

**ORGANISATIONAL CHANGE TOWARDS  
BUILDING A LEARNING ORGANISATION**

by

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**MINI-DISSERTATION**

submitted in partial fulfilment of the degree

**MAGISTER TECHNOLOGIAE**

in



**EDUCATION**

in the

**FACULTY OF EDUCATION**

at the

**UNIVERSITY OF JOHANNESBURG**

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**JANUARY 2007**

## ACKNOWLEDGEMENTS

I wish to extend my gratitude to:

Dr K Steenekamp, my supervisor, whose insight, encouragement and guidance were immeasurable throughout this study.

Prof. KC Moloi, my co-supervisor, for expressing such great enthusiasm for the topic through all her positive feedback.

Dr A Graham and Ms C Nel who provided me with valuable writing support. The workshops were very helpful, thank you.

Ms S. Ramborosa for the language editing of this mini-dissertation

The management team of South African Technical for granting me the opportunity to conduct the research within the boundaries of the organisation.

All my colleagues, who showed great interest and also participated in the research interviews.

My wife Elize Botha, and my children for their continuous support, love and sacrifices throughout this research.

My parents, Malcolm & Annette(†) Botha and Isabel & Japie Malan, for their endless love over the years. Dankie vir al julle gebede en ondersteuning.

To my Heavenly Father who provided me with the opportunity and ability to pursue my study. In difficult times I was aware that You carried me Lord. *Soli Deo Gloria.*

## ABSTRACT

South African Technical (SAT) is an Aircraft Maintenance and Repair Organisation. SAT provides a wide range of services to its customers, ranging from minor- to major maintenance schedules. Technological advances in the global aircraft repair and maintenance industry combined with the transition to a democratic government and the resultant effects of globalisation introduced the organisation to a process of change with an impetus on efficiency and competitiveness.

The focus of this study is to understand how the SAT training department could contribute to organisational change towards a learning organisation. This research articulates that only employees who are educationally, socially and mentally prepared for a changing workplace will be able to reap the benefits from global integration. It is further reasoned that the best-placed organisations in the global context will be those that are able to adapt to the learning organisation vision. People in learning organisations continually expand their capacity to create the results they truly desire, they nurture new and expansive patterns of thinking and they continually explore learning together.

This study was placed within a qualitative research paradigm. A phenomenological design presented the study with opportunities to analyse, interpret, and describe the perceptions, feelings and experiences of the participants. Eight semi-structured individual interviews provided data for the purposes of this study. The data was analysed to identify categories, themes and sub-themes. The five main themes discussed were organisational learning, organisational culture, organisational change, globalisation and knowledge management. They were linked to the theory of learning organisations and were based on the findings of the data.

The following broad findings were made in the final chapter of this research:

- Some of the participants experienced uncertainties during times of change at SAT.

- Some of the participants perceive SAT as historically isolated from the global aircraft maintenance industry.
- Some of the participants feel knowledge is not always recognised and organised at SAT. Another participant suggested in this regard that the organisation would best benefit from the knowledge they have if they could implement a system where knowledge in certain areas is identified and distributed accordingly.

These findings enabled the researcher to make recommendations for future research.



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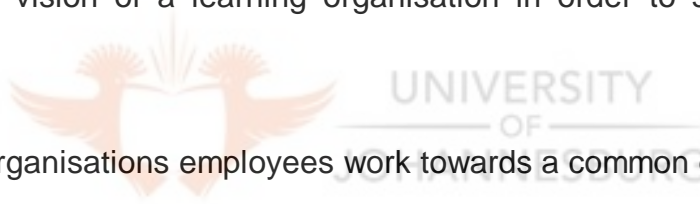
## CHAPTER 1

### ORIENTATION OF THE RESEARCH

#### 1.1. INTRODUCTION

The focus of this research is to understand and describe how the South African Technical (SAT) training department could contribute to organisational change towards a learning organisation. This section discusses the research topic.

This research argued that organisations change for various reasons. The rationales for organisational change at SAT are seen as the demands posed by technological advances, the transition to a democratic government and its entry into the global arena. It was then articulated that organisations would have to adapt to the vision of a learning organisation in order to survive in a global context.



In learning organisations employees work towards a common goal, thus a culture of learning is promoted. The literature review in chapter 2 revealed that learning is valued and most effective when shared in learning organisations. Learning is used as a medium to reach organisational goals. Learning organisations therefore provide continuous learning opportunities. Five disciplines, as proposed by Senge (1990), were discussed as a guide to progress past the development phase of a learning organisation.

Knowledge as a sustainable competitive advantage in the global context was considered. The importance of retaining the learning experiences of employees was highlighted through a discussion on knowledge management. The purpose of knowledge management is for maximum utilisation of employee knowledge, in order for the organisation to benefit most from it.

Having introduced the topic it is important to give the background to the problem under investigation.

## 1.2. BACKGROUND TO THE PROBLEM

This study is placed within South African Technical (SAT) which is an Aircraft Maintenance and Repair Organisation (MRO). SAT provides a wide range of services to its customers, ranging from minor- to major maintenance schedules. South African Airways (SAA) is the main source of income for SAT. Only a small income (around 20%) is generated from third party work. SAT needs to implement creative initiatives with the acquisition of SAA's new Airbus fleet, in order to prove its sustainability. New aircraft means less maintenance, in particular major maintenance (Tabane, 2005:8–11).

The political changes brought about in South Africa by its transition to a democratic government also contributed to the demand for transformation. As a result SAT was introduced into the global aircraft maintenance industry. The management team of SAT is looking at how to tap the new international market of which it now forms a part. One of the initiatives is to market the facilities and services that SAT has to offer. The initiative proposes to make inroads into the huge African market. The bulk of Africa's major maintenance on aircraft is done in Europe. The Europeans also outsource some of their own major maintenance during their off-peak travel seasons when they have a full maintenance programme. SAT will investigate both these markets, in order to procure lucrative projects for its workforce (Tabane, 2005:6-9). Employees need to be educationally, socially and mentally prepared for a changing workplace, in order to reap the benefits of global integration. In a global economy it is consequently suggested that organisations should adopt the vision of a learning organisation (Tomassini, 2002:3).

Renewed pressure from SAA's main shareholder, Transnet, also sets the scene for change. The newly appointed Chief Executive Officer of SAA, Khaya Ngqula, is of the opinion that SAA was previously not profit oriented, "...we have always known that we have a shareholder with a deep pocket" and adds that the previous R10-billion injection by government through Transnet was "probably the last straw" (Tabane, 2005:3). In response to organisational change it is reasoned in this study that the learning organisation is the latest organisational

transformation- or response strategy for guiding organisational change (Barrow & Loughlin, 1992:3 & Moloi, 1999:78).

From the above background it can be seen that organisational change, and therefore the vision of a learning organisation, is inevitable at SAT. SAT is under pressure to increase its market share, so coping with the effects of globalisation is an ensuing trial. The SAT training department faces an immediate challenge to align with the organisation's business goals. In this research it was reasoned that the vision of a learning organisation is essential during times of change in the global context. The SAT training department needs to understand how it could contribute to organisational change towards a learning organisation.

### **1.3. PROBLEM STATEMENT**

In light of the above background the specific problem that faced this researcher was to explore how the SAT training department could contribute to organisational change towards a learning organisation.

### **1.4. RESEARCH QUESTIONS**

The research problem led to the following main research question:

How can the SAT training department contribute to organisational change towards a learning organisation?

The following sub research questions formed the crux of this research project:

- How can the SAT training department facilitate organisational change?
- How can the SAT training department facilitate learning needed in the global context?
- How can the SAT training department facilitate knowledge management?

### **1.5. AIM**

The aim of this research was to explore how the SAT training department could contribute to organisational change towards a learning organisation.

## **1.6. OBJECTIVES**

The objectives of this research were to:

- Explore how the SAT training department could facilitate organisational change.
- Explore how the SAT training department could facilitate learning needed in the global context.
- Explore how the SAT training department could facilitate knowledge management.
- Make recommendations to the SAT training department based on the findings of this research.

## **1.7. RESEARCH DESIGN AND METHODOLOGY**

This section outlines the process followed while conducting the research. The research was placed within a qualitative research paradigm. This means that the findings of this research were reached through a real life setting, where the phenomenon under investigation unfolded naturally (Merriam & Simpson, 2000:97 & Patton, 2001:39). In other words, the perceptions, feelings and experiences of the participants produced the data from which the findings were derived.

As the research was placed within the qualitative paradigm, the researcher devised a plan of action to guide the research process. This plan of action, as discussed in more detail in par. 3.3, informed the design of this research. The researcher used a phenomenological design because of its descriptive approach (Groenewald, 2004:2). Hancock (2002:4) writes that phenomenological research begins with the acknowledgement that there is a gap in our understanding and that clarification or illumination will be of benefit. A phenomenological design therefore guided this study as the researcher intended to understand and describe the participants' perceptions, feelings and experiences of how they thought the SAT training department could contribute to organisational change towards a learning organisation.

The data for the research was collected by means of eight semi-structured individual interviews (Hoepfl, 1997:6). The participants for this research were purposefully selected to represent the sample design as discussed in par. 3.4.1. The semi-structured interviews were audio taped and later transcribed. The transcriptions formed the primary source of data for analysis. The data was analysed according to the protocol discussed in par. 3.5. The findings of this research, as discussed in par 5.2, are based on the data obtained from the interviews. Recommendations, as discussed in par 5.4, were made to the SAT training department based on the findings of this research.

## **1.8. OVERVIEW OF CHAPTERS**

This mini-dissertation is divided into 5 chapters. Chapter one provides the background, the research problem as well as the research questions that guided the research. The aim and objectives of the research are stated. The research design and methodology that was used to conduct the research are also outlined in this chapter.

Chapter two places this study within the theoretical framework of the learning organisation. The chapter reviews literature of adult learning, organisational culture, globalisation and knowledge management. It contextualises the study within the boundaries of organisational change towards building a learning organisation. It argued that organisations must accept a set of attitudes, values and practices that support the process of continuous learning within the organisation in order to be competitive in a global market.

In chapter three the discussion focussed on the research paradigm, design and methodology that were used to conduct this empirical research project. The research is conducted within a qualitative paradigm and directed by a phenomenological design, which means that the researcher wished to understand and describe the perceptions, feelings and experiences of the participants and how they thought the SAT training department could contribute to organisational change towards a learning organisation. Furthermore the

research methodology in par 3.4 describes the sampling process, interview strategy and data recording method for this study.

Chapter 4 dealt with the analysis and interpretation of the data. The coded data was placed in categories and the themes and sub-themes that are contained in the data were discussed.

In chapter 5 the research findings were discussed in context of the theoretical framework for learning organisations as discussed in chapter 2. The discussion was focused on how the SAT training department could contribute to organisational change towards a learning organisation. Recommendations for further research were also made in this final chapter of the research.

## **1.9. SUMMARY**

This chapter provided an introduction to the research. The background of the problem was discussed and the research questions were developed in accordance with the research problem. The aim and objectives of the research were stated and the research design and methodology were outlined. A division of the five chapters of this research was given. The next chapter provides a literature review to contextualise the research within the boundaries of organisational change towards a learning organisation.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1. INTRODUCTION

The previous chapter described a synopsis of this research. It also provided the background, the research problem as well as the research questions that guided the research. Furthermore the aim and objectives of the study as well as the research design and methodology that was used to conduct the research, were stated.

In this chapter adult learning, organisational culture, globalisation and knowledge management literature is reviewed to contextualise the study within the boundaries of organisational change towards building a learning organisation (Henning, Van Rensburg and Smit, 2004:27). Neuman (2000:445) is of the opinion that a literature review is important because knowledge accumulates; thus we can learn from; and build on what others have done. The literature review in this research assisted the researcher to form a conceptual background (Merriam & Simpson, 2000:9-10), and also to explain the data when the researcher had to show the relevance of his findings in relation to existing literature (Henning et. al. 2004:27).

The literature review in this chapter focused on organisational change towards a learning organisation, where it is argued that one must accept a set of attitudes, values and practices that support the process of continuous learning within the organisation in order to be competitive and to enhance its effectiveness. In modern life, technology is not only advancing at an enormous pace, it also influences the way people think and learn about their work. South African Technical (SAT) operates in a highly competitive global market that is fiercely turbulent. In order to remain competitive the organisation needs to look at creative ways to stay ahead of competition. One way to do this is to recognise and react to change in the industry. The development of the theory of “the



learning organisation” can help organisations to grow in response to their changing environments (Barrow & Loughlin, 1992:3).

A key ingredient for competitive advantage is the ability to create an organisational culture for learning that enables employees to work productively. Organisational culture is a key aspect to understanding how much the organisational environment encourages or discourages learning within the organisation (Rothwell, 2002:198). Organisational culture as a prerequisite for sustainable transformation is therefore discussed in this chapter. While this research is concerned with how the SAT training department can contribute to organisational change towards a learning organisation, it also conceptualises the terms learning, learning organisations and organisational learning. Furthermore the importance of managing knowledge and creating a culture of learning for competitiveness is presented.

In the next sections two contemporary theories of learning are discussed to emphasise the value of learning during organisational change in the global context. It is also assumed that managers, trainers and other employees (learners) will have some understanding of the learning process itself, in order to develop a culture of learning (Rothwell, 2002:48-49).

## **2.2. THEORIES OF LEARNING**

Dixon opines that it is important to understand how individuals make sense of the world around them “as it is at the core of our understanding of how the collective learns” (Dixon, 1999:13). For the purposes of this research the two contemporary theories of adult learning that will be discussed, to shed some light on the learning process within organisations, are constructivism and transformative learning.

### **2.2.1. Constructivism**

Although Socrates is not generally associated with the constructivist theory, the concept of constructivism has its roots in the classical distant past.

Constructivism goes back to Socrates' dialogues with his followers, in which he directed questions that led his students to realise for themselves the weaknesses in their thinking (Murphy, 1997:1). In this century Jean Piaget and John Dewey developed theories of childhood development and education that led to the evolution of constructivism. Although Piaget called his view of learning "genetic epistemology", he also called his view "constructivism", because he believed that knowledge acquisition is a process of continuous self-construction (Driscoll, 1994:171).

The theory of constructivism is focussed on the world inside the learner. Constructivists believe that "reality is determined by the senses of the knower" (Rothwell, 2002:51). In constructivism individuals construct knowledge through interactions with the environment. Constructivism takes the idea of interconnectedness between learner and the environment to its logical limits. Here the idea is that the environment influences internal processes, but at the same time, those same internal processes influence the environment. Gravett (2000:4) writes that knowledge is constructed when learners can link new knowledge to their existing conceptual framework, and new meaningful interconnections are constructed that transform existing conceptions. As a result, we create knowledge in our own heads and that created knowledge may be interpreted differently by each of us.

The guiding principles of constructivism advocate that learning is a search for meaning and that meaning requires understanding wholes as well as parts. The purpose of learning in constructivism is for an individual to construct his or her own meaning, not just to memorise the "right" answers and to regurgitate somebody else's meaning (Silverthorn, 1999:2-4). Constructivism transforms the learner from a passive recipient of information to an active participant in the learning process (Rothwell, 2002:51). The theory of constructivism taps into and triggers the learner's innate curiosity about the world and how things work. Learners do not reinvent the wheel but rather attempt to understand how it turns, how it functions. Learners become actively involved by applying their existing knowledge and real-life experience, testing their theories and drawing conclusions on their findings. Constructivism therefore supports learning in a

learning organisation. Employees in learning organisations are able to recognise problems that may exist and further, are also competent to understand the dynamics for change and the possible ways in which problems may be solved.

### **2.2.2. Transformative learning**

Jack Mezirow first introduced the theory of “transformative learning” in 1978. The theory has since developed into a detailed explanation of how learners interpret, validate and reformulate the meaning of their experience (Cranton, 1994:22). We interpret our experiences and the things we encounter in our own way; what we make of the world is a result of our perceptions of our experiences (Mezirow, 1991:223).

Mezirow (1991:166) further suggests that individuals can be transformed through a process of critical reflection in his theory of transformative learning. People expect to see things in a certain way because of their past experiences. They have a frame of reference for interpreting what happens to them, what they read, what they see and what others say (Cranton, 1994:26). For learners to change their “meaning schemes” they must engage in critical reflection on their experiences (Mezirow, 1991:167). Critical reflection involves the consideration of personal beliefs. Critical reflection becomes transformative when personal beliefs or frames of reference are found to be distorted, inauthentic or invalid (Imel, 1998:1-2).

Perspective transformation is the process where meaning schemes that adults have acquired over a lifetime become transformed. Mezirow (1991:50) believes that transformative learning is usually the result of a “disorienting dilemma”, which is triggered by a life crisis or major life transition. Transformative learning can also be a result of an accumulation of transformations in meaning schemes over a period of time (Mezirow, 1991:50).

Thus, transformative learning can be summarised as the process where adults use prior interpretation to construe a new or revised interpretation of the meaning of his or her experiences in order to guide future action. An individual’s acquired

frame of reference is central to this learning theory. It is through this frame of reference or meaning schemes that all meaning is construed and all learning takes place. Proactive action by the adult learner includes making decisions and associations, revising points of view, reframing or solving problems, modifying attitudes or producing changes in behaviour.

The two theories of learning, namely constructivism and transformative learning, which were investigated in the previous sections, led the researcher to argue that the central role learners' play during the learning process is evident in both theories. Taylor (1998:33) believes that too much emphasis is placed on the role of the teacher during the learning process, at the expense of the role of the learner. As part of a knowledgeable community, learners should share the responsibility to create conditions that would promote learning. Rothwell, (2002: xvi) argues that the future belongs to employees who "willingly, assertively and (on occasion) aggressively" assume responsibility for their learning. Employees who take responsibility for their own learning are willing and able to seize the initiative for identifying their learning needs, finding the resources to meet those needs, organising their own learning experiences and evaluating the results (Rothwell, 2002:xviii).

Rothwell (2002:10) and Dixon (1999:6) maintain that most of the learning in organisations that does occur is often accidental. Accidental learning is insufficient and may have some success, but it does not reach the limits of its potential. Wick and Leòn (1993:6) contend that much that could be learned is either lost or missed and claim that employees who learn by chance do not have the same results as employees who learn intentionally. Those who learn by chance, learn just enough to get by, focussing on short-term goals. Intentional learning should be done with a worthwhile reward in sight, which should lead to greater future responsibility that can improve current job performance and provide a greater satisfaction in work. Marquardt (1996:99) shares the view of Dixon (1999:7) and Rothwell (2002:11) that learning should be intentional because only then does learning produce measurable results, both financially and psychologically.

Martinez (1997:175) concurs with Wick and Leòn (1993:13-15) that individuals should take responsibility for their own learning, as most managers do not recognise an individual's need for growth, because they are too inexperienced or unskilled. Wick and Leòn (1993:14) admit that it is not easy to take control over one's own career, but argues that those who continually and intentionally learn are like heat seeking missiles whose target is challenge and growth. Learners mature through their encounters with learning experiences. They gradually become more confident and sophisticated in how they manage and understand their own learning construct. Martinez (1997:28) professes that the success of learning depends on the extent and depth of an individual's fundamental belief about why, when and how to use learning and how it can accomplish personal goals or change.

Employees who commit to continuous learning and improvement see organisational change as a journey, rather than a destination. In the next sections organisational culture takes precedence since it affects strategic development, productivity and learning at all levels within organisations (Schein, 1999:14). If organisations are to become more effective and efficient, then it is the view of the researcher that we need to understand the role that organisational culture plays during a time of change towards building a learning organisation.

### **2.3. ORGANISATIONAL CULTURE**

In the previous sections two theories of learning were discussed, namely constructivism and transformative learning. In the following sections organisational culture will be defined, the three levels of organisational culture and change towards a learning culture will be explored.

Massarik and Pei-Carpenter (2002:73) explain that organisational culture is analysed by authors such as Deal and Kennedy (1982) and Schein (1997), as a contemporary starting point for the basis of organisational change. Organisational culture is an amalgamation of the values and beliefs of the people in an organisation (Davidoff & Lazarus, 1997:42), which support the organisational goals (Marquardt, 1996:70). It can be perceived in the implicit rules and

expectations of behaviour in an organisation where, even though the rules are not formally written down, employees know what is expected of them (Rothwell, 2002:198).

### **2.3.1. Defining organisational culture**

Organisational culture can be defined as follows:

“A pattern of basic assumptions invented, discovered or developed by a given group as it learns to cope with problems of external adaptation and internal integration that has worked well enough to be considered valid, and therefore to be taught to new members as a correct way to think, perceive and feel in relation to those problems”

(Schein, 1985:9).

In the above definition Schein argues that organisational culture is the result of shared experiences arising from an organisation's attempts to resolve fundamental problems of adapting to the external world through achieving internal integration and consistency. He reasons that organisational culture creates a collective pool of knowledge that determines appropriate behaviour, directs understanding and gives guidance on how to resolve future problems.

Fowke (1999:1) declares that culture is unconscious. It is made up of shared basic assumptions and beliefs which concentrate on how people relate to one another inside the organisation, and how they deal with customers, suppliers, competitors and others outside the organisation. Culture describes how things are done within a certain organisation and rests on fundamentals that are outside of awareness. According to Morgan (1997:141) elements of organisational culture may include the stated and unstated values, customs and rituals, stories and myths about the organisation, climate, metaphors, symbols and implicit expectations for members' behaviour.

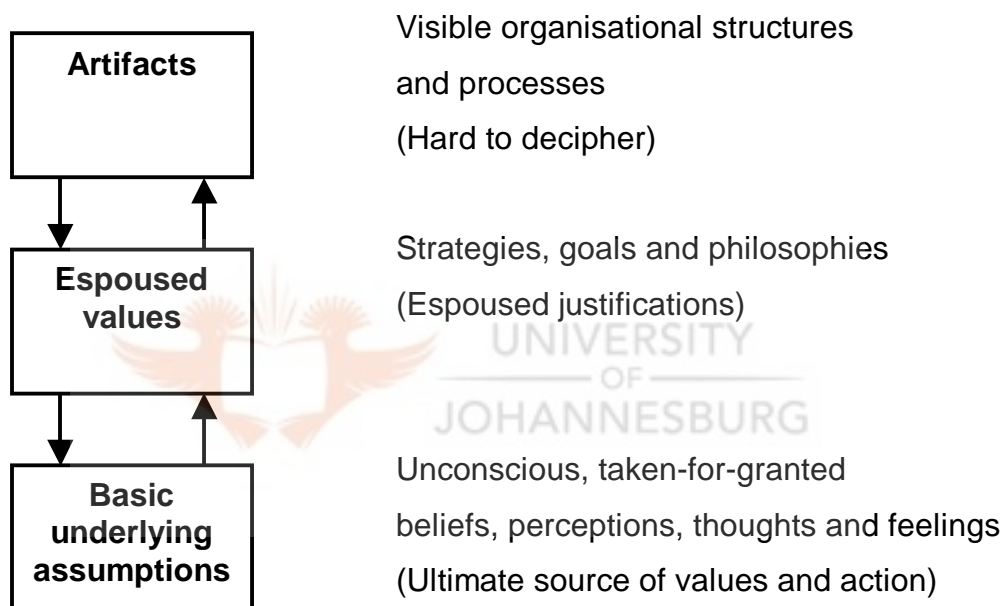
Schein (1999:15) proposes that the best way to understand organisational culture is to realise that culture exists at different levels. The levels of organisational culture go from very observable to implicit and unseen.

### 2.3.2. The levels of organisational culture

Schein (1999:15-20) divides organisational culture into three levels, namely *artifacts*, *espoused values* and *basic assumptions and values* (emphasis added). In figure 2.1 a graphical representation of the three levels is given. An explanation of each level follows.

**Figure 2.1: The three levels of organisational culture.**

(Schein, E.H. 1999:16)



Artifacts refer to the attributes that can be seen, felt and heard by the inexperienced observer. Artifacts include the facilities, furnishings, visible awards and recognition, the way the members dress and how each person interacts with each other and with people outside of the organisation. The outsider knows for sure that the members of the organisation have particular ways of presenting themselves and dealing with each other, but does not really know why the members behave as they do. Artifacts are easily observable but difficult to understand.

The next level, espoused values, refers to the conscious strategies, goals and philosophies held by the members of an organisation. Company slogans, mission statements and other operational creeds are often expressed at this level.

Organisational behaviour at this level is usually determined through interviewing of the organisation's members. At this level experiencing the artifacts are no longer sufficient and certain questions about the organisation's values are asked. Schein (1999:17) asks the question: "Why do they do what they do?"

At the third and deepest level of organisational culture, the organisation's tacit assumptions are found, which are difficult to distinguish because they exist at a largely unconscious level. Schein (1999:19) writes that one should think historically when trying to understand this level of organisational culture. It is the values, beliefs and assumptions that have made the organisation successful over time. It is the elements of the culture that are unseen and not cognitively identified in everyday interactions between the organisation's members. Members with enough experience to understand this deepest level of organisational culture usually become accustomed to these characteristics over time, which adds to the invisibility of its existence. Surveys and casual interviews cannot draw out these characteristics – rather a much more in-depth means of looking at what makes the organisation successful, must be used to first identify and then understand organisational culture at this level.

### **2.3.3. Changing towards a learning culture**

When internal or external factors demand that an organisation becomes more competitive and efficient, the organisational culture needs to change. Drennan (1992:110) writes that when an organisation needs to have a change in culture, it is only when everybody in the organisation is involved in doing things differently, that culture has moved – both in depth and for the long term.

Regardless of the goal, changing the culture of an organisation towards a learning culture, takes the dedication and time of everybody. Schein (1999: 26) writes that you must realise that you are engaging in some of the most stable parts of an organisation when you want to change some elements of the culture. Change towards a learning culture demands that the attitude of individuals in the organisation and their commitment towards learning be aligned. The nature of learning and the manner in which it occurs in an organisation is to a large extent



determined by the culture of that organisation. Rothwell (2002:197-199) and Marquardt (1996:70) suggest that learning organisations should create an environment that encourages and values organisational learning that is supported by an enabling corporate culture.

Only if everyone in the organisation is learning, will it be possible to achieve an organisational culture that is characterised by learning and dynamic change. A learning culture supports continuous improvement and everybody's participation (Drennan, 1992:131). However, if an organisational culture does not promote experimental learning, informal peer reviews and informal guidance; the organisation is likely to be stuck with knowledge that is no longer effective in a fast changing environment. This is so because a large part of knowledge distribution and sharing in the organisation should be based on trust and intentions of people in order to facilitate fundamental change in the organisation (Bhatt, 2000:94). A true learning culture continuously challenges its own methods and actions. This ensures continuous improvement and the capacity to change (Drennan, 1992:133).

Senge writes that employees ought to embrace a culture of learning in organisations because:

“Real learning gets to the heart of what it means to be human. Through learning we become able to do something we never were able to do. Through learning we re-perceive the world and our relationship to it. Through learning we extend our capacity to create, to be part of the generative process of life”

(Senge, 1990:14).

Thus, Senge explains how organisational culture can change through learning. When an employee becomes part of an organisation and its culture; that individual and the other members of the organisation begin to share knowledge to enhance each other's learning capability. Drennan (1992:131) writes that with an established learning culture employees can become the only appreciating asset that the organisation has.

In this section it is evident that the essence of culture is the jointly learned values, beliefs and assumptions that become shared and taken for granted as an

organisation continues to be successful. It is important to remember that organisational culture results from a joint learning process. The complementary process of knowledge sharing in itself is a primary reason for the emergence of the learning organisation (Bhatt, 2000:97). This discussion will now turn to the learning organisation.

## **2.4. THE LEARNING ORGANISATION**

In the previous section organisational culture was discussed. Finding a way for organisations to develop in response to their changing environments culminated in the development of the theory of learning organisations (Barrow & Loughlin, 1992:3). Only the organisations that can adapt to the changing environment around them will survive in the future (Marquardt, 1996:xvi.). The author advises that organisations will have to accelerate and improve upon their successes and failures to obtain a competitive advantage in the changing environment around them. Organisations of the future will need to transform themselves continuously into learning organisations in order to stay competitive in the global market (Drennan, 1992:130-132; Wick & Leòn, 1993:32; Denton & Campbell, 1999: 67-89; Zwell, 2000:5 & Rothwell, 2002:160). Schön (in Smith, 2001:2) links the experience of living in a situation of increasing change to the need for learning. Guns (1996:i) concurs that, “we live in an age where speed and knowledge are the dynamics for success. The learning organisation combines these dynamics to create an unbeatable competitive force”.

In the following sections the learning organisation is defined and the five disciplines, needed to move beyond the stage of development for a learning organisation, are discussed. Some initiatives towards a learning organisation are also explored.

### **2.4.1. Defining a learning organisation**

A learning organisation is an organisation where the employees engage in their work, where they strive to reach their full potential by sharing the vision of a worthy goal with team members. To work in a learning organisation is to see

one's work as part of a whole. A lifelong commitment to high quality work can result when teams work together to capitalise on the synergy of continuous group learning for optimal performance. Those in learning organisations serve others in effective ways because they are well prepared for change and working with others (Senge, 1990:11).

The basic rationale for a learning organisation is that in situations of rapid change only those who are flexible, adaptive and productive will excel. According to Senge (1990:4), to create an enabling environment, organisations need to "discover how to tap people's commitment and capacity to learn at all levels". He also describes learning organisations as:

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

(Senge, 1990:1).

Senge's description emphasises the idea that learning organisations promote a culture of learning, a community of learners which also ensures that individual learning enriches and enhances the organisation as a whole. Individual learning is shared to contribute towards organisational learning.

Finger and Brand (1999:136) are further of the opinion that the learning organisation is an "ideal, towards which organisations have to evolve in order to be able to respond to the various pressures they face. The learning organisation is characterised by the recognition that individual and collective learning are key". Smith (2001:2) comments that two important aspects result from Finger and Brand's description of the learning organisation. Firstly, it is very difficult to identify real-life examples. This might be because the vision is "too ideal" or because it isn't relevant to the requirements and dynamics of organisations. Secondly, the focus on creating a template and the need to present it in a form that is commercially attractive to the consultants and writers has led to a significant under-powering of the theoretical framework for the learning organisation.

Some popular definitions of learning organisations found in literature include:

“The learning company is a vision of what might be possible. It is not brought about simply by training individuals; it can only happen as a result of learning at the whole organisational level. A learning company is an organisation that facilitates the learning of all its members and continuously transforms itself”

(Pedler, Burgoyne and Boydell, 1991:1).

“Learning organisations are characterised by total employee involvement in a process of collaboratively conducted, collectively accountable change directed towards shared values or principles”

(Watkins & Marsick, 1993:118).

Although a consensus on the definition of a learning organisation has not been arrived at as yet, some authors agree that learning organisations start with the principle that learning is valuable, continuous and most effective when shared and that every experience is an opportunity to learn (Kerka, 1995:1). Learning organisations provide continuous learning opportunities and they use learning to reach their goals. As a result learning organisations link individual performance with organisational performance. These organisations foster inquiry and dialogue, making it safe for people to share openly and take risks, and thus they embrace creative tension as a source of energy and renewal. Learning organisations are thus continuously aware of, and interact with their environment.

From the above it seems that the concept of the learning organisation is clear enough to some to put it into practice, but to others it is unclear and vague and needs critical attention (Kerka, 1995:4). Learning organisations have a lot to offer to the reform and restructuring of organisations, but building one is clearly an enormous task. However, one can begin with the attitude that learning is a sustainable resource, not a limited commodity and so work on developing the mindset of a culture of learning (Kerka, 1995:4). It must be recognised that the visioning process is ongoing, and not a one-time event. A learning organisation embodies an attitude, an atmosphere that is conducive to learning. The desire to learn can be found in individuals, teams, processes, systems and structures. Learning is the central cultural value of the learning organisation. In this environment, innovation is not just encouraged it is celebrated. Change is avidly sought rather than avoided.

Senge (1990:6-10) is of the opinion that a learning organisation needs five disciplines to move beyond the stage of development. He counsels that the ideal of a learning organisation is not sustainable if all the disciplines, as described in his book "The fifth discipline" (1990), are not functioning as a whole.

### **2.4.2. The five disciplines**

According to Smith (2001:5) Senge views the five disciplines as a series of principles and practices that people study, master and integrate into their lives. Each discipline provides a vital dimension to the success of the learning organisation. The fifth discipline is at the heart of the idea of the learning organisation. Senge (1990) refers to the fifth discipline as systems thinking, which is described as a discipline for seeing wholes. It is the most important discipline as it provides a framework for seeing interrelationships rather than things, for identifying patterns of change rather than static snapshots. Alongside systems thinking, the other four disciplines are personal mastery, mental models, shared vision and team learning. Each is necessary to the others if organisations are to learn. A brief exposition of the disciplines follows.

#### *2.4.2.1. Systems thinking*

Systems thinking, in the learning organisation is the ability to see the whole as well as the parts. According to Senge (1990:8) an effective systems thinker can identify inputs (what flows into a system), processes (how inputs are transformed), outputs (what flows out of the system) and feedback loops (how information about outputs helps to improve the reception of inputs, the transformation of them into outputs through processes, and the reception of outputs by users). Systems thinking is the discipline that integrates all the disciplines, fusing them into a coherent body of theory and practice. It keeps them from being separate gimmicks or the latest organisational change fashion. Without a systemic orientation, there is no motivation to look at how the disciplines interrelate. By enhancing each of the other disciplines, it continually reminds us that the whole can exceed the sum of its parts (Garvin, 1994:19-28).

#### 2.4.2.2. *Personal mastery*

Personal mastery describes individuals who possess characteristics of being committed to their own lifelong learning. To practice this discipline, individuals must identify what they want out of life, and then follow it. They do not become discouraged or neglect their own learning. People with a high level of personal mastery live in a continual learning mode. They never “arrive”. Sometimes, language usage, as in the phrase ‘personal mastery’, creates a misleading sense of definiteness, of black and white. But personal mastery is not something that is possessed. It is inculcated. It is a lifelong discipline. People with a high level of personal mastery are acutely aware of their ignorance, their incompetence and their growth areas. And they are deeply self-confident (Senge 1990:142).

#### 2.4.2.3. *Mental models*

Mental models in a learning organisation represent “deeply ingrained assumptions, generalisations or even pictures and images that influence how we understand the world and how we take action” (Senge, 1990:8).

Working with mental models means to communicate and to receive feedback about assumptions, ideas and approaches. If organisations are to develop a capacity to work with mental models then it will be necessary for people to learn new skills and develop new orientations. Moving the organisation in the right direction entails working to transcend the sorts of internal politics that dominate traditional organisations. In other words it means openness (Senge, 1990:273-286).

The discipline of mental models starts with turning the mirror inward; learning to unearth our internal pictures of the world, to bring them to the surface and embrace them with an awareness that encourages examination. It also includes the ability to carry out “learningful” conversations that balance inquiry and advocacy, where people expose their own thinking effectively and render that thinking open to the influence of others (Senge, 1990:9).

#### 2.4.2.4. *Building a shared vision*

Building a shared vision in a learning organisation propagates that leaders are able to create a compelling vision that excites other members to action and builds enthusiasm for the organisation's goals and strategic objectives. When there is a genuine vision, members will excel and learn, not because they are told to, but because they want to. Unfortunately many leaders have personal visions that never get translated into shared visions that inspire the members of an organisation. What has been lacking is a discipline for translating vision into shared vision – not a “cookbook” but a set of principles and guiding practices. The practice of shared vision involves the skills of unearthing shared pictures of the future that foster genuine commitment and enrolment rather than compliance. In mastering this discipline, leaders learn the counter-productiveness of trying to dictate vision, no matter how heartfelt (Senge, 1990:9).

#### 2.4.2.5. *Team learning*

Team learning is linked to the ability of individuals to work and learn effectively in groups. People need to be able to act together. When teams learn together, not only can there be good results for the organisation, but members will grow more rapidly than could have occurred otherwise (Senge, 1990:236).

The notion of dialogue is prominent in this discipline. When dialogue is joined with systems thinking, Senge argues, there is a possibility of creating a language more suited for dealing with complexity. It involves the capacity of members of a team to suspend assumptions and to enter into a genuine “thinking together” (1990:10).

The discipline of team learning involves mastering the practices of dialogue and discussion, the two distinct ways that teams converse. In dialogue, there is the free and creative exploration of complex and subtle issues, a deep listening to one another and suspending one's own 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, 1990:10).

It is important that the five disciplines develop as an “ensemble” to achieve full potential in practice (Senge, 1990:6). This is challenging because it is much harder to integrate new tools than simply apply them separately (Rothwell, 2002:172). Building a learning organisation is a challenge that demands an understanding of and a commitment to mobilising all five disciplines of the learning organisation model. There is no single, guaranteed way of becoming a learning organisation (Marquardt, 1996:179). The next section will discuss initiatives that organisations can explore in their endeavour towards building a learning organisation.

### **2.4.3. Initiatives towards a learning organisation**

Although authors such as Wick and Leòn (1993:126) present their readers with a formula for a learning organisation, this research will rather explore initiatives that can lead organisations towards the goal of building a learning organisation. The researcher agrees with Pedler et. al. (1991:1) that the learning organisation philosophy is not a recipe to be implemented. It is rather the deliberate effort of the organisational members to improve their work through adopting a learning culture, a collaborative attitude and meaningful norms of practice.

Bell (2000:4), in the strategic framework for the University of Natal, and Khoza (2003:7), in the knowledge management strategy for the Development Bank of South Africa, assert that three initiatives are important when an organisation proceeds towards building a learning organisation.

Firstly the organisation needs to commit to the change. Marquardt (1996:180) agrees that the first step towards building a learning organisation is for “a critical mass of top leadership” to be committed to building a learning organisation. Bell (2000:4) reasons that commitment is to accept transformation and to recognise that the way in which things were done in the past is not the only way. According to Martensen and Dahlgard (1999:880) learning provides the opportunity to



change behaviour, which in most cases leads to innovation and improvements. It is this need for innovation and improvements that lead to the learning organisation.

In the second place it is recommended that a culture of learning should be actively embraced. Khoza (2003:7) reflects that a learning culture is the foundation of a learning organisation. Bell (2000:4) emphasises that it is critical to nurture a culture of learning during the transition towards a learning organisation. Rothwell (2002:198) feels that without a learning culture, there can be no learning organisation, and that organisational learning would probably not be as effective as it could otherwise have been.

Thirdly Khoza (2003:1) recommends that knowledge should be shared. The learning organisation requires continuous transferral of knowledge and information. Bell reasons that it is only by “pooling their experiences, perceptions and knowledge, by learning together”, that the University of Natal can move towards a learning organisation (2000:4). Marquardt cautions that the transfer of knowledge is essential in a learning organisation and that knowledge should be shared “appropriately and quickly” throughout the organisation (1996:138). Guns adds that the sharing of knowledge, through “partnering, questioning and listening at the boundaries of your field or organisation” can contribute towards a learning organisation (1996:81-83).

The previous sections explored the learning organisation tendency. Although the term learning organisation seems not to be definitely defined, and various definitions for it exists, authors (Garvin, 1994:19-28; Marquardt, 1996:43-47 and Smith, 2001:1-17) seem to agree that the five disciplines, as described in Senge’s (1990) work is essential for the development of the learning organisation. Three initiatives that can aid organisations towards becoming learning organisations were also discussed. Organisational learning is explored in the next section.

## **2.5. ORGANISATIONAL LEARNING**

In the previous sections the learning organisation was discussed. The ability to learn in organisations is a critical skill needed to progress towards building a learning organisation (Wick & Leòn, 1993:33). There is a distinct difference between learning organisations and organisational learning. Rothwell (2002:160) warns that the two concepts should not be confused. He cautions that organisational learning occurs through individuals, and that it would be a mistake to conclude that the learning organisation is nothing but the cumulative result of its members' learning. In the next section organisational learning is explored through drawing a distinction between the learning organisation and organisational learning.

### **2.5.1. The meaning of organisational learning**

Different opinions exist in the current literature on what organisational learning means. According to Schein (1994:13) there is no consistent definition. Willard (1994:6) defines organisational learning as the capability of an organisation to adapt to its environment. Shrivastava, as quoted in Rothwell (2002:162) reasons that organisational learning means adaptation. Organisational learning can also be seen as a process within an organisation to maintain or improve performance based on experience, better knowledge and understanding.

Organisational learning demands inquisitiveness and openness – a willingness by employees to challenge assumptions and tackle conventional wisdom (Garvin, 2000:19). Organisational learning is about the sharing of assumptions, it is associated with evolving knowledge about the relationships between what the organisation does (action) and its results (outcomes) and is closely tied to the experiences of the organisation (successes and failures).

The difference between a learning organisation and organisational learning as described by Beeby and Booth (2000:80) is shown in Table 2.1 as follows:

**Table 2.1 The learning organisation and organisational learning.**

(Beeby, M. and Booth, C. 2000: 80)

<b>Learning organisation</b>	<b>Organisational learning</b>
<i>Systems level entity, characterised by:</i>	<i>Processes of learning which are:</i>
Environmental monitoring mechanisms	Greater than the sum of individual learning
Organic decentralised structures	Double loop or meta-learning
Permeation by learning cultures	Cognitive processes and organisational activities

Table 2.1 describes the learning organisation as a systems level entity. The defining characteristic of a system is that it cannot be understood as a function of its isolated components. At the heart of the learning organisation is a shift of mind – from seeing ourselves as separate from the world to viewing ourselves as connected to the world, from seeing problems as caused by someone or something to acknowledging how our own actions create the problems we experience (Senge, 1990:12). Marquardt (1996:19) writes that the discussion on learning organisations focuses on describing the systems, principles and characteristics of organisations that learn and produce a collective entity.

Organisational learning on the other hand refers to how organisations learn; to the processes and skills of building and utilising knowledge and is only one dimension of a learning organisation (Marquardt 1996:19). Organisational learning involves individual learning and collective learning. Employees who make the shift from traditional organisational thinking to organisational learning develop the ability to think critically and creatively (Faerman, 1996:3).

This section explored the concept of organisational learning. Organisational learning is greater than the sum of individual learning and provides an opportunity to leverage each other's strengths. Organisational learning entails single loop, double loop and triple loop learning which imply changes to processes of the

organisation (Beeby & Booth, 2000:81). In the next section single loop, double loop and triple loop learning will be discussed in order to explain the process of organisational learning.

## **2.6. SINGLE-, DOUBLE- AND TRIPLE LOOP LEARNING**

Single loop learning is linear and tries to find a better way of achieving a goal. It is comparable to continuous quality improvement. Double loop learning on the other hand goes a step further and asks why we are engaged in the process in the first place (Faerman, 1996:30). Double loop learning leads to insights about why a solution works (Kahane, 2004:4). Meta learning or “triple loop learning”, as it is called by Faerman (1996:31), refers to learning about learning. It is about understanding why we make the choices that we do.

### **2.6.1. Single loop learning**

Single loop learning is at the heart of problem solving. Single loop learning occurs when errors are detected and corrected, and organisations continue with their existing policies and goals (Rothwell, 2002:162). Usher and Bryant (in Smith, 2001:60) submit that the emphasis, in single loop learning, is on “techniques and making techniques more efficient”. Single loop learning can be associated with activities that add to the knowledge base of organisational specific competencies without changing the fundamental nature of the organisation’s activities. In single loop learning the employees of organisations receive feedback and simply correct problems as they occur. Learning through “mistakes” is typical behaviour in single loop learning. Learning is incremental and slowly increases the organisation’s knowledgebase (Kahane, 2004:3).

### **2.6.2. Double loop learning**

Double loop learning occurs when, in addition to detecting and correcting errors, the organisation is involved in the questioning and modification of existing norms, procedures, policies and objectives. In double loop learning we are then considering our actions in the framework of our operating assumptions (mental

models). This is the level of learning where employees analyse processes and become observers of themselves. Argyris and Schön (1978:2) explain that double loop learning is to question the governing variables of the organisation and to subject them to critical scrutiny. In double loop learning employees literally change the collective knowledge base of skills available in the organisation. They are empowered to change the routines and processes that govern their duties. Kahane (2004:5) affirms that double loop learning allows employees to re-frame problems, to contribute to changing policies and procedures and to take risks in their work.

### **2.6.3. Triple loop learning**

Triple loop learning occurs when employees in organisations learn how to carry out single loop and double loop learning. The learning goes beyond insight and patterns to context. The result creates a shift in understanding in the employees' point of view. They produce new commitments and ways of learning. This form of learning challenges employees to understand how problems and solutions are related. Triple loop learning develops a better understanding of how to respond to the environment and deepens employees' comprehension of why they chose to do the things they do (Faerman, 1996:31). Triple loop learning is when an organisation's members think about strategies for learning as part of their core processes (Kahane, 2004:6).

In the previous sections single- double- and triple loop learning were discussed. This discussion will now turn to organisational change.

## **2.7. ORGANISATIONAL CHANGE**

Davidoff and Lazarus (1997:37) write that although the life realities and circumstances of organisations are constantly in flux, organisations have a responsibility to engage consciously in changing in chosen directions. This means that a conscious direction is chosen for the organisation that will most likely enable the organisation to become more effective in its focus. In the

following sections the need for-, resistance to- and the complexity of organisational change will be pursued.

### **2.7.1. The need for organisational change**

Change is all encompassing in present-day organisations. McNamara (1999:1) advocates that organisational change is usually motivated by factors such as substantial cuts in funding, new markets or clients, the need to increase productivity or services or the transition to a new chief executive. The economy and technology change constantly. Change happens continuously, and often at rapid speed. Organisations should not engage in change for the sake of change, but rather as a strategy to accomplish an overall goal (McNamara, 1999:1).

Today's organisations are characterised by an accelerated rate of change that results in change itself being institutionalised (Benveniste, 1994:3-4). This means that organisations cannot rely on their strategies to be forever valid. Organisations need to adjust their methods of engagement as fast as the environment around them changes. If organisations want to survive in today's economy they need to evolve into more intelligent and proficient entities. A changed organisation needs to have greater flexibility, knowledge, speed, power and learning ability to be able to confront the evolving needs of their environment, customers and members (Marquardt, 1996:1-2).

### **2.7.2. Resistance to organisational change**

There has to be a real sense of commitment at all levels of the organisation in order for effective change to take place (Wood, 2002:3). Davidoff and Lazarus (1997:38) attest that although conscious engagement during a makeover is the best way, it can still be threatening, painful and difficult for those people who engage in it. This is because people are afraid of the unknown (McNamara, 1999:2). Employee resistance to change is a critically important contributor to the failure of many well-intended efforts to initiate transformation within an organisation. Resistance to change is an inevitable response to any major alteration.

Drennan (1992:110), Harris (2001:164) and Bolognese (2002:5) agree when they reason that most employees want to help their organisations to change and improve, but that they need to know exactly how. Bolognese (2002:5) charges that in order to overcome resistance to change, organisations need to be effective in change management. The process of change management consists of getting those involved and affected to accept the changes as well as to minimise any resistance to the adjustments. Management can deal with resistance to change through increased and sustained communication and education (McNamara, 1999:2). Management should explain the reasons for change, how it will be generally carried out and where information about the changes can be found.

### **2.7.3. The complexity of organisational change**

Davidoff and Lazarus (1997:38) argue that organisational change is complex because it is unpredictable and because it does not happen in a straightforward linear way. Unplanned factors that can add to the complexity of organisational change are policies that are redefined, key leaders that leave the organisation, members in the organisation that change roles, new technology that is invented, the availability of resources that are reduced or conflict amongst the members (Fullan, 1993:19).

Many members of an organisation may think that things are already just fine and do not understand the need for change. Organisational change is at the best of times a complex undertaking. Barrow and Loughlin (1992:3) and Moloï (1999:78) however suggest that the learning organisation is the latest organisational transformation- or response strategy for guiding organisational change. Learning organisations will be able to adapt more quickly to change and thereby achieve significant strategic advantages in the global world of business (Marquardt, 1996:2). The next section will address the effects of globalisation on organisational change.

## 2.8. GLOBALISATION

The previous section considered organisational change. Marquardt (1996:3) prevails that globalisation can be seen as the root cause for organisational change beyond the 1990's. There is a global trend towards a greater degree of participatory forms of engagement in organisations. Words like empowerment, workers' rights, participation in decision-making processes and human rights come to the fore (Davidoff & Lazarus, 1997:2).

There are diverse opinions and projections around the effects of globalisation on modern organisations. These opinions range from rosy depictions of a flexible, worldwide borderless labour market to dire scenarios of severe polarisation between labour market winners and losers. Neave (2002:1) feels that globalisation has given the advanced economies a huge advantage. Accumulated wealth does not always filter down to those beneath and benefits to the rich remains with the rich – whether individuals, organisations or nations (Neave 2002:2).

The World Bank report of 2003 predicts that only employees who are educationally, socially and mentally prepared for a changing workplace will be able to reap the benefits from global integration. In the report it is reasoned that the demand will be for workers who are creative and innovative, who have the basic skills and technological competence to succeed in a changing work environment. Employees will need decision-making and problem-solving skills, instead of task specific skills. Most of all it is reasoned that employees must be able to learn on their own and with others (World Bank, 2003).

According to Tomassini (2002:3) the best-placed organisations in the global context will be those that are able to adopt the learning organisation vision. Learning organisations are organisations that are able to survive and thrive within the global economy, where knowledge is the fundamental resource of competitive advantage for organisations, as well as for individuals, regions and countries (Tomassini, 2002:11).



In a global market the competitive position of an organisation is determined by the position of other organisations in that industry (Yeniyurt, Cagvugil and Hult, 2004:8). In the global arena industrialised countries of the world are represented by high levels of public and private sector cooperation, whereas developing countries are facing incredible, sometimes overwhelming, changes, opportunities and challenges. The

knowledge - intensive nature of globalisation demands thus that organisations invest heavily in research and development, not as a luxury or only to gain competitive advantage, but to survive (Cogburn, 1998:9).

## **2.9. KNOWLEDGE MANAGEMENT IN A LEARNING ORGANISATION**

The previous section expounded on the need for organisations to view knowledge as a fundamental resource of competitive advantage particularly within a global arena. This section looks at knowledge management in a learning organisation. Knowledge management in a learning organisation is of importance, in the sense that it sheds light on how knowledge is produced, used and diffused in the organisation (Barclay & Murray, 1997:4). There is so much knowledge and specialisations within specialisations that knowledge acquisition and processing can become a tremendously intimidating event (Davidoff & Lazarus, 1997:1).

Knowledge is increasingly seen as a “crucial organisational resource” and its management is therefore too important to be left to chance (Marquardt, 1996:129 & Skyrme, 2003:1). The authors argue that the organisation’s traditions, culture, operations and procedures are all based on knowledge and expertise. Barclay and Murray (1997:2) aver that organisations must recognise that information and knowledge are corporate assets, and that organisations need strategies, policies and tools to manage these assets.

According to Katz (1998:50) knowledge is power and it must be shared so that new employees do not continuously reinvent the wheel. Katz (1998:50) advises that trainers should be central to the process. The trainer’s expertise should be sought because they are leaders on how people learn, how they implement what they learn and how they share their knowledge. This is vital for the retrieval of

knowledge and also crucial to the way in which knowledge is stored. Knowledge management is then, according to Katz (1998:50), the conscious capture, maintenance and distribution of information and experience.

Barclay and Murray (1997:1) guard against defining knowledge management “precisely and simply”. They do, however, give a description of what they think knowledge management is by proposing that in practice, knowledge management often encompasses identifying and mapping intellectual assets within the organisation, generating new knowledge for competitive advantage within the organisation, making vast amounts of corporate information accessible and the sharing of best practices and technology that enables all of the above.

Often when individuals leave an organisation they take a wealth of knowledge about their jobs with them. Knowledge management seeks to secure the learning experiences, as well as the work products, of the individuals who comprise an organisation (Newman, 1996:1). Marquardt (1996:130) writes that knowledge management is at the “heart” of organisational learning, and that the building and using of knowledge forms the “nucleus” of learning organisations. He further suggests that knowledge is managed through a “knowledge subsystem”, which includes how it is acquired, created, stored and transferred for utilization (1996:130). A brief explanation of these subsystems follow

### **2.9.1. Knowledge acquisition**

Organisations can acquire knowledge from both internal and external resources. Some external resources can include benchmarking from other organisations, attending conferences, hiring consultants, collecting data from customers and competitors, hiring new staff and collaboration with other organisations. Knowledge can be acquired internally from tapping into the skills of staff, learning from experience and implementing continuous change processes. Acquiring knowledge is not always intentional, but learning organisations build much more intentionality into the acquiring of knowledge.

### **2.9.2. Knowledge creation**

Knowledge creation is generative, the kind of knowledge that Senge (1994:49) says is imperative for learning organisations. Creating new knowledge involves tacit and highly subjective individual insights.

### **2.9.3. Knowledge storage and retrieval**

Knowledge storage and retrieval involves technical processes (records and databases) and human processes (collective and individual memory and consensus). Learning organisations give meaning to data and information through reflection, research and experimentation. The knowledge that is stored should be structured and stored in such a way that it can be found and delivered quickly. Some factors that may limit the retrieval of knowledge are cost, cognitive capacity of the receiver and the intentional or unintentional distortion of the meaning of messages (Marquardt, 1996:136-140).

Knowledge management provides the processes and structures to create, capture, analyse and act on information. The emphasis in knowledge management is on human know-how and how to exploit it to bring maximum return for an organisation. The central role of knowledge, education and learning for success in a global information society is critical in the restructuring of social, political and economic structures and processes that emerge from globalisation (Neave, 2002:1-3).

## **2.10. SUMMARY**

In this chapter two theories of learning, constructivism and transformative learning, were explored. The discussion was aimed at shedding some light on the learning process, as it is important that managers, trainers and learners know how learning takes place, in order to develop a culture of learning.

The discussion then turned to organisational culture. Organisational culture was explored because it affects strategic development, productivity and learning at all

levels in a learning organisation. The three levels of organisational culture, namely artifacts, espoused values and basic assumptions were used as an aid to explain organisational culture. It was acknowledged that the essence of organisational culture is the jointly learned values, beliefs and assumptions that become shared and taken for granted.

A discussion on the notion of the learning organisation followed. There seems to be consensus that it is difficult to define the learning organisation precisely. However, according to Kerka (1995:1) some authors believe that the principles that learning is valuable; every experience is an opportunity to learn; learning is continuous and most effective when shared, are the beginnings of a learning organisation. Senge (1990:6-10) was further of the opinion that learning organisations need five disciplines to move beyond the stage of development. The five disciplines, namely systems thinking, personal mastery, mental models, shared vision and team learning were discussed. The importance that the five disciplines develop as an ensemble was noticeable. Although some authors (Wick & Leòn, 1993:126) feel that there are prescribed formulas that can be used to develop learning organisations, this study explored three suggested initiatives (Bell, 2000:4 and Khoza 2003:7) that can be used during the endeavour towards building a learning organisation.

The following section drew a distinction between organisational learning and learning organisations. It was evident that organisational learning refers to how the members of an organisation learn and that it involves individual and collective learning. Single- double- and triple loop learning was then discussed to show the importance of developing the ability to think critically and creatively in learning organisations.

The discussion then turned to organisational change. Although various factors contribute towards organisational change, conscious engagement in organisational change was evident. The need for organisational change was discussed. The understanding is that organisations should not engage in change for the sake of change, but rather as a strategy to accomplish an overall goal. Although most employees want to help their organisations to change and

improve, it was clear that most members of an organisation resist change because they fear the unknown. The learning organisation was presented as the latest organisational transformation- or response strategy to alleviate the complexity of organisational change.

The discussion then addressed the effects of globalisation on organisational change, and why it should be considered in a learning organisation. It was argued that the best-placed organisations in the global context will be those organisations that adopt the notion of the learning organisation.

Knowledge is seen as an organisational asset in learning organisations. Therefore the discussion turned to the importance of knowledge management. Knowledge management seeks to secure the learning experiences and the work products of the members of an organisation. Knowledge can be managed through a knowledge subsystem (Marquardt, 1996:130), which includes the manner in which it is acquired, created, stored and transferred for utilisation. The emphasis on knowledge management in learning organisations is on human know-how and how to exploit it to bring maximum return for an organisation.

The chapter also presented the learning organisation as an approach with which to aid organisational change in a global arena. In the endeavour to change towards a learning organisation the goal should be to prepare members to be more efficient and effective learners in real time and on the job. Organisational leaders should direct their attention to establishing and maintaining conditions that encourage workplace learning. The challenge that all the members of an organisation face – whether they are mentors, supervisors, managers, other leaders or employees – is to find ways to build the competence of workplace learners while building a supportive workplace learning climate (Rothwell, 2002:252).

The next chapter will focus on the research paradigm, research approach and research methodology that guided the empirical study.

## CHAPTER 3

### RESEARCH DESIGN AND METHODOLOGY

#### 3.1. INTRODUCTION

In the previous chapter the researcher conducted a literature review. The intention of the literature review was to contextualise the research within the boundaries of organisational change towards building a learning organisation (Henning et. al. 2004:27). In this chapter the researcher discusses the research paradigm, design and methodology used to conduct the research project. The focus of this research was to collect data regarding the perceptions, feelings and experiences of the participants about the contribution that the SAT training department could make to organisational change towards building a learning organisation.

This research was conducted within a qualitative paradigm as prescribed by Creswell (1994:4) and Neuman (2000:65). The core principles of a phenomenological research design guided this study. Phenomenology was chosen because the researcher intended to understand and describe, as accurately as possible, the participants' perceptions, feelings and experiences of how they could contribute to organisational change towards building a learning organisation, specifically in the context of SAT (Farber, 1966:11 & Groenewald, 2004:9). The phenomenological methodology that was used to collect and analyse the data is illustrated by means of this specific research. The sampling process, data recording methods and means of data analysis are therefore explained. The role that the researcher played during the research process is also considered. The section that follows examines the qualitative research paradigm with particular reference to the problem statement.

#### 3.2. RESEARCH PARADIGM

Some authors (Hoepfl, 1997:1; Hancock, 2002:4 & Henning et. al. 2004:3) distinguish between qualitative and quantitative research paradigms as a starting

point to understand the collection of information for research purposes. The discussion in this section will reflect upon the definition, origin and purpose of a qualitative research paradigm to collect data for this empirical research.

### **3.2.1. Qualitative research**

Qualitative research, broadly defined, means “any kind of research that produces findings not arrived at by means of statistical procedures or other means of quantification” (Strauss & Corbin, 1990:17) but instead; the kind of research that produces findings derived from real-world settings where the phenomenon of interest unfolds naturally (Merriam & Simpson, 2000:97 & Patton, 2001:39). A qualitative paradigm suited this study because the researcher intended to understand and describe data that reflected the perceptions, feelings and experiences of the participants.

The qualitative paradigm started in the late 19<sup>th</sup> century as a counter-movement to the positivist (quantitative) tradition of the time and may be termed post-positivist, post-modern or interpretive (Creswell, 1994:4 & Neuman, 2000:65-69). Qualitative research is concerned with developing explanations of social phenomena. Qualitative research seeks to understand phenomena in context-specific settings where the researcher does not attempt to manipulate the phenomenon of interest (Patton, 2001:39).

This research is placed within a qualitative paradigm because it is designed to help researchers understand the world in which we live and why things are the way they are. Merriam and Simpson (2000:98) write that the overall purposes of qualitative research are to achieve an understanding of how people make sense out of their lives, to explain the process of meaning making and to describe how people interpret what they experience. The qualitative paradigm, therefore, provided this research with a process in which the researcher could understand and describe the perceptions, feelings and experiences of the people involved in the training department at SAT, of how they could contribute to organisational change towards building a learning organisation. What follows is a discussion of the research design and its application during this study.

### 3.3. RESEARCH DESIGN

Terre Blanche and Durrheim (1999:52) profess that a research design is a plan for action that is developed by making decisions about four aspects of the research, “the research paradigm; the purpose of the study; the techniques to be employed and the situation within which the research will take place”. Novice researchers are often overwhelmed by the plethora of research designs available, making the selection of an appropriate research design for a particular study difficult (Henning et. al. 2004:2). The design for this research needed to be interpretive and descriptive, as the researcher wished to understand and describe the perceptions, feelings and experiences of training managers, trainers and employees (learners) of how they could contribute to organisational change towards building a learning organisation, specifically at SAT. Phenomenology was used as the research design because of its interpretative and descriptive approach (Groenewald, 2004:2). A brief discussion of phenomenology follows.

#### 3.3.1. Phenomenology



The nature of perception, remembrance and any other modes of experience form the theme in phenomenological enquiry (Farber, 1966:49). The aim of phenomenology is consequently to bring understanding to the core of that which is experienced (Groenewald, 2004:9). Hancock (2002:4) essays that phenomenological research begins with the acknowledgement that there is a gap in our understanding and that clarification or illumination will be of benefit. Husserl (1976:6 and 263) distinguishes between natural attitude and phenomenological reflection. He claims that in the natural attitude reality is thought to exist, as it is perceived, almost a naïve realism – we take the existence of the world for granted. In phenomenology, on the other hand, we classify, describe, interpret and analyse structures of experiences in ways that answer to our own experience (Smith, 2003:5). Leedy (1997:161) agrees that phenomenology is a person’s construction of the meaning of a phenomenon, as opposed to the phenomenon as it exists externally to the person. Phenomenology attempts to understand the participants’ perceptions and views of social realities (Leedy 1997:161). Again the above view suits this design, because it provided the researcher with the



necessary approach to understand and describe the data obtained during the interviews that were conducted.

Farber (1966:14) points out that a phenomenological design is intended to achieve certain objectives. A phenomenological objective in this research was to describe essential structures of experience and to give as complete an account as possible of the parts played by the participants themselves. Phenomenology assisted to realise the ideal of a descriptive research. A phenomenological design, therefore guided this study as the researcher intended to understand and describe the participants' perceptions, feelings and experiences of how the SAT training department could contribute to organisational change towards building a learning organisation.

In this section the researcher discussed the significance of employing a phenomenological design. It was established that the intention of phenomenology is to understand and describe the phenomena in terms of the participants – to provide a description of human experience, as experienced by the participants themselves (Bentz & Shapiro, 1998:96). In the following sections the researcher will discuss the research methodology that was used to obtain the data for the purpose of this research.

### **3.4. RESEARCH METHODOLOGY**

A variety of methods can be used to obtain data for qualitative enquiry in a set of interpretive practices, with no privileges to any methodology over the other (Denzin & Lincoln, 1998:2). The researcher employed a method appropriate to collect data necessary to understand and describe the participants' perceptions, feelings and experiences of how the SAT training department could contribute to organisational change towards building a learning organisation. Semi-structured individual interviews, as discussed in par 3.4.2, were used as the primary method for data collection during the research process (Hoepfl, 1997:6). The sampling strategy for the empirical study will be discussed next.

### **3.4.1. Sampling**

The sampling strategy for the empirical research was employed in order to select participants that would provide a management-, educational- and learner perspective of how they could contribute to organisational change towards building a learning organisation. The sample, therefore, was strategically identified and purposefully selected to provide data that was used to gain an in-depth understanding of the perceptions, feelings and experiences that employees have regarding the contribution that the SAT training department could make to support organisational change towards building a learning organisation (Merriam & Simpson, 2000:57). The participants consisted of a senior manager for training, four senior aviation trainers and three employees that have received extensive training from this specific training department.

The researcher interviewed the participants with their informed consent (see Appendix B). The senior manager's interview provided data that was rich in perceptions, feelings and experiences of what policies and procedures would be best for training during organisational change towards building a learning organisation. The manager's interview also provided data about his perceptions of how to engage all employees during a change process. The four senior aviation trainers provided perceptions and experiences of how to create an environment that encourages learning. The three employees (learners) that were selected are senior employees (supervisory level), who have a good knowledge of how employees participate as learners in the organisation, and specifically at the training department. The learners provided data that was rich in information in that they explained what encourages and also discourages employees to learn at SAT. In the following section the interviews that were used to collect data are discussed.

### **3.4.2. Interviews**

Eight employees, who have a firm association with the SAT training department, were interviewed to collect data for this research project. The researcher used semi-structured individual interviews as the primary method to collect data during

the research process (Hoepfl, 1997:6). Semi-structured individual interviews served the study best as they provided opportunities for the participants to elicit individual perceptions, feelings and experiences. The main purpose of the interviews was to gain a detailed picture of the participant's perceptions of how they could contribute to organisational change towards building a learning organisation, specifically at SAT (Patton, 2002:341 and 348).

The researcher used an interview guide, consisting of a set of predetermined open-ended questions, (see Appendix C) to guide the line of enquiry during the semi-structured interviews. The interview guide assisted the researcher to focus conversations within the area of organisational change towards building a learning organisation, to word questions spontaneously and to establish a conversational style with the focus on the specific subject (Hancock, 2002:9). The questions were "directed" to the participants' perceptions, feelings and experiences about the topic in question (Welman & Kruger, 1999:196). When an interviewee had difficulty in answering a question, or provided only a brief response, the researcher used cues, or prompts to encourage the interviewee to consider the response further. Some of the cues used during the interviews include:

- Please explain what you mean by...?
- Can you please elaborate on what you meant by...?
- What do you feel was the most important part of your experience?
- How can we accomplish this?

The cues gave the researcher freedom to elaborate on the original response and to follow a line of inquiry introduced by the interviewees (Patton, 2002:372-374).

The researcher was aware that distinctive qualitative interviews are the result of rigorous preparation (Hancock, 2002:10). Preparation for the interviews included pilot interviews with family members and a colleague, testing of the recording equipment and preparing a questionnaire guide. Although Patton (2002:379) warns that the novice researcher should not become "overly technique oriented" as it is the perceptions and worldviews of the interviewees that the researcher wishes to understand, the researcher constantly attempted to focus on collecting data that was useful, relevant, valuable and appropriate.

In this section the process of conducting the semi-structured interviews for this study were discussed. The next section explores the means of data recording during the interviews.

### **3.4.3. Data recording**

The data recording method was an important part of the planning process for the interviews. The researcher had the choice to record the data obtained from the interviews in writing and electronically on audio- or videotape.

Merriam and Simpson (2000:152) warn that note taking can result in missed information and thereby reduce the validity of the data. Patton (2002:381) cautions that an attempt to take notes can seriously affect the “interactive nature” of interviewing. Note taking as an option to recording the data was eliminated because of the researcher’s limited abilities in shorthand. As such, the possibility of losing valuable information was reduced.

Video recording would have been the preferred method to collect the data from the interviews, because it would provide evidence of facial expressions and feelings that was expressed during a response from an interviewee. Video recording was eliminated as a method of data collection because the researcher would have needed technical assistance (Henning et. al. 2004:74) and there was the possibility that some of the interviewees would not respond authentically if videotaped (Merriam & Simpson, 2000:152).

Lincoln and Guba (1985:241) recommend that electronic devices should only be used in unusual circumstances, because of the intrusive nature it represents and the possibility of technical failure. Patton (2002:380) on the other hand feels that the tape recorder is “indispensable” and that tape recorders capture data more faithfully than hurriedly written notes might. With the informed consent of the participants (see Appendix B) the researcher used a micro tape recorder, specifically designed to capture data during interviews. To minimize the possibility of technical failure the researcher always conducted the interviews with an extra

set of batteries and a clean audiotape available. The recorder produced high quality transcripts that served as the primary source of data for analysis.

In the previous sections the methods that were employed during the research process were explored. In the next section the process of analysing the data that was collected during the interviews will be examined.

### **3.5. DATA ANALYSIS**

Data analysis is the systematic procedure used to identify essential features and relationships that exist in the data (Coffey & Atkinson, 1996:9). It is a way of transforming the data through interpretation. Hycner (1999:161) warns that as the term analysis usually means “breaking into parts” the researcher should guard against the loss of the “whole” phenomenon during the analysis process.

According to Merriam and Simpson (2000:11) and Henning et. al. (2004:128) qualitative analysis transforms data into findings, which leads to conclusions regarding the original question or research problem. The researcher was interested in discovering the bigger picture, or an information rich description, of how employees could contribute to organisational change towards building a learning organisation (Henning et. al. 2004:128). The challenge, for the researcher in this case, was to make sense of the immense amounts of information that was collected (Patton, 2002:432). In an attempt to overcome this challenge the researcher used a three-step strategy to code the data that was contained in the transcriptions. This three-step coding strategy comprised of open coding which means breaking down, examining and categorizing the codes as seen in Appendix D. In this research axial coding followed where codes were grouped and connected as seen in Appendix E. Selective coding meant selecting core categories and relating these to other categories that led to the themes and sub-themes of the research (Leedy, 1997:164).

The data analysis process of this research can thus be reviewed as:

The qualitative researcher analysed the data by coding the transcriptions that were made of the interviews. Five broad categories were identified as discussed

in par 4.4. Codes were placed under the categories (see Appendix D) (Henning et. al. 2004:129 & Neuman, 2000:420). Five main themes with sub-themes, as discussed in par 4.5, were derived from the data after placing similar codes in groups (see Appendix E). The data was interpreted according to the themes and sub-themes.

This section described how the researcher dealt with the data that was collected during the interviews. The data analysis and interpretation is fully explained in chapter 4. The findings are discussed in chapter 5. The role that the researcher played during the research process is the focus of the next discussion.

### **3.6. ROLE OF THE RESEARCHER**

Denzin and Lincoln (2000:389) and Patton (2002:433) stress the importance that the researcher should be present in the research process, as nobody else can perfectly replicate the analytical thought process or interpret the data in the same way as the researcher. The researcher, in this phenomenological study, was concerned with understanding and describing the social phenomena of organisational change towards a learning organisation as perceived, felt and experienced by the participants (Welman & Kruger, 1999:189). Therefore the phenomenological intention of the researcher was to understand and describe as accurately as possible the phenomena as perceived by the participants while refraining from any pre-given framework, but remaining true to the evidence (Groenewald, 2004:9). Validity and reliability have been of paramount importance in the collection of data.

### **3.7. VALIDITY AND RELIABILITY**

The use of the words validity and reliability in literature on qualitative research seems to be uncertain (Golafshani, 2003:601). Lincoln and Guba (1985:39) theorise that the terms “credibility, neutrality, conformability, consistency or dependability and applicability” should rather be the essential criteria for quality in the qualitative paradigm.

The concepts of validity and reliability will however provide this study with guidelines in sound research practices. Morse et al. (2002:1) propagate that validity and reliability should not be used as strategies to evaluate trustworthiness and utility once a project has been completed, but that validity and reliability strategies should be built into the research process itself. The approach that was used to incorporate validity and reliability in the research are discussed in the next sections.

### **3.7.1. Validity**

Henning (2004: 146) argues that a research design is validated on the grounds of the “sense” that the design makes to people who the research is extended to. Precision, through good technique, truthful publication and action was used as guidelines for validity in this research. The transcriptions of each interview were shared with the respective participants to validate the truthfulness of the data. Merriam and Simpson (2000:101) say that validity is asking the question of how the findings of the research correspond with reality. The researcher was the primary instrument for data collection, and therefore the understanding of reality in this research is in fact the researcher’s interpretation of the participant’s explanation of the phenomenon of organisational change towards building a learning organisation.

### **3.7.2. Reliability**

Mouton (1996:112) contends that reliability is a dimension of validity and that it is the key criterion for the collection of valid data. He declares that reliability depends upon the question of whether other researchers can duplicate the research findings at a different time (1996:144). Golafshani (2003:601) warns that the concept of reliability in qualitative research can be misleading and that a qualitative study that is discussed with reliability as criterion is “no good”. Morse, Barrett, Mayan, Olson and Spiers, (2002) disagree with this sentiment. They argue that reliability should remind the researcher to be proactive and to take responsibility for rigor in research (Morse et. al. 2002:8).

This researcher employed a proactive strategy, as suggested by Patton (2002) and Morse et. al. (2002), to ensure that the results will make sense; and that the findings are consistent and dependable. An audit trail is evident in this research as the research report provides a detailed account of the research process and focus of the study. The audit trail includes transcriptions of the interviews (see Appendix F) and analysis notes (see Appendices D & E) (Lincoln & Guba, 1985: 320-321). This research report further provides a clear description of the role that researcher played during the research. The basis for selecting the participants, as well as their applicability as candidates is provided. The data collection and analysis methods are described in detail to provide a clear representation of the research process. The researcher also adhered to strict ethical standards during the research, as described in the next section.

### **3.8. ETHICAL CONSIDERATION**

Most authors who discuss research design stress the importance of ethical considerations (Neuman, 2000; Patton, 2002 & Henning et. al. 2004). Communicating the requests and requirements of this research clearly with all the participants and other stakeholders aided the researcher to maintain a high standard of ethics. The researcher secured written permission from the Chief Executive Officer of South African Technical (see Appendix A) to gain access to participants in the research and to achieve consent to conduct the research within SAT. Permission to use a venue for the interviews was attained from the senior manager of SAT training. The researcher also obtained written permission from all the participants (see Appendix B), and assured them that participation was voluntary. The interviews were audio taped and later transcribed. Each participant was allocated a pseudonym in the transcriptions in order to protect individual identities. Although quotations from the interviews featured strongly throughout the interpretation and findings, the identities of the participants were protected by using a multiple-voice approach when quoting from the interviews.



### 3.9. SUMMARY

In this chapter the research was placed within a research paradigm. The research design and methodology that was used to conduct the empirical research, was then argued.

The study was placed within a qualitative research paradigm, because it provided a framework in which the researcher could understand and describe the perceptions, feelings and experiences of the participants regarding the contribution that the SAT training department could make to organisational change towards building a learning organisation.

The phenomenological design of this research was discussed. A phenomenological design presented the study with opportunities to classify, describe, interpret and analyse perceptions, feelings and experiences of the participants.

Semi-structured individual interviews were presented as the method to collect primary data during the research process. The researcher conducted semi-structured interviews because they presented the opportunity to collect data that offered a detailed picture of the participant's perceptions of how the SAT training department could contribute to organisational change towards building a learning organisation. The sampling process was discussed, and the data recording techniques were explained.

The data analysis procedure was discussed. The coding process was explained and the themes and sub-themes were related to the categories in which the codes were placed.

The researcher accentuated his role during the research process. The phenomenological aim of the researcher was to describe as accurately as possible how to contribute to organisational change towards building a learning organisation, as perceived by the participants, refraining from any pre-given framework but remaining true to the evidence. The approach that was used to

incorporate validity and reliability in the research was discussed and ethical considerations were explained. All correspondence used during the research process are attached as appendices to this research report.



## CHAPTER 4

### DATA ANALYSIS AND INTERPRETATION

#### 4.1. INTRODUCTION

In the previous chapter the research paradigm, design and methodology that was used to conduct the empirical study were discussed. Data was collected from semi-structured individual interviews and were audio taped. The audiotapes were transcribed and then coded.

In this chapter the analysis and interpretation of the data are discussed. The process of data analysis is explained hereafter.

#### 4.2. OVERVIEW OF THE DATA COLLECTION PROCESS

The purpose of the research was to collect data in order to develop an understanding and then describe how employees working at SAT, and who have an association with the SAT training department, could contribute to organisational change towards building a learning organisation. To gain such an understanding eight semi-structured individual interviews were conducted with SAT employees. The audio taped interviews were transcribed. The transcriptions were color coded, and pseudonyms were given to each participant in order to aid in the process of protecting individual identities. The raw data is presented in full in appendix F.

#### 4.3. DATA ANALYSIS

The data was analysed according to the procedure as discussed in par 3.5. The researcher analysed the data by organising it into identifiable categories. Five broad categories were identified, and codes were then placed under the categories (see Appendix D). An explanation of the categories used to analyse the data is given in par 4.4 of this chapter.

Similar codes were then grouped together (see Appendix E). Themes and sub-themes were derived from the code-groups. A detailed explanation of the themes and sub-themes that are contained within the data follows in par 4.5.

#### **4.4. CATEGORIES**

As mentioned above the researcher identified five broad categories during the initial examination of the data. In this section the researcher explains why the categories were used and how each category relates to the data.

The heading of each category consists of one word only, as it is the intention that a category will allow for a wide range of codes to be incorporated. The five categories are learning, culture, change, globalisation and knowledge. An abridged discussion of each category follows.

Codes of perceptions that the participants had regarding motivation, barriers and other insights around their experiences of learning at the organisation were incorporated under the category 'learning'.

Although the researcher did not ask any direct questions regarding the organisational culture at SAT, some explicit information around organisational culture were identified in the data. The codes that hold data on organisational culture were placed under the category 'culture'.

The focus of this study is the contribution that the SAT training department could make to organisational change towards a learning organisation. The participants' feelings and experiences of change at SAT, coping with these changes and their perceptions of how change in the organisation should be handled form part of a category called 'change'.

SAT forms part of the global environment in which it operates. It is the opinion of the researcher that the members of the organisation need to stay in touch with their environment, if they want to participate and excel in this environment. Codes that were derived from the data around the participants' perceptions of how the

organisation can gain a competitive edge above other organisations in the industry were placed in the category 'globalisation'.

The researcher reasons that knowledge forms the backbone of a learning organisation. Some of the codes that were categorised under 'knowledge' include knowledge creation, knowledge retention and the influence of knowledge.

In this section an overview was given of the categories in which the data were initially placed. In the next section a more in-depth discussion follows on the themes and sub-themes that were derived from the data.

#### **4.5. THEMES**

As indicated in par 4.3 the themes and sub-themes that were derived from the analysis of the participants' responses are discussed in this section. On the surface it may seem that the themes, derived from the data, are the same as the categories in which the codes were placed in the previous section. The researcher meant rather, to focus the themes somewhat more on the topic of the contribution that the employees at SAT could make with regard to organisational change towards building a learning organisation.

In table 4.1, a summary of the themes and sub-themes are provided with the intention to aid in the forming of a holistic picture of this section.

**Table 4.1: Summary of themes and sub-themes contained in data**

<b>Themes</b>	<b>Sub-themes</b>
1. Organisational learning	1.1. Motivation to learn. 1.2. Barriers that prevent learning. 1.3. Overcoming barriers to learning. 1.4. Learning within the organisation 1.5. Learning from other organisations
2. Organisational culture	2.1. Experiencing culture
3. Organisational change	3.1. Types of changes encountered 3.2. Experiencing change 3.3. Coping with change 3.4. Facilitating change
4. Globalisation	4.1. Position in the global market 4.2. Contributing towards competitiveness
5. Knowledge management	5.1. The influence of knowledge 5.2. Keeping knowledge current 5.3. Knowledge retention 5.4. Managing knowledge

#### **4.5.1. Organisational learning**

Five sub-themes were identified under this theme. The researcher recognised, from the data, certain factors that could guide learning in the organisation. Some of these factors form the sub-themes in this section and will now be discussed.

##### *4.5.1.1. Motivation to learn*

Some participants feel that external factors such as promotion, money, advances in technology, and a safer working environment could encourage people to learn (Aileron: line 110; Rudder: lines 138 and 151; Radar: lines 62, 67 and 78 & Throttle: line 64). It is also noticeable to the researcher that some participants feel that the nature of the aviation environment has a lot to do with learning at SAT (Aileron: line 109; Elevator: line 67 & Engine: line 88).

In contrast, some participants also feel that they are motivated by internal factors; or the goals that they set for themselves (Engine: line 88). The participants feel that self-enrichment, confidence and being effective in one's work (Spoiler: line 93; Rudder: lines 144, 150 and 169 & Flap: line 73) are factors that encourage them to learn at organisational level.

Motivation to learn is outlined by Throttle when she says that: "motivation must also come from yourself, not only from the organisation. It's to better yourself" (Throttle: line 74).

#### 4.5.1.2. *Barriers that prevent learning*

A very optimistic view from one of the participants is that he does not feel discouraged to learn at all (Engine: line 94).

Some of the participants feel that management creates a barrier towards learning. Some responses in this regard are that managers get appointed because of their technical ability; and not because of their ability to lead (Aileron: line 131). Elevator feels that managers are not accountable when it comes to training issues, and always blame another party when these issues are considered (Elevator: line 77). An added perception is that managers perhaps focus too much on their work, and do not focus enough on their staff's training needs (Flap: line 108).

A factor that is also emphasised by some of the participants is a lack of opportunities for some employees to develop and advance in the organisation (Rudder: lines 177 and 191; Radar: line 89 & Throttle: lines 78 and 83). The main reason that was given for this situation was the organisation's current employment equity policy (Spoiler: line 100 & Throttle: line 84).

#### 4.5.1.3. *Overcoming barriers to learning*

Elevator commented that management should act responsibly when treating employee development issues (Elevator: line 86). Some suggestions regarding

management's contribution to overcoming barriers to learning is that the management structure should be flattened and that leaders instead of managers should be appointed (Aileron: line 141). Other participants feel that management needs to be educated to make them more aware when they make decisions that impact on employee development (Rudder: line 208; Flap: line 98 & Radar: line 100).

Another idea is that management could overcome barriers to learning by motivating, informing and educating employees on changes and future plans for the organisation (Throttle: line 93).

#### 4.5.1.4. *Learning within the organisation*

Most of the participants shared a common perception that learning from peers could be used to increase knowledge within the organisation. They feel that the best way to learn from each other is through sharing of knowledge, experiences and problems (Aileron: line 166; Elevator: line 115; Rudder: line 247; Radar: line 143 & Throttle: line 116). Aileron also feels that there should be a link between "production and training" where training personnel have the opportunity to share "innovations" with the production employees (Aileron: line 161).

Radar suggests that learning could take place through information sessions or seminars, where organisational issues are discussed, minuted and shared with all employees (Radar: lines 137 and 142).

#### 4.5.1.5. *Learning from other organisations*

Aileron feels that we can learn from other organisations by being aware of what is happening in the global aviation industry, through the use of the "internet and periodicals" (Aileron: line 174). Other participants add that we should investigate what other organisations are doing and then learn from their experiences, before implementing similar strategies (Spoiler: line 134; Rudder: line 267 & Flap: line 133). Engine is of the opinion that the employees at SAT could learn what other



organisations are doing if they work with other companies and “check people out” (Engine: line 115).

#### **4.5.2. Organisational culture**

This discussion now turns to organisational culture. In chapter 2.3 it was argued that organisational culture refers to the jointly learned values, beliefs and assumptions that are shared and taken for granted in an organisation. The discussion in this section is focussed on the participants’ perceptions and feelings of the organisational culture at SAT.

##### *4.5.2.1. Experiencing culture*

Some of the participants feel that SAT was historically isolated from the international aviation industry (Aileron: line 72; Flap: line 28 & Engine: line 36), and that the changes, that came with South Africa being accepted into the global arena, requires a change in mindset in order for the organisation to get a step ahead of its competitors (Aileron: lines 123-125).

The passion that the employees at SAT have towards their work, and specifically the aviation industry, is also noticeable in a few of the participants’ responses (Aileron: line 110; Elevator: line 67 & Engine: line 84). Some of the participants pride themselves in the contribution that they feel they make towards the organisation; and specifically towards the aviation industry (Aileron: line 155 & Spoiler: line 111).

Some of the participants feel that there is a lack of leadership in the organisation (Aileron: line 132; Flap: line 84 & Radar: line 101) and others feel that there is not enough support from management during times of change (Radar: line 120 & Engine: line 74).

One participant is of the opinion that employees are disempowered (Aileron: line 196) and another feels that employees are absolutely demotivated and don’t want to stay with the organisation any longer (Elevator: line 213).

### 4.5.3. Organisational change

The discussion in this section is focussed on the participants' perceptions of organisational change at SAT. These perceptions include the types of changes encountered; their experiences of the changes; coping with the changes and how they think future changes could be facilitated in the organisation.

#### 4.5.3.1. *Types of changes encountered*

Two participants feel that the new requirements laid down by global aviation regulating bodies are some of the most significant organisational changes that have recently occurred in the SAT training department (Aileron: line 29 & Spoiler: line 53). These changes require that the training department must change their procedures, their practices and the way in which they put their material together (Aileron: line 32).

A number of the participants felt that significant changes have occurred in their environment. Some of these changes were brought about by the transition to the new democratic government (Flap: line 28). This caused the organisation's direction to change, and it now operates in a globally competitive environment (Engine: line 35). All employees, of different cultures and backgrounds, now have to work towards a common goal (Elevator: line 23; Radar: line 32 & Engine: line 53).

Although only one participant mentioned the merger between two large departments as a change, which had very little effect on his life (Radar: line 51), the researcher is of the opinion that similar changes could create ideal circumstances from which employees could share and learn from each other.

Spoiler also notes the new technology, which some employees experienced with new aircraft, as an organisational change (Spoiler: line 23).

#### 4.5.3.2. *Experiencing change*

A familiar environment provides people with a feeling of security, and that is maybe why people are scared of change: it creates uncertainty (Aileron: lines 81-96). Some of the uncertainties that the participants experienced include that they feel they were forced into the change (Engine: line 49), it was a challenge to work with people in a new department (Rudder: line 60) and that management was unsupportive in aiding the change process (Engine: line 73).

Although people perceive employees in a new environment to be “different” (Elevator: line 24; Rudder: line 73; Flap: line 31 & Throttle: line 50), they learn to accept each other’s background and cultural differences by being committed to change (Rudder: line 61; Radar: line 46 & Throttle: line 47).

#### 4.5.3.3. *Coping with change*

To deal with change can be a very exciting and challenging experience for some people (Aileron: line 40), but others would rather have support programmes (Radar: line 60 & Engine: line 43) to aid in the change process.

Some of the participants feel that acceptance of people from different backgrounds, cultures and a new environment could be achieved through mutual respect (Elevator: line 33), commitment (Rudder: line 61 & Radar: line 46), increased involvement and communication (Throttle: line 37).

Spoiler is of the opinion that studying, on-the-job-training and simulations could be used to overcome technological changes that may occur (Spoiler: line 48).

#### 4.5.3.4. *Facilitating change*

During organisational change “we’ve got to look at how to create a changing environment for our staff... you’ve got to take everyone into consideration” (Aileron: line 96). Spoiler feels that employees should understand what the

changes are about and then a “common sense plan” (Spoiler: line 76) should be implemented that can make the changes work.

Some of the participants feel that they would have coped better with the changes, that they have experienced, if they had received education on how to prepare for the issues at hand (Rudder: line 130; Flap: lines 56-62 & Engine: line 71). Others feel that social activities like “team building, brainstorming, think tanks and even motivation exercises” could aid the change process (Engine: line 67 and Throttle: lines 57-58).

#### **4.5.4. Globalisation**

Globalisation is a major reason for organisational change, as discussed in par 2.8. In this section the focus is on the participant’s perceptions of the organisation’s position in the global market. Their perceptions of how they could personally contribute towards giving the organisation a competitive edge in the global market are also discussed.

##### *4.5.4.1. Position in the global market*

A few participants feel that SAT was historically isolated from the rest of the world’s aviation maintenance providers, and that the organisation now has to be geared to operate in a globally competitive environment (Aileron: line 76; Flap: line 28 & Engine: line 36). The researcher agrees with Aileron who reasons that:

“... often we’re stuck... we’re stuck in the old mindset. We need to get into the mindset where we’ve got to be one step ahead. We’ve always been one step behind in the industry – we need to get one step ahead to say: it’s coming, what do we need to get there, so when it happens we are already prepared for it”

(Aileron: line 123).

Some of the participants argue that the organisation could look at what other organisations in the industry do and then work on a plan that will suit the needs of SAT, without making the same mistakes that they have made (Spoiler: line 130; Rudder: line 268; Flap: 133 & Radar: line 158). Spoiler is of the opinion that the

organisation should position itself towards global requirements in the form of a new licensing system for aviation technicians. The advantages would be:

“...you can do with less manpower, less highly skilled people... your labour costs will come down... licensing will fit into any other company’s licensing system... more work from overseas... compete to the big people out there which will bring lots of money into the company. If we don’t go towards this direction we will fall out of the bus and stay behind...”

(Spoiler: line 114).

Engine (line 116) feels that SAT has the technical ability to compete in the global market, but that the organisation may lack the business skills required to achieve a competitive edge. Elevator (line 198) disagrees and feels that the organisation does not have enough people to compete in the global market, and that more “apprentices” need to be trained.

#### 4.5.4.2. *Contributing towards competitiveness*

The participants believe that they could contribute in various ways towards giving the organisation a competitive edge in the global aviation maintenance industry. The contributions vary from quality assurance in training (Aileron: line 149), researching global aviation regulations and requirements (Spoiler: line 111) to self-development (Elevator: 96 & Flap: line 119).

Other participants feel that attitude – being motivated and positive towards the organisation – is a contributing factor towards giving the organisation a competitive edge in the global industry (Rudder: lines 219 and 231; Flap: line 117 & Throttle: lines 104 and 105). Contributions could also consist of a sharing of knowledge (Radar: line 101) and being an expert in one’s field (Rudder: line 218).

Spoiler (line 192) also feels that a competitive edge requires management to be sensitive to employees’ inputs and to listen to what they have to say.

#### 4.5.5. **Knowledge management**

The importance of knowledge management, in a learning organisation, was explained in par 2.9, because it gives an idea of how knowledge is produced,

used and diffused in the organisation. In this section some of the participants' perceptions, feelings and experiences of the influence of knowledge on their work are illuminated. The discussion also looks at how to keep knowledge current, how to retain knowledge in the organisation and how to manage knowledge.

#### 4.5.5.1. *The influence of knowledge*

As mentioned in par 2.9 the researcher believes that knowledge has an influence on the traditions, culture, operations and procedures in an organisation. The participants feel that knowledge gives you the ability to do your job (Aileron: line 213). Knowledge provides you with the competence to share knowledge in the classroom situation (Spoiler: line 210), but can also be “frustrating” if you don't have enough knowledge to understand something (Rudder: line 330). Knowledge makes your work easier (Radar: line 186; Radar: line 147 & Radar: line 152), it gives you self-confidence in your approach towards a problem (Radar: line 154 & Radar: line 154) and it aids in making decisions and how to base those decisions (Radar: line 190).

#### 4.5.5.2. *Keeping knowledge current*

In par 2.9 it is stated that new knowledge should be generated for competitive advantage within the organisation. Although some of the participants feel that the technical knowledge of the organisation is current (Aileron: line 226 & Spoiler: line 239) some of the other participants say that training, in the form of recurrent training and refresher courses could aid in keeping the knowledge of the organisation current (Interview3: line 251; Rudder: line 407; Radar: line 214 & Radar: line 161).

Knowledge of what is happening in the organisation, and on quality assurance issues could be shared through seminars, meetings, flyers or written communiqués (Rudder: lines 410-413 & Radar: line 213).

#### 4.5.5.3. *Knowledge retention*

Most of the participants agree that there is a massive loss of SAT's organisational knowledge to other organisations in the industry (Elevator: line 193; Rudder: line 353; Flap: line 192; Radar: line 135 & Radar: line 134). The participants have varying opinions of how knowledge could be retained within the organisation. A few feel that money could be used to keep people in the organisation (Elevator: line 230; Rudder: line 363 & Radar: line 138). Some feel that motivation (Rudder: line 390 & Radar: line 134) and an improved working environment (Elevator: line 212; Flap: line 178 & Radar: line 197) could contribute towards retaining knowledge.

It is the opinion of Throttle that employees should be encouraged to share knowledge and experience in order to retain knowledge in the organisation (line 137).

#### 4.5.5.4. *Managing knowledge*



Flap (line 156-163) feels that there is a lot of valuable knowledge in the organisation, which is not used and therefore wasted. He is further of the opinion that it is "just a pity" that knowledge is not always recognised and organised (Flap: line 171-172). Radar says that the organisation is "going to benefit by implementing a system. They can benefit by implementing a system where you can say: yes, you've got knowledge of these different areas, so yes, we can use you in these different environments, or situations" (Radar: line 175-178).

## 4.6. SUMMARY

In this chapter a brief overview of the data collection process was given and it was mentioned that the data were analysed according to the procedure as discussed in par 3.5.

Five broad categories were identified, in which the data was placed initially. A brief exposition of the categories followed. A summary of the themes and sub-

themes was given after which a discussion of the perceptions, feelings and opinions of the research participants followed.

In the next chapter the research findings, conclusions and recommendations will be perused.





## CHAPTER 5

### FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1. INTRODUCTION

In the previous chapter the five main themes identified from the analysis of the data were explained. The perceptions, feelings and experiences of the research participants were discussed at the hand of these themes.

Findings for this research were derived from the data analysis described in chapter four. In this final chapter the research findings are discussed in context of existing literature. In the conclusions the discussion is focussed on how the SAT training department could contribute to organisational change towards a learning organisation. The general limitation of this study is highlighted and recommendations for further research are made.

#### 5.2. FINDINGS

In this section the study intends to explore answers to the main research question, “How can the SAT training department contribute to organisational change towards a learning organisation?”

After analysing the data the researcher concludes that the experiences of the participants cover a very wide area. Three broad findings are derived from the themes discussed in chapter four. Organisational learning and an organisational culture of learning form an integral part of a learning organisation and are incorporated into all the findings. The findings endeavour to guide the SAT training department on contributions that can be made to organisational change towards building a learning organisation and will thus be discussed under the headings organisational change, globalisation and knowledge management.

### 5.2.1. Organisational change

Based on the data analysis emphasised in chapter 4 it is a finding of this research that some of the participants experienced uncertainties during times of change at SAT. Change creates uncertainty (Aileron: lines 81-96). Some of the uncertainties that the participants experienced included that they felt they were forced into the change (Radar: line 49), it was a challenge to work with people in a new department (Rudder: line 60) and that management was unsupportive in aiding the change process (Radar: line 73).

The researcher argues, supported by literature (Davidoff & Lazarus 1997:38, McNamara, 1999:2 & Van Schoor, 2003:5), that employees experience uncertainty during times of change because they require more information and knowledge on the changes that are implemented. As discussed in par 2.7 McNamara (1999:2) reasoned that the best way to deal with organisational change is through increased and sustained communication and education. Knowledge, created through learning, allows employees to change the environment they live in (Dixon, 1999: 3).

In par 2.4.3 three initiatives towards a learning organisation were discussed. The focus was on commitment to change, adopting a culture of learning and sharing of knowledge. It is the opinion of the researcher that the SAT training department ought to be more responsive to organisational change and in so doing assist in the facilitation of the change processes. This could be accomplished through training initiatives where employees are encouraged to improve their work through adopting a learning culture. The training department should not only serve the important role of helping employees to be incorporated into the changes, but should also act as a “learning catalyst and learning facilitator” during change processes (Rothwell, 2002:229).

Some practical guidelines to facilitate the organisational change processes towards building a learning organisation will be explored in the following paragraphs. The training department should explain why the changes should be embraced. It could also make a lot of information accessible that explains what

the changes are and how it will affect employees personally in the future. In other words the training department should engage enthusiastically in the depiction of the future scenario. Enthusiasm should persuade employees to sign on- and be part of the changes (Drennan, 1992: 111). It often helps to launch a major training event, which involves every person in the organisation. The training should also include top management (Wick & Leòn, 1993:173). Senge (1990:344) reasons that the discipline of a shared vision, as analysed in par 2.4.2.4, plays an important role in winning employees over to commit to organisational change. The training department needs to provide training that is relevant, and should focus on what every person in the organisation needs to do to make individual contributions towards the change. Thus, all previous training that does not support the new goals of the organisation should be abandoned. This shows that management knows what it wants.

The training department should focus on the total development of all employees. Although the organisation may recognise that change and growth require learning, the challenge for the training department is to develop a culture that values learning (Garvin, 2000:3-4). The discipline of personal mastery, as considered in par 2.4.2.2, could be used as a guideline to foster a culture of learning within employees. Employees should be encouraged to clarify what is important to them and learn how to see the current reality more clearly in moving towards a desired destination (Senge, 1990:141-146). The training department should emphasise the importance of learning, and encourage lifelong learning at all levels in the organisation (Guns, 1996:102).

The training department should encourage knowledge sharing amongst employees. Although Garvin (2000:9) is of the opinion that employees are very willing to share what they know, the training department has a responsibility to create conditions where employees want to share what they have learned. The discipline of team learning, as discussed in par 2.4.2.5, provides the training department with useful insights to encourage employees to enter into dialogue where employees could reflect on their own thinking. The basic conditions for dialogue, where meaning is construed, include that employees must suspend their assumptions, they must regard one another as colleagues and the dialogue

must remain within the context (Senge, 1990:243). Employees who share knowledge engage in topics that would usually be sources of offensive conflict, but through practice have now become debatable.

In this section some practical guidelines to facilitate the organisational change processes towards building a learning organisation were suggested. The discussion in the next section is focussed on how the training department could contribute to stimulate learning and knowledge that could give the organisation a competitive advantage in the global aviation maintenance industry.

### **5.2.2. Globalisation**

A further broad finding derived from the data of this research is that some participants perceive SAT as historically isolated from the global aviation maintenance industry (Aileron: line 76; Flap: line 28 & Radar line 36). After the transition to the new democratic government the organisation's direction changed, and it now operates in a globally competitive environment (Radar: lines 27-37).

In par 2.8 it was reasoned that knowledge is the fundamental resource of competitive advantage for learning organisations within the global economy (Tomassini, 2002:11). The SAT training department should consequently be aware of how to facilitate learning that creates the kind of knowledge that is necessary to compete in the global aviation maintenance industry. Cogburn (1998:4-5) describes what is required of learning and knowledge to compete in the global industry, as discussed in the following paragraphs.

Training in the global industry should focus on abstract concepts. Employees are used to being presented with off-the-peg problems and then asked to solve them. Employees in the global industry should be prepared to be more familiar and comfortable with abstract concepts and uncertain situations. Employees should be able to seek out problems, gather the necessary information and then make decisions based on uncertain realities.

The global industry requires a holistic understanding of systems thinking. Systems' thinking is the ability to recognise patterns of change. Organisations in the global industry need to predict; recognise and adapt to the changing requirements of the global industry by "developing new sets of skills and acquiring new foundations of knowledge" (Adler, 1998: v.).

Training should be used to enhance the ability of employees to acquire and use knowledge. The aim of the training department is no longer to simply just convey a body of knowledge, but to encourage employees how to learn, problem solve and link previous knowledge with new knowledge. Learning in the global industry requires training that provides employees with the ability to access, assess, adopt and apply knowledge. Learning calls for employees to think independently, exercise appropriate judgement and collaborate with others to make sense of new situations.

It should be a feature of a training department in the global context to encourage employees to learn in teams. Learning in teams requires employees to develop skills in group dynamics, compromise, debate, persuasion, leadership and management. Employees are encouraged to explore complex and difficult issues from many points of view when learning in teams. The purpose is to reveal incoherence in thought. The result is a free exploration of the topic that makes known the experiences and thoughts of the team, and yet can move beyond their individual views.

In this section the discussion concentrated on how the training department could contribute to stimulate learning and knowledge that could give the organisation a competitive advantage in the global aviation maintenance industry. The next section explores the contribution that the SAT training department could make to manage the knowledge of the organisation.

### **5.2.3. Knowledge management**

The final broad finding made during this research was that some participants felt that knowledge is not always recognised and organised at SAT and is "therefore

wasted” (Flap:lines 156-163). Another participant suggested that the organisation would best benefit from the knowledge they have if they could implement a system where knowledge in certain areas is identified and distributed accordingly (Radar: lines 175-178).

In par 2.9 Barclay and Murray also argue that organisations must recognise knowledge as corporate assets, and that organisations need strategies, policies and tools to manage these assets. Knowledge is increasingly seen as a “crucial organisational resource and its management is therefore too important to be left to chance” (Barclay & Murray, 1997:2). Skyrme (2003:2) is of the opinion that organisations should implement two broad driving forces to put knowledge management into practice. The first is a drive to share existing knowledge better and the second a drive for innovation to make the transition from ideas to commercialisation more effective.

The SAT training department could contribute towards knowledge management through the promotion of a knowledge management agenda and the development of a framework. Dixon (1999:217-220) discusses some of the activities that organisations introduce to manage knowledge. Some aspects that could be considered to introduce a knowledge management framework might include:

- Make use of a knowledge leader, who can promote and develop a knowledge management framework.
- Build knowledge teams to help develop methods and skills to manage knowledge.
- Develop knowledge bases to investigate best practices, relevant market intelligence and form an expertise information bank.
- Establish knowledge centres to facilitate the flow of knowledge and skills.
- Introduce knowledge sharing mechanisms, such as facilitated events that encourage greater sharing of knowledge than would normally take place.
- Engage in knowledge asset management methods to identify and account for intellectual capital.

The researcher believes that a move towards a learning organisation is essential for survival in the global industry. Knowledge is the only core competence of

learning organisations that can deal with the changes brought about by the dynamics of globalisation. Individual knowledge is the starting point for organisational knowledge, and should be managed to add to the organisation's knowledge.

### **5.3. CONCLUSIONS**

The findings of this research endeavoured to answer the research question, "How can the SAT training department contribute to organisational change towards a learning organisation?"

From the findings this research concludes that the SAT training department ought to be responsive to organisational change and in so doing assist to facilitate the change process towards building a learning organisation. The SAT training department should as a result be aware of how to facilitate learning that creates the kind of knowledge that is necessary to compete in the global aviation maintenance industry. Knowledge should be managed as an organisational asset and the SAT training department should contribute towards knowledge management through the promotion of a knowledge management agenda and the development of a framework.

### **5.4. LIMITATIONS**

The researcher suggests that the contextual limitation of this exploration needs to be taken into account when considering the study. The study focussed on a phenomenon that is very extensive. Although the main theme of the study is organisational change, this study was restricted to the contribution that the SAT training department could make to organisational change towards a learning organisation. Thus, the empirical background, the SAT training department and the challenge it faces to contribute towards organisational change, can only be seen as a guide in context of the global industry.

## **5.5. RECOMMENDATIONS**

The findings, conclusions and limitations discussed in the previous sections can be seen as fruitful avenues for future research. The researcher therefore makes recommendations for future research in this section.

The researcher recommends that further research be conducted to probe the dependability of training, learning and knowledge during periods of organisational change.

The researcher also recommends that further research could be conducted to establish the contribution of team learning and knowledge sharing to the global aviation maintenance industry.

A final recommendation of the researcher for further research is the expansion of a knowledge management framework for aviation maintenance organisations in the global industry.

## **5.6. SYNTHESIS**

This final chapter provided important findings and conclusions drawn from the data analysed for this study. The findings and conclusions can by no means provide all the solutions to the challenges facing the SAT training department. The researcher is however of the opinion that this study provides a foundation to progress towards building a learning organisation needed in a global aviation industry.

The general limitation of the study was stated and recommendations for further research were suggested as a result of the findings, conclusions and limitations of the study.



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## Appendix A

### PERMISSION TO CONDUCT RESEARCH

Hanger 7 East  
I – Crew  
SBJ996R  
Radio # 665  
Cell 0834197201  
20 June 2006

The CEO South African Technical

Sir,

Permission to conduct formal research within the boundaries of SAT.

I am currently enrolled for the degree Magister Technologiae: Education at the University of Johannesburg. The focus of my research is on the contribution that the SAT training department could make to organisational change towards building a learning organisation. The basic rationale for a learning organisation is that in situations of rapid change only those flexible, adaptive and productive will excel in a global environment. For this to happen it is argued that organisations need to “discover how to tap people’s commitment and capacity to learn at all levels” (Senge, 1990: 4). Peter Senge, an advocate of learning organisations, describes learning organisations as:

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

(Senge, 1990: 1).

I hereby wish to ask permission to conduct interviews with 8 employees in service of South African Technical. I will use a purposive sample for the interviews. I will conduct semi-structured interviews with the training manager,

four senior aviation trainers and also with three employees that have received extensive training at the SAT training department. The participants will be chosen because I expect that they will provide a detailed picture of their perceptions of how they could contribute to organisational change towards building a learning organisation, specifically at SAT. I will conduct semi-structured interviews for the purpose of this study by using open-ended questions to draw on the perceptions, feelings and experiences of each participant individually. An interview guide will aid me to focus a conversation within the area of organisational change towards building a learning organisation, to word questions spontaneously and to establish a conversational style but with the focus on the specific subject. The informed consent will be sought from each participant, before they are interviewed.

I intend to maintain a high level of ethical standard throughout the research project, and will use the data collected exclusively for the purposes of this research project. I will present the findings in the final research report, in the form of a minor dissertation.

I anticipate that this research project might provide the SAT training department with some valuable insights, on organisational change towards building a learning organisation.

Thank you for your kind consideration in this regard

Gustav Botha

PS: Attached to this letter is the interview questionnaire that will guide the interviews.

## Appendix B

### INVITATIONS TO PARTICIPANTS

Hanger 7 East  
I – Crew  
SBJ996R  
Radio # 665  
Cell 0834197201  
20 June 2006

Participant,

Invitation to participate in a research project.

I am currently enrolled for the degree Magister Technologiae: Education at the University of Johannesburg. The focus of my research is on the contribution that the SAT training department could make to organisational change towards building a learning organisation. The basic rationale for a learning organisation is that in situations of rapid change only those flexible, adaptive and productive will excel in a global environment. For this to happen it is argued that organisations need to “discover how to tap people’s commitment and capacity to learn at all levels” (Senge, 1990: 4). Peter Senge, an advocate of learning organisations, describes learning organisations as:

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

(Senge, 1990: 1).

I wish to invite you to participate in this exciting research project in the form of an interview. Your participation is voluntary, and you can choose to terminate participation at any stage.

You are chosen to participate in the project because I consider your input as valuable to the project. I will conduct semi-structured interviews for the purpose of this study because the open-ended questions are intended to draw the perceptions, feelings and experiences of each participant individually. An interview guide will aid me to focus a conversation within the area of organisational change towards building a learning organisation, to word questions spontaneously and to establish a conversational style but with the focus on the specific subject.

Although quotations from the interviews will feature strongly throughout the study, your identity will be protected by allocating a pseudonym to each participant and by using a multiple-voice approach when quoting from the interviews. The official language used at SAT is English. Although my first language is Afrikaans, and some of the participants will use English as second language the choice of language for the correspondence as well as the interviews will be in English with your permission. The interviews will be audio taped and later transcribed.

I shall arrange with you, verbally, for a time and venue where we can meet to conduct the interview. The interview should not take longer than 30 minutes, depending on your individual responses.

I thank you for your contribution and participation.

Gustav Botha

## Appendix C

### INTERVIEW QUESTIONS

1. In your experience, what are the conditions that encourage employees to learn here at SAT?
  - How do you think we can improve these conditions even more?
2. What do you perceive as conditions that discourage employees to learn here at SAT?
  - Why do you think these conditions discourage employees to learn?
  - How can we overcome conditions that impact negatively on learning at SAT?
3. How do you feel the training department, at SAT, can contribute to give the organisation a competitive edge in the aircraft maintenance industry?
  - How can we learn from our own past experiences that will give us a competitive edge?
  - How can we learn from each other in order to gain a competitive advantage in the aircraft maintenance industry?
  - What can we do to learn from other organisations in this industry that will give us a competitive advantage above them?
4. How do you think we can utilise the knowledge that we have in our employees, to the benefit of the organisation?
  - How do you think the knowledge that employees have, influence their work?
  - How can we ensure that we retain the knowledge of employees here at our organisation?
  - How can we keep the knowledge of our organisation current?

## Appendix D

## DATA ANALYSIS - CODES

Change	Learning		Culture		Globalisation		Knowledge	
29 Type-CAA	109 Motivate - Aviation	72 Culture - Isolated	79 Global - Environment	196 Retention - empower				
32 Type - Material	110 Motivate - Advances	110 Culture - Passion	148 Contribute - Involvement	201 Retention - empower				
32 Type - Procedures	112 Motivate - Needs	123 Culture - Mindset	157 Contribute - Training	214 Influence - Ability				
32 Type - Practices	117 Motivate - Guide	125 Culture - Behind	111 Contribute - Research	226 Current - Technical				
38 Cope - Enjoy	127 Motivate - Prepared	132 Culture - Ability	192 Contribute - Listen	227 Lack - Skills				
40 Cope - Exciting	131 Barriers - Antiquated	155 Culture - Contribution	92 Contribute - Courses	211 Influence - competence				
40 Cope - Challenge	141 Overcome - Flatten	197 Culture - Authoritarian	96 Contribute - Skills	240 Current - IAW				
54 Experience - quickly	141 Overcome - Leaders	218 Culture - disempowered	99 Contribute - Involved	212 Retention - Conditions				
71 Facilitate - Involved	161 Internal - Link	111 Culture - Contribution	165 Global - Benchmark	222 Retention - CEO				
76 Facilitate - isolation	164 Internal - Production	155 Culture - Dialogue	198 Global - Ability	230 Retention - Money				
81 Facilitate - Support	166 Internal - Share	175 Culture - Communication	218 Contribute - Expert	240 Influence - Mature				
81 Experience - Scared	174 External - Aware	67 Culture - Passion	219 Contribute - Motivate	241 Influence - Share				
86 Experience - Security	175 External - Internet	137 Culture - Open	231 Contribute - Positive	251 Current - Refreshers				
86 Experience - Familiar	176 External - Periodicals	145 Culture - Motivate	117 Contribute - Motivated	257 Current - Recurrent				
94 Experience - Familiarity	176 External - Benchmark	213 Culture - Demotivated	119 Contribute - Develop	330 Influence - Frustrate				
96 Facilitate - Environment	183 External - Determine	101 Culture - Division	120 Contribute - Environment	345 Influence - Pleasure				
98 Facilitate - Consider	189 External - Market	28 Culture - Isolation	122 Contribute - Auditing	355 Retention - Communication				
100 Facilitate - Mechanisms	80 External - Benchmark	84 Culture - Leadership	159 Global - Benchmark	363 Retention - Money				
101 Facilitate - Equip	93 Motivate - enrich	101 Culture - Leadership	101 Contribute - Share	390 Retention - Motivate				
23 Type - Technology	100 Barrier - Equity	120 Culture - Support	125 Global - Benchmark	399 Current - Refresher				
48 Cope - Study	104 Overcome - Best	36 Culture - Isolation	104 Contribute - Positive	407 Current - Recurrent				
48 Cope - OJT	134 External - Benchmark	74 Culture - Support	105 Contribute - Motivate	410 Current - QA				
49 Cope - Simulate	67 Motivate - Aviation	84 Culture - Passion		413 Current - meetings				
53 Type - Licensing	77 Barrier - accountability	40 Culture - Beginning		413 Current - Flyers				
63 Type - Licensing	86 Overcome - Responsibility	94 Culture - Unsure		429 Current - communication				



Change		Learning		Culture		Globalisation		Knowledge	
71	Facilitate - Understand	115	Internal - Share					149	Benefit – Listen
76	Facilitate - Plan	119	Internal - Share					151	Benefit - Combine
23	Type - Equity	138	Motivate – Money					156	Benefit - Resource
31	Cope - Conflict	139	Motivate - duty					161	Manage – Wasted
33	Cope - respect	144	Motivate – Confidence					169	Influence – Help
41	Experience – co-operation	150	Motivate – Effective					171	Manage – Recognise
48	Experience – respect	151	Motivate – Current					172	Manage - Organise
57	Facilitate - Filter	159	Motivate – Respect					178	Retention - Environment
60	Facilitate - Screening	169	Motivate – Confidence					183	Retention - Intervention
32	Type – Environment	177	Barrier - Development					191	Retention - Recognition
39	Type - Resources	191	Barrier - Development					197	Current - Retention
40	Type – development	201	Barrier - Development					175	Benefit - System
59	Type - People	208	Overcome - educate					186	Influence - Easier
60	Experience - Challenge	247	Internal – transparent					190	Influence - Decision
61	Cope - acceptance	248	Internal - Communication					197	Retention - Environment
73	Experience - People	267	External - Benchmark					213	Current – Seminars
75	Experience - Approach	290	External - Benchmark					213	Current – Communiqués
111	Facilitate - Educate	71	Motivate – Change					214	Current – Recurrent
130	Facilitate - Educate	73	Motivate – enrich					214	Current – Refresher
28	Type - Equity	84	Barrier - Leadership					134	Retention - Motivate
32	Experience - Perception	91	Barrier - Leadership					134	Retention – Acknowledge
44	Cope – Acceptance	98	Overcome – Educate					138	Retention – Money
46	Cope – Commitment	108	Barrier – Focus					140	Retention – Training
56	Facilitate - Educate	128	Internal - Listen					147	Influence – Easy
60	Cope - Support	133	External - Benchmark					154	Influence - Confidence
62	Facilitate – Educate	139	External – Investigate					160	Current – Refresher
32	Type - None	67	Motivate – Safety					162	Current - Specialise
51	Type - Merger	72	Motivate - Money					137	Retention - Share
60	Cope - Experience	78	Motivate - Position					152	Influence – Easier
27	Type - Political	89	Barrier - Stagnation					154	Influence – Solving
32	Type - Direction	100	Overcome - Management					155	Influence – Plan
33	Type – Equity	136	Internal – Verbal					161	Current – Training
35	Type – Environment	137	Internal – Seminars					162	Current – Updated
43	Cope – Programme	137	Internal – Info sessions						



## Appendix E

## GROUPING OF CODES

Organisational change	Organisational learning	Organisational culture	Globalisation	Knowledge management
29 Type – CAA	109 Motivate – Aviation	72 Culture – Isolated	79 Global – Environment	196 Retention - empower
53 Type – Licensing	67 Motivate - Aviation	36 Culture - Isolation	165 Global - Benchmark	201 Retention - empower
63 Type – Licensing	110 Motivate – Advances	28 Culture – Isolation	159 Global - Benchmark	222 Retention - CEO
23 Type - Technology	151 Motivate – Current	123 Culture – Mindset	125 Global – Benchmark	230 Retention - Money
23 Type - Equity	112 Motivate - Needs	125 Culture - Behind	198 Global - Ability	363 Retention - Money
28 Type - Equity	117 Motivate - Guide	137 Culture - Open	148 Contribute - Involvement	138 Retention – Money
33 Type – Equity	71 Motivate – Change	110 Culture – Passion	99 Contribute - Involved	134 Retention – Acknowledge
27 Type - Political	127 Motivate - Prepared	67 Culture – Passion	149 Contribute – Training	191 Retention - Recognition
32 Type - Direction	93 Motivate - enrich	84 Culture - Passion	111 Contribute - Research	134 Retention - Motivate
35 Type – Environment	73 Motivate – enrich	197 Culture - Authoritarian	119 Contribute – Develop	390 Retention - Motivate
32 Type – Environment	66 Motivate - Self	132 Culture – Ability	92 Contribute - Courses	355 Retention – Communication
51 Type - Merger	74 Motivate - Self	196 Culture – disempowered	192 Contribute - Listen	212 Retention – Conditions
59 Type - People	88 Motivate – Goals	84 Culture - Leadership	101 Contribute - Share	197 Retention - Environment
26 Type – People	144 Motivate – Confidence	101 Culture - Leadership	96 Contribute - Skills	178 Retention - Environment
39 Type - Resources	150 Motivate – Effective	74 Culture - Support	218 Contribute – Expert	140 Retention – Training
40 Type – development	169 Motivate – Confidence	120 Culture – Support	219 Contribute – Motivate	137 Retention - Share
32 Type – Material	138 Motivate – Money	145 Culture – Motivate	231 Contribute – Positive	183 Retention - Intervention
32 Type – Procedures	72 Motivate - Money	213 Culture – Demotivated	117 Contribute – Motivated	213 Influence – Ability
32 Type - Practices	64 Motivate – Money	155 Culture - Contribution	104 Contribute – Positive	211 Influence - competence
32 Type - None	159 Motivate – Respect	111 Culture - Contribution	105 Contribute – Motivate	345 Influence - Pleasure
38 Cope – Enjoy	78 Motivate - Position	155 Culture - Dialogue	120 Contribute – Environment	169 Influence – Help
40 Cope – Exciting	64 Motivate – Promotion	175 Culture - Communication	122 Contribute - Auditing	186 Influence - Easier
40 Cope - Challenge	139 Motivate - duty	40 Culture – Beginning		147 Influence – Easy
48 Cope – Study	67 Motivate – Safety	94 Culture - Unsure		152 Influence – Easier
48 Cope – OJT	131 Barriers - Antiquated	101 Culture - Division		240 Influence – Mature

Change	Organisational learning	Organisational culture	Globalisation	Knowledge management
49	Cope - Simulate			241
	Barrier - accountability			Influence - Share
60	Cope - Experience			154
	Barrier - Leadership			Influence – Solving
31	Cope - Conflict			190
	Barrier - Leadership			Influence - Decision
33	Cope - respect			154
	Barrier – Focus			Influence - Confidence
61	Cope - acceptance			155
	Barrier - Equity			Influence – Plan
44	Cope – Acceptance			330
	Barrier – Equity			Influence - Frustrate
46	Cope – Commitment			227
	Barrier - Development			Lack - Skills
37	Cope - Involved			226
	Barrier - Development			Current - Technical
41	Cope – Communicate			240
	Barrier - Development			Current - IAW
60	Cope - Support			161
	Barrier - Stagnation			Current – Training
43	Cope – Programme			162
	Barriers - Opportunities			Current – Updated
54	Experience – quickly			251
	Barrier – Promotion			Current - Refreshers
81	Experience - Scared			399
	Barriers - None			Current – Refresher
86	Experience - Security			214
	Overcome – Flatten			Current – Refresher
86	Experience – Familiar			160
	Overcome - Leaders			Current – Refresher
94	Experience - Familiarity			257
	Overcome - Responsibility			Current - Recurrent
60	Experience - Challenge			407
	Overcome - Management			Current - Recurrent
49	Experience - Forced			214
	Overcome - Best			Current – Recurrent
48	Experience – respect			410
	Overcome – Motivate			Current - QA
50	Experience – different			213
	Overcome – Inform			Current – Seminars
73	Experience – People			413
	Overcome - educate			Current – meetings
75	Experience - Approach			413
	Overcome – Educate			Current – Flyers
32	Experience - Perception			213
	Internal - Link			Current – Communiqués
41	Experience – co-operation			429
	Internal - Production			Current - communication
51	Experience – Accept			162
	Internal - Share			Current - Specialise
53	Experience – Acceptance			197
	Internal - Share			Current - Retention
46	Experience – Adapt			149
	Internal - Share			Benefit – Listen
47	Experience – Commit			151
	Internal – Share			Benefit - Combine
54	Experience – self-taught			156
	Internal – Share			Benefit - Resource
73	Experience - Unsupportive			175
	Internal - Communication			Benefit - System
71	Facilitate - Involved			156
	Internal – transparent			Manage – Wasted
76	Facilitate - isolation			171
	Internal - Listen			Manage – Recognise
68	Facilitate – Explanation			172
	Internal – Verbal			Manage - Organise



## Appendix F

### TRANSCRIPTIONS

#### CONTENTS

1. Interview 1: "AILERON"	...	cd-2
2. Interview 2: "SPOILER"	...	cd-16
3. Interview 3: "ELEVATOR"	...	cd-30
4. Interview 4: "RUDDER"	...	cd-44
5. Interview 5: "FLAP"	...	cd-67
6. Interview 6: "RADAR"	...	cd-79
7. Interview 7: "ENGINE"	...	cd-91
8. Interview 8: "THROTTLE"	...	cd-100

