation from the more commonly used scientific management principles at the time. Also, she stressed the importance of face to face contact. Fifty five years later, Ouchi (1981) underscored the importance of the manager being more intimately involved with the workers in the organization and not being too removed from the everyday realities of the workplace.

Follett (1925) stated that "our job is not to get people to obey orders but to devise methods by which we can best discover the order integral to a particular situation" (Follett, 1925, p. 30). One's job as manager is not merely to give orders, but to work hard at creating the right set of circumstances that will best address the given problems of the situation. She also states that "once found, the employee can issue it to the employer as well as the employer to the employee" (Follett, 1925, p. 30). This implies joint study of situations and two way communication of the solutions that are discovered. Follett championed the concepts of adaptability and flexibility.

Elton Mayo

Between 1927 and 1932 a series of studies occurred at the Hawthorne Plant in Chicago which began to illustrate graphically how important the human element was in managing. "In the 1920s the plant was the scene of an intensive series of experiments designed to determine what effects various changes in working conditions would have on the performance of workers" (Rosenthal and Jacobson, 1971, p. 448). The results of these experiments became widely acclaimed as the beginning of the human relations era.

The participants were volunteers and excellent communication had developed between the researchers and the participants. Researchers found that workers responded more to non-material incentives such as recognition and good communication, than they did to any of the material incentives such as rest periods or the amount of illumination provided.

Despite the earlier work of Follett, the development of the human relations approach is usually traced back to these Hawthorne studies from 1927-32. The man who had devised the Hawthorne Studies was Elton Mayo. He became known to many as the father of the Humanist approach. "These studies conducted at an electric plant in Chicago were the first to recognize that individuals are active human beings and not passive cogs in a machine" (Hoy and Miskel, 1991, p. 14). They recognized the significance of social interaction in the workplace and saw how this interaction could foster a friendly and cooperative work group. In many ways this approach was the antithesis of the scientific management principles, stressing forces and influences at work in the organization that Taylor and Fayol considered inconsequential. Mayo opened up a whole new and uncharted area in the field of motivation that had been previously ignored.

Motivational Management

Abraham Maslow

In the 1950s, Abraham Maslow began to develop his theory of human motivation. "Maslow believed there is an active will toward health in every person, an impulse toward the actualization of one's potentialities" (Lazerson, 1975, p. 435). Lazerson (1975) also points out that Maslow's needs were outlined in a manner whereby one took precedence over another, in a hierarchy. Figure 1 illustrates the concept and specifies the various needs.

Figure 1. Maslows Hierarchy of Human Needs (adapted from Lefrancois, Guy. Psychology for Teaching. 1979).

Some of the concepts he discusses in his theory are analogous to those articulated by contemporary organizational theorists. One of the central themes of Senge's learning organization is a concept very closely related to the need for self-actualization described by Maslow. Chapter 3 will illustrate how Senge (1990) continually makes reference to the desire for individuals in an organization to achieve their full potential by being creative and innovative. "Maslow's highest level human need, self-actualization is the need to achieve fulfilment of life's goals, and to realize the potential of his or her personality" (Campbell and Prichard, 1976, p. 97).

Maslow's influence has been immense in many fields.

> He inspired many researchers to pay more attention to healthy productive people and led many organizational psychologists, group leaders, and clinicians to seek ways to promote the growth and self-actualization of workers, students and clients. (Lazerson, 1975, p. 436)

Maslow was a key figure in the human relations movement.

Douglas McGregor

In The Human Side of Enterprise (1957), Douglas McGregor defined two sets of assumptions about human nature. McGregor suggested that the styles and approaches managers adopted were greatly affected by the assumptions they made about employees. These assumptions were similar to what Senge (1990) later called mental models. Table 4 illustrates.

Table 4

Theory X and Theory Y

Theory X	Theory Y
In general, people: 1. Avoid work 2. Avoid responsibility 3. Need direction 4. Cannot make decisions 5. Not achievement oriented 6. Not dependable 7. Motivated by money 8. Not concerned with organization's needs 9. Must be controlled 10. Cannot Change	In general, people: 1. Will work toward goals 2. Will assume responsibility 3. Can self-direct 4. Can make decisions 5. Want to achieve 6. Are dependable 7. Motivated by interest/challenge 8. Are concerned with needs of organization 9. Want to be supported 10. Want to develop

Theory X represented the more traditional view of management and grew out of the classical management era. Theory Y however, was more representative of behavioural management thought. McGregor states that in Theory Y managers believe "the essential task of management is to arrange the organizational conditions and methods of operation so that people can achieve their own goals best by directing their own efforts toward organizational objectives" (McGregor, 1957).

The significance is that there was now a recognition of the need for more than specialized labour could offer. Follett, Mayo, Maslow, McGregor and others had elevated the importance of the individual and proclaimed the need for the individual's desires to be heard. It was evident that non material incentives could be very powerful motivators. This gradually led to a whole new approach to management and brought the human aspect of managing much closer to the forefront.

Modern Management

Warren Bennis

In 1969, Warren Bennis wrote that "we must test our humanness and strive to become more fully human" (Bennis, 1969, p. 44). He recognized the importance of people in the organization. Like many of his predecessors, Bennis places a great deal of emphasis on human relations. He talks much of the corporate world, where one's very survival could depend on motivating employees and recognizing the critical nature of obtaining their support. Bennis says that "the inventory goes home at night" (Bennis, 1976, p. 86) meaning that people in essence are the organization, that without people there would be no organization, hence no success. He accentuates the importance of recognizing and developing the human resources that are in an organization.

Bennis also emphasizes the element of trust in human relations. When there is trust on both sides, there are less political games being played and there is more work being done. "People would rather follow individuals they can trust even when they disagree with their views" (Bennis, 1969, p. 21).

Perhaps the single most prevalent concept throughout the writings of Bennis is the central role of leadership in organizations. Bennis places a very high priority on the issue of leadership. In Why Leaders Can't Lead, Bennis outlines many issues surrounding leadership and argues that effective leadership is critical. Table 5 illustrates some of these.

Table 5

The Role of the Leader

To proceed toward goals without being crippled by bureaucracy.
To have a sense of direction and to communicate a vision.
To empower staff and make them feel significant.
To make people's work exciting and meaningful.
To risk making mistakes so that ideas are encouraged.
To discover hidden talents in people and persist in bringing them out so a person can realize his or her full potential.

James McGregor Burns

In the late 1970s, James McGregor Burns was writing passionately about the importance of what he called transforming leadership and how critically important it was to "tie in with the needs and goals of the followers" (Burns, 1978, p. 19). It is difficult to read any contemporary literature on organizational theory that does not have Burns in the bibliography. His ideas on leadership have been very influential and far reaching.

Like Follett, Burns saw the quest for power as a major factor in the poor relationships that were constantly being evidenced. "Power wielders treat people like things, leaders do not" (Burns, 1978, p. 19). He makes a sharp contrast between effective leaders and those who are more concerned with what he calls naked power-wielding. Leadership says Burns, must involve more than this. It necessitates both leader and follower working toward goals that "represent the values and the motivations, the needs and wants, the aspirations and expectations, of both leaders and followers" (Burns, 1978, p. 19). Further, he states that "the genius of leadership lies in the manner in which leaders see and act on their own and their followers' values and motivations" (Burns, 1978, p. 19).

Burns also emphasizes the importance of a leader being able to identify the values that followers hold, and tap into them to inspire and motivate and build upon already existing needs. By aligning oneself so closely with the aspirations of the followers, "the purpose of both the leader and the led become fused" (Burns, 1978, p. 20). They, in fact, become interdependent. Burns related much of his thought on motivation to the style of leadership that was provided in an organization. "Exceptional leadership may also make a difference in transforming dormant employees into active followers" (Burns, 1978, p. 137).

Like Senge (1990), Burns also related many of his ideas to the self-actualization described by Maslow years earlier.

> The most important characteristic of self actualizers as potential leaders goes beyond Maslow's self-actualization. It is their capacity to learn from others and the environment, their ability to listen and to be guided by others and to be dependent on others to be creative. Self actualization means the ability to lead by being led. (Burns, 1978, p. 117)

William Ouchi

In 1981, William Ouchi wrote Theory Z. It was in some ways a follow up to McGregor's Theory X and Theory Y. Influenced by much of the work of earlier theorists and by what he saw happening in other cultures, Ouchi advocated the value of such concepts as recognition, shared decision making, and participative management. These people-centred concepts emphasized real involvement of the employees. He talked of a style that "emphasized human relations in the corporate world" (Ouchi, 1981, p. 165) and illustrated the tremendous success of Japanese companies, those that respected their employees and sincerely valued their input and participation. The Japanese, he contends, have a more holistic view of the individuals who worked in an organization. They do not make the separation that many of us do, between work life and home life. This, as will be explored in later chapters, is a concept that is very important in the learning organization. Employees have to be seen as whole persons and this must be clearly understood and appreciated. People cannot be treated as if they possess what Ouchi calls "Jekyll-Hyde personalities" (Ouchi, 1981, p. 165).

Ouchi argued that if we are to ever achieve our full potential, there has to be a recognition of individuals as whole persons with both home and work lives. "As a result of this wholistic concern, intimacy, trust and understanding grow" (Ouchi, 1981, p. 46). He argued that while it is important for an organization to be technologically advanced, it is the people and not the technology that will determine the amount of success that a company will enjoy. Without the support and enthusiasm of the employees, a company will stagnate. Human relations in Ouchi's Theory Z organization is essential.

Bernard Bass

Burns' theories on transformational and transactional leadership played a large role in the empirical research carried out by Bass. In Leadership and Performance Beyond Expectations (1985), Bernard Bass emphasized the significance of leadership in achieving more productive workplaces. He talked of transformational approaches to leadership which were aimed at making substantial changes to the workplace in order to address underlying problems and enhance workplace climate. Like Ouchi, Bass talks of the importance of the human element in organizations. "Transformational leadership is guided by a respect for human dignity and equality of human rights" (Bass, 1985, p. 181). However, he points out that Ouchi's Theory Z uses organizational policies to do what transformational leadership might do. Bass makes constant reference to the need for such leadership and contrasted it to transactional leadership. "Transactional leaders exchange rewards for contracted services" (Bass, 1985, p. 14). Table 6 summarizes how Bass saw these styles at opposite ends of the leadership continuum.

Table 6

Transformational and Transactional Leadership

Transformational Leadership involves:

- raising our level of awareness
- expanding our portfolio of wants and needs
- changing or "transforming" organizational culture
- stimulating enthusiasm among workers
- inspiring others to want to do well
- an action oriented style

Transactional Leadership involves:

- working "within" the organizational culture
- compliance with an established set of norms
- a bureaucratic style
- "controlling" enthusiasm among workers
- taking few risks
- a very cautious approach

The purpose of this review is not to provide an extensive catalogue of all the organizational theories that have existed since the turn of the century. Rather, the objective is to illustrate by citing various authors:

(a) how management thought has evolved and the human relations aspect has gained prominence.

(b) the types of influences that underscore the concepts as presented in following chapters.

Table 7 summarizes this evolution of thought.

Table 7

Summary of Various Management Approaches

Classical Management	Frederick Taylor Henri Fayol Lyndall Urwick Max Weber
Behavioural Management	Mary Parker Follett Elton Mayo
Motivational Management	Abraham Maslow Douglas McGregor
Modern Management	Warren Bennis James McGregor Burns William Ouchi Bernard Bass

Postmodern Management

This chapter thus far, has provided an overview of how management approaches have changed. It has illustrated the bureaucracy in action, which has become very widespread and is representative of what is known as the modern organization. Hargreaves (1994) is a critic of such organizations:

> Modernity in organizations, is reflected by large, complex and often cumbersome bureaucracies arranged into hierarchies, and segmented into specializations of expertise. In the bureaucracies of modernity, functions are differentiated rationally and careers ordered in logical progressions of rank and seniority. (Hargreaves, 1994, p.8)

Hargreaves cites Weber as seeing the bureaucratic process as one of rationalization. The factory system gathers workers together in one location where time and motion can be carefully calibrated and regulated through bureaucratic hierarchies of supervision and control. This assumption that there must be logic, order and system has pervaded our society for many years. Hargreaves argues that many workplaces today are structured in this manner. "It was thought that once the orderly, presumably recurring patterns were made manifest and described, they would reveal the keys to controlling the course of events so as to improve the human condition" (Hargeaves, 1994, p. 8).

It is difficult to dispute that there are benefits with this type of organization, however there are also many limitations. Hargreaves reminds us that "modernity has always been a double-edged phenomenon" (p. 26). Turner (1990) elaborates on this in his description. "Modernization brings with it the erosion of meaning, the endless conflict of polytheistic values, and the threat of the iron cage of bureaucracy. Rationalization makes the world orderly and reliable, but it cannot make the world meaningful" (p. 7).

Turner's argument is that bureaucracies are too constrictive and do not provide a sense of purpose in the lives of the workers, that while they do result in a methodical way of doing things, they does not provide purpose. This is a theme that will be common to many of the authors cited in Chapter 3. Hargreaves (1994) points out that some of the shortcomings of the modern organization began to be recognized in the early 1970s.

> By the beginning of the 1970s, the magnitude of the difficulties created by modern economies, modern states, and modern patterns of organizations were becoming immense. Through the 1970s, these difficulties had reached such crisis proportions that they began to generate a set of powerful pretexts for change in economic, political and organizational life: the change we have all come to call postmodernity. (Hargreaves, 1994,

p. 31)

Those who advanced the ideas of postmodernity were those who had become disenchanted with the modern age and what it had to offer. They saw it as a failure. Yet theorists point out that many large bureaucratic machines still exist and the modern organization as we have come to know it, is not easily altered. Yet change is seen as unavoidable.

> Modernity has survived for centuries; its more recent forms for decades. It is not yet clear whether our generation will be witness to its complete demise, to the end of an epoch. However, many facets of modernity clearly are in retreat or under review - standardization, centralization, mass production and mass consumption among them. (Owens, p. 32)

Defining postmodernity however, is difficult. The very name given to this attitude, is indicative of its conflicted relation to the past. If modernism is taken to represent a history that stretches behind us, then postmodernism indicates a separation from and a connection to that history. The postmodern world is an age characterized by rapid change, an explosion in knowledge and globalization on scales previously unheard of. "Theorists of postmodernity claim technologies such as computers and media, new forms of knowledge, and changes in the socioeconomic system are producing a postmodern social formation" (University of Texas, p. 2).

In an article entitled The Postmodern Paradigm, Wilson, Osman-Jouchoux and Teslow (1994) contrast the concepts and practices of modern and postmodern thought:

> Whereas modernity trusted science to lead us down the road of progress, postmodernism questioned whether science alone could really get us there. Whereas modernity happily created inventions and technologies to improve our lives, postmodernity took a second look and wondered whether our lives were really better. (p. 3)

Wilson et al points out that while postmodernists would agree that modernity has brought nationalism, consumerism, efficiency and technocracy, they also note that it has brought a dehumanizing, mechanizing effect to our lives. Hargreaves (1994) also acknowledges the benefits and drawbacks of modernity. "Modernity has always possessed the potential to enhance the human condition, but also impoverish it" (p. 26).

In their attempt to define postmodernity, Hlynka and Yeaman (1992) outline some of the key features. Table 8 illustrates these.

Table 8

Key Features of Postmodern Thinking

A commitment to plurality of perspectives, meanings, methods and values.
A search for and appreciation of double meanings and alternative interpretations.
A distrust of theories that are meant to explain everything, such as grand theories of science, and myths in our nations and cultures that explain why things are the way they are.
Granting a plurality of perspectives and ways of knowing, a recognition that there must also be multiple truths.

Lyotard (1984) describes the postmodern condition as a collapse of narratives of legitimation, as "that which denies itself the solace of good forms, the consensus of a taste which would make it possible to share collectively the nostalgia for the unattainable, yet remains part of the modern" (p. 79). Suleiman (1990) gives a useful definition. She writes "I interpret postmodernism as that moment of extreme self-consciousness when the present takes to reflecting on its relation to the past and to the future" (Suleiman, 1990. p. XV). Regardless how one defines it, postmodernity is a school of thought that has impacted everything from art and music to architecture to organizational theory. It rejects modern assumptions of social coherence and notions in favour of multiplicity, plurality and fragmentation. When people talk of postmodernism, the problem is that they are referring to something elusive and slippery. In the academic world, it is best understood as a new organizing principle in thought, action, and reflection, connected to many changing factors in modern society.

While the specific impact these postmodern ideas may have had on organizations is uncertain, it is clear that the theory of the learning organization originated in a time when many people were accepting and even searching for new and exciting ways to develop organizations:

> In the period of postmodernism and poststructuralism, a growing number of academic iconoclasts are engaged in the process of bringing the previously unexamined assumptions, from which our cultural and professional beliefs and values arise, into the open, making them explicit, questioning them, and seeking to forge a consensus around new assumptions on which to rebuild our thinking about truth, knowledge, and epistemology in organizational behaviour. (Owens, 1995, p. 9)

It seems obvious that postmodern thought may play a role in organizational reconstruction. Hargreaves (1994) however, points out a paradox in postmodern thought. In order to restructure, one must use the same set of tools that one is dismantling.

> In order to overthrow the tools of reason, one has to use the tools of reason. In order to deny the existence of foundational knowledge, one needs foundational knowledge about its lack of existence. And in order to assert the end of scientific or theoretical certainties, one needs some certainty about the certainty of its ending (p. 40)

If we are to maintain this perspective, then we diminish the legitimacy of any real change that the postmodern movement might claim responsibility for. This is just one problem. There are many who feel the postmodern movement is fraught with difficulties. There are no rules and there are no guidelines. It represents a monumental shift in the opposite direction -- a direct antithesis of everything the modern organization embodied.

Postmodernism has been accused of being too idealistic, unrealistic, and romantic. There are those who feel it is truly dangerous. There is a fear that postmodernism may result in an end to progress itself, and will consign us all to a steady-state Utopia where all needs may be provided for, but there is no room for growth, change, or movement.

Hargreaves (1994) outlines a number of challenges of restructuring in education and elsewhere in these times of postmodern thought. Table 9 illustrates these challenges.

Table 9

Challenges of Restructuring in Postmodern Times

To abandon bureaucratic controls, inflexible mandates, paternalistic forms of trust and quick system fixes.
To build trust in the processes of collaboration, risk and continuous improvement.
To support and empower those involved in cultures and develop changes themselves on a continuing basis.
To avoid losing a sense of common purpose and commitment.
In trading bureaucratic control for professional empowerment, it is important that we do not trade community for chaos as well.

Hargreaves' challenge is a reminder that society must be careful not to create a situation that would be characterized by complete chaos. Toffler (1994) makes the same point when asked by an interviewer if there were limits to how adaptable a culture is.

> There are obviously circumstances where you have to make the change to survive. There are other circumstances where if you make them too fast, you destroy. A good example is Russia. We had these economists rushing in with their attache cases, telling them the Soviet officials they had to change overnight. They had ignored the social, political, cultural and religious realities. They thought they could drive 250 million people into a new system in X days. That's ridiculous and dangerous. Cultures have limits. (Toffler, 1994, p.23)

Both Hargreaves and Toffler caution against too much, too fast. Critics argue that this is the danger with the postmodern approach. Postmodernism they say, is characterized by fragmentation, disintegration, vagueness and societal chaos. Nonetheless, this is the age in which the learning organization came into fruition.

The purpose of this chapter has not been to provide an extensive historical account of organizational theory. Rather the purpose has been to provide a brief overview of some of the more influential organizational thought in this century which has contributed to the making of the modern bureaucracy.

This chapter also reveals that we have moved into a new era, the postmodern society -- an era characterized by change and uncertainty. It is in this context that we examine in the next chapter, the potential offered by Senge's concept of a learning organization.

CHAPTER 3

Defining the Learning Organization

The purpose of this chapter is to develop definitions and to differentiate between the terms "organizational learning" and "learning organization". This research has found that many in the field frequently use the two terms interchangeably and often do not differentiate. However, as the literature review clearly reveals, one concept is described in terms of a process and the other as a product.

Defining Organizational Learning

For any organization to be successful, the organization must "learn". It learns how to cope with ongoing and varying degrees of change. The questions that invariably arise are "What is organizational learning?" and "How do organizations actually learn?"

Harshman and Phillips (1994) define organizational learning as "the ability of an organization to modify the way it functions based on experience" (p. 165). This definition implies the necessity of flexibility in an organization. Leaders in organizations must be willing to modify or adjust the way they function. There must be an actual change in behaviour.

If an organization has a flexible, adaptable leader, then this is possible. The leader recognizes and learns that in order to develop, employees must be delegated more direct responsibility. As a result, the leader loosens the reins and allows for more decentralization. However, if that leader moves on to a new position or a new organization, and is not there to make changes when necessary, how does the practice continue? The next leader may be very much a traditionalist who is dedicated to a centralized, very tightly controlled bureaucracy. How can the organization continue to grow and adapt? Argyris and Schon (1978) contend that the answer lies in the theory of organizational learning. The organization must continue to maintain the same basic behavioral patterns even if leaders change.

Argyris and Schon (1978) say that in order for an organization to do that, to undergo a learning process, "the discoveries, inventions, and evaluations must be embedded in organizational memory" (p. 19). Whatever the organization has learned in the past, through the individuals that comprised it, must be implanted or embedded in the collective organizational memory. That is not to say that organizations must base their actions entirely on past experience. The actions of the organization must reflect both the present and past experience and knowledge of the individuals who have been a part of the organization. Learning organizations are particularly competent in adapting to current demands. Leaders must take into account what was "learned" in the past when making decisions.

Organizational learning is very dependent upon individuals: "Just as individuals are the agents for organizational action, so they are the agents for organizational learning" (Argyris and Schon, 1978, p. 19). Argyris and Schon describe it as paradoxical in that organizational learning is not merely individual learning but organizations can only learn through the experiences and actions of individuals. There is a dependence of the organization upon the individual in order for organizational learning to occur. Nayak, Garvin, Maira and Bragar (1995) contend that individual learning is a pre-requisite for organizational learning. "Learning at the organizational level is constrained by the ability of individuals and teams to learn, so enhancing individual and team learning is a good starting point" (Nayak, Garvin, Maira and Bragar, 1995, p. 27).

Single and Double Loop Learning

Argyris and Schon (1978) differentiate between two types of learning -- single loop and double loop learning. Single loop learning occurs where "members of the organization respond to changes in the internal and external environments of the organization by detecting errors which they then correct so as to maintain the central features of organizational theory-in-use" (p. 18). Members operate within a set of parameters as outlined by the organization, in order to take action on issues. The parameters are defined by the norms of the organization. The learning that occurs in this "single-loop" context is done within the normal policies and procedures of the organization. Argyris and Schon state that single-loop learning in an organization is sufficient where errors can be addressed or corrected within these given norms and parameters.

However, there can be situations that would necessitate a change in these organizational norms. Sometimes an error cannot be corrected without making basic fundamental changes in the practices and policies that exist. These require what Senge (1990) refers to as "structural changes". In such cases, Argyris and Schon (1978) say that "double-loop learning" is necessary. Double-loop learning is "the sort of organizational inquiry that resolves incompatible organizational norms by setting new priorities and weightings of norms, or by restructuring the norms themselves together with associated strategies and assumptions" (p. 24). Double loop learning examines and re-defines the rules and regulations which govern the actions of an organization.

To summarize, Argyris and Schon make a clear distinction between the two types of learning inside an organization. The first, single-loop learning, addresses the immediate and most apparent cause of a problem. The second, double-loop learning, examines the root cause of a problem and takes an inquiry approach. This type of learning requires that an organization look at the norms that exist with a view to altering or adjusting them if deemed necessary.

Adaptive and Generative Learning

Argyris and Schon are not alone in this two-tiered view of organizational learning. Harshman and Phillips (1994) make specific reference to Senge and what he refers to as "adaptive" and "generative" learning. While the terminology is different, they claim that Senge is very much in line with the approach taken by Arygris and Schon:

According to Senge, adaptive learning is

> survival learning, characterized by adjustments and changes related to the day to day business. It is short-term problem solving. In this type of learning, minor adjustments are made to correct errors, but the overall culture, structure, functions, norms and procedures remain the same. (p. 166)

In this type of learning, an organization learns only enough to solve a current or immediate problem.

Generative learning, on the other hand, is "the heart of an organization's ability to create a different paradigm" (Harshman and Phillips, 1994, p. 166). This type of learning implies more permanent shifts in the organization. The very beliefs and behaviours of an organization are examined. The types of change that come about as a result of this type of learning go beyond the day to day issues. These are fundamental shifts in the basic premises and principles which govern organizations. This type of self-examination and significant adjustment compare with what Arygris and Schon refer to as "double-loop learning".

Parallel Learning Structures

Bushe and Shani (1991), in their attempt to define organizational learning, concentrate on a mechanism which they call parallel learning structures. They define parallel learning structures as "a generic label to cover interventions where a structure is created that operates parallel to the formal hierarchy, and has the purpose of increasing an organization's learning" (p. 10). The structures provide a bounded time and space in which to discuss that which is not normally discussed in the workplace. Organizational inquiry is legitimate and encouraged. It provides an arena in which to raise issues which may normally never be raised. The type of exploration and learning that occurs in parallel learning structures are analogous to what Arygris and Schon (1978) call double-loop learning and what Senge (1990), Harshman and Phillips (1994) call generative learning. The sole purpose is to scrutinize the norms and practices within an organization with a view to re-creating a new organizational culture, one that is more productive, adaptive and better able to deal with current realities. Parallel learning structures are best suited to bureaucratic organizations which are often poor at learning. They are steeped in tradition, with rigid hierarchical structures and centralized control. Quite often, they are very inflexible and as a result are, as Bushe and Shani maintain, poor at learning. There often exists a resistance to change, and even a requirement to maintain the status quo.

One of the important facets characteristic of parallel learning structures is that the consulting method referred to, be one of co-inquiry. Members must "inquire together into issues the organization is facing and develop a common understanding of what the issues are and how to solve them" (Bushe and Shani, 1991, p. 139). There must be equality among members and an atmosphere where items can be addressed and discussed openly and frankly.

They also stress the importance of assessing the organizational climate before ever setting up a parallel learning structure. "If a lot of individuals in the organization are indifferent or hostile toward the organization, they probably are not interested in putting in the effort that learning takes" (Bushe and Shani, 1991, p. 146). In large bureaucracies such as government, employees often feel alienated. If this feeling is widespread, then the leader must be aware of this before beginning the process of setting up a parallel structure. In cases where such a feeling exists, much remedial work needs to be done. "In such cases, you need to spend a lot of time up-front clarifying the possibilities and limitations of a parallel learning structure" (Bushe and Shani, 1991, p. 147). The internal morale problems should be addressed before beginning the process of inquiry.

Learning Disabilities in Organizations

Senge (1990) talks of organizational learning with reference to, as Harshman and Phillips stated, adaptive and generative learning. Unfortunately though, he says that most organizations are poor learners. This however is no accident. It is because of "the way organizations are designed and managed, the way people's jobs are defined, and most importantly, the way we have been taught to think and interact. It creates fundamental learning disabilities" (p. 18). He links his definition to the concept of learning disabilities in children. Such disabilities in organizations can be equally as tragic, says Senge. All too often organizations that are in trouble do not recognize ample and clear warning signs. This happens simply because organizations have not learned to react properly and in a timely fashion. An interesting analogy by way of contrast is provided by Casey (1993) who compares an effective learning organization, one that has learned to recognize such warning signs, to a flock of birds.

> Birds which join a flock benefit immediately
> by being given greater security against

> predators. They enjoy the freedom to feed in relative peace without having to keep looking over their shoulders for signs of danger. With thousands of pairs of eyes in a flock, hawks and foxes stand little chance of getting close without being observed. So though each individual can afford to be less vigilant, the flock as a whole is more responsive to sources of threat. (p. 90)

Senge (1990) suggests that organizations often have problems with learning. This impedes the collective inquiry procedure referred to by Arygris and Schon (1978) in double-loop learning and the co-inquiry procedure referred to by Bushe and Shani (1991) in their parallel learning structures. Furthermore Senge argues, there is rarely encouragement to tackle tough policy issues within an organization. Emphasis is placed on the more immediate concerns which are easier to deal with. "When was the last time someone was rewarded in your organization for raising difficult questions as opposed to solving urgent problems?" (Senge, 1990, p. 25).

Organizational Learning as Adapting

Schwandt (1995) defines organizational learning as "a system of actions, actors, symbols, and processes that enables an organization to transform information into valued knowledge which, in turn, increases its long run adaptive capacity" (Schwandt, 1995, p. 370). He sees organizational learning as the system's ability to adapt to its environment. Organizations that adapt quickly and more effectively to change are organizations that have learned how to anticipate and even embrace change and use it constructively. These are organizations where learning is occurring. Schwandt (1995) identifies four functional subsystems in an organizational learning system:

(1) The environmental interface component which involves scanning the environment for activities and actions which may impact upon the organization.

(2) The action-reflection subsystem creates valued knowledge from the new information.

(3) The dissemination and diffusion element transfers the information among the subsystems.

(4) The meaning and memory component provides the foundation from which the other subsystems draw guidance and control. (pp. 370-371)

Schwandt (1995) reminds us that "these learning systems are not independent. Dysfunction in one learning subsystem will jeopardize the effectiveness of the whole system. Each learning subsystem requires inputs from the other subsystems" (p. 372). All four work together in an almost rhythmic fashion and when this works properly, organizational learning occurs.

Graham's Missing Persons Test

To determine whether organizational learning is really taking place, Graham (1994) refers to what he calls the "missing persons test". "Imagine replacing people in an organization with others who are equally as competent but ignorant of how the organization works. Then assess the level of skill in the execution of corporation tasks." (Graham, 1994.p. 447) If everything is running smoothly, that would indicate that there is long term memory in the organization and the processes it utilizes. Argyris and Schon (1978) would argue that if processes are embedded like this in organizational memory, then organizational learning has occurred. However, where Argyris and Schon, and Graham differ is in their perception of why it was embedded in the organizational memory. Argyris and Schon would say that the culture of the organization had evolved to a point where taking one person out of the picture would not really affect the end result. Graham would say it had less to do with culture and more to do with standardization of processes.

Graham (1994), promotes standardization of processes. In fact, he states that "standardization is not only good, but probably necessary in order for learning to occur" (p.458). This is a contrast to what Senge and others have said about learning organizations. In a learning organization, creativity is encouraged and new ways of doing things are advocated. The type of organization Graham talks of could possibly do just the opposite. Too much standardization stifles creativity.

Also, if an organization is over-standardized, it is less likely that it will react well to changing circumstances. It would cause the organization to become rigid and inflexible. On this point then, Graham seems to differ. Authors such as Anderson (1992), Bass (1985), Casey (1993), Harris (1989), Kline and Saunders (1993), and Senge (1990), all rebuff too much standardization. Kline and Saunders (1993) for example devote an entire chapter on the importance of making the workplace safe for thinking. Most authors agree that while in any organization some standardization is necessary, too much standardization discourages thinking.

Kline and Saunders (1993) make reference to the absence of practice in organizational learning: "On the soccer field or in the art room, you work for hours, days, weeks, months and years to improve your skill, developing a personal style and performance" (p. 34). In the organization, however, they argue, people rarely do that. They cite Dixon who makes this point using some interesting analogies:

> An orchestra or sports team must depend on the performance of the entire group, not just on isolated individuals, to succeed. Furthermore, the organization shares and preserves knowledge, skills, attitudes -- a culture -- even though individual members may come and go. Nevertheless, as individuals become functioning participants in the group, they internalize that culture and give it life. (p. 34)

If one uses Graham's "missing persons test" in the type of organization Dixon has described above, it would be evident that despite the fact that a person is missing, things go on, decisions are made and the organization lives on. It has learned to carry on, adapt, make decisions and to exist as an entity with or without any one specific individual.

Organizations as Living Organisms

This use of language suggests that organizations are in some manner, living organisms. Casey (1993) seems to think so and probes the implications this has:

> The very idea of an organization being able to learn does seem to postulate that organizations are in some sense living organisms -- unless we are using the word learn in any new way, and I do not think we are. I am personally excited about the promise held out by considering every organization as a living organism, with a unique organization psyche. If organizations could be considered as living organisms, in some ways more than the sum of their parts, would this not allow us to tap into a body of knowledge which has already been worked out to help other organisms (individuals, pairs, families and groups) to change and grow? (p. 88)

Casey's argument is very much in line with what others such as Kline and Saunders (1993), Argyris and Schon (1992), and Harshman and Phillips (1994) contend about organizational learning.

Other Definitions

Garvin (1994) points out, however, that agreement on the exact meaning of organizational learning is difficult to attain:

> Some for example believe that behavioural change is required for learning; others insist that new ways of thinking are enough. Some cite information processing as the mechanism through which learning takes place; others propose shared insights, organizational routines, even memory. (p. 3.65)

In this same article, Garvin (1994) refers to several definitions of organizational learning provided by a variety of sources as outlined in Table 10. Organizational learning theory concerns itself closely with the organization and how it responds to circumstances and issues that arise, despite the fact "that individuals may come and go" (Kline and Saunders, 1993. p. 34).

Common to all definitions is that organizational learning is seen as an activity, a process that goes on in a learning organization. As individuals are given "a workplace that is safe for thinking" (Kline and Saunders, 1993, p. 69), and a place where they can be creative in their approaches to work, a very unique culture develops which fosters this kind of support and freedom.

Table 10

Definitions of Organizational Learning

"Organizational learning means the process of improving actions through better knowledge and understanding" Fiol and Lyles (as cited in Garvin, 1994)
"An entity learns if, through its processing of information, the range of its potential behaviours is changed" Huber (as cited in Garvin, 1994)
"Organizations are seen as learning by encoding inferences from history into routines that guide behaviour" Levitt and March (as cited in Garvin, 1994)
"Organizational learning is a process of detecting and correcting error" Argyris (as cited in Garvin, 1994)
"Organizational learning occurs through shared insights, knowledge and mental models, and builds on past knowledge and experience -- that is, on memory" Stata (as cited in Garvin, 1994)

In an organization where learning is occurring, one person can indeed leave and a new person replace him. However, the practices and beliefs of all those in such an organization remains the same. In essence, the culture of the organization will still support the desires of the second person to be creative and innovative. The organization has learned that this type of freedom enhances the skills and attitudes of employees and the organization will react much more effectively to change. So, organizational learning is an activity that is always ongoing. The organization learns what is required for its individual members to be at their best.

In comparison, a traditional bureaucracy is characterized by rigid hierarchies and chains of command. Is there much organizational learning going on in a bureaucracy? Are members encouraged to be creative and take risks? Are new and improved methods of doing things advocated? One's immediate response might be no. There is a tremendous amount of what Graham (1994) refers to as standardization and there much importance attached to conforming to these standards. His research reveals that these organizations usually respond to change very poorly, and adapt very slowly. All bureaucracies are not necessarily quite this rigid. It depends on many factors such as the nature of the work, the size of the organization, and the extent to which its leaders have been bureaucratically socialized. Even in large rigid organizations there are usually pockets of activity where learning organization practices are employed, at least to the extent that the rules will allow. In fact, Senge suggests that in large organizations initially, there may be "no other alternative to these learning pockets" (P. Senge, personal communication, 1996). It is evident that organizational learning is very much a process. Argyris and Schon (1978) tie organizational learning into the process of change and adapting. They state that it is the process of detecting and correcting errors. This perspective focuses on an genuine change in behaviour. The organization actually alters the way it reacts.

Others such as Huber (as cited in Garvin, 1994) perceive organizational learning in a slightly different light. Huber believes that as long as "the range of potential behaviour changes" then organizational learning has occurred. He argues that it does not matter whether the organization displays any tangible shift in practices. The important factor is that the knowledge is there in the organizational memory if the leaders decide to use it.

Garvin (1994) appears to agree with Argyris (as cited in Garvin, 1994) and argues the point:

> Whatever the source of new ideas, these ideas are the trigger for organizational improvement. But they cannot by themselves create a learning organization. Without accompanying changes in the way that work gets done, only the potential for improvement exists. (p. 3.65)

Garvin (1994) stipulates the necessity of visible change and in doing so, he rules out some who may consider their organizations to be learning organizations. Many he says, fail to qualify if there is no improvement in performance. For him, detectable change is necessary for organizational learning to occur.

Dixon (1993) emphasizes the need for organizational learning and in doing so, also illustrates her belief that visible change is required.

> For organizations in the 1990's, learning makes the critical difference. Through learning, organizations adapt to environmental constraints, and avoid the repetition of past mistakes. Unfortunately, too many organizations fail to adapt to customer needs and do not improve their processes to meet rising competitive standards. (p. 1)

Without a change in the processes, Dixon feels there is no organizational learning.

Thompson (1994) also makes a very clear case for the need for real change in order to say that there is organizational learning occurring.

> The purpose of organizational learning and the acquisition of organizational knowledge is to provide the foundation for rapid, dramatic organizational change; increasingly the fundamental requirement for organizational success. (p. 85)

Thompson makes a strong connection between learning and change, and states clearly his belief that the whole purpose of organizational learning is to provide the skills and knowledge necessary to bring about change.

In summary, organizational learning is a process and there is very strong support for the position that a concrete change in behaviour or practice is in fact necessary in order to verify that organizational learning has occurred. Argyris and Schon (1978), Casey (1993), Dixon (1993), Fiol and Lyles (as cited in Garvin, 1994), Garvin (1994), Kline and Saunders (1993), Levitt and March (as cited in Garvin, 1994), Senge (1990) and Thompson (1994) all link successful organizational learning to visible and concrete change.

Defining the Learning Organization

While this research has discovered that many authors use the terms interchangeably, it has also illustrated that organizational learning is a cognitive process directly linked to visible change in behaviour or at least the potential for visible change in behaviour. When talking of "the learning organization" however, virtually all of the authors seemed to be talking of an ideal -- a state of being to strive for. To build a definition of a learning organization, it is necessary to explore the various definitions that exist.

Although they acknowledge it is difficult to define, Bennett and O'Brien (1995) offer the following definition:

> It is an organization that has woven a continuous and enhanced capacity to learn, adapt and change into its culture. Its values, policies, practices, systems and structures support and accelerate learning for all employees. (p. 3.79)

Bennett and O'Brien include many of the concepts explained by Senge (1990) throughout his work such as the continuous nature of learning, the adaptability, structures and systems requirements. Nayak, Garvin, Maira, and Bragar (1995) offer a very similar definition:

> Learning organizations are those that are particularly adept at the processes that support continuous learning and productive change. This approach engages employees' hearts and minds in continuous, harmonious, productive change designed to achieve results they genuinely care about and that the organization's stakeholders want. (p. 15)

Both definitions touch on many of the concepts proclaimed by

Senge (1990), such as continuous learning, change, harmony, authenticity, and the need to engage employees.

Swieringa and Wierdsma (1992) emphasize the adaptive nature of the learning organization in their definition:

> Learning organizations are those that have mastered the art of adapting quickly on the one hand and preserving their own direction and identity on the other. They are not only capable of learning, but also of learning to learn. In other words they are not only able to become competent, but also to remain competent. (p. 71)

According to this definition, organizations remain competitive under changing demands and circumstances by learning that is "initiated and controlled by existing or anticipated problems" (Swieringa and Wierdsma, 1992, p. 73). In more traditional organizations, problems are seen as something to be avoided; in learning organizations, they are seen as possible indicators of needed change.

Kiefer (1995) brings into his definition, the element of leadership. He sees learning organizations as those "in which leaders must be deeply involved in designing systems and structures that promote the easy and efficient translation of human creative energy into collective results" (p. 92). He places much of the responsibility for creating and maintaining a learning organization, squarely on the shoulders of the leader.

So too does Rolls (1995):

> A learning organization is a place where, through learning, people are continually re-perceiving their world and their relationship to it, discovering how they create their reality and their future. A learning organization adapts a willingness to identify and challenge its existing paradigms, valuing output and the skills necessary to yield that output, rewarding the thinking not just the doing, eliciting input and commitment to the vision, values and performance expectations from employees at all levels, providing opportunity for growth, accepting and encouraging mistakes. It makes use of the learning of its individual members, encourages and rewards widespread and spontaneous learning. It engenders open debate and questioning to remain flexible in the long term. (p. 103)

This definition illustrates many of the principles that the learning organization is based upon. Like Kiefer (1995), Rolls (1995) places the assignment of duties involved here in the hands of the leader: "The leader of a learning organization has to create the conditions in which employees have the supporting psychodynamics and infrastructure that allows then to move from 'change-fragile' to 'change-agile' " (p. 103).

In The Fifth Discipline Fieldbook, Roberts, Ross and Kleiner (1994) provide an extensive list of characteristics. They state that in a learning organization:

(1) People feel they are doing something that matters -- to them personally, and to the larger world.

(2) Every individual in the organization is somehow stretching, growing or enhancing his capacity to create.

(3) People are more intelligent together than they are apart. If you want something really creative done, ask a team to do it -- instead of sending one person off to do it on his or her own.

(4) The organization continually becomes more aware of its underlying knowledge base -- particularly the store of tacit, unarticulated knowledge in the hearts and minds of employees.

(5) Visions of the direction of the enterprise emerge from all levels. The responsibility of top management is to

manage the process whereby new emerging visions become shared visions.

(6) Employees are invited to learn what is going on at every level of the organization, so they can understand how their actions influence others.

(7) People feel free to inquire about each other's (and their own) assumptions and biases. There are few (if any) sacred cows or undiscussable subjects.

(8) People treat each other as colleagues. There is a mutual respect and trust in the way they talk to each other, and work together, no matter what their positions may be.

(9) People feel free to try experiments, take risks, and openly assess the results. No one is killed for making a mistake.

(Roberts, Ross, and Kleiner, 1994, p. 51).

This list of characteristics of the learning organization is clearly reflective of the influence of Senge (1990). It emphasizes team learning, open-ness, mutual respect, and building shared visions. Senge also talks of challenging mental models, both our own and those of the people around us. Similarly, this list indicates the need for people to question their assumptions and biases.

In Ten Steps to a Learning Organization, Kline and Saunders (1993) outline specific steps to follow in building a learning organization. In doing so, they depict many of the characteristics of a learning organization:

(1) People can feel the same way they do at home. They can enjoy working with people and being creative. They can have a sense of teamwork and accomplishment (p. 11).
(2) Mistakes are viewed as stepping stones to continuous learning, and essential to further business growth (p. 17).
(3) There is continual permission and incentive for everyone in the organization to think well and benefit from the thinking of others (p. 77).
(4) Leaders encourage bold thinking, while providing the feedback necessary to improve it (p. 88).
(5) A shared vision, created through synergy rather than consensus, integrates the contribution of everyone into a new, much richer possibility than any individual or small group could have achieved alone (p. 160).
(6) There is a belief that everyone is of equal importance (p. 132).
(7) Anything that happens is the result of many different causes interacting among themselves (p. 209).

In the learning organization Kline and Saunders (1993) envision, thinking is encouraged, mistakes are okay, vision is shared, everyone is equal, and occurrences are multi-causal. This is all analogous to the picture that Senge paints for us in The Fifth Discipline. Also, Kline and Saunders make reference to a point also emphasized by Rolls (1995) that "we are moving toward whole-self integration with no separate selves for work and personal lives" (p. 107). Similarly, Kline and Saunders state that in a learning organization, people can feel the same way they do at home. In the type of organization they envision, people can be themselves and not feel they have to present themselves in a different manner at work than they would at home.

In a similar fashion, Marshall, Mobley and Calvert (1995) outline many of the characteristics they feel comprise a learning organization. They state that in such an organization:

(1) People are aligned around a single purpose or vision, one can often see the resistance to learning melt away (p. 116).

(2) Effective teamwork requires greater sharing of information, exploring other perspectives and options and greater diversity in approaches (p. 121).

(3) The process of dialogue explores issues from the base of their assumptions and allows underlying beliefs to be surfaced, prior to decision-making (p. 121).

(4) Learning does not stop when action is taken. Rather that is when learning begins (p. 122).

Table 17 provides a synthesis of thought on the learning organization.

Table 11

The Learning Organization : A Synthesis of Thought

The Members:
- are encouraged to take risks
- feel their work is valued
- are always increasing their capacity to learn
- have an important role in decision making
- feel free to inquire about others assumptions
- treat everyone with respect and trust
- question their own assumptions
- believe that everyone in the organization is equal
- work and learn as teams
- share information and new ideas
- engage in dialogue
- look upon change as an opportunity
- are creative and innovative
- develop clear personal visions
- feel free to be themselves at work
- are not reluctant to offer suggestions and opinions
- seek out learning opportunities
- decide what they need to learn

(table continues)

The Leaders: - are flexible and encourage employee input - recognize employees for their efforts - treat employees with respect and dignity - assume an equal relationship - enjoy working in a flatter more egalitarian organization - share power equally - have employees who work with them and not for them - encourage risk taking - see mistakes as stepping stones to be evaluated and utilized - anticipate, encourage and even look forward to change - trust employees - allow employees to make their own decisions on how work is best done - work as team members - are authentic in their relationships with employees - have no "hidden" agendas - operate in an open and honest environment - provide feedback to employees - maintain that occurrences are multi-causal - encourage personal and work life integration - share information about the organization with all employees - understand the culture of the organization - are able to let go of old myths - are more relaxed - are less threatened - provide challenging jobs for employees - encourage practice at work
The Activities: - experimentation with new approaches - continuous learning by both employees and leaders - information sharing - constant refinement and adaptation of approaches - ongoing opportunities for development and enhancement of skills - continuing and open communication and dialogue - constant evaluation and exchange of ideas - measurement of processes, progress and results - discouragement of internal competition

(<u>table continues</u>)

The Reasons:
- deal more effectively with increased pace of change
- adapt to the changing nature of work
- build superior performance
- build a non-threatening workplace characterized by innovation, creativity and resourcefulness
- more fully utilize the diversity of skills that exist
- make organizations more competitive in the marketplace
- adapt to customer needs
- avoid decline
- engage in community
- energize the workforce
- provide a playground for creative ideas
- provide a safe place to take risks
- illustrate that employees are valued
- improve quality
- empower employees
- thrive rather than survive
- provide a healthy environment for employees to work in
- ensure continuous improvement through continuous learning
- provide people the hope that things can be better
- encourage employees to share insights

From this, one can define the learning organization as an organization characterized by experimentation and innovation, trust, mutual respect, dialogue, authenticity, equality, and teamwork. As a result, it evolves into an organization in which people are continually re-examining assumptions about old ways, learning about new ones, and working toward a vision developed and shared by all members.

Conclusion

Is there a difference between organizational learning and the learning organization? This research has shown that many use the two terms interchangeably. There are differences however. Argyris and Schon (1978), Fiol and Lyles (as cited in Garvin, 1994), Harshman and Phillips (1994), Huber (as cited in Garvin, 1994), and Levitt and March (as cited in Garvin, 1994), argue that organizational learning is closely linked to the behaviours that change in an organization as it adapts to a changing environment. In doing so, they emphasize an activity or process. This is what organizational learning entails. "It involves the detection and correction of error" (Argyris and Schon, 1978, p. 2).

The learning organization on the other hand, is an ideal to strive for. It is what evolves when certain conditions are met and certain activities occur. The first stage in Figure 2 below illustrates the development of an atmosphere which is conducive to learning. It requires a host of attributes such as trust, dialogue, open-ness, and authenticity, which combine to establish an environment in which organizational learning can occur. Various authors discussed throughout this chapter have included such terminology in their discussions. If a workplace is characterized by recognition and support, an employee is likely to try new ways of doing things. They will experiment, refine, and adapt. They will in essence, learn. Consequently, organizational learning is the process that logically follows establishment of these aforementioned conditions. The learning organization is the goal towards which one continually strives, a result of organizational learning. Figure 2 illustrates this process.

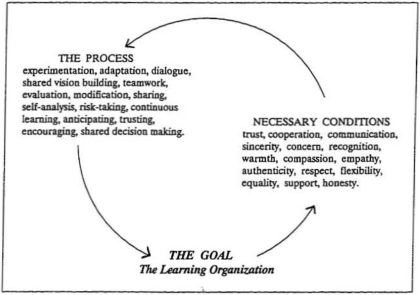


Figure 2. Development of a Learning Organization

Organizational learning is a process by which events are evaluated and processes are adapted. When organizational learning occurs, behaviours change and events are embedded in organizational memory for future reference. When such a state exists, the atmosphere that is created is much more conducive to trust, cooperation and all of the necessary conditions referred to.

This chapter has attempted to illustrate both the differences and the relationship between organizational learning and the learning organization. While organizational learning has been referred to as a process, the learning organization is not an end. As Senge (1990) states, we never really arrive in our quest for personal mastery. However, the learning organization is the goal towards which organizations constantly strive. The process, as illustrated in Figure 2 is cyclical. Organizational learning leads to the creation of a learning organization. However even after it has become a learning organization, the degree of organizational learning that is occurring, increases. An organization in which this process is cyclical and continual, and is nurtured and encouraged, is called the learning organization.

CHAPTER 4

The Learning Organization

This chapter provides an extensive review of the available literature on the learning organization in order to generate a comprehensive set of principles. The work of Senge (1990) will provide the framework using his five disciplines as the major headings. In the discussion of each, there will be an inclusion of ideas from other theorists and writers and a critical analysis and summary of the ideas.

The Influence of Senge

Most of the authors referenced in this study have written their material since the publication of Senge's The Fifth Discipline in 1990. They had been exposed to the ideas and thoughts expressed by Senge and in many cases, this is acknowledged. For example, Kline and Saunders (1993) in Ten Steps to a Learning Organization state:

> At about that time, we both read Peter Senge's influential and widely admired book, The Fifth Discipline, which developed the notion of a learning organization. We also noted that many who had read Senge's book seemed to want more specific information about

how to build a learning organization. (p. 12)

The influence of Senge (1990) throughout this book is obvious.

In The Fifth Discipline Fieldbook, Senge is one of the five co-authors. His influence is very evident in all of the articles written. While it is a compilation of writings from a whole host of authors, most of the major contributors are, and have been associated with Senge for some time. Regarding one of the authors, Charlotte Roberts, Senge writes, "Charlotte and I have probably co-led more 'Leadership and Mastery' workshops than any other team" (Senge, Kleiner, Roberts, Ross, and Smith, 1994, p. xii). He goes on to say of another one of the authors, that "Rick Ross and I have worked together for ten years, engaging in regular dialogue about the nature of learning in organizations for most of that time" (p. xii). Given these close working relationships, the influence of Senge's ideas in this book are understandable.

Bennet and O'Brien (1995), in their description of the building of a learning organization, also acknowledge the impact of Senge's work. "Massachusetts Institute of Technology Professor Peter M. Senge, author of The Fifth Discipline and a leading organizational learning theorist, emphasizes the principle of creative tension" (p. 3.76).

A whole host of other writers acknowledge the contribution and the influence that Senge has had on:

- leadership
- the learning process
- dialogue and the communication process
- values

Writers such as Bennett and Brown (1994), Brown (1994), Dixon (1993), Marshall, Mobley and Calvert (1995), Murphy (1994), Rolls (1995) and Shipka (1995) have all acknowledged in their work, the impact Senge has had. His work has been used by these and others, as a benchmark against which they develop new opinions and perspectives.

Not all the discussion though, that followed the publication of The Fifth Discipline has been positive. Garvin (1994) offers some commentary that is more critical of Senge's ideas than most. He sees Senge's promotion of the five disciplines as too vague:

> Sound idyllic? Absolutely. Desirable? Without question. But does it provide a framework for action? Hardly. The recommendations are far too abstract, and too many questions remain unanswered. (Garvin, 1994, p. 3.64)

Garvin does not disagree with the concept, he feels it is desirable. However, he does feel that it is far too removed from the basic, pragmatic concerns in an organization and he questions its real world applicability.

> How for example will managers know when their companies have become learning organizations? What concrete changes in behaviour are required? What policies and programs must be in place? Most discussions of the learning organizations finesse these issues. Their focus is high philosophy and grand themes, sweeping metaphors rather than the gritty details of practice. (Garvin, 1994, p. 3.64)

Nonetheless, the influence and impact of Senge on those that have written about organizational learning since 1990 is far-reaching. With the litany of writers using Senge's work as the benchmark against which they develop their own theories, this is obvious.

Since its appearance in 1990 then, Senge's The Fifth Discipline, with its focus on the learning organization, has become a major influence on organizational theory. The organization he promotes is, in many ways, a direct contrast to the rigid hierarchy and strict set of rules, regulations and roles, which often characterize the bureaucracy. Senge's learning organization outlines five disciplines that Senge contends are required or necessary . Those disciplines are personal mastery, mental models, shared visions, team learning and systems thinking. Each builds upon the other and provides a distinctive interrelationship.

Personal Mastery

Senge (1990) defines personal mastery as "a special level of proficiency in every aspect of life - personal and professional" (p. 142). There is a dual aspect here since this definition is not restricted to a person's work life. Rather, it encompasses the much broader spectrum of experiences that make up one's life. "Practising the virtues of life and business success are not only compatible, but enrich one another. This is a far cry from the traditional 'morals of the marketplace'" (Senge, 1990, p. 144). This dual aspect, this blending of personal and professional lives, is characteristic of a learning organization. In discussing the problems traditional bureaucracies face, Pinchot (1994) agrees with Senge that the typical relationships that exist in bureaucracies must be "replaced by strong whole-person relationships" (p. 37). This thought is also echoed by Rolls (1995):

> We are moving toward whole self-integration with no separate selves for work and personal lives. The new leader supports an intimacy

> that believes in disclosing true selves in an environment of nurturance and acceptance. As people seek heightened authenticity, compassion, wholeness, and meaning outside of work, their newfound growth and expectations will come to work with them. We need to provide workplaces that nourish and foster personal and organizational change. We need to discover how deeper meaning can be accessed in our worklives. (p. 107)

Senge(1990) suggests that personal mastery is not a set of skills that a person possesses. Rather, it is an attitude, a lifelong commitment to being open to change and engaging in an incessant strive to learn more, in both one's personal and professional life. "People with a high level of personal mastery live in a continual learning mode. They never arrive" (p. 142). This type of continuous learning requires a deep commitment and certain characteristics which nurture the learning spirit and help embed the attribute deep in our personality.

> One attribute of true learning is a sense of curiosity and wonder. A second is an experience of openness to new possibilities. A third is that the process of finding the answer is more important than having an

> answer. Finally, it is necessary to have an approach to one's environment characterized by experimentation: accessing information, analysing that information, and looking for new connections and relationships. (Thompson, 1995. p.86)

This, Thompson (1995) reminds us is how very young children become extraordinarily good at learning. Their sense of wonder, curiosity and experimentation leads them to a rapid pace of learning. In a few short years the quantity of what they learn is almost inconceivable. Handy (1995) also makes the reference to children. "Watch a small child learning. The questions are endless, the curiosity insatiable" (p. 47). People who have a high degree of personal mastery have maintained much of this curiosity and wonderment.

However, this characteristic is not as common perhaps as it should be. Many people do not maintain this inquisitiveness characteristic of children. Many appear to grow less curious and less willing to learn. If we compare the learning that goes on in a daycare centre full of two-year old children, with many organizations, there is simply no comparison. More learning is occurring at the daycare centre. Not all organizations should be stereotyped as places where little learning occurs. Many are very successful at fostering a climate where true learning takes place. However a bureaucratic organization is often characterized by poor learning practices. Swieringa and Wierdsma (1992) highlights the risks associated with learning in a bureaucracy.

> Initiative and testing new ideas predictably lead to errors; you learn from doing and the mistakes are experiences which can increase the effectiveness of learning. In bureaucracies however, mistakes are often better remembered than successful initiatives. This makes avoiding mistakes a much more sensible way of obtaining a good appraisal report than showing initiative. Passivity and thus freedom from error show up better than a spirit of enterprise with the inevitable failures. (p. 58)

In a bureaucracy, innovativeness carries with it the risk of making mistakes, and mistakes have negative consequences. How does this impact on Senge's discipline of personal mastery? For those working in a rigid bureaucracy that encourages conformity to old standards and discourages innovation, attaining a high level of personal mastery certainly becomes a very formidable task.

There are other aspects to the risk element. As stated, there are risks associated with making a mistake in a bureaucracy and there are consequences for doing so. There are also other risks. Working in a bureaucratic system where learning is not a dominant feature of the culture, one's confidence can be affected. For an individual, "learning can involve feeling frustrated or appearing stupid. The universal risk-reward ratio applies to learning: the higher the risk, the greater the reward, and vice versa" (Marshall, Mobley and Calvert, 1995, p.119). Risk then, is an inescapable companion to learning. So, rather than accept these risks, many choose a safer and more secure option. This option is readily available in a bureaucracy. Senge's point is that people who have a high degree of personal mastery are willing to accept these risks.

In order for individuals to accept these risks though, they must have a vision of what they want to achieve. This becomes the motivating force. "Vision is a specific destination, a concrete picture of a desired future" (Senge, 1990, p. 149). Many people do not have a specific vision of what they want, but as Senge (1990) states, when asked, they will usually state what they want to get rid of. Having a clear vision is of the utmost importance in developing personal mastery. "Personal visions pull us toward self-development, self-fulfilment, and self-regulation which increases our contribution in the workplace" (Anderson, 1995, p. 67). When visions are articulate and unclouded, it becomes much easier for individuals to develop a shared vision in an organization. The discipline of shared visions will be discussed later.

Senge (1990) emphasizes the critical importance of individuals knowing what is important to them, and "continually focusing and refocusing on what one truly wants, on one's visions" (Senge, 1990, p. 148). The gap between one's vision and one's current reality formulates what he calls creative tension. This creative tension is very significant.

> The principle of creative tension is the central principle of personal mastery, integrating all elements of the discipline. Yet it is widely misunderstood. For example, tension suggests anxiety or stress. But creative tension doesn't feel any particular way. It is the force that comes into play at the moment we acknowledge a vision that is at odds with our current reality. (Senge, 1990, p. 150)

While it is true that we must have a clear vision, it is equally true that we must also be very aware of our current realities. "An accurate, insightful view of current reality is as important as a clear vision" (Senge, 1990, p. 155). Both the vision and the reality involve a certain degree of self-assessment. Individuals need a clear, accurate and honest picture of their current realities. When they get to that stage, they realize that in order to make their vision a reality, they must change their lives.

> You have assimilated the vision not just consciously, but unconsciously, at a level where it changes more of the behaviour.You have a sense of deliberate patience -- with yourself and the world, and are more attentive to what is going on around you. This produces a sustained sense of energy and enthusiasm which produces some tangible results. (Senge, Kleiner, Roberts, Ross and Smith, 1994, p. 195)

Individuals who have a high degree of personal mastery then, also have a sharply focused and accurate picture of their current realities, their personal vision, and the extent and nature of the gap between the two. This makes the tasks at hand less burdensome, Senge contends.

Senge (1990) makes constant reference to the fact that personal mastery is ongoing and that people never really arrive. It is not a goal which can be set with a deadline attached or one that can be forgotten once accomplished. It is a lifelong process and requires a high degree of self assessment, values clarification and constant focusing and refocusing. "Mastery of creative tension brings out a capacity for perseverance and patience" (Senge, 1990, p. 154).

Hodgkinson (1988), though, reminds us that this type of mindset is not common today. He refers to the "tyranny of the urgent" and states that "there is no time allowed for reflection" (p. 25). Senge (1990) also notes this in discussing mastery of creative tension by pointing out the differences between American and Japanese business people. It illustrates two very different attitudes toward time:

> The American arrive in Japan on a tight, carefully planned five day schedule and immediately wants to get to work. Instead the Japanese greet them with a polite, formal tea ceremony, never getting down to nuts and bolts. As the days go by, the Japanese keep their slow pace, while the Americans become anstier and anstier. For the American, time is the enemy. For the Japanese, time is an ally. (Senge, 1990, p. 154)

How one views time can be a major factor in maintaining a healthy level of creative tension and developing one's personal mastery. Thompson (1995) states:

> Perhaps the greatest difficulty in becoming a true learning organization is that we live in an age of instant gratification. To change the fundamental paradigm an individual or group operates from is to fundamentally re-orient an

> individual or group to learning. Given the attitudes and behaviour that have been molded into them, and the conditions that surround them in an organization, this is no overnight task. It takes years. As a culture, we are not used to thinking in these terms; rather, we think in terms of this month, next quarter or the current year. (Thompson, 1995, p. 97)

People with personal mastery have high levels of patience and perseverance, and are willing to make the commitment that is required. Table 12 provides a summary of the main requirements for this discipline.

Table 12

Requirements for Personal Mastery

- an integration of personal and professional lives
- a lifelong commitment to being open to change
- the maintenance of a high degree of curiosity
- the ability to take risks and experiment
- a sharply focused picture of current reality
- an examination of one's values
- high levels of patience and perseverance

Mental Models

Senge (1990) describes mental models as "deeply engrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action" (p. 8). These are the set of reference points upon which actions are determined, and are usually the product of years of observation, analysis and internalization. Kreutzer (1995) defines them as "a map, a picture of the territory. We live in our own interior worlds, in the worlds of our own experience, in our individual versions of reality" (p. 232).

Mental models are very significant in today's organizations. How one sees the world and interacts with it is molded by the individuals perceptions and values. Individuals perceive events differently, hence everyone has a different set of mental models. This can potentially cause much dissention in the workplace.

> My observation of conversations in business, political, and social settings is that people spend an inordinate amount of energy asserting and debating which position is right or wrong. Such thinking is not only destructive but flawed, we always see the world through a particular filter or lens or what Peter Senge calls mental models (Murphy, 1995, p. 205).

Politics is one arena in which to observe this phenomenon. Openly and often publicly, politicians disagree, which illustrates quite clearly, what happens when two very different mental models collide. That however, does not mean that one should not have beliefs and uphold them.

> The important question is not whether something is right or wrong, but is it helpful for the purpose at hand. Such a small shift in thinking could greatly ease the way to creating a much more productive and much more human world. It would certainly go a long way towards removing some of the more serious barriers to learning and to creating learning organizations (Murphy, 1994, p. 205).

Senge (1990) states that because of this type of disagreement in organizations, often good ideas never get put into practice: "More specifically, new insights fail to get put into practice because they conflict with deeply held internal images of how the world works, images that limit us to familiar ways of thinking and acting" (p. 174). Conner (1993) provides a very interesting account of how Thomas Edison in 1879 dealt with the negative reaction he knew his invention would face.

> Edison perceived that there would be a negative initial reaction to his device simply

> because it was so foreign to most people's frames of reference. To dampen the shock of his radical innovation, he designed the new lights to resemble as closely as possible, the gas lights of the period in appearance and intensity. When people first saw Edison's display, they detected little that was different than they were accustomed to. (p. 101)

While he did not call them mental models, Edison knew what the perceptions of the people at the time were, and he also knew of the tremendous strength of these beliefs and perceptions. By being so astute, Edison created a set of circumstances for people to easily assimilate the change.

It is important to be cognizant of the fact that in organizational life, there exists a wide variety of mental models. Whether they are right or wrong is less important than recognizing they exist and factoring this into the decision making processes.

It is also important to keep one's own mental models open to change. They must be adaptable. Murphy (1994) emphasizes this need for flexibility. "I learned that even one's deepest beliefs can only be approximations and interpretations and are therefore best kept open to constant examination and adjustment, or even outright change" (p. 205). Weintraub

(1994) also links mental model flexibility to the pursuit of mastery: "As individuals in the pursuit of personal mastery, we must challenge our unique mental models, and the assumptions upon which they rest, in order to move closer to our personal visions" (p. 419). Senge (1990) also illustrates the need for self examination, change and adjustment. He refers to the Detroit automakers who assumed that all people cared about was style. Meanwhile, Japanese carmakers were promoting not only style but also quality. Detroit had made too many assumptions.

> Because they remained unaware of their mental models, the models remained unexamined. Because they were unexamined, the models remained unchanged. As the world changed, a gap widened between Detroit's mental models and reality, leading to counterproductive actions. As the Detroit automakers demonstrated, entire industries can develop chronic misfits between mental models and reality. (p. 176)

Mental models says Senge, must be examined. They cannot be shelved and forgotten. They must be constantly open to scrutiny, adjustment or change as environmental conditions vary. In bureaucracies however, senior management have very rigid mental models which are not easily altered. They have clear, strong perceptions of how they feel the organization should work, what their role, and the role of the employee is.

It may be difficult for such bureaucracies to challenge mental models and be open to innovative changes. Kline and Saunders (1993) elaborate on this. "Many organizations still prefer to hire warm bodies who show up on time, do what they are told and don't rock the boat, rather than seek honest and necessary improvements" (Kline and Saunders, 1993, p. 71). There can be many reasons managers might not encourage innovation. Kline and Saunders(1993) cite several.

- threat of losing their authority
- fear that they will lose their jobs
- threat to their ego
- concern they will be left out of the development process
- cynicism that they have been through this before (p. 73).

Such fears are found in large bureaucratic structures such as government. Many honestly believe that bureaucracy is the most organized, orderly way to get things done, and these mental models are often deeply engrained. Kline and Saunders (1993) illustrate how this stifles creativity and discourages thinking.

> Everyone knows stories of innovative thinkers who were ignored or fired by their employers

> and went off to begin brilliantly successful businesses. Much less famous, but unfortunately much more common, are the innumerable people who have given up pursuing their good ideas -- or given up bothering to think at all on the job (p. 69).

No one mental model is ever complete, nor is it absolutely correct. Similarly no two are ever identical. The individuality of mental models accounts for the varying behaviour exhibited in organizations.

> A significant part of organization is thus in people's minds, and it is the images of reality stored up in these minds which determine behaviour. One reason for the occurrence of discrepancies between desired and actual behaviour in an organization is that the images people have of their organization are always incomplete and often quite different (Swieringa and Wierdsma, 1992, P. 16).

Argyris and Schon (1978), agree with this.

> Each member of the organization constructs his or her own representation or image, of the theory-in-use of the whole. That picture is always incomplete. The organization members

> strive continually to complete it and to understand themselves in the context of the organization. (p.16)

Harris (1989) also talks of behaviour in the workplace and what dictates it. Behaviour he says, is governed by the unique images that people have stored in their minds, as referred to above by Agyris and Schon (1978) and Swieringa and Wierdsma (1992). "Each of us lives within our own life space, which is as unique as a fingerprint" (Harris, 1989, p. 32). Harris points to the individuality and singularity of the images and perceptions that people hold. He also refers to the fact that many of these images are in fact, deeply embedded in memory: "Although originally a course of behaviour may have been a conscious choice, over a period of time, people may act unconscious of the forces in the past or the culture that dictated their behaviour" (p. 34). These actions are based on what Senge (1990) calls our mental models. Often, mental models can inhibit one from doing better, and should therefore be constantly examined. "The discipline of working with these mental models starts with turning the mirror inward; learning to unearth our internal pictures of the world, to bring them to the surface and hold them rigorously to scrutiny" (Senge, 1990, p. 9). Table 13 summarizes many of the key issues surrounding mental models.

Table 13

Mental Models

Mental Models:
- are deeply engrained assumptions and generalizations
- are the product of years of observation, analysis, and internalization
- must be flexible, adaptable and open to change
- must be constantly open to scrutiny and evaluation
- are very individual -- no two are alike
- can inhibit one from doing better
- can be an obstacle in dealing effectively with change

Shared Vision

"The Cheshire Cat reminded Alice, while in Wonderland, that if you do not know where you are going, either path will do" (Loew, Triner, and Watkins, 1996, p. 1). Senge's third discipline is a reminder that the same can be said of organizations, that organizations must know exactly where they are going and how to get there -- a clear vision. "Once upon a time a vision came from flaming flora, today the leader builds the vision from experience, education and by asking the troops" (Loew, Triner, and Watkins, 1996, p. 1). Building a vision is difficult without the active involvement, participation and commitment of all employees.

Senge (1990) describes shared vision as vision which is shared among all of the stakeholders in the organization: "A shared vision is a vision that many people are committed to, because it reflects their own personal vision" (p. 206). It is not one person's vision of where the organization is headed. It is not a case of salesmanship or trying to attract others in the organization to the vision that has already been developed. Rather, others are already attracted to it because of sharing in its development. They are committed to it because it is their vision as opposed to a vision.

> Vision is truly shared when you and I have a similar picture and are committed to one another having it, not just to each of us, individually having it. When people truly share a vision they are connected, bound together by a common aspiration. Shared visions derive their power from a common caring. In fact, we have to come to believe that one of the reasons people seek to build shared visions is their desire to be connected in an important undertaking. (Senge, 1990, p. 206)

Senge presents us with a concept of vision building that is quite different from more traditional models. Other models such as Peters and Austin (1985) focus more on an individual, or small group of individuals, developing a clear vision for an organization, and then convincing others to buy in to what they have developed. Peters and Austin (1985) talk of the importance of having a vision, but it is based on this concept of "develop and sell". They talk of a company called Recognition Equipment and how vision played a central role in turning their company around.

> The leader has to have a vision of where he plans to take the company, and he has to be able to dramatize that vision for his organization. If there is one role the CEO should play, it is that of chief salesman. Too often the chief executive hesitates to get up and perform the role of cheer leader. (Peters and Austin, 1985, p. 285)

This model of vision building is quite different from Senge's highly participative paradigm. Many might say that Peters' model seems to imply subordination and hierarchy, that it does not acknowledge the valuable contributions employees can make. Mintzberg (1994) has a rather different view on the role of the CEO. He feels that the CEO should not be deeply involved in the process but a designer of it in the general sense. He or she should be a value-adding participant in the procedure.

Senge's learning organization supports Mintzberg's more balanced approach. It is based on sharing, participation, equality and also valuing, respecting and encouraging the contributions of everyone in the organization from all levels. However, in developing a shared vision, Senge (1990) acknowledges the importance of personal vision. "Organizations intent on building shared visions continually encourage members to develop their visions. If people don't have their own vision, all they can do is sign up for someone else's" (p. 211). The development of everyone's personal vision is important, and not just the individual at the peak of the pyramid. Senge refers to the powerful synergy that develops when people with a strong sense of personal direction come together to create a shared vision. Kline and Saunders (1993) agree with Senge stating the critical importance of this synergy that develops.

> A shared vision created through synergy rather than consensus integrates the contribution of everyone into a new, much richer possibility than any individual or small group could have achieved alone. This synergistic process will take any group beyond what a particular person, working alone, would be capable of. Through the magic of synthesizing its ideas to

> a level of complexity and richness no one had previously thought of, the group may rise beyond the capacity of its individuals to something original, unique and powerful (Kline and Saunders, 1993, p. 160).

The Value of Sharing in Vision Building

Coming together to work on a shared vision, one that all can be committed to, forces people to look at underlying assumptions and values. It forces them to challenge mental models. "With a shared vision, we are more likely to expose our ways of thinking, give up deeply held views, and recognize personal and organizational shortcomings" (Senge, 1990, p. 209). Shipka (1994) concurs with Senge on this function of developing the shared vision. "In our quest to generate common vision, we will become clearer about our assumptions and values" (p. 149). The process then will inevitably teach participants something about themselves, make them more acutely aware of what is important, and the process will give birth to new perspectives and fresh outlooks. In an organizational climate characterized by constant change, self-assessment and adaptability are crucial.

Building shared visions creates a workplace where everyone is committed to a common goal. "Without a pull toward some goal which people truly want to achieve, the forces in support of the status quo can be overwhelming" (Senge, 1990, p. 209). This is characteristic of bureaucracies where there is always pressure to stay within a clearly marked set of parameters. However, when people agree on what they want to achieve and are committed, there is less discord in the organization. Everyone has had a role to play in building the vision upon which decisions are now based, and energies that were previously wasted on conflict can now be redirected. "An agreed upon vision may contribute to a significant reduction in the level of organizational conflict if the vision establishes a set of superordinate goals that can re-channel that conflict in useful directions" (Bryson, 1988, p. 189).

This view maintains that shared visions breathe new life and excitement into organizations. In a time when restraint and downsizing are the norm, motivation is often cited as one of the major problems for managers. However as Bryson (1988) states, a clear vision can alleviate this:

> An inspiring vision of success can supply another source of motivation: a calling. If a vision of success becomes a calling, an enormous amount of individual energy and dedication can be released in pursuit of a forceful vision focused on a better future. (p. 188)

Senge (1990) also refers to the inspirational effect of vision: "Visions are exhilarating. They create the spark, the excitement that lifts an organization out of the mundane" (p. 209). This can be critical in working toward a learning organization. Like Senge, Thompson (1995) states that one of the principles of a learning organization is to create "a compelling vision that people feel part of and excited by" (p. 97).

Steward (1993) also points to the value of participation in the vision process. "Through participation, people become committed to the vision and want to bring it to life" (p. 93). He goes further:

> The value of participation goes beyond ensuring that all angles are considered and beyond developing a commitment to action. Participation also develops alignment by spreading the knowledge of the background of the vision, of its uncertainties and compromises, and of the values that underlie it and are more fundamental than the vision itself. (p. 93)

Steward sees the participative visioning process as one through which all parties come to a clear understanding of how it came to be. They are more cognizant of what Senge calls the personal visions that existed and how they fused to form the shared vision. Steward also points to the importance of the underlying values that exist in the organization and says they are more fundamental than the vision itself. Participation and sharing lead to this understanding.

Shared visions also enhance the team element in an organization. In a learning organization, working and learning together effectively is very important in all of the disciplines Senge (1990) promotes: "A shared vision is the first step in allowing people to begin to work together. It creates a common identity" (p. 208). People begin to look upon the organization as their organization and they begin to assume some form of ownership. Steward (1993) agrees that the participative approach is directly correlated to the degree of understanding and respect that exists: "The participants begin to develop an understanding of and a respect for each other's knowledge and a more coherent team view of the threats and opportunities of the future" (p. 94).

Shared visions also have a tremendous impact on organizations that are trying to make the transition from the traditional bureaucracy to what Pinchot (1993) calls the intelligent organization. Shared visions can release vast storehouses of energy. Senge (1990) tells of one executive vice president who deeply desired to make this transformation. One of the problems this executive highlighted however, was that after a year, there was still little difference -- people continued to follow orders and do what they were told.

> At this point in time he began to see the depth of the problem. People in his organization had never been asked to commit to anything in their careers. All they had ever been asked to do was be compliant. That was all they knew how to do. That was their only mental model. No matter what he said about developing a real vision, about being truly committed, it didn't matter because they heard it within their model of compliance. (p. 222)

This is a consequence of bureaucratization. In a bureaucracy, one rapidly learns to abide by the rules and follow orders. Hoy and Miskel (1991) refer to this as bureaucratic socialization. This socialization can be deeply engrained, as was evidenced in this case. People utilize only a small percentage of their actual abilities and are encouraged to continue to do so. "Bureaucracy is a system that achieves coordination by confining people so narrowly that there is no chance for most to use a broad range of talents" (Pinchot, 1994, p. 19).

When people see that the organization is truly committed to change, it can unleash a previously untapped source of energy. This energy takes its form in motivation, innovation, creativity and commitment. Bureaucratized employees must often witness proof of commitment before they themselves believe real change is possible. Senge (1990) discusses a similar case and tells us that "over time, they began to see that true commitment was possible, and a new ear for the vision was opened" (p. 222). This points to the fact that in order for shared vision building to occur, "a leader must live the vision in spoken words and action" (Loew, Triner and Watkins, 1996, p.2). Commitment must be visible. Table 14 summarizes many of the key points regarding shared visions.

Table 14

Shared Visions

Shared Visions:
- force us to assess and clarify our values
- challenge our mental models
- lead to enlightened approaches
- reduce conflict in an organization
- spark excitement and motivation
- ensure commitment
- result in a better understanding of the values of all members of the organization
- require and enhance teamwork
- unleash new reservoirs of innovation and creativity

Team Learning

Senge (1990) defines team learning as "the process of aligning and developing the capacity of a team to create the results members truly desire" (p. 236). He sees the concept of team learning as the logical and necessary follow-up to other disciplines in creating a learning organization.

> It builds on the discipline of developing shared vision. It also builds on personal mastery, for talented teams are made up of talented individuals. But shared vision and talent are not enough. The world is full of talented individuals who share a vision for a while, yet fail to learn. The great jazz ensemble has talent and a shared vision, but what really matters is that the musicians know how to play together. (p. 236)

Senge (1990), therefore, sees an unmistakable interdependence between the disciplines. He links team learning to shared vision by specifying that they are working toward what members truly desire. He also states that "unless teams can learn, organizations cannot learn" (p. 10). The essence of organizational learning depends on team learning, which depends on a shared vision, which in turn is linked to personal mastery. One builds upon the next to develop a culture in which true learning occurs. There is a relationship between all these elements and also with systems thinking (which will be explored in the next section).

Vogt (1994) explains team learning as an element necessary for organizational learning to occur. He sees team learning as an important element in what he refers to as the DNA of business learning: "Team learning is the art of establishing trust, framing motivating questions, and engaging in the generation of new perspectives through the art of dialogue" (Vogt, 1994, p. 296). He relates this team learning to two other concepts:

- Coaching: the art of observing, asking questions, and designing effective interventions.
- Desktop Learning : the practice of learning through interactive multimedia experiences designed to accommodate various learning styles and engage the learners' attention.

Vogt's definition, while probably not as broad as Senge's, does illustrate the existence of interrelationships. Both insinuate that team learning cannot occur in isolation. It is not an activity that can be segregated from other activities. Rather, it is one of several elements that are required in order for true learning to occur in an organization. Both Senge and Vogt see team learning as part of a larger "whole" picture of how organizations live and learn.

Many organizations offer extensive training and development programs in attempts to provide situations where learning can occur. Swieringa and Wierdsma (1992) point out that more is required.

> Obviously, an organization can only learn because its individual members learn. Without individual learning, there can be no question of organizational learning. On the other hand, an organization has not automatically learned when individuals within it have learned something. Individual learning is a necessary but not a sufficient condition for organizational learning. (p. 33)

Swieringa reminds us that organizational learning implies changing organizational behaviour. "Mutual behaviour change depends upon mutual learning" (Swieringa and Wierdsma, 1992, p. 33). In order for organizational learning to occur, mutual or team learning must occur. This is analogous to Senge's perspective on how organizations learn, and illustrates the critical nature of team learning. Both see it as a requirement for organizational learning. Organizational learning is necessary for altering organizational behaviour, and altering organizational behaviour is imperative in coping with and successfully managing change. Team learning is an important link in the chain of events that must occur if an organization is to become a flexible, adaptive and learning organization.

Similarly, Dixon (1993) also illustrates the process of organizational learning by linking the various types of learning that occur: "Organizational learning is the outcome of three overlapping spheres of activity -- individual learning, team learning, and system learning" (Dixon, 1993, p. 3). Also, like Swieringa, she notes the importance of an organization being able to learn in order to cope with a constant onslaught of change: "Organizational learning relates to the organization's ability to transform itself on a continuous basis in response to changing conditions" (p. 2).

In this discussion around defining team learning, it is important not to confuse team learning with team building. While it may sound like team building, team learning focuses on the actual learning activity within the group as opposed to the development of the group processes. "Team building is of course important in any group process. But team learning focuses on what the team actually learns, both on an individual basis and as a whole" (Dixon, 1993, p. 6).

The Importance of Alignment

In his discussion on team learning, Senge (1990) identifies the need for members of the team to be "aligned". By this, Senge means that all members of the team must function as one cohesive unit, as a whole. They must be headed in the same direction and their energies must be focused and parallel: "Otherwise, individuals may work extraordinarily hard, but their efforts do not efficiently translate into team effort" (Senge, 1990, p. 234). The energies of all the individuals must be harmonized and blended to create a truly effective effort as a team. When this happens, there is less wasted energy. Senge also notes that aligning those energies must be done in a manner that cannot be construed as condescending. Everyone feels that their opinions are valid and expects them to be heard. Kline and Saunders (1993) maintain that the manner in which opinions are harmonized and the group is aligned will play a predominant role in the success of the team: "Do not forget that people who feel valued are far more likely to give their best efforts to the group than those who do not" (p. 125).

Dialogue and Discussion

"Learning springs from the wealth of communication in the team's collaborations within itself" (Pinchot, 1994, p. 68). Effective communication is critical to the team learning process. "The interplay between participants as they propose new strategies and explain their reasoning, helps them to surface and clarify assumptions" (Kim, 1994, p. 361). However critical it may be, effective communication is not always present. Consequently, the team is not very productive and does not perform as well as it should.

Senge (1990) states that there are basically two types of discourse: dialogue and discussion. He draws much of his commentary from the ideas expressed by David Bohm, a leading contemporary physicist: "Both dialogue and discussion are important to a team capable of generative learning, but their power lies in their synergy which is not likely to be present when the distinctions between them are not appreciated" (p. 240). It is important then to recognize the differences between the two.

> In dialogue, there is the free and creative exploration of complex and subtle issues, a deep listening to one another and suspending of one's views. By contrast, in discussion different views are presented and defended and there is a search for the best view to support decisions that must be made at this time. Dialogue and discussion are potentially complementary, but most teams lack the ability to distinguish between the two and to move consciously between them. (Senge, 1990, p. 237)

Dialogue connotes real listening skills and valuing the opinions and feelings of others on the team. Bohm, Factor & Garrat (1996) define it: "It is a kind of collective inquiry not only into the content of what each of us say, think and feel but also into the underlying motivations, assumptions, and beliefs that lead us to so do" (p. 1). The purpose of dialogue according to this definition, is to examine each other's assumptions and mental models surrounding an issue, with a view to enhancing the communication in a group. It assumes that participants will be open to accept the diverse points of view which may emerge and examine them in relation to the reasoning and rationale behind those perspectives. By the same token, "team members must also be willing to hold their opinions as hypotheses to be tested" (Dixon, 1993. p. 7). A great deal can be learned both by trying to understand the reasoning behind another's viewpoint, and also by explaining one's reasoning to the team so that they too, can understand the rationale behind the position. Team learning can be greatly augmented by dialogue. Dixon (1993) says that under optimal conditions, participants in a dialogue would:

- have accurate and complete information
- be free from coercion
- be able to weigh evidence and assess arguments objectively
- be open to alternative perspectives

- be able to reflect critically upon presuppositions
- have equal opportunity to participate, including the chance to challenge, question, refute, and reflect
- be able to accept an informed, objective, rational consensus as a legitimate test of validity

Dialogue also relates to the concept of alignment as referred to earlier. Isaacs (1994) describes how David Bohm uses a physics analogy to illustrate this concept.

> Electrons cooled to a very low temperature flow around obstacles without colliding into one another. At high temperatures however, they act like separate parts scattering into random movement. Particularly around tough issues, people act more like separate high temperature electrons. They collide and move at cross purposes. Dialogue seeks to produce a cooler shared environment, by refocusing the group's shared attention. (p. 360)

Dialogue aligns or re-focuses the efforts of the group and steers them in the same direction. It creates a more cohesive team and encourages the discovery of meanings behind individual ideas. "In dialogue the intention is exploration, discovery and insight. Along the path, the group may in fact come to a meeting of the minds and reach some agreement -- but that is not their primary purpose in coming together" (Ross, 1994, p. 386). Dialogue does though, create an arena in which true change can occur, "it opens paths to change and clears space for organizational transformation by changing the inner landscape" (Brown, 1994, p. 157). It makes everyone more acutely aware of the logic and rationale behind other's perspectives, and makes way for real understanding.

By contrast, discussion focuses on winning. "You might occasionally accept part of another's point of view in order to strengthen your own, but you fundamentally want your view to prevail" (Senge, 1990, p. 240). In discussion, participants are inherently convinced that their views are correct, and there is little interest in listening to others' views or in attempting to understand. This form of communication centres around trying to hammer out an agreement, or have one's opinion prevail.

Senge points out that many teams have discussions, but not dialogue. "The word discussion comes from the same root as percussion and concussion and suggests the pounding home of ideas in a confrontational manner" (Dixon, 1993, p. 6). That does not mean discussion is not necessary. Discussion is not only useful but is actually necessary. Dialogue, as we have already said, focuses on examining the motivation and assumptions of those in the group. However, this activity alone will not contribute to the day-to-day decision making processes which must continue in an organization. "On the basis of a commonly agreed analysis, alternative views need to be weighed and a preferred view selected. When they are productive, discussions converge on a solution or a course of action" (Senge, 1990, p. 247). The primary difference then, between dialogue and discussion is that discussion usually focuses on emerging with an agreed upon course of action, whereas dialogue can be more complex examining underlying issues and motivations. Ross (1994) refers to skilful discussions. "In skilful discussion, the team intends to come to some sort of closure -- either to make a decision, reach agreement or identify priorities" (Ross, 1994, p. 386). Both dialogue and discussion serve very useful functions in team learning. They are interdependent. Dialogue with no discussion, would be pointless and decisions would never get made. Discussions without dialogue on the other hand, would not allow open, frank communication and would inhibit the development of a learning organization.

> A learning team masters movement back and forth between dialogue and discussion. A unique relationship develops among team members who enter into dialogue regularly. They develop a deep trust that cannot help but carry over into discussions and they develop a richer understanding of the uniqueness of each person's point of view. (Senge, 1990, p. 247)

This type of activity epitomizes what occurs in a learning organization.

How does the bureaucracy deal with dialogue and discussion? Many would argue that because of the structure, there is little discussion or dialogue. Rather as Pinchot (1994) points out, bureaucracies such as government are characterized by hierarchical chains of command, "Each boss and subboss in this chain of command is given an absolute monopoly of power over a task or function, and held accountable for it" (p. 23). Consequently, decisions are often made in an authoritarian manner with opportunity for neither discussion nor dialogue.

Defensive Routines

In many organizations, productive discussion and dialogue are often met with resistance, hence team learning often does not occur. "This resistance is what Chris Argyris calls defensive routines, habitual ways of interacting that protect us and others from threat or embarrassment, but which also prevent us from learning" (Senge, 1990, p. 237). Often in a bureaucratic structure, managers believe they should have all the right answers. In such a system, some feel that it may be perceived as a sign of weakness or lack of ability to admit that they did not have the right answer to a question or problem.

> In response, many of us have developed defences that have become second nature -- like working out our problems in isolation, always displaying our best face in public, and never saying "I don't know." The price we pay is enormous. In fact we become masters of what Argyris calls "skilled incompetence", skilled at protecting ourselves from the threat and pain that come with learning, but also remaining incompetent and blinded to our incompetence. (Koffman and Senge, 1994, p. 20)

If managers are to become more open and accepting of their own ignorance, they need to be more inquisitive, they must overcome the fear of asking questions. Ryan (1994) sees this as vital in the overall process of creating learning organizations.

> Perhaps our habits of communicating have become a kind of prison for us. Our "skilled incompetency" in asking questions maintains the very defences that we need to eliminate if we are to learn together. In the absence of questions exchanged in genuine curiosity, our ability to generate shared insights and meaning is undermined. (p. 288)

Ryan argues that such defense mechanisms have become second nature to many. Often it is done without even thinking. This leads to habitually rejecting the ideas of others either because there is a lack of understanding and a failure to admit ignorance or unfamiliarity. Argyris (as cited in Senge, 1990) explains that some members of the organization may feel threatened by ideas that may be perceived as more creative and innovative than their own:

> The source of defence routines is not belief in our views or desire to preserve social relations, but rather a fear of exposing the thinking that lies behind our views. For most of us, exposing our reasoning is threatening because we are afraid people will find errors in it. (Senge, 1990, p. 250)

This perceived threat Senge (1990) argues, starts very early in life, "In school, remember the trauma of being called on and not having the right answer -- and later in work" (p. 250).

Whatever the underlying reason for this defensive behaviour, when it occurs many good ideas never come into fruition. In addition, it frequently has a damaging effect on others. "Some people can be spurred on by rejection to greater persistence and effort. But most of us are persuaded by rejection to shut up the creativity department" (Kline and

Saunders, 1993, p. 77). The result is that in such situations, organizations do not learn and consequently never realize their full potential. The impact of defence mechanisms is far reaching.

These defence mechanisms are exhibited in a number of ways. In the bureaucracy they are common. The structured, authoritarian system requires unquestioning compliance. Employees simply do not question a "no". However in many cases, the signs are more subliminal:

> Rarely do bosses in tradition-bound organizations actually have to say "no" directly to a subordinates idea. A few well placed frowns or eyebrow raises, some pregnant pauses, a reiteration of the real assignment, and citation of accumulated years of company wisdom can be enough to make it clear to people that new ideas are not welcome. (Kanter, 1981, p. 69)

When something is so deeply engrained in the paradigms, mannerisms and actions of individuals, it becomes very difficult to change. Response is often automatic, with little thought given to exactly what is being said or the impact it may have. Casey (1993) argues that it is important to be more vigilant, "The skill of being constantly aware of self is important" (p. 41). In this way a more proactive approach can be utilized in recognizing defence routines. "Overcoming the tendency to greet other people's new ideas with a knee-jerk negative response is a skill that must be learned" (Kline and Saunders, 1993, p. 76). Importantly, this skill can be learned. Creating an atmosphere characterized by the dialogue referred to by Bohm, Factor and Garrat (1996) and Senge (1990), means individuals in organizations must overcome their defence routines and be open to change: "We cannot enter into mutuality of dialogue while maintaining defensive and reactive postures. It requires humility, softening our certainties, and allowing ourselves to learn and change in the company of one another" (Bennett and Brown, 1994, p. 179). Table 15 reviews the characteristics ofeffective team learning.

Table 15

Team Learning

Team Learning:
- involves aligning and developing the capacity of a team to create the results members truly desire
- builds on shared visions and personal mastery
- is required for organizational learning to occur
- is distinct from team building
- requires dialogue and discussion among team members
- requires overcoming defensive routines
- must occur if the organization is to become adaptable

Systems Thinking

Senge's final discipline is systems thinking, which builds upon the first four.

> That is why systems thinking is the fifth discipline. It is the discipline that integrates the disciplines, fusing them into a coherent body of theory and practice. It keeps them from being separate gimmicks or the latest organizational change fads. By enhancing each of the other disciplines, it continually reminds us that the whole can exceed the sum of its parts. (Senge, 1990, p. 12).

Systems thinking requires that individuals view the world as a whole rather than a set of small separate pieces. Senge (1990) says that it is the "conceptual cornerstone that underlies all of the five learning disciplines, and it is the cornerstone of how learning organizations think about their world" (Senge, 1990, p. 69). In an organization, it illustrates a more thorough view of how things work. This section examines the thoughts of Senge on systems thinking, and supports his ideas by drawing on the views of other contemporaries such as Gauthier (1994) Kline and Saunders (1993), Kreutzer (1994), Pinchot (1994), Ryan (1994), and Wood (1994).

Senge emphasizes the concept of wholeness. In organizations, particularly bureaucracies such as government, issues are addressed in many ways. One approach seldom adopted however, is to examine issues and problems as a whole. Government is divided into departments, regions, divisions, sections and programs. Then, jobs are clearly divided into specific lists of duties and tasks. Such bureaucratic division makes it difficult to recognize the whole picture. Pinchot (1994) summarizes it in the following manner:

> Bureaucracy embraces reductionist thinking as its fundamental principle of organization: The world is divided into tiny pieces, each a speciality and so, not at all representative of the whole. Bureaucracy is based on the idea that if you perform each specialty professionally, the overall result will be good. (p. 280)

By contrast, "systems thinking is a discipline for seeing wholes. It is a framework for seeing interrelationships rather than things, for seeing patterns of change rather than static snapshots" (Senge, 1990, p. 68). The concept is based on the recognition of how the parts are dependent and related to one another. Pinchot (1994) says that "systems thinking teaches us that the whole is different from the sum of the parts"

(Pinchot, 1994, p. 282).

To be able to fully appreciate and indeed utilize this concept of "wholeness", there is a need to overcome this tendency to sequester and isolate everything, a tendency which leads to alienation, estrangement and disaffection for the things and people around us, as Albert Einstein pointed out so well:

> A human being is part of a whole called by us, universe, a part limited in time and space. We experience ourselves, our thoughts and feelings as something separate from the rest - a kind of optical delusion of our consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in it's beauty.
>
> \- Albert Einstein
>
> (cited in Ryan, 1994, p. 288).

Where do people learn this business of separating everything? How do they get to the stage as described so eloquently by Albert Einstein, where individuals create tiny bubbles in which they choose to live? Young children, as mentioned earlier, are magnificent learners: "They seem to be natural systems thinkers. They grow up in a world of interrelatedness, and their capacities to grasp the systems of their everyday lives are vital to their success" (Senge, 1995, p. 237). Children absorb and assimilate all the correct skills required to comprehend and vocalize a language, sometimes two. Those who have tried to learn a second language will appreciate that it is no easy task. "Many psychologists would argue that the most profound learning experience that any human being goes through in life is the mastery of natural language" (Senge, 1995, p. 238). Yet children learn it with an amazing speed. In addition, they master the dexterity of walking again with astonishing swiftness . If children are already adept in the art of systems thinking, it is difficult to understand how they so rapidly seem to lose the skill as they get older.

Senge (1995) argues that it all begins the day children enter the educational system.

> Put that same human being in a classroom five years later, and give them a test back with a big red circle that says "wrong." Do they suffer a profound psychological trauma?
> The fundamental drive of his or her life is

> learning, and that child's love of learning is now being replaced by a fear of making mistakes. (p. 238)

Senge (1995) argue that life then becomes a matter of trying to remember what others say is important and forgetting one's own intrinsic desires; that people learn to suppress whatever interests they have and place them second; that avoiding mistakes quickly takes precedence over interest and curiosity; and that education is about knowing and not learning (pp. 239-240). This process continues right through school and even into college and then work. Step by step, individuals are taught to believe that the world must be dissected into smaller more manageable "parts". Consequently by the time one enters an organization to begin working, there has already been 12-15 years of indoctrination in reductionist principles.

Changing this approach that many schools have accepted as the norm does not come easily. However it is possible. Evers (1994) suggests that all groups need to work together toward this goal: "Promote dialogue between parents, bureaucrats, administrators, teachers, students and government leaders. Schools which fail to open dialogue will find themselves giving in more and more to pressure groups" (Evers, 1994, p. 492). Evers sees the need to work on this together as a community to effect real change and movement, and points out that over the years one breakthrough has followed another with no emphasis placed on integrating different approaches and looking at the whole picture.

The Underlying Structures

One approach utilized by many managers is the quick fix. However, as Senge (1990) points out, quick fix solutions rarely work. He underscore the importance of looking at the whole system, the underlying structures. He presents systems thinking as "a philosophical alternative to the pervasive reductionism in Western culture -- the pursuit of simple answers to complex problems" (p. 185). Senge asserts that rarely are problems so straightforward that a hastily arrived upon course of action will address the issue in any long term manner. Usually, the same problem recurs shortly after. Kline and Saunders (1993) agree with Senge:

> Most of the time when something goes wrong, we run off in pursuit of the elusive quick fix. Because so many quick fixes really do work at least temporarily for specific problems, we tend to ignore what is still going on under the surface -- and may return to haunt us -- after the quick fix has been applied. (p. 209)

Instead of treating the immediate symptoms with a quick fix solution that has resulted from very little thought, Senge (1990) and others maintain that one really needs to examine the underlying structures in an organization in order to be able to make more realistic, long term decisions surrounding the issues.

In defining structures, Wood (1994) states that "in systems thinking, particularly as it relates to human activity systems or organizations, structure refers to what gives rise to form -- the underlying laws and principles" (p. 407). Ross, Roberts and Kleiner (1994) expand on this in their definition. They state that structure as it relates to systems thinking, refers to the following:

> The pattern of interrelationships among key components of the system. That might include the hierarchy and the process flows, but it also includes attitudes and perceptions, the quality of products, the way in which decisions are made, and hundreds of other factors. Structures in systems are not necessarily built consciously. They are built out of the choices people make, consciously and unconsciously over time. (p. 90)

Structures are the unique set of circumstances that exist within an organization which precipitate issues. "Underlying structures generate forces that give rise to the problem symptoms we, as managers, spend so much time trying to ameliorate" (Senge, 1995, p. 234). What is needed Senge argues, as opposed to the quick fix, is the ability to recognize and understand the structures that are underlying the issues.

However, structures are not detected easily in an organization. Wood (1994) provides us with a unique analogy. "Unfortunately these structures are not obvious. Discovering these structures is like a fish discovering it's in water. The fish doesn't know it's in water until it's thrown out" (p. 407). He recognizes that changing these underlying structures is very difficult, noting that often people think they are changing structures, but unless there is a fundamental shift in the way people think in an organization, then the effort will be flawed. "Regardless the amount of change, unless the thinking involved in the system is developed or evolved, the underlying structure including the mind, remains unchanged" (p. 407). However difficult it may be to recognize these structures and effectively change them, Wood argues that it is still essential to do so. Otherwise one is still treating the symptoms and not really addressing the structural problems, which are at the root of the issue.

Senge (1995) also illustrates the difficulties in detecting underlying structures and refers to the tendency toward quick fixes. While quick fixes do work, it is usually only temporary. Senge highlights some very negative consequences of this:

> Over time, we "shift the burden". What was a one-time quick fix becomes a way of life; it becomes institutionalized. And, of course, the real tragedy is that the more the short-term fix works, the more it will continue to undermine our capacity for long-term improvement. Herein lies the insidiousness of shifting the burden -- the more effective the quick fix, the more dangerous it is. (p. 235)

These short-term approaches then, are perceived as being good solutions because they work. Consequently, they are encouraged and are repeated. Senge points out that in many organizations, these approaches are even rewarded. Individuals who effectively deal with a given situation by employing the short-term tactic, are perceived as people who are quick on their feet, able to make decisions and able to take swift and appropriate action. As a result, such people move around the system and up the ladder. By the time the effectiveness of these short term solutions expires, the person who originated the solution is now gone on to bigger and better things. Senge (1995) describes this very well:

> He has taken decisive action, but after a

> while, he' s going to have a new larger problem crashing down upon him. Of course if it takes three or four years for the dominoes to go around the circle, the person who took the original decisive action probably will have been promoted, and some other poor sucker is in his place. This illustrates the classic dilemma of problem-solving in complex systems. (p. 234)

In many cases fundamental problems are recognized but deliberately not addressed. "Such fundamental solutions are often more difficult to identify, take time to either implement or achieve their full consequences, or entail considerable uncertainty as to their effectiveness" (Senge, 1995, p. 235). As a result of this, there are more quick fixes and fewer fundamental solutions. The problem is even further compounded, argues Senge, because one's ability to identify the real issues and the underlying problems becomes somewhat blurred over time. In addition, even if the problem can still be identified, it becomes harder to act upon. "Over time, real cures will become harder to identify and implement. This is the classic long-term consequence of nonsystemic thinking -- the problems get worse and our ability to confront them weakens" (Senge, 1995, p. 237).

Simple solutions are rarely long lasting or effective because most problems are a result of a number of factors and genuine solutions must be comprehensive. Kline and Saunders (1993) explain:

> Anything that happens in an organization is the result of many different causes interacting among themselves. Often none of the individual causes is a bad thing -- it is simply that the events, people, structures or other factors that have come together do not interact in a desirable fashion. (p. 209)

It is a combination of conditions as opposed to one single factor, that creates a problem. One must have methods and tools in place by which we can learn to examine issues in a global fashion. The relationships that exist between the variables must be recognized. A method of doing this, described by Kreutzer (1994) is the causal loop diagram.

> One of the bread and butter tools in systems thinking is the causal loop diagram, a kind of visual map which allows you to see the big picture and the interrelationships among the key variables in a system. A causal loop diagram is a picture of the underlying systems structure which, from the point of view of systems thinking, is both the cause of system behaviour as well as the level of most

effective intervention. (p. 233)

The purpose of the causal loop diagram is to create a concrete and visible representation of the links between the variables, and to identify feedback loops, situations where when something is done to the system, it tends to circle back. These are the types of tools needed to cope more effectively with the complex issues. This is an age characterized by constant change, and Senge (1990) argues that we must think in terms of systems and inter-relationships, and not parts.

> Today, systems thinking is needed more than ever because we are becoming overwhelmed by complexity. Perhaps for the first time in history, humankind has the capacity to create more information than anyone can absorb, to foster far greater interdependency than anyone can manage, and to accelerate change far faster than anyone's ability to keep pace. (p. 69)

Coping successfully with complexity and change is critical. It is not however a new concern, as Conner (1992) notes:

> Social observer and author Alvin Toffler was the first to popularize a term that described the potentially debilitating effects of major change. In a summer 1965 article in Horizon

> magazine Toffler first coined the term "future shock". Essentially, future shock occurs when people are asked to absorb more disruption than they have the capacity to take in. (p. 50-51)

Times like these are creating this future shock for many. Consequently, it is important to be able to analyze situations, assess the underlying structures, and adopt a global approach to problem solving that will effectively deal with these complex issues that we encounter. Table 16 summarizes the discipline of systems thinking.

Table 16

Systems Thinking

Systems Thinking:
- involves looking at the interrelationships between the other disciplines
- examines patterns of change as opposed to static snapshots
- involves an examination of underlying structures
- examines all contributing factors, and not just the immediate cause
- involves a long term approach to problem solving
- involves examining underlying structures

To recapitulate then, Senge offers us five disciplines as described in this chapter. They are summarized in Table 17.

Table 17

Senge's Five Disciplines

Personal Mastery	An attitude, a lifelong commitment to being open to change and engaging in an incessant strive to learn more, in both your personal and professional lives.
Mental Models	Deeply engrained assumptions, generalizations, or even pictures or images that influence how we understand the world and how we take action.
Shared Vision	A vision that is shared among all the stakeholders and one in which all are committed to because it reflects their own personal vision.
Team Learning	The process of aligning and developing the capacity of a team to create the results members truly desire.
Systems Thinking	A concept of wholeness which fuses the other disciplines into a coherent body of theory and practice, and emphasizes the interrelationships that exist.

Chapter 5

Guidelines

The purpose of this chapter is to provide an overview of what has been said in this thesis regarding the development of learning organizations. In this thesis, much has been said about why some organizations do much better in the face of change, than others. Some organizations prosper, while others cannot even survive. One of the common elements of those that prosper, is that they create an atmosphere where true learning occurs, where individuals are encouraged to try new and innovative ways of doing things and are very creative. These organizations display characteristics which epitomize what Senge (1990) calls the learning organization.

One of the common elements underlying many organizations which struggle for survival is that they are often too rigid, too hierarchical, too bureaucratic. Many bureaucracies are very resistant to change, and those that try to cope, do so with great difficulty. This chapter outlines many of the realistic and practical steps that can transform a bureaucracy and make it more adaptable and successful.

A specific set of principles and guidelines will be presented which will provide concrete and specific examples of how those hoping to transform a bureaucracy, can begin the process. The transformation requires, as stated earlier, the development of a set of circumstances and an atmosphere which will be conducive to change. Embracing and implementing these principles and guidelines will set the stage for bureaucracies to change.

The modern organization, the bureaucracy, has enjoyed triumphant success in this century. In today's fast paced world though, the bureaucracy has become more known for its cumbersome nature, its rigid organization and its lack of flexibility -- all factors which can inhibit success. In fact, its very being is now in question. Pinchot (1994) addresses this.

> Despite all its successes, respect for bureaucracy is declining. As in so many other areas of life, what brought great success in the past has become the limitation of today. Suddenly everyone knows that bureaucracy is slowing us down and keeping our organizations internally focused and uncreative. It is time to question bureaucracy (p. 22).

One of the answers to the bureaucracy has been Senge's learning organization. This chapter will provide specific guidelines as to how the transformation can occur. The first statement in each item, **Principle** is a statement of a principle or requirement for the development of a learning organization derived from the literature review. Each principle is followed by a **Guideline** which provides specific behavioural patterns which are required of both leader and employee. Many of the principles are followed by a reference to the table (where applicable) upon which this principle is based. Each guideline is followed by a page reference which provides the reader with specific locations in this paper to do further reading.

The term "leader" in these principles and guidelines may refer to an immediate supervisor of a particular group of employees, or manager of a division or department.

The principles and guidelines are presented in a manner which does not sequence them. This is intentional because the sequence will be different for every organization and will depend on factors such as:

- the degree of bureaucracy in the organization.
- the flexibility of senior management in changing organizational structure.
- the commitment of leaders and employees to the change process.
- the size and geographical nature of the organization.
- the degree to which employees have been "bureaucratically socialized".

There is no one single prescription for organizations to utilize. The combination of guidelines which are employed will be different for each organization.

1. Principle: Organizational learning depends on an actual or potential change in behaviour.

   Guideline: Leaders must critically examine the previous experiences of the organization and be willing to make decisions which take into account those experiences. Actions must be based on what has been "learned" in the organization in the past. This may be a challenge because of the constant pressure to maintain the status quo. (p. 64)

2. Principle: The discoveries, inventions and evaluations must be embedded in organizational memory in order for organizational learning to occur. (Table 10)

Guideline: Employees must recognize the fact that there is organizational memory and leaders must utilize this when implementing various decision-making processes. They must draw upon the experiences of the past as well as the present when making decisions. (p. 52)

3. Principle: Organizational learning is very much dependent upon individual learning.

Guideline: In order to foster organizational learning, leaders must recognize that it cannot occur without individual learning. They must therefore encourage and support individual learning opportunities in the organization. Also, individual employees must seek out learning opportunities of all sorts. (p. 52)

4. Principle: In order for a learning organization to grow and develop, there must be a

recognition that in some cases, it may be necessary to make basic fundamental changes and shifts in the policies and programs that are in place.

Guideline: Those involved in learning in the decision-making role in the organization must acknowledge the short term effect of "quick fix" solutions and be willing to take a collective inquiry approach. They must look at the norms and structures that exist with a view to changing them if necessary. (pp. 53-54)

5. Principle: Learning organizations are more adept at recognizing warning signs in an organization. They are more proficient at identifying potential problems and dealing with them before they become major obstacles.

<u>Guideline:</u> Encouraging and developing team approaches and strong interrelationships creates a situation where the whole is more effective at seeing warning signs. Leaders should therefore work toward the development of cohesive work units or teams which are more effective as a group than any one individual could be. Employees must make deliberate attempts to work in teams wherever possible. (p. 58)

6. <u>Principle:</u> Dysfunction in one learning subsystem will jeopardize the effectiveness of the whole system. Each subsystem requires input from the other subsystems.

<u>Guideline:</u> Those involved in the learning processes in organizations must become proficient at scanning the environment for activities that may impact upon the organization. Being able to anticipate ongoing change leads to the development of more effective mechanisms to deal with it. Also, systems

must take advantage of the memory and meaning that other systems possess. (p. 60)

7. Principle: Learning is enhanced in organizations that "practice" various skills and styles. (Table 11)

Guideline: Front-line supervisors must encourage the practice of new skills learned, back on the job. When employees engage in learning activities there should be follow-up practice and support provided by the immediate supervisor. Supervisors must avoid the pressure to do things the way they have always been done. (p. 62-63)

8. Principle: Learning organizations are particularly competent at processes that support continuous learning and productive change. (Table 11)

<u>Guideline:</u> Employees have a responsibility to ensure that the goals they are striving for, they genuinely care about. This will ensure continuous learning and enhance the management of change. They must become a full stakeholder. (p. 70)

9. <u>Principle:</u> Learning organizations enhance the development of collective results. (Table 11)

<u>Guideline:</u> Leaders need to be deeply involved in designing systems and supports that promote the easy and efficient translation of human creative energy into collective results.

Employees also should provide input in the form of suggestions or recommendations on issues that would serve to develop systems which depended on collective efforts. (p. 71)

10. Principle: People are continually re-perceiving their world and their relationship to it. (Table 11)

Guideline: Employees in a learning organization must be constantly holding their mental models up for scrutiny and questioning and evaluating their assumptions and values at all times. They must be open to new ideas, approaches and philosophies. (p. 74)

11. Principle: In a learning organization, the thinking is rewarded and not just the doing. (Table 11)

Guideline: Employees must be willing to take on new approaches and leaders must be willing to encourage that. In the bureaucracy, there is often no reward for doing, and certainly no reward for thinking. Leaders must get past the idea that mistakes are wrong and must be avoided. Mistakes must be seen as learning opportunities and employees need to be more daring. (p. 65)

12. <u>Principle:</u> The learning organization engenders open debate and questioning. This causes it to remain flexible and adaptable. (Table 11)

<u>Guideline:</u> Employees must try to re-capture the curiosity and wonder of learning and questioning, and leaders must support open debate and dialogue on issues, with a view to adopting an approach less based on rigid hierarchies of authority. (p.72)

13. <u>Principle:</u> The learning organization is continually becoming more aware of its underlying knowledge base. (Table 11)

<u>Guideline:</u> Employees must feel free to express their points of view and also utilize the full range of skills they possess. Leaders must overcome the routine of assigning only one

specific responsibility to each employee and encourage the use of all of the employee's skills. In that way, they become more aware of the knowledge that exists in the hearts and minds of employees. (p. 73)

14. Principle: Visions of the direction of the enterprise emerge from all levels.

Guideline: Senior management must manage the process whereby new emerging visions become shared visions. This can become more of a reality if employees are made to feel their input is important, welcome and valued. (p. 73).

15. Principle: In the learning organization, people treat each other as colleagues as opposed to supervisor and subordinate. (Table 11)

Guideline: Both employees and leaders must make efforts to develop a mutual trust and respect in the way they interact. Efforts must be made on both sides to work together on issues. Both groups must embrace the changing workplace and aim for a more level playing field. Leaders must let go of traditional power bases and delegate and involve all staff in the decision making processes. (p. 74)

16. Principle: Problems in the learning organization are dealt with in new and innovative ways. Bold thinking is encouraged. (Table 11)

Guideline: Leaders must encourage such an approach in the employees, but must also be very careful to provide enough of the right kind of feedback. Employees who receive no feedback will not sense that their efforts are recognized. The wrong type of feedback will cause the employee to feel criticized or discouraged. Leaders should also practice "bold thinking" and innovation. (p. 75)

17: Principle: Initiatives which involve the efforts of everyone, present much richer possibilities than any one individual could have achieved. (Table 12)

Guideline: There must be a deliberate attempt to encourage teams in all aspects of the organization, and a recognition that synergy produces better results.
Group initiatives should become the norm rather than the exception. Leaders must overcome standard practices and encourage groups of employees to work together. (p. 75)

18. Principle: When people in an organization are aligned around a single purpose or vision, resistance to learning melts away.

Guideline: Leaders in the bureaucracy need to ensure that employees are aligned or focused in the same direction. This should be done in a manner with the greatest amount of employee involvement possible. Energies that are expended should be expended on trying to achieve a common goal. This can best be done by continually having people working "with" leaders as opposed to working "for" them. (p. 76)

19. <u>Principle</u>: Authenticity is a trait that is common in learning organizations. There are no hidden agendas and leaders are honest and open with employees. (Table 11)

<u>Guideline:</u> Both leaders and employees should say what they mean and mean what they say. A hint of deception or mistrust on either side can have a devastating effect. Therefore, both parties should be authentic and sincere in their interactions, and make conscious efforts to overcome the "us versus them" syndrome. (p.79)

20. Principle: Development of personal mastery require a high level of proficiency in both personal and professional life. (Table 12)

Guideline: Both leaders and employees must disclose their true selves in the workplace. They must seek wholeness and fulfilment both inside and outside the workplace and recognize that fulfilment in one's personal life carries over into fulfilment in one's work life.(p. 87-88)

21. Principle: Mistakes that occur in the workplace are experiences which lead to increased learning and enhanced performance of employees. (Table 12)

Guideline: Innovation must be encouraged and practised by leaders and followers in the organization. Leaders should both communicate and illustrate that there are no negative consequences associated with making errors and employees must be more assertive in presenting new methods of doing their work. (pp. 89-91)

22. Principle: In order for employees to accept the risks associated with mistakes, they must have a vision of what it is they want to achieve. (Table 12)

Guideline: Employees must be encouraged to assess what is important to them and constantly focus and re-focus on what they truly desire. Personal values clarification is necessary. In addition, they must be committed to making substantive changes to their life if necessary in order to achieve those goals. (pp. 91-92)

23. Principle: Achieving personal mastery is a lifelong process and requires a high degree of self-assessment and values clarification. (Table 12)

Guideline: Leaders must work toward developing patience and perseverance in employees and also emphasizing the importance of reflection and consideration on issues. This can be done by exercising and displaying patience and perseverance. Leaders set the tone for how departments work.

Emphasis must always be placed on the fact that one never really arrives in terms of personal mastery. It is a continual process. All employees and leaders must acknowledge the continual and unending process of learning. Both groups should seek out learning opportunities. (pp. 93-94)

24. Principle: Every individual in an organization perceives things differently, hence everyone has a different set of mental models. This has a direct impact on the efforts toward creating a learning

organizations. (Table 13)

<u>Guideline</u>: Both leaders and employees must recognize not only the fact they exist, but also the value of these diverse opinions, perceptions and attitudes that exist in the organization and learn to utilize them fully.

Both groups must learn to fully utilize these diverse perspectives to more effectively make decisions in the workplace. They must remember the importance of flexibility on issues and the need to become more aware of one's own mental models. (pp. 96-97)

25. <u>Principle</u>: Leaders and employees who question their own assumptions and are open to change, enhance the ability of the organization to adapt. (Table 12)

<u>Guideline</u>: Leaders and employees must engage in self examination, and also be willing to examine their own assumptions on issues with a view to changing their stance if circumstances require it. They must be flexible and versatile in their practices and approaches. (pp. 98-99)

26. <u>Principle</u>: Building a shared vision requires the active involvement, participation and commitment of all employees. (Table 14)

<u>Guideline</u>: Leaders must involve employees at every possible opportunity. They must tap into the wealth of experience that exists and develop a vision which is shared among staff at all levels. Leaders must also learn to respect and value this input and participation. (pp. 107-108)

Employees must also take a very pro-active stance in order to ensure their input is acknowledged.

27. Principle: Sharing in vision development results in people becoming more aware of their underlying assumptions and values. (Table 14)

Guideline: In the vision-building process employees must contribute fully. As they do so, they become more acutely aware of their own values and must then assess the impact these values have on the process. (p. 107)

28. Principle: Being more aware of one's values gives birth to fresh outlooks and perspectives.

Guideline: Leaders must encourage constant self assessment and personal growth in order to begin the process of breaking down the status quo. (p. 107)

29. Principle: Shared visions result in less conflict and discord in the organization. (Table 14)

Guideline: Energies that were previously wasted on conflict and disagreement should be re-focused in more useful directions that will bring the bureaucracy a step closer toward the ideal of the learning organization. (p. 108)

30. Principle: The process of working toward and building a shared vision, breathes new life and excitement into employees in an organization. It creates a sense of ownership. (Table 14)

Guideline: Leaders must recognize the value and strength of these shared visions and utilize them as a management tool, a motivational technique in times of downsizing, restraint and cutbacks. Employees should make all possible attempts to make their perspectives heard and input taken into account.(p. 108)

31. Principle: Working together on a vision for an organization enhances teamwork and builds stronger relationships among employees. (Table 14)

Guideline: Leaders must make attempts to recognize the value in teamwork and illustrate that by developing an understanding of and respect for each other's knowledge. Team efforts should be encouraged at every possible opportunity. Similarly, employees should work and learn together in teams as much as possible. (p. 110)

32. Principle: Shared visions have the effect of releasing vast storehouses of energy. Once employees are committed to the shared vision, leaders will discover new energies and enthusiasm that was previously untapped. (Table 14)

Guideline: Leaders must convince the employees of the commitment to sharing in the process. Employees who have been "bureaucratically socialized" will find it difficult to believe that they can have any real and significant input in their system. Employees must make efforts to seek commitment if it is not present and acknowledge and nurture it if there is. (pp. 110-111)

33. Principle: The amount of organizational learning that occurs is directly proportionate to the amount of team learning taking place. (Table 15)

Guideline: Leaders must make efforts to ensure that team learning is in fact occurring. This is a necessary pre- requisite for organizational learning. They must strive to adopt problem solving approaches that require teams to work and learn together. Employees must make use of the knowledge and expertise of their peers, and also be willing to offer advice and assistance at every opportunity. (pp. 113-114)

34. Principle: Team learning is an important link in the chain of events that must occur if an organization is to become flexible and adaptive. (Table 15)

Guideline: Bureaucracies too, have to cope with a constant onslaught of change that is thrust upon them. Leaders must recognize the role of team learning in developing a more adaptive organization and ensure that the processes and procedures that are utilized in responding to changing demands have a team learning element therein. (p. 115)

35. Principle: Team learning requires that the team be aligned. Members of a team must function as a whole. (Table 15)

Guideline: Leaders must also assume the role of monitor to ensure that members of the team are aligned and focused in one direction. This "aligning" must be done in a manner that is not seen as condescending. It is important to remember that those who give their best efforts are those who feel their opinion is valued. (pp. 116-117)

36. Principle: Both dialogue and discussion are required for learning to occur on a team. (Table 15)

Guideline: Leaders must recognize the difference between the two concepts, understand when one or the other should be employed and use the two interchangeably as circumstances dictate. (p. 117)

37. Principle: Dialogue contributes greatly to the development of circumstances which

augment true change. (Table 15)

<u>Guideline</u>: Team members must encourage and practice real listening and must value the opinions of others on the team. They must be ready to hold their own mental models up for scrutiny and be willing to explain the rationale behind them. This type of discourse will open paths to change and transformation. (p. 119)

38. <u>Principle</u>: The existence and employment of defensive routines can create barriers to learning in an organization. (Table 15)

<u>Guideline</u>: Leaders need to be more inquisitive and encourage employees to be. They must be more ready to admit they do not have all the answers and be more eager to explore issues together with employees, to foster the learning processes. (p. 123-125)

39. Principle: Effective learning in organizations depends upon treating problems and issues as a whole. (Table 16)

Guideline: Leaders and employees should recognize the numerous influences that both guide behaviour and cause problems and should adopt an approach that deals with wholes as opposed to parts. They must recognize the interrelationships that exist and take a systems approach to problem solving. (pp. 129-130)

40. Principle: In a learning organization, there is an examination of underlying structures when problem solving. (Table 16)

Guideline: Leaders must avoid the quick fix which rarely works for long. The underlying problems must be examined and addressed. The temptation to address complex problems with simple solutions must be overcome. Long term solutions depend entirely on addressing the root problems. (p. 133)

41. <u>Principle</u>: Issues or problems in organizations are usually multi-causal. Rarely is a problem the result of one single cause. (Table 16)

<u>Guideline</u>: Problem solvers in organizations must examine issues carefully with a view to discovering all of the possible causal factors and then examining the relationship between them. One method many use is the causal loop diagram which is basically a visual map illustrating all of the variables and the interrelationships between them. (p. 138)

42. <u>Principle</u>: Complexity, which is a common characteristic of today's organization, leads to a greater demand for a systems approach. (Table 16)

Guideline: Because of the complexity in organizations today, the speed at which change is occurring, and the explosion in knowledge and technology, leaders need to assess underlying structures and adopt global approaches to problem solving to lessen the impact of these circumstances. (p. 139)

Implications for Further Research

The focus of this study has been to conduct a comprehensive review of the literature with a view to developing a concise set of principles and guidelines designed to help bureaucracies move toward the concept of a learning organization.

A challenge for future research would be to examine various assessment techniques to employ in measuring their proximity to the ideal of a learning organization. Such a tool would provide the leader with an articulate view of where the organization is, and what types of beliefs and practices personify it. The process of developing an implementation plan of the principles and guidelines presented in this paper, would then be greatly enhanced. Assessing the organization is an essential and necessary step before transforming it into what has been defined and expounded upon in this thesis.

It has become apparent through the course of this paper, that there is a very intricate relationship between the principles outlined in this chapter. Further research in this area could examine this inter-relationship intensively. A close examination of the linkages between these principles would provide a sound understanding of requirements for a learning organization. It would also provide a clear perception of what unique combinations of principles should be employed in each specific organization.

References

Anderson, T.D. (1992). Transforming Leadership. Amherst, Massachusetts: Human Resource Development Press.

Argyris, C. and Schon, D.A. (1978). Organizational Learning: A Theory of Action Perspective. Massachusetts: Addisson-Wesley.

Argyris, C. (1977). Double Loop Learning in Organizations. Harvard Business Review, 55 (4), 115-125.

Bass, B. (1960). Leadership, Psychology, and Organizational Behavior. New York: Harper & Row.

Bass, B. (1981). Stogdill's Handbook of Leadership. New York: The Free Press.

Bass, B. (1985). Leadership and Performance Beyond Expectations. New York: The Free Press.

Bennett, J.K. and O'Brien, M.J. (1995). The Building Blocks of the Learning Organization. In R.B. Frantzreb,(Eds.) Training and Development Yearbook 1995 (pp. 3.78 - 3.84). New Jersey: Prentice Hall.

Bennet, S. and Brown, J. (1994). Mindshift: Strategic Dialogue for Breakthrough Thinking. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 167-185). Portland: Productivity Press.

Bennis, W. (1969). Why Leaders Can't Lead. New York: Jossey Bass.

Bennis, W. (1976). The Unconscious Conspiracy. New York: AMACOM.

Bohm, D., Factor, D., Garrat, P. (1996). Dialogue: A Proposal. [On-line]. Available: http://www.usa.net/~rievi/Bohm.html

Bolman, L.G. and Deal, T.E. (1984). Modern Approaches to Understanding and Managing Organizations. San Francisco: Jossey-Bass.

Brown, J. (1994). **Dialogue: Capacities and Stories.** In S. Chawla, and J. Renesch (Eds), Learning Organizations (pp. 153- 167). Portland: Productivity Press.

Bryson, J.M. (1988). Strategic Planning for Public and Nonprofit Organizations. San Francisco: Jossey-Bass.

Burns, J.M. (1978). Leadership. New York: Harper and Row.

Bushe, G.R. and Shani, A.B. (1991). Parallel Learning Structures. Massachusetts: Addison-Wesley.

Campbell, J.P. and Prichard, R.D. (1976). Motivational Theory in Industrial and Organizational Psychology. In Dunnette, M. (Ed.), Handbook of Industrial and Organizational Psychology. (pp. 86-102). New York: McGraw Hill.

Casey, D. (1993). Managing Learning in Organizations. Great Britain: St Edmundsbury Press.

Chawla, S. and Renesch, J. (1995). Learning Organizations. Portland: Productivity Press.

Conner, D.R. (1992). Managing at the Speed of Change. New York: Villard Books.

Deal, T.E. and Kennedy, A.A. (1982). Corporate Cultures. Massachusetts: Addison Wesley.

Deep, S.D. (1978). Human Relations in Management. Encino, California: Glencoe Publishing Company.

Delavigne, K.T. and Robertson, D. (1994). Deming's Profound Changes. Englewood Cliffs, N.J.: Prentice Hall.

Dixon, N. (1993). Organizational Learning. Ottawa, Ontario: Conference Board of Canada.

Duray, B. (1988). From Taylorism to Fordism. London, England: Free Associated Press.

Drucker, P. (1968). The Age of Discontinuity. New York: Harper and Row.

Drucker, P. (1970). Contributions to Business Enterprise. New York: New York University Press.

Economic Recovery Commission. (1994). At the Crossroads - The New Economy in Newfoundland and Labrador. St. John's: The Queen's Printer.

Evers, J. (1994). Changing the Schools: First Steps. In P. Senge, A. Kleiner, C. Roberts, R. Ross, and B. Smith (Eds), The Fifth Discipline Fieldbook (pp. 490-492). New York: Doubleday.

Follett, M.P. (1924). Power. In E.M. Fox and A.B. Urwick (Eds), Dynamic Administration : The Collected Papers of Mary Parker Follett (pp. 66-88). New York: Hippocrene Books.

Follett, M.P. (1925). The Giving of Orders. In E.M. Fox and A.B. Urwick (Eds), Dynamic Administration: The Collected Papers of Mary Parker Follett (pp. 21-42). New York: Hippocrene Books.

Fox, E.M. and Urwick, A.B. (1982). Dynamic Administration : The Collected Papers of Mary Parker Follett. New York: Hippocrene Books.

Franzreb, R.B. (1994). Training and Development Yearbook. New Jersey: Prentice Hall.

Garvin, D. (1994). Building a Learning Organization. In R.B. Frantzreb, Training and Development Yearbook (pp. 3.64 - 3.75). New Jersey: Prentice Hall.

Gauthier, A. (1994). The Challenge of Stewardship: Building Learning Organizations in Healthcare. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 385-403). Portland: Productivity Press.

Government of Newfoundland and Labrador. (1992). Change & Challenge - A Strategic Economic Plan for Newfoundland and Labrador. St. John's: The Queen's Printer.

Graham, A.K. (1994). Organizational Learning: Medical Metaphor and Corporate Practice. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 445-463). Portland: Productivity Press.

Handy, C. (1994). Managing the Dream. In S. Chawla and J. Renesch, (Eds), Learning Organizations (pp. 45-57). Portland: Productivity Press.

Hargreaves, A. (1994). Changing Teachers, Changing Times. Toronto: Ontario Institute for Studies in Education.

Hargreaves, A. (1991). Restructuring: Postmodernity and the Prospects for Educational Change. Toronto: Ontario Institute for Studies in Education.

Harris, P.R. (1989). High Performance Leadership - HRD Strategies for the New Work Culture. Amherst, Massachusetts: Human Resource Development Press.

Harshman, C.L. and Phillips, S.L. (1994). Teaming Up. San Diego: Pfieffer and Company.

Hayes, R.H., Wheelwright, S.C. and Clark, K.B. (1988). Dynamic Manufacturing - Creating the Learning Organization. New York: The Free Press.

Hodgkinson, C. (1988). The Value of Administrative Action. Journal of Educational Administration and Foundations, 3 (1), 20-29.

Hoy, W.K. and Miskel, C.G. (1991) Educational Administration. New York: McGraw-Hill.

Hlynka, D. and Yeaman, R.J. (1992). Postmodern Educational Technology (Eric Digest No. EDO-IR-92-5). Syracuse, NY: Eric Clearinghouse on Information Resources.

Isaacs, W. (1994). Dialogue. In P. Senge, A. Kleiner, C. Roberts, R. Ross, and B. Smith (Eds), The Fifth Discipline Fieldbook (pp. 357-364). New York: Doubleday.

Kanter, R.M. (1981). The Change Masters. New York: Simon & Schuster.

Kanter, R.M. (1995). Mastering Change. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 71-85). Oregon: Productivity Press.

Kellner, D. (1977). Postmodern Theory. [On-line]. Available: http://ccwf.cc.utexas.edu/kellner/pm/

Kiefer, C.F. (1995). Leadership and the Learning Organization. Prism, 87-96.

Kim, D.H. (1994). Managerial Practice Fields: Infrastructures of a Learning Organization. In S. Chawla, and J. Renesch (Eds), Learning Organizations (pp. 349-365). Portland: Productivity Press.

Kline, P. and Saunders, B. (1993). Ten Steps to a Learning Organization. Arlington, Virginia: Great Ocean Publishers.

Koffman, F. and Senge, P. (1994). Communities of Commitment: The Heart of Learning Organizations. In S. Chawla, and J. Renesch (Eds), Learning Organizations (pp. 15-45). Portland: Productivity Press.

Knight, C. (1995, June 5). Economies of Simplicity. The Canadian HR Reporter, 1, 3.

Kreutzer, David P. (1994). FASTbreak - A Facilitation Approach to Systems Thinking Breakthroughs. In S. Chawla, and J. Renesch, (Eds), Learning Organizations (pp. 229-243). Portland: Productivity Press.

Kreisberg, S. (1992). Transforming Power. Albany: State University of New York Press.

Lazerson, A. (1975). Psychology Today. New York: Random House.

Leavitt, H. and Dill, W. (1973). Organizational World. New York: Harcourt Brace Jovanovich.

Lilley, W. (1995, April). Royal Flush. The Globe and Mail Report on Business, 11, 42-44.

Loew, J., Triner, D. and Watkins, R.(1996). The Vision of a Leader. [On-line]. Available:http://www.fsu.edu/%7Erwatkins/article

Lyotard, J.F. (1984). The Postmodern Condition: A Report on Knowledge. Minneapolis: University of Minnesota Press.

Marris, P. (1986). Loss and Change. London: Routledge & Kegan Paul.

Marshall, L.J., Mobley, S., and Calvert, G. (1995). Why Smart Organizations Don't Learn. In S. Chawla, and J. Renesch (Eds), Learning Organizations (pp. 111-123). Portland: Productivity Press.

McGregor, D. (1957). The Human Side of Enterprise. New York: McGraw-Hill.

Mintzberg, H. (1994). The Rise and Fall of Strategic Planning. New York: The Free Press.

Murphy, K. (1995). Generative Coaching: A Surprising Learning Odyssey. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 197-217). Portland: Productivity Press.

Newfoundland and Labrador. (1992). Change and Challenge: A Strategic Economic Plan. St. John's: The Queen's Printer.

Nayak, P.R., Garvin, D.A., Maira, A.N. and Bragar, J.L. (1995). Creating a Learning Organization. Prism, 15-33.

Noer, D. (1993). Healing the Wounds. San Francisco: Jossey-Bass.

Osborne, D. and Gaebler, T.(1993). Reinventing Government. New York: Penguin Books.

Ouchi, W. (1981). Theory Z. New York: Addisson Wesley.

Owens, R.G. (1995). Organizational Behaviour in Education. Needham Heights, MA: Allyn & Bacon.

Peters, T. and Austin, N. (1985). A Passion for Excellence. New York: Random House.

Pinchot, G. and Pinchot, E. (1994). The End of the Bureaucracy and the Rise of the Intelligent Organization. San Francisco: Berrett-Koehler.

Quick, T. (1988). Power, Influence, and Your Effectiveness in Human Resources. Massachusetts: Addison-Wesley.

Raynor, S.R. (1993). Recreating the Workplace. Vermont: Oliver Wight.

Roberts, C., Ross, R. and Kleiner A. (1994). Defining Your Learning Organization. In P. Senge, A. Kleiner, C. Roberts, R. Ross, and B. Smith (Eds), The Fifth Discipline Fieldbook (pp. 50-52). New York: Doubleday Publishing Group.

Rolls, J. (1995). The Transformational Leader: The Wellspring of the Learning Organization. In S. Chawla, and J. Renesch (Eds), Learning Organizations (pp. 101-111). Portland: Productivity Press.

Rosenthal, R. and Jacobson, L. (1971). Teacher Expectations for the Disadvantaged. In R.C. Atkinson (Ed.), Contemporary Psychology (pp. 448-452). San Francisco: W.H. Freeman and Company.

Ross, R. (1994). Skilful Discussions. In P. Senge, A. Kleiner, C. Roberts, R. Ross, and B. Smith (Eds), The Fifth Discipline Fieldbook (pp. 385-389). New York: Doubleday.

Ross, R., Roberts, C. and Kleiner A. (1994). Systemic Structure. In P. Senge, A. Kleiner, C. Roberts, R. Ross, and B. Smith (Eds.), The Fifth Discipline Fieldbook (pp. 90). New York: Doubleday.

Ryan, S. (1994). Learning Communities: An Alternative to the "Expert Model". In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 279-293). Portland: Productivity Press.

Schwandt, D.R. (1995). Learning as an Organization : A Journey Into Chaos. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 365-385). Portland: Productivity Press.

Scott, R.W. (1987). Organizations: Rational, Natural and Open Systems, 2nd ed. New Jersey: Prentice Hall.

Senge, P. (1990). The Fifth Discipline. New York: Doubleday.

Senge, P. (1995). Robert Greenleaf's Legacy: A New Foundation for Twenty-first Century Institutions. In L.C. Spears (Ed), Reflections on Leadership (pp. 217-241). New York: John Wiley and Sons.

Senge, P., Kleiner, A., Roberts, C., Ross, R. and Smith, B. (1994). The Fifth Discipline Fieldbook. New York: Doubleday.

Shipka, B. (1994). The Seventh Story: Extending Learning Organizations Far Beyond the Business. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 143-153). Portland: Productivity Press.

Spears, L.C. (1992). Reflections on Leadership. New York: John Wiley and Sons.

Srivasta, S. and Cooperrider, D.L. (1990). Appreciative Management and Leadership. San Francisco: Jossey-Bass.

Steward, J.M. (1993). Future State Visioning - A Powerful Leadership Process. Long Range Planning. Vol. 26 No.6. Oxford, United Kingdom: Pergamon Press.

Suleiman, S.R. (1990). Subversive Intent: Gender, Politics, and Avante Garde. Cambridge: Harvard University Press.

Swieringa, J. and Wierdsma, A. (1992). Becoming a Learning Organization: Beyond the Learning Curve. Wokingham, England: University Press.

Tarbell, I.M. (1924). Scientific Management. [On-line]. Available: http:www.lib.stevens/tech.edu/special/taylor/hayward/part2/introduction

Thompson, J.W. (1994). The Renaissance of Learning in Business. In S. Chawla and J. Renesch (Eds.), Learning Organizations (pp. 85-102). Oregon: Productivity Press.

Toffler, A. (1994). Still Shocking After All These Years. [On-line]. Available: http://www ysserv1.physics.wisc.edu/-shaliz/New Scientist Articles/alvin-toffler

Torbert, W.R. (1991). The Power of Balance. California: SAGE Publications.

Turner, B.S. (1990). Theories of Modernity and Postmodernity. London: Sage Publications.

Urwick, L. (1937). Organization as a Technical Problem. In Papers on the Science of Administration. (pp. 42-51). New York: A.M. Kelly.

Vogt, E.E. (1994). Learning Out of Context. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 293-305). Oregon: Productivity Press.

Weber, M. (1947). The Theory of Social and Economic Organizations. New York: Free Press.

Weintraub, R. (1994). Transforming Mental Models Through Formal and Informal Learning: A Guide for Workplace Educators. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 417-431). Portland: Productivity Press.

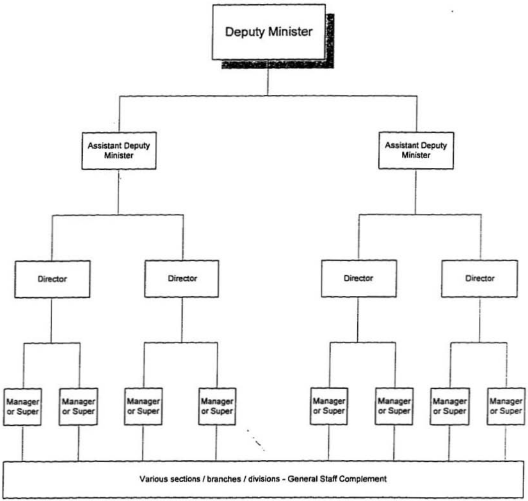
Wilson, B.G., (1994) The Postmodern Paradigm. [On-line]. Available: http://www.ccnucd.cudenver.edu/00/UCD/dept/it/wilson/postmodern.txt

Wood, J. (1994). Restructuring Education: Designing Tomorrow's Workplace. In S. Chawla and J. Renesch (Eds), Learning Organizations (pp. 403-417). Portland: Productivity Press.

APPENDIX A

Typical Departmental Structure

September 9, 1996



APPENDIX B

DEPARTMENT OF FORESTRY AND AGRICULTURE
NUMBER OF POSITIONS AT PEAK PERIODS

	PERMANENT	SEASONAL	TEMPORARY	OTHER
ST. JOHN'S (HEADQUARTERS):				
Confederation Building	36	-	15	1
Provincial Agriculture Bldg.	59	-	27	-
TOTALS	95	-	42	1
EASTERN REGION:				
Forestry:				
Building 810, Pleasantville	5	2	3	-
Mount Pearl Tree Nursery	2	4	-	-
Paddy's Pond	9	6	13	-
Cape Broyle	1	3	-	-
Salmonier	1	3	-	-
Whitbourne	2	3	-	-
Heart's Content	2	-	-	-
Heart's Desire	-	3	-	-
Clarenville	10	6	2	-
Southern Bay	3	3	-	-
Winterland	1	3	-	-
TOTALS	36	36	18	-
Agriculture:				
Holyrood	3	3	-	-
Harbour Grace	7	5	1	-
Clarenville	5	-	-	-
TOTALS	15	8	1	-

	PERMANENT	SEASONAL	TEMPORARY	OTHE
CENTRAL REGION:				
Forestry:				
30 Airport Boulevard, Gander	6	-	2	-
Forest Fire Protection Centre, Gander	2	8	1	
Gambo	8	6	2	
Carmanville	1	-	-	-
Lewisporte	9	3	3	-
Bishop's Falls	4	6	4	-
Botwood	1	-	-	-
Millertown	-	3	1	-
Bay D'Espoir	5	3	31	-
Springdale	8	5	1	-
Baie Verte	1	-	1	-
Wooddale Tree Nursery	6	75	4	-
TOTALS	51	109	50	
Agriculture:				
McCurdy Complex, Gander	3	-	1	-
Bishop's Falls	7	-	1	-
Seed Potato Farm, Glenwood	-	11	-	-
Camp Nipper, Gambo	-	3	-	-
Indian Bay Field Operations	-	6	-	-
TOTALS	10	20	2	
WESTERN REGION:				
Forestry:				
Herald Bldg., Corner Brook	36	2	44	-
Lundrigan Bldg., Corner Brook	5	1	2	-
Pynn's Brook	6	3	7	-
Sop's Arm	1	3	-	-
Massey Drive	5	3	3	-
Woody Point	1	3	-	-
Port Saunders	6	3	-	-
Roddickton	6	3	27	-
St. Anthony	1	2	-	-
St. George's	8	6	5	-
Spray Program	-	-	14	-
Inventory Camp	-	-	5	-
TOTALS	75	29	107	

	PERMANENT	SEASONAL	TEMPORARY	OTHE
WESTERN REGION (CONTINUED):				
Agriculture:				
Pynn's Brook	16	-	3	-
McKay's	1	-	-	-
TOTALS	17	-	3	-
LABRADOR REGION:				
Forestry:				
Elizabeth Goudie Bldg., Happy Valley	3	-	7	-
Northwest River	8	20	1	-
Goose Bay Tree Nursery	1	2	4	-
Wabush	1	4	-	-
Cartwright	1	3	-	-
Red Bay	-	-	2	-
Port Hope Simpson	-	-	1	-
TOTALS	14	29	15	
Agriculture:				
Elizabeth Goudie Bldg., Happy Valley	1	-	-	-
TOTALS:	1			
GRAND TOTALS:	314	231	238	1

DEPARTMENTAL TOTAL......784

11 May 1994

APPENDIX C

LEADERSHIP AND MOTIVATION

Course Code: MSD 2004

The purpose of the course is ...

To identify and explore a variety of factors affecting leadership and the motivation of employees, and to consider their implications for the work organization.

You will learn how to ...

- Recognize four distinct leadership styles
- Identify your own dominant leadership style and supporting styles
- State six principles for building motivation
- Situationally apply an appropriate leadership style to specific motivational levels

Topics to be covered include ...

- Leader Behaviour
- Sources of Power
- Dimensions of Motivation
- Follower Readiness

Who should attend ...

- Managers and Supervisors

Length of course ...

2 Days

When and Where ...

November 16-17 - Grand Falls/Windsor

February 27-28 - St. John's

New

LEADERSHIP AND TEAMWORK

Course Code: MSD 2014

The purpose of the course is ...

To enhance the ability of supervisors and managers to unify their employees to work effectively as a team towards a common goal.

You will learn how to ...

- Recognize the benefits of teamwork in your organization
- Identify the stages of team development
- Assess skills as a team leader
- Develop a successful work team

Topics to be covered include ...

- Why Teams and When to Use Them
- Phases in Developing Teams
- Sharing Leadership and Inspiring Teamwork
- Team Tools and Techniques
- Potential Teamwork Problems

Who should attend ...

Supervisors, managers and team leaders who want to improve their team leadership skills.

Length of course ...

2 Days

When and Where ...

To Be Announced Fall 1994

New

GUIDING ORGANIZATIONAL CHANGE

Course Code: MSD 2013

The purpose of the course is ...

To prepare supervisors and managers to better understand the need for change and to increase their ability to facilitate change in their organizations.

You will learn how to ...

- Anticipate and reduce resistance to change efforts
- Recognize the stages of the change process
- Develop strategies to ensure the success of the change process
- Plan effectively for implementing change

Topics to be covered include ...

- The Nature of Change and its Sources in Government
- Typical Reactions to Change
- A Model for Introducing and Implementing Change
- Communicating About Change
- Techniques for Ensuring Successful Change

Who should attend ...

- Supervisors, managers and others who have a major role in implementing change.

Length of course ...

2 Days

When and Where ...

To Be Announced Fall 1994

FRONTLINE LEADERSHIP TRAINING PROGRAM

Course Code: MSD 2012

The purpose of the program is ...

To expand the leadership skills of supervisors and managers in order to meet workplace demands for quality, service, innovation and productivity.

Content ...

There are 23 modules of Frontline Leadership grouped in six sets:

- Core Interpersonal Skills (6 modules)
- Developing Individual Performance (4 modules)
- Developing Team Performance (3 modules)
- Making Organizational Impact (4 modules)
- Managing Change and Innovation (2 modules)
- Problem Solving for Individuals and Teams (4 modules)

Program availability ...

The program uses a unique approach to skills development involving continuous management support activities in the workplace to reinforce the training. Therefore, this training is only available on a departmental basis.

Note ...

Modules vary from one-half to one day in length, and each module requires a participant workbook costing $18.00 to be paid by the employee's Department.

When and Where ...

Training is available only by departmental or divisional requests.