An investigation into the prevalence of knowledge management practices within the libraries of two institutions on the verge of a merger: Cape Technikon and Peninsula Technikon

by

Busisiwe Nobuhle Khangala

Thesis presented in partial fulfillment of the requirements for the degree of Master of Philosophy in Information and Knowledge Management at the University of Stellenbosch
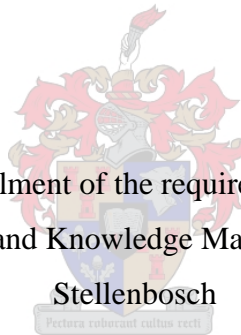
Supervisor: Dr Martin van der Walt

December 2004

# DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.

Signature: ………………………………. Date: …………………

# ABSTRACT

In terms of the Higher Education Act, 1997 (Act No. 101 of 1997: Notice no: 1700), the Cape Technikon and the Peninsula Technikon will merge on 1 January 2005 to become a single institution known as the Cape Peninsula University of Technology. This merger is part of the South African government's effort to streamline education spending priorities, whilst evening out the differences between historically white and historically black institutions. During the apartheid era the Peninsula Technikon was established mainly for black (i.e. Coloured and African) students and the Cape Technikon for white students.
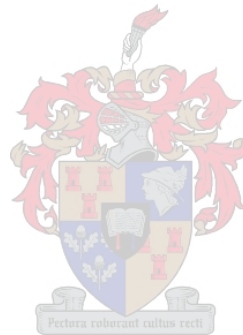
There are a number of problems and challenges that can be expected by these institutions before, during and after the merger. These include, among others, identity crises that might result from the clash of different cultures because of the different backgrounds of these two institutions. If the merger is not handled properly, especially where human and cultural issues are concerned, it might not be successful. Higher education institutions are recognized as being in the knowledge business, and libraries play a central role in this regard. Academic librarians specifically have a significant knowledge management role to play in their institutions. In the case of the Cape Technikon and Peninsula Technikon libraries, it would thus be very important to understand each institution's culture and what their existing knowledge management practices are, so that by the time of the actual merger they will know how to cooperate productively and effectively.
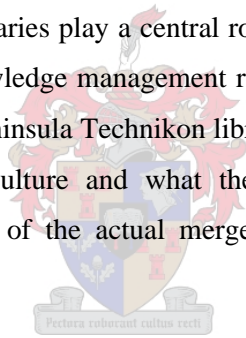
Given the complexity of mergers and their wide ranging ramifications, as well as potential problems that might hamper the smooth operations of the institutions, the aim of this study was to investigate the knowledge management practices of the libraries of these two institutions. Thereafter recommendations were made, based on the findings, as to how to apply knowledge management practices to increase the capabilities of the two institutions' libraries and enhance their operational efficiency. The methods of investigation were qualitative in nature and comprised questionnaires which were filled in by the librarians of both institutions as well as in-depth interviews with senior staff members of both libraries. The study also made other observations which related to the feel of the environments and people's attitude which were also quite revealing. Although both libraries displayed knowledge management practices, the Cape Technikon was found to be more advanced in some regards than the Peninsula Technikon.

Finally, recommendations were made on how to apply certain specific knowledge management practices successfully after the merger. These included a recommendation that both institutions ensure that there are processes in place to ensure that knowledge is recorded on an ongoing basis.

**Key words:** Knowledge; knowledge management; knowledge management practices; merger; higher education institutions; libraries
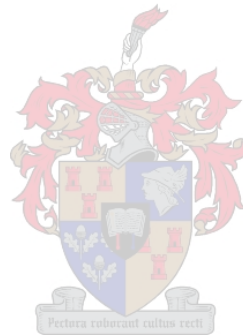
# OPSOMMING

In terme van die Wet op Hoër Onderwys, 1997 (Wet Nr 101 van 1997: Kennisgewing Nr: 1700), sal die Kaapse Technikon en die Skiereiland Technikon op 1 Januarie 2005 saamsmelt om 'n enkele instelling te word, naamlik die Kaapse Skiereiland Universiteit van Tegnologie. Hierdie samesmelting is deel van die Suid-Afrikaanse regering se poging om die prioriteite op opleidingsuitgawes te stroomlyn, terwyl die verskille tussen wat histories wit en swart instellings was, uitgestryk word. Gedurende die Apartheid era was die Skiereiland Technikon veral vir swart studente (m.a.w. Gekleurdes en Afrikane), en die Kaapse Technikon vir wit studente.

Daar is talle probleme en uitdagings wat verwag kan word by hierdie instellings voor, gedurende en na die samesmelting. Hierdie sluit in, onder andere, identiteitskrisisse wat dalk kan opduik as gevolg van die verskillende agtergronde van hierdie twee instellings. As die samesmelting nie behoorlik hanteer word nie, veral wat menslike en kulturele kwessies betref, kan dit onsuksesvol wees. Instellings vir hoër onderwys word erken as in die besigheid van kennis, en biblioteke speel 'n sentrale rol in hierdie opsig. Spesifiek akademiese bibliotekarisse het 'n rol om te speel in die behandeling, of bestuur, van kennis. In die geval van die Kaapse Technikon en Skiereiland Technikon se biblioteke, sou dit dus baie belangrik wees om elke instelling se kultuur te verstaan, en om hulle huidige metodes van kennisbestuur te ken, sodat dit teen die tyd van die samesmelting moontlik is om produktief en effektief saam te werk.

Aangesien samesmeltings kompleks is met verreikende vertakkings, sowel as potensiële probleme wat dalk die gladde werking van die instellings kan verhinder, is die doel van hierdie studie om die praktyke van kennisbestuur in die biblioteke van hierdie twee instellings te ondersoek. Daarna, gebaseer op die bevindings, is voorstelle gemaak met verwysing na die toepassing van kennisbestuurspraktyke, sodat die twee instellings se biblioteke se bekwaamhede kan vermeerder en hul doeltreffendheid verhoog kan word. Die metodes van ondersoek is kwalitatief en bestaan uit vraelyste, ingevul deur senior personeellede van albei instellings. Die studie het ook ander waarnemings gemaak in verband met die atmosfeer of gevoel van die omgewings en mense se houdings, wat ook veelseggend was. Alhoewel beide instellings kennisbestuurspraktyke getoon het, is bevind dat die Kaapse Technikon in sekere opsigte meer gevorderd as die Skiereiland Technikon is.

Ten laaste is voorstelle gemaak met verwysing na hoe om sekere spesifieke kennisbestuurspraktyke na die samwsmelting toe te pas. Hierdie het 'n aanbeveling ingesluit dat albei instellings seker moet maak dat prosesse onderweg is om op 'n voortdurende basis boek te hou van kennis.

**Sleutelwoorde:** Kennis, kennisbestuur, kennisbestuurspraktyke, samesmelting, instellings vir hoër onderwys, biblioteke

## ACKNOWLEDGEMENTS

## TABLE OF CONTENTS

# LIST OF FIGURES

# LIST OF TABLES

## CHAPTER 1

## INTRODUCTION AND ORIENTATION

### 1.1. Background and rationale for the study

The Peninsula Technikon is an autonomous education institution, offering career-specific education and training. It was originally established in 1962 as the Peninsula Technical College and finally became the Peninsula Technikon in 1979. Its students are mainly coloured and African. The technikon has seen a number of changes over the years, one of which is its increasing emphasis on research. Whereas in the past it has concentrated mainly on preparing students for diploma qualifications, the current challenge it now faces is to develop the infrastructure and skills to take its students to higher degree levels. It now offers BTech, masters programmes, and doctoral studies (Peninsula Technikon web site).

The Peninsula Technikon library was started in a single class room in 1989 and grew over the years. In 1990, due to insufficient space, the Architecture, Building and Civil Engineering section of the library was moved to Bellville, and then moved back to the main library in 1998. Between 1992 and 1993 the Dental Technology and Radiography libraries moved to Tygerberg Hospital and Grooteschuur Hospital respectively, taking over the branches of Provincial libraries that were housed in these hospitals.

The Cape Technikon originated from the evening classes conducted by the South African College at the start of the 20th century. It developed over the years until it became Cape Technical College in 1922. It was granted education tertiary status in 1967 as the Cape College for Advanced Technical Education and in 1978 was renamed the Cape Technikon. Historically, during the apartheid years, the Cape Technikon was attended mainly by white students and its staff was also mainly white. This has now changed, as both students and staff are now fairly representative of different races in South Africa.

The Cape Technical College library was established in 1923, when Cape Technikon was still known as the Cape Technical College. Although the library started out as the equivalent of a school library in that it contained books related to specific subjects and courses, it also functioned to some extent as a public library in providing a considerable amount of recreational literature, in addition to subject-related literature. Over the years it underwent considerable improvements because of the developments that happened in the technikon (Kerkham, 1986). It had to collect more subject related literature while also catering more for research. To date the Cape Technikon library has three branches, one at the Hotel School in Granger Bay, the second one in the Wellington campus and the third one in Mowbray, all with one librarian each.

The Cape Technikon and the Peninsula Technikon are going to merge as a result of the Higher Education Act, 1997 (Act No. 101 of 1997) (Notice no: 1700). On 1 January 2005 they will become a single public higher education institution known as the Cape Peninsula University of Technology. Essentially these two institutions are following the same path that other South African higher education institutions have already trodden as a result of the above Act[1]. The central motivation behind these mergers is to even out the differences between historically white and historically black institutions. Although the Act was passed in 1997, the White Paper was not clear as to the process to be followed, until the report entitled *The Restructuring of the Higher Education System in South Africa*, which recommended the reduction of higher education institutions in South Africa, was released in 2001 (Jansen, 2002: 6). This government plan began in 2002 and the whole process is supposed to be finished by the end of 2005. Because of the legacy of segregation in South Africa the country is still supporting two systems of higher education, one essentially for whites and one for blacks. The aim of these mergers is to increase opportunities for black students, to streamline academic programmes, to spread out management expertise, and, in the long run, to spend resources more wisely (Rossouw, 2004).

---

[1] Some of the institutions that have already merged as a result of this act are: Technikon Natal and M.L. Sultan Technikon; the Faculty of Veterinary Sciences at the Medical University of South Africa (MEDUNSA) and the Faculty of Veterinary Sciences at the University of Pretoria; the Giyani College of education was incorporated to the University of Venda; the Johannesburg College of Education was incorporated into the University of Witwatersrand; the South African College for Teacher Education was incorporated to the University of South Africa; the Soweto and East Rand braches of Vista University are to merge with the Rand Afrikaans University.

Despite these good intentions, these institutions will face a number of problems during the merging process and afterwards. The fact that these mergers were ordered by the government, rather than the institutions themselves deciding which institutions they would like to merge with, has evoked anger from some of the administrators. They often feel forced to make decisions they may not agree with, although they are trying hard to cooperate, both with the institutions they are merging and with the government requirements. Most importantly though, identity crises may be expected in cases like these due to a clash of different cultures. The merged institutions will moreover need to ensure equality among their campuses despite vast gaps in resources.

Higher education institutions are recognized as being in the knowledge business. Rowley (2000: 325) thus suggests that the field of knowledge management might have something to offer higher education institutions. Academic libraries in particular are central to the management of knowledge in such institutions. The core skills of library and information professionals are both relevant and essential to effective knowledge management. Therefore academic librarians have a significant role to play in this regard. In this new digital age, moreover, libraries must be part of the fabric of the new electronic infrastructure. Essentially, knowledge management is the process of transforming information and intellectual assets into enduring value. It connects people with the knowledge that they need to take action at the appropriate time. Academic librarians are faced with the challenge of creating a set of library resources that will support education and scholarship in an electronic era. The development and implementation of a coherent plan for preserving these resources is essential.

Chatzkel (2003: 136) states that for an organization to work properly, knowledge must flow across its networks, moving through the many nodes of the organization. The challenge for any organization involved in a merger is how to become optimally ready for that first day, after the merger, so that it can be business as usual as quickly as possible.

Hagen (cited in Chatzkel, 2003: 139) recognizes that both tacit knowledge and explicit knowledge of the organization, both of which reside in its knowledge network, are the basis for how things work, and must be included in the planning and execution of a successful merger. To achieve a successful merger, organizations must understand

what would enhance knowledge transfer in the particular set of cultures that are involved in the merger. The central issue is that the differences between the two merging organizations have to be bridged. The different principles, concepts and practices must be woven together to form a new model.

## 1.2.   Importance of the study

Knowledge management in an organization is governed by the culture of that particular organization. A culture, as used in this context, refers to a common set of beliefs and values that lead to similar patterns of behaviour within a group (Choo, 1998: 84). Knowledge management principles, such as knowledge sharing, for example, are based on the existence of trust among the employees of an organization, and this is the result of a culture that has been acquired over a period of time. Each and every organization has its unique culture, and when two organizations merge, their respective cultures also merge. If the merger is not handled properly, especially where human and cultural issues are concerned, it could easily fail. For the Cape Technikon and the Peninsula Technikon libraries too, it would be very important to understand each other's culture and knowledge management practices, so that, by the time they actually come together, they will know how to work together. This study will therefore investigate the knowledge management practices of each library and make recommendations, based on the findings, as to how best they can work together to increase their individual and collective capabilities.

## 1.3.   Research objectives

The aims of this study were:

1.2.1.  To evaluate the prevalence of knowledge management practices in the libraries of the Cape Technikon and Peninsula Technikon;

1.2.2.  To examine how knowledge is shared among the librarians of both libraries;

1.2.3.  To determine if tacit knowledge is recorded in these libraries;

1.2.4.  To make recommendations on how to apply such practices successfully after the merger.

## 1.4. Research questions

To maintain the focus on the objectives as articulated above, the following were the main questions posed by the study:

1.4.1. Do any knowledge management practices currently exist in the Cape Technikon and the Peninsula Technikon libraries?

1.4.2. How does knowledge flow within these libraries and between them?

1.4.3. Is tacit knowledge recorded in these two libraries?

1.4.4. What measures can be taken to ensure that effective knowledge management practices prevail after the merger?

## 1.5. Methodology

The literature surveyed in this study covered definitions of terms and concepts relating to "knowledge" and "knowledge management"; the role of knowledge management in higher education institutions, and particularly in academic libraries; as well as the implications of merging for knowledge management. Although both quantitative and qualitative methods of collecting data were used, this study was largely qualitative in nature, as it dealt with matters relating to perceptions and knowledge management culture within the two institutions. Structured self-administered questionnaires were used to collect information from librarians of both the Cape Technikon and the Peninsula Technikon. Face-to-face in-depth interviews were conducted with directors and some of the senior librarians of both institutions.

## 1.6. Overview of chapters

This study comprises six chapters, as follows: Chapter one is the "Introduction and Orientation chapter", which among others, deals with the importance and objectives of the study. Chapter two is the "Literature Review chapter" which covers the theoretical framework relevant to the study. Chapter three elaborates on the research methodology that was followed in this study. In Chapter four the findings of the study are presented. Chapter five deals with the analysis and interpretation of the findings that were

presented in Chapter four. Finally, Chapter six is the "Recommendations and conclusions chapter" in which recommendations are made on how the libraries of the Cape Technikon and the Peninsula Technikon could apply knowledge management practices successfully after the merger.
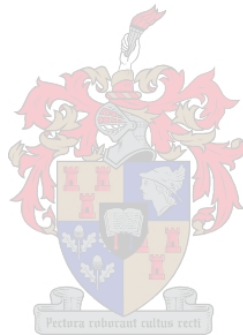
**CHAPTER 2**

**LITERATURE REVIEW**

## 2.1.  Introduction

The aim of this chapter is to provide a theoretical framework based on the existing literature within the field of knowledge management. Within this theoretical framework there is a particular focus on the role and importance of knowledge management within tertiary institutions in general, as well as specific reference to knowledge management practices within the libraries of tertiary institutions. The chapter also includes a comprehensive description of the associated concepts and models of knowledge management, and their relevance to tertiary institutions in general, and to libraries in particular. Lastly, the challenges and implications of merging institutions in general are discussed. We start, however, by defining the relevant terms and concepts used in this study.
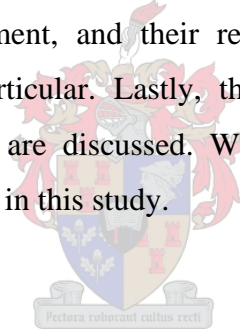
## 2.2.  What is knowledge?

Leibold et al. (2002: 14) define knowledge as information with meaning – information being data within a context. They regard knowledge as the new source of wealth[2]; hence it needs to be managed properly in an organisation. Skyrme (1999: 47) mentions two types of knowledge, explicit and tacit knowledge. Takeuchi and Nonaka similarly (2004: 3) claim that knowledge is made up of two dichotomous and seemingly opposite components (seemingly opposite because they are not really opposite, but they are inclusive of each other). The first is explicit knowledge, which can be expressed in words, numbers, or sounds, and shared in the form of data, scientific formulas, visuals, audiotapes, product specifications or manuals. It can be readily

---

[2] Knowledge is regarded the new source of wealth as opposed to land, labour and capital, all of which used to be regarded as sources of wealth previously.

transmitted to other individuals formally and systematically. It is documented knowledge.

Tacit knowledge, on the other hand, is not easily visible and expressible. It is highly personal and hard to formalise, making it difficult to communicate it or to share it with others. It is deeply rooted in an individual's actions and experiences, as well as in his or her ideals, values or emotions (Takeuchi and Nonaka, 2004: 3). Subjective insights, intuitions and hunches fall into this category of knowledge (Skyrme: 1999). There thus appear to be two dimensions to tacit knowledge (Takeuchi and Nonaka, 2004). The first encompasses skills that are informal and hard to pin down, and are often encapsulated in the term "know-how". This kind of knowledge develops after years of experience, although it might be difficult to articulate the technical or scientific principles behind it. The second dimension consists of beliefs, perceptions, ideals, values, emotions and mental models that are so ingrained in us that we take them for granted and yet they shape the way we perceive the world around us.

Furthermore, Takeuchi and Nonaka (2004: 4) argue that knowledge is neither exclusively explicit nor exclusively tacit, but rather both explicit and tacit; in other words, it is inherently paradoxical, since it is made up of what appear to be opposites. Knowledge is thus created dynamically by synthesising what appear to be opposites and contradictions. The key to knowledge creation is dialectical thinking, which transcends and synthesises opposites. They further argue that such opposites are interdependent, i.e. each member of a polar opposite seems to be defined by its opposite. Thus, although tacit and explicit knowledge are portrayed as polar ends, they not only complement each other, but are also interdependent (Takeuchi and Nonaka (2004).

Allard (2004: 368) sees knowledge as being multi-dimensional, and identifies two fundamental attributes, i.e. the knowledge type and the knowledge mode. The first of these is concerned with distinctions in the nature of the knowledge itself. Each type of knowledge can be created and it can also be used in the creation of knowledge. The second, which is the knowledge mode, is concerned with the way that knowledge can be processed in transforming it from one mode to another. According to Allard (2004), knowledge creation can occur for either mode and, perhaps during the transformations,

between modes. The first attribute, which features defining characteristics, separates knowledge into three types – descriptive knowledge, procedural knowledge and reasoning knowledge.

Each type of knowledge, according to Allard (2004), is an integral part of the knowledge creation process. Descriptive knowledge describes the state of a domain, the items that exist in it, the context in which they exist, and the relationships that may exist between the items and different domains. This knowledge can also be thought of as "know what". Procedural knowledge, which can be thought of as "know how", is comprised of algorithms, such as the steps needed to reach a specified goal. Reasoning knowledge, which can be thought of as "know why", is comprised of logic that specifies what consequences are expected, what conclusions are valid, or what actions are appropriate if a certain situation is given or assumed to exist. Allard (2004) argues that newly created knowledge can be any one of these types. For example, a new forecast is descriptive knowledge, a new plan is procedural knowledge, and a new heuristic is reasoning knowledge.

The second attribute, as mentioned by Allard (2004: 369), stems from the notion that knowledge is the result of a process whereby meaning is attached to it via interpretation and cognitive construction. In this dimension, knowledge exists in two modes, tacit and explicit (see Takeuchi and Nonaka, 2004), with the possibility of transforming knowledge existing in one mode into the other, as well as the possibility of transforming knowledge within a mode. Learning about tacit and explicit knowledge and the relationship between them is helpful in understanding the dynamic nature of the knowledge creation process. Allard (2004) argues that knowledge can become more valuable when it evolves from tacit to explicit because it often becomes more commonly available, depending on its environment. Allard (2004) gives an example of an academic institution, on the one hand, where the dissemination of new knowledge is likely to be quite broad and may include public venues. In a corporate setting, on the other hand, knowledge may be distributed across departments or job sites, but will still be confined to organisational boundaries.

Choo (1998: 112) identifies a third mode of knowledge, i.e. cultural knowledge. This consists of the cognitive and affective structures that are habitually used by organisational members to perceive, explain, evaluate and construct reality. Cultural knowledge, according to Choo (1998), includes the assumptions and beliefs that are used to describe and explain reality, as well as the conventions and expectations that are used to assign value and significance to new information. The shared beliefs, norms and values form the framework in which organisational members construct reality, recognise the saliency of new information, and evaluate alternative interpretations and actions. Cultural knowledge is uncodified and broadly diffused over the links and relationships that connect a group (Choo, 1998).

The above definitions of the term "knowledge" and its associated concepts are important to the current study as this would assist in understanding knowledge and how it could be managed, within an organisational context. It is also crucial to discuss the subject of knowledge management practices within an understanding and appreciation of knowledge in its broad and complex context. This can enhance the effective application of knowledge management practises in an organizational setting.

## 2.3. What is knowledge management?
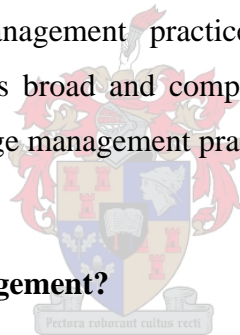
"Knowledge management is the creation, acquisition, representation, transfer, incorporation and application of knowledge" (Ruggles, 1999: 1). Knowledge management is seen, firstly, as a way of improving the organisation's operations, and secondly, as a way of redefining the business. To do that an organisation must be able to harness the knowledge that already exists inside it, both in explicit and tacit form. It must also be able to acquire and create new knowledge that will be useful to the organisation, and to promote the sharing thereof. The two attribute dimensions mentioned by Allard (2004) above provide different perspectives on the knowledge creation phenomenon, and on the interaction that exists between these dimensions. For example, Allard (2004: 369) argues that someone may hold procedural knowledge in a tacit form, which is characterised by the fact that he or she has performed the procedure repeatedly. However there may not yet be a way (e.g., a shared language) to formally pass on this knowledge to others. The tacit version of some other procedural

knowledge may be amenable to being recorded in a manual, thereby being converted into explicit knowledge (Allard, 2004).

An organisation creates and utilises knowledge by converting tacit knowledge into explicit knowledge, and vice versa. Takeuchi and Nonaka (2004: 8) identify four modes of knowledge conversion, viz:

- socialisation – converting knowledge from tacit to tacit;
- externalisation – converting knowledge from tacit to explicit;
- combination – converting knowledge from explicit to explicit; and
- internalisation – converting knowledge from explicit to tacit.

This cycle, which came to be known as the SECI process (see figure 2.1 below), is at the very heart of knowledge creation. It depicts how tacit and explicit knowledge are amplified in terms of quality and quantity, as well as transferred from the individual to the group and then to the organisational level (Takeuchi and Nonaka: 2004).
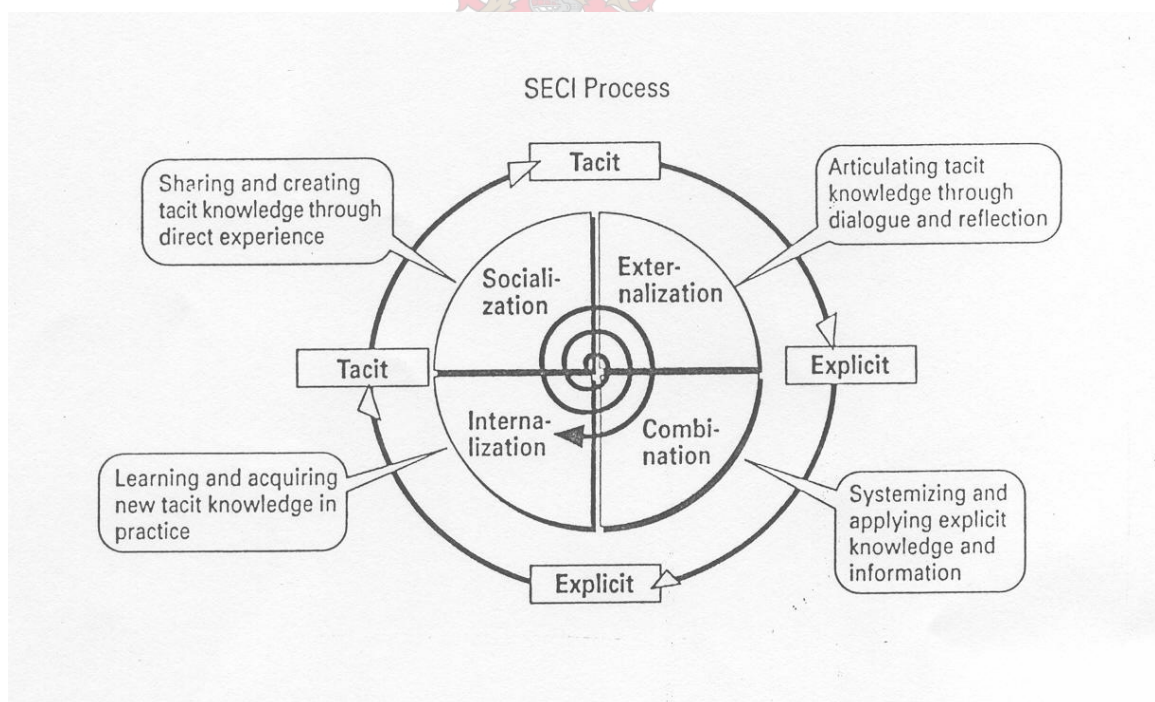
Figure 2.1.  The SECI process (Source: Takeuchi and Nonaka, 2004: 9).

Among the four modes of knowledge conversion, externalisation holds the key to knowledge creation, because it creates new, explicit concepts from tacit knowledge (Takeuchi and Nonaka, 2004: 59). For shared knowledge to be easily utilised by the organisation as a whole, it must become explicit. When tacit and explicit knowledge interact innovation emerges. Organisational knowledge creation is thus a continuous and dynamic interaction between tacit and explicit knowledge.

Allard (2004: 372) summarises the three models of knowledge-creation that were previously discussed by Choo (1998), namely; knowledge conversion, knowledge building and knowledge linking. The first, knowledge conversion, is the conversion from personal, tacit knowledge of the individual, to the shared, explicit knowledge of the organisation. Once the knowledge has become explicit within the organisation, it can then be converted back into tacit knowledge, as individuals learn about and assimilate it. The second, knowledge building, relies on the organisation creating an environment that nurtures knowledge building activities and increases the core capabilities of individuals within the organisation. These are the activities that include shared problem solving, experimenting and prototyping, importing knowledge from outside the organisation, as well as implementing and integrating new processes and tools. Lastly, knowledge linking involves the creation of learning alliances with other organisations, which allow knowledge to be transferred. This requires examination and coordination of specialised relationships, work cultures and operating styles. Allard (2004) argues that each of these three models encourages interaction between individuals and ideas, thereby raising the possibility that any given problem may be tackled from multiple perspectives. This creates the synergy that drives innovation and knowledge creation.

Knowledge, according to Takeuchi and Nonaka (2004: 11), is only created by individuals, not by organisations. It is therefore very important for the organisation to support and stimulate the knowledge-creating activities of individuals or to provide the appropriate contexts for them. Knowledge can be created through dialogue, discussion, experience sharing, sense making, or communities of practice, in other words, through the interactions of individuals. Teams in an organisation provide a shared context in which individuals can carry on a dialogue, which may, however, involve considerable conflict and disagreement. Such disagreement is precisely what pushes individuals to

question existing premises and to make sense of their experiences in a new way. Takeuchi and Nonaka (2004) believe that this kind of dynamic interaction at the group level facilitates the transformation of personal knowledge into organisational knowledge.

Kinghorn (2002: 321) believes that contemporary organisations, particularly those that are highly knowledge intensive, such as higher education institutions, consulting companies, etc. are vehicles of so called sense-making activities. He differentiates between sense and meaning in that sense is a way of putting together different meanings into a coherent understanding and then base actions on this understanding. But he also says that there is no guarantee that harmonious relations of mutually supportive sense-making exist. It is the capacity to make collectively coherent sense that is the basis for the contemporary knowledge intensive organisations and it in turn leads to innovation. Sense-making, according to Boland and Yoo (2004: 381), is the process whereby sense is made of something surprising, unexpected or equivocal. They see sense-making as the social interaction that continually constructs both the organisation and its environment. In other words, sense-making is to continuously look at the environment and interpret it so that the organisation can be run successfully. Sense-making differs from decision-making because sense is always made retrospectively, i.e. first something happens, and then we need to make sense of it. In decision-making, on the other hand, the first step is a statement of purpose and an analysis of alternatives, followed by decision-making, and thereafter action following a deliberate planning by the manager (Boland and Yoo, 2004: 383).

The difference between the retrospective versus the prospective nature of knowledge in organisations is crucial to understanding the implications of sense-making for knowledge management. According to Boland and Yoo (2004: 384), sense-making highlights the way in which knowledge is a retrospectively imposed structure on the organisational experience. They argue that sense-making is a necessary retrospective exercise for organisations to constantly review the past in an effort to create sense in the face of continual change and surprise. Sense-making emphasises that an adequate understanding of organisations requires an understanding of the ecological setting of the organisation and its environment. Sense-making therefore includes an awareness of

how the managers themselves are part of the dynamic and uncertain environment they face (Boland and Yoo, 2004).

Takeuchi and Nonaka (2004: 13) propose a "middle-up-down" management model as a more effective means of managing creative chaos within an organisation rather than the top-down and the bottom-up models. Both the top-down model, which is primarily suitable for dealing with explicit knowledge, and the bottom-up model, which deals primarily with tacit knowledge, neglect middle managers. Neither model is adequate for managing knowledge creation. In the "middle-up-down" model, on the other hand, top management provides a sense of direction regarding where the company should be headed, while front-line employees look at actual implementation. The job of middle managers is then to synthesise the tacit knowledge of both top management and front-line employees, to make it explicit and to incorporate it into new technologies, products and services.
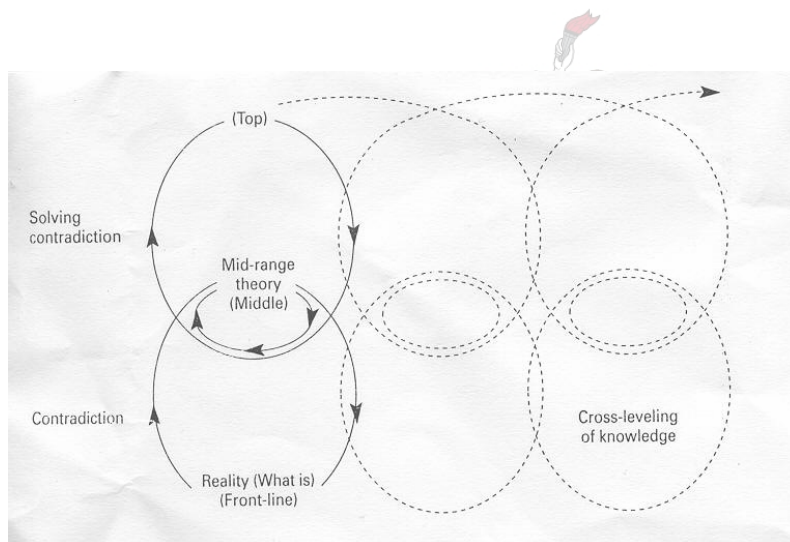


Figure 2.2. The Middle-up-down knowledge-creation process (Source: Takeuchi and Nonaka, 2004: 14).

Takeuchi and Nonaka (2004: 68) identify the following five conditions at the organisational level to promote knowledge creation:

(1) **Intention:** Knowledge creation is driven by organisational intention, which is defined as an organisation's aspiration to its goals. Organisations should foster their employees' commitment to knowledge creation by formulating an organisational intention and presenting it to their employees. Commitment

underlies the human knowledge-creating activity. It is through commitment that knowledge creation can take place in an organisation (Polanyi, cited in Takeuchi and Nonaka, 2004: 70).

(2) **Autonomy:** At the individual level, all members of an organisation should be allowed to act autonomously as far as circumstances permit. Autonomy increases the possibility that individuals will motivate themselves to create new knowledge.

(3) **Fluctuation and creative chaos:** This condition stimulates the interaction between the organisation and its external environment. Changes in the environment often create chaos within the organisation, out of which new knowledge can be created.

(4) **Redundancy:** This is the existence of information that goes beyond the immediate operational requirements of organisational members. In other words for organisational knowledge creation to take place, a concept created by an individual or group should be shared with other individuals who may not need that concept immediately. This sharing of redundant information also promotes the sharing of tacit knowledge, because individuals develop a sense of what others are trying to articulate, which may speed up the knowledge creation process.

(5) **Requisite variety**: Ashby (in Takeuchi and Nonaka, 2004: 78) argues that an organisation's internal diversity must match the variety and complexity of the environment in order to deal with challenges posed by it. Organisational members can cope with many contingencies if they possess requisite variety, which can be enhanced by combining information differently, flexibly and quickly, and by providing equal access to information throughout the organisation.

The above discussion is important for the current study, as it creates insight into how knowledge can be understood and managed within an organizational context.

**2.4.  The Human Factor: What is the role of people in knowledge management?**

Leibowitz and Chen (2004: 409) state that the mantra within the knowledge management community is that 80% of knowledge management is people and culture, and 20% is technology. This means that knowledge in an organisation is essentially managed by people, and a suitable environment, i.e. culture, needs to be created for this to happen. Technology on the other hand is only an enabler of knowledge management. They highlighted the role of people and culture in encouraging a knowledge sharing environment within the organisation. Similarly, according to Liao et al (2004: 25), performance in various parts of the organisation can be enhanced when people communicate information, effective practices, insights, experiences, tastes, lessons learned, as well as common sense. The majority of organisational knowledge is actually carried in the minds of its employees, which is not accessible, and this presents a challenge for knowledge sharing (Leibowitz and Chen: 2004). Liao et al (2004) argue that knowledge sharing implies that individuals should mutually adjust their beliefs and actions through more or less intensive interaction. On the downside, for individuals in a highly competitive environment, knowledge sharing means that an individual's knowledge may be disseminated to others who might be his or her competitors now or in the future. Liao et al (2004) believe, therefore, that a knowledge sharing culture needs to include an incentive or reward system to motivate employees to share their knowledge.

The above factors clearly indicate that the need to nurture, to be sensitive to, and to deal with people issues effectively cannot be over-emphasized in ensuring the success of any organization, especially those in the knowledge business such as higher education institutions, or even more urgently, those on the verge of a merger.

**2.5.  The role of knowledge management in tertiary institutions**

Rowley (2000: 325) states that higher education institutions are in the knowledge business, and are increasingly exposed to marketplace pressures in a similar way as other businesses. She feels that the field of knowledge management might help these institutions to keep abreast of changes. Higher education institutions do have a

significant level of knowledge management activities, such as teaching, research and maintaining a number of databases. According to Rowley (2000: 329), it is important to recognise and use these activities as foundations for further development as they respond to changes that take place in their environment. Higher education institutions and their staff need to recognise and respond to their changing role in this knowledge-based society.

Jarvis (2000: 44) believes that the process of industrialisation introduced changes in higher education institutions. These institutions had to respond to changes that took place because of mechanical inventions that were brought about by the industrial revolution. He further claims that the infrastructural driving force of change is the industrialisation process, whereas education forms part of the superstructure while responding to the needs of the infrastructure, and being forced to change accordingly. The Oxford English Dictionary defines the infrastructure as the parts of a system that compose the whole and the superstructure as a structure built on something else. Therefore, industrialisation is an infrastructure in the sense that it is a social system and education is a superstructure that is built on this social system. He argues that higher education is still part of the superstructure and that it ultimately does not matter how hard academics argue for their independence, as they will eventually be forced to respond to the infrastructural social pressures that shape the world as a whole.

The infrastructural forces are causing the higher education system to change and respond to the increasingly more intensive demands brought about by rapid changes. In essence, higher education institutions are driven by market forces to change their activities and to provide more opportunities for more people to study. Jarvis (2000) adds that their market will consist of workers, who, in the rapidly changing knowledge society, need to keep abreast of changes. Higher education institutions are also increasingly competing with each other. It can be expected that there will be take-overs and mergers in the next few years in conjunction with cost-cutting exercises, as new technologies lessen the need for some of their more labour intensive activities in both teaching and administration (Jarvis: 63).

Barnett (1993) sees higher education institutions as the key to discharging the higher order knowledge tasks of society (i.e. they confer degrees whose incumbents will be

able to perform high level tasks), both in terms of their discovery and transmission. He argues that modern society is both a knowledge society and a learning society. It is framed by dominant interests, which include pragmatic interests in being successful in global economic competition. Higher education cannot remain immune to such interests, which, accordingly, will spill over into the definitions of knowledge sustained by the academia (Barnett, 1993).

Knowledge and learning are components of higher education. Sandeland (1998: 182) argues that they are inextricably linked and easily confused. He defines knowledge as a stock or resource, whereas learning is an ongoing activity. He believes that a learning infrastructure must be in place in order to equip people to access, interpret and apply knowledge effectively to business challenges. Learning must be pertinent to the mission of the organisation and be shared and developed into learnt systems, so that the organisation will benefit. Creating knowledge through assignments, projects and published papers are traditional mechanisms of demonstrating learning in higher education environments.

Higher education institutions consciously and explicitly need to manage the processes associated with the creation of their knowledge assets, such as creating and maintaining the right culture and encouraging their employees to create and share knowledge. They must also recognise the value of their intellectual capital to their continuing role in society, and in a wider global marketplace for higher education. The process of knowledge management must be embraced by all in the institution and not simply be an additional burden or agenda set by senior management (Rowley: 2000). In order for everybody involved to experience ownership of this process, the full embedding of knowledge management must be made to evolve naturally and gradually.

## 2.6. Knowledge management objectives for higher education institutions

The challenges that higher education institutions face in embedding knowledge management can be assessed by using Davenport's four types of knowledge management objectives (cited in Rowley, 2000), which could be used as a lens through

which to view higher education institutions. They are: the creation and maintenance of knowledge repositories; improving access to knowledge; enhancing the knowledge environment; and valuing knowledge.

**(1) Knowledge repositories:** Higher education institutions have large numbers of potential knowledge repositories in the form of corporate financial databases, databases of present and prospective students, the library, and collections of documents, both printed and electronic, owned by individual staff. There are also many subject specific databases and data sets maintained in individual departments, research units etc. These various databases provide access to internally generated data about the institution's operations, and external, published documents and databases, accessed through libraries, bookshops, and the web and other online services. Whilst higher education institutions compete with each other, they also participate in a wider knowledge creation process, which leads to the creation of knowledge repositories on which future generations of scholars and researchers may draw. Although they do participate in knowledge creation, Rowley (2000: 330) argues that, we are still far from a scenario where members of higher education institutions have access to the combined knowledge and wisdom of others in the institution. They also do not have access to that knowledge in a form that is packaged to suit their particular needs. This is because higher education institutions have not made explicit the knowledge requirements of different segments of the institution.

**(2) Knowledge access:** According to Rowley (2000: 330), access to published knowledge sources across the academic community and within organisations is generally good. Research funding institutions across the world have invested heavily in network infrastructures to support communication. The internet is the best example of such a network, which was initially started as a network to support communication amongst researchers. Such networks have enabled researchers and academic staff to gain access to public knowledge, including a host of electronic documents, and specifically electronic journals. E-mail has facilitated communication with other experts in higher education, research institutions and industry worldwide. Rowley (2000) points out that some organisations are experimenting with storing their committee and policy documents in electronic form, and making them available through the intranet. Most libraries in higher education have a web page, which not

only acts as an advertisement for information about the organisation, but may also offer links to selected sources of information, including databases and lists of experts. Rowley (2000) argues that higher education institutions have been proactive in the areas of knowledge repositories and knowledge access, especially with respect to explicit and public knowledge.

**(3) Knowledge environment:** The creation of an environment in which knowledge management activities prevail is concerned with adopting appropriate organisational norms and values relating to knowledge. Such knowledge management activities are knowledge creation, transfer and use, and being prepared to relinquish the power that comes with the ownership of knowledge. Rowley (2000) argues that the roles of teachers and researchers demand that they pose as experts, and that their security and credibility with students and colleagues is dependent upon their knowledge base. Individuals in a higher education institution must be in an environment where they are able to create, transfer and use knowledge. Higher education institutions have considerable experience and expertise in knowledge sharing through teaching and research. According to Rowley (2000), the norms, values and practices associated with knowledge creation, sharing and dissemination in higher education are complex because of the increasing globalisation of communities coupled with the electronic journal formats among other challenges.

**(4) Valuing knowledge:** Knowledge must be viewed as an asset. Rowley (2000) argues that higher education institutions have no experience in valuing their intellectual capital and entering those values on their balance sheets. If they did, their assets and possibly turn-over would be enhanced, and they would be much more significant businesses than they are at present. Higher education institutions have traditionally been defined by their role in relation to knowledge and learning across a range of different disciplines. Such lack of focus, according to Rowley (2000), might make it difficult for higher education institutions to be at the forefront in all areas of knowledge. However, on the contrary, knowledge management tools may present a golden opportunity for the creation of interdisciplinary knowledge.

These discussions highlight the importance and role of culture, norms and values within the knowledge environment. For merging institutions such as the Cape

Technikon and the Peninsula Technikon, the value of knowledge becomes a much more complex and contentious issue. Valuing knowledge thus becomes even more complicated and challenging under these circumstances.

## 2.7.    Knowledge management in libraries

Libraries are experiencing many transformational changes as digital technology is fundamentally altering how services are provided, research is conducted, and learning occurs. Hawkins (2000) suggests that libraries must learn to adapt by appropriately modifying, supplementing and discarding services, while maintaining the core values that are important to their role. Digital technology presents librarians with a dilemma, the potential for greatly enhanced access combined with uncontrollable and unexpected chaos. A vast amount of information is available on the web today, but it is not a coherent collection of information. Further, Hawkins (2000) argues that the amount of scholarly intellectual and aesthetic information available on the web is truly minimal when compared with what is available in a good library. Librarians need to address all the concerns the web raises, find ways to compensate for its lacks, and reinforce the role of the library. Libraries must be part of the fabric of the emerging electronic infrastructure. Access to the content, services and organisation of information is essential to teaching, learning and inquiry at all levels of the librarians' educational systems, as well as to the society at large (Hawkins, 2000).

Exploiting knowledge can be a major competitive advantage for libraries, and it can also translate into better service to users. According to Jantz (2001: 34), knowledge management is not a phrase that is used routinely within libraries. Knowledge management is considered by many as primarily a business activity, associated with business value in terms of profits, improved return on investment or some other quantitative measure. Jantz (2001) states that although librarians might not choose to assume a new title such as "knowledge manager", there is considerable opportunity for them to use their traditional skills to assume a new function of managing knowledge within the library, which would complement the traditional library service function. In a multi-campus tertiary institution, moreover, library operations are as complex and have a number of branches as many business enterprises. Wiig (cited in Jantz: 2001)

identifies a key knowledge management objective that applies to both libraries and businesses. It is to leverage the best available knowledge to make people, and therefore the enterprise itself, act as effectively as possible.

According to Jantz (2001: 34), in most large public or academic libraries, a librarian typically has a subject speciality, and is highly skilled at using various indexes and databases in that subject area to help users find scholarly material. Users can thus find information on a specific subject with the assistance of a librarian. Hopefully they will transform this information into knowledge that can be applied to a specific problem. In order to provide this assistance, the librarian uses a variety of approaches and tools, including commercial databases, formal guides, informal finding aids, personal notes, and much information that is typically found only in the librarian's mind. Jantz (2001) states that in an ideal knowledge management framework, the librarian would organise these aids, notes and tacit knowledge so that other librarians could also benefit from the knowledge of this particular librarian. This type of knowledge management function can improve the productivity and efficiency of a library because staff and users would not have to depend totally on one person's specialised knowledge.

At Rugters University, New Jersey, a team of reference librarians of the New Brunswick Campus Libraries decided to develop a tool they referred to as "a common knowledge database" (CKDB) (Jantz, 2001). Rugters University is a large, multi-campus university in New Jersey with a number of campuses including the New Brunswick area. In 1997, the New Brunswick libraries were reorganised under one director in order to provide management and focus so that they could function as a single library within Rugters University. The objective of this was to provide more consistent and uniform service across all of the New Brunswick libraries. The concept of a CKDB was created from this reorganisation process. Its two major objectives were: to enable the acquisition and sharing of informal knowledge in order to improve reference librarianship; and, through improved communication, to facilitate the organisational goal of becoming one single, unified New Brunswick library system (Jantz, 2001: 35). This database would assist in sharing the knowledge of experienced librarians, provide a learning tool for new librarians and information assistants, reduce the obstacles inherent in geographically separated libraries, and assist librarians in performing reference services at other libraries where they do not usually work. The

above example provides a concrete learning point, which could also benefit the library systems of the Peninsula Technikon and the Cape Technikon during the merger process.

Another example of knowledge management practices in an academic library setting is provided by Dankert and Dempsey (2002). At DePaul University libraries, in Illinois, a programme of peer training sessions was developed for ongoing staff development. The physical layout and number of campuses at DePaul University (Chicago, Illinois) present a unique challenge for the libraries when it comes to providing professional staff development and training opportunities. Full-time and part-time staff provide library services at two Chicago and six suburban campuses. Most of the librarians work at the two large Chicago campuses. Some divide their time between a Chicago and a suburban campus. Because the academic departments are also divided between the campuses, the librarians at each campus acquire competencies in different subject areas. According to Dankert and Dempsey (2002: 351), this presents two major challenges for reference services that must be addressed through staff development, namely providing consistent service levels regardless of location, and encouraging staff cohesion.

To deal with the above challenges, a programme was created with reference librarians training one another in a variety of subjects, rather than in specific behaviours. Dankert and Dempsey (2002) argue that the goal of this programme was not to change behaviour so much as to provide a venue for staff development that would increase librarians' inner sense of security/self-confidence when answering questions in unfamiliar subject areas. It would also give staff an opportunity to collaborate with others on a regular basis. In order to develop a programme that was balanced, interesting and relevant to most reference staff, librarians were asked to list all of their interests in terms of what they would like to learn and what they would like to teach without judging those ideas. Once the topics were chosen, librarians were paired together based on a variety of reasons, such as: librarians from two different campuses, a new librarian paired with an experienced one, or a subject specialist paired with a novice. These partnerships, according to Dankert and Dempsey (2000: 352), allowed librarians to feel more comfortable teaching their peers and also created an opportunity for collaboration among librarians who otherwise would not have had a chance to work

together. Part-time staff from each campus were encouraged to attend and were paid for their time. The peer-training programme was saved in the Blackboard course management software so that it would be easily accessible at the reference desk when questions came up from users.

To further illustrate the importance of knowledge mangement in libraries, Branin (2003) traces the history of the field of collection management over the last fifty years from "collection development" (1950 to 1975), to "collection management" (1975 to 2000), to present day "knowledge management"(which came up at the beginning of the 21st century). He believes that this evolution is largely focused on the concept and meaning of "collection". He feels that the concept of a collection, though still vitally important to a research library, is too static and too limited to fully describe the range of information resources now offered to users. Branin describes the Knowledge Bank Project currently being built at Ohio State University, where he is the director of libraries. According to Branin, this is an enterprise-wide knowledge management system, which will help them to put into practice some of the guiding concepts of librarianship and knowledge management. They are extending the expertise of librarians to manage all types of information, not just the structured, published information that librarians have traditionally been asked to collect, organise and preserve. The Knowledge Bank is meant to be a digital institutional repository, an interdisciplinary, multi-media storehouse of knowledge capital. The university community believes that the library should take the lead in creating this Knowledge Bank (Branin, 2003).

O'Donnell (2000) argues that academic librarians are lagging behind corporate librarians in knowledge management due to a number of reasons:

- The customer service focus of librarians is not yet well embraced and even criticised by many;
- Academic institutions are often a few steps behind large commercial organisations in the latest management "technologies" and theories, such as total quality management (TQM) and business process re-engineering (BPR);

- A different culture exists between corporate/special and academic librarians, largely due to the emphasis on the educational role of the latter.

If librarians are going to contribute to knowledge management, there is a general consensus that they will need to reskill, relearn and refocus. But there are many activities that they can immediately contribute to, which they are already doing. O'Donnell (2000) argues that, to a librarian, some of the knowledge management hype appears to be a pseudo-academic course entitled "Librarianship 101".

Knowledge management can transform the library into a more efficient, knowledge sharing organization. Within libraries, as Jantz (2001) puts it, knowledge management involves organizing and providing access to intangible resources that will help librarians and administrators carry out their tasks more effectively and efficiently. On the eve of their merger, the Cape Technikon and the Peninsula Technikon libraries can use knowledge management to help in the smooth running of their libraries in different campuses and satisfy their users' needs more effectively and efficiently.
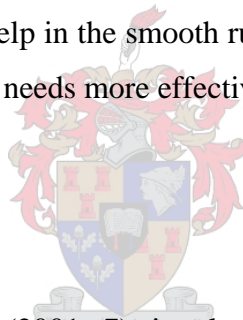
## 2.8.  Challenges of mergers

Mergers, according to Hubbard (2001: 7), involve similar-sized entities where both companies' shares are exchanged for shares in a new corporation. Mergers usually involve two partners of relatively equal size and power, and a genuine attempt is made to merge the two entities into a culturally new one. There are many challenges involved in a merger, and thus it is very easy for it to fail. De Camara and Renjen (2004: 10) give a list of best practices for mergers that can improve the likelihood of success. They advise organizations involved in a merger to do the following: concentrate on synergies, integrate quickly, maintain a focus on customers and revenue growth, communicate continuously, and address human and cultural issues. As Hubbard (2001) has pointed out, parties in a merger are more likely to be evenly matched in terms of size, although, as Cartwright and Cooper (1998: 28) warn, it is seldom a "marriage of equals". They also add that companies involved in a merger tend to continue to function as separate entities for some time after the "marriage".

This prolonged nature of a merger means that the individuals involved can be disrupted by uncertainty for a much longer period.

Segil (2004: 5) points out that relationship issues such as a breakdown in trust and a lack of joint problem-solving, tend to result in the failure of a number of mergers. She advises that building and maintaining a strong working relationship ought to be a top priority when evaluating an alliance partner, negotiating an alliance and managing it thereafter. The prospective partners must conduct a relationship-fit assessment together, and discuss each company's culture and processes. Segil (2004) warns that superficial discussions will not suffice. Instead, the prospective partners must work through each element thoroughly in order to identify differences that might become stumbling blocks later.

As Segil (2004) maintains, for individual employees a merger is a dramatic event over which they have no control. Employees do not often recognise a merger as a collaborative process, but tend to assume that domination by the stronger company over the weaker one will take place. Management must thus facilitate the integration process, communicate mutual benefits and shared power, and help the employees to see what is attractive in the other organization's culture. It must also help to diffuse the feelings of threat and make the most of opportunities for meaningful cooperation between employees.

As Cape Technikon and Peninsula Technikon libraries are going into a merger, they need to take note of the challenges highlighted above and address them. It would be very crucial for the employees of both libraries to understand each other's cultures, so that they can work together in a cooperative and fruitful manner after the merger. They should also concentrate on their synergies and maintain a focus on their service while communicating continuously.

## 2.9.  Implications of merging for Knowledge Management

According to Hagen (cited in Chatzkel, 2003: 139), both tacit knowledge and explicit knowledge of the organisation, which reside in its knowledge network, are the basis of the organisational functioning and must be included in the planning and execution of a successful merger. To achieve a successful merger, organisations must come to understand what would enhance knowledge transfer in the particular set of cultures that are involved in the merger. Chatzkel (2003: 139) believes that mobilizing knowledge assets and gathering explicit knowledge is part of the plan for that first day of operation, after the merger. This forms the basis of developing a plan that is executed for running the business at the start of the new organisation. This plan must meet the goal of moving to the stage where assets are integrated for greater results.

Brown (cited in Chatzkel, 2003: 137) recommends that organizations must change their primary mode of operating from the traditional "managing continuity" to "managing discontinuity", that means they must learn to manage change. This involves shifting perceptions so that the enterprise can actively learn from the periphery and not just the main stream. This means honouring new ideas and innovating from them. Organisations do not only need to streamline learning, but must also streamline unlearning. De Holan, Phillips & Lawrence (2004), like Brown, also belive that organisational forgetting is an important aspect of knowledge management. They maintain that knowledge management is creating processes not just for learning  and retaining what is important, but also for avoiding or unlearning what is not (De Holan, Phillips & Lawrence, 2004: 45). Organisational learning frequently depends upon processes of organisational forgetting. Organisations that want to transform themselves must not only acquire new capabilities, but must also often forget old knowledge that traps them in the past. Furthermore, organisations must purposefully forget other types of knowledge, such as bad habits that could easily be learned from a merging partner.

Establishing, sharing and enhancing knowledge management practices between Cape Technikon and Peninsula Technikon libraries could help them to build the synergies that might lead to a successful merger. However, as highlighted above, another major

challenge would be unlearning, forgetting and letting go of past practices, which might no longer be sustainable after the merger.

The literature review covered relevant topics including the definitions of terms and concepts such as "knowledge" and "knowledge management". Also important was the need to focus on the role of knowledge management in higher education institutions, and particularly in academic libraries. An examination of the implications of merging for knowledge management was also imperative for this study.

Given such a broad literature overview, this study will specifically place an interest in the importance of harnessing knowledge that already exists within the organisation (in both tacit and explicit form), as this could improve the organization's operations. Also of interest will be the role of teamwork and creating a culture of sharing, as this is crucial in ensuring ongoing creation of new knowledge. Also to receive further attention in this study will be the importance of recording knowledge that exist within an organization (in a tacit form), that could also easily leave the organization through retirement and resignations. Unlearning, or rather forgeting unwanted knowledge, is another means whereby organizations transform themselves, especially during mergers. The issue of forgetting old knowledge will also be reviewed in more detail in this study.
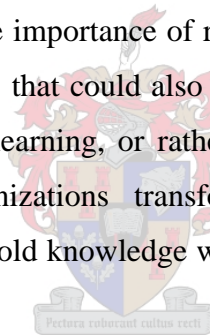
## CHAPTER 3

## RESEARCH METHODOLOGY

### 3.1. Unit of analysis and sampling

The unit of analysis for this study comprised librarians, senior librarians and directors of the libraries of both the Cape Technikon and the Peninsula Technikon. There are no more than ten librarians in each of the libraries of the two institutions. Coincidentally in both cases seven librarians happened to be present on the days the researcher visited the two institutions. It was thus the seven from each on whom the study was conducted.

### 3.2. Data collection methods

### 3.2.1. Questionnaires

Structured self-administered questionnaires were used to collect the data. These were handed to the librarians in both institutions to complete. The advantage of using such questionnaires was to eliminate any biases that might have been introduced if the questions had been asked directly by the researcher. One of the disadvantages of self-administered questionnaires could be that the researcher might not be there to clarify any issues that might not be properly understood by the respondents *(The questionnaire is included as Appendix A on page 81).*

### 3.2.2. In-depth interviews

Face-to-face in-depth interviews were conducted with the directors of both libraries and with some of the senior librarians. The advantage of such in-depth interviews was an enhanced ability to obtain full and rich information and to gain a clearer

picture regarding the prevalence of knowledge management practices. *(A sample of in-depth-interview questions is included as Appendix B on page 84).*

### 3.3. Variables and indicators that were assessed

The following variables and indicators were assessed in this study:

- The prevalence of knowledge management practices within the libraries of these two insititutions.
- The presence of a knowledge sharing culture and whether it is encouraged by senior management or not.
- The practice of recording tacit knowledge within the libraries of these two insititutions.

Data analysis will comprise a comparison between the two institutions following responses to questionnaires and in-depth interviews. Tables and graphs will be used in the analysis of data, and in aiding presentations of the findings.

### 3.4. Limitations of the proposed study

From a quantitative point of view, it would seem to be a limitation to obtain questionnaires from a small number of people. As mentioned above seven librarians from each institution completed the questionnaires. This is about 70% of the total population of librarians of the two institutions. This is quite high enough as a representative sample. Perhaps focus groups would have also been appropriate in some regard. However, this had to be balanced against the sensitivity and confidential nature of the research, as well as the nature and the level of business and work pressure in libraries. On the other hand, it has to be appreciated that this study is in essence qualitative in nature, as it is mainly concerned with people's perceptions and culture related issues. Responses to the questionnaires revealed information that could have benefited from follow-up interviews. However, the scope of the study did not allow these, particularly due to time and size (page numbers allowed) constraints.

# CHAPTER 4

# FINDINGS

## 4.1. Introduction

This chapter presents the findings of the empirical part of the study in a way that is consistent with the objectives of the study, which were to evaluate the prevalence of knowledge management practices in the libraries of the Cape Technikon and Peninsula Technikon, to examine how knowledge is shared among the staff members of both libraries and to determine if tacit knowledge is recorded in these libraries. The findings are presented in the following format:

1) The first part presents the results of the questionnaires that were completed by the subject librarians of both libraries. Emphasis was on comparing observations within the libraries of the two institutions.

2) The second part presents the results of the of the in-depth interviews that were conducted with senior staff of both libraries.

In the questionnaire the subject librarians were asked about the ways in which they acquired knowledge, their attitudes towards knowledge sharing were sought and they were also asked if they recorded their knowledge. During the in-depth interviews, the senior staff were asked how librarians acquired knowledge. They were also asked to provide information about the role they played in developing the librarians. Lastly, their role, as leaders, in ensuring a culture of sharing was discussed.

An analysis and interpretation of the findings will follow in the next chapter.

### 4.2. Findings from questionnaires completed by librarians
(See questionnaires on Appendix A, page 81)

### 4.2.1. Ways of acquiring knowledge

| Ways of acquiring knowledge | | | | |
|---|---|---|---|---|
| | Cape Technikon | | Peninsula Technikon | |
| | Yes | No | Yes | No |
| Training courses | 4 | 3 | 5 | 2 |
| On the job training | 5 | 2 | 4 | 3 |
| Learn as you do | 7 | 0 | 6 | 1 |

**Table 4.2.1:** Cross-tabultation of ways of acquiring knowledge

Table 4.2.1 above and Figure 4.2.1 (page 45) present the ways in which librarians at the Cape Technikon and the Peninsula Technikon libraries acquired the knowledge that they needed to perform their jobs effectively and efficiently. Out of the seven librarians who completed the questionnaires, from each institution, four at Cape Technikon indicated that they aqcuired knowledge through attending specific courses, compared to five at the Peninsula Technikon. In most cases there were not much differences between the two institutions, in all the choices the difference being one less or one more person. The most notable difference in this regard was that, at the Peninsula Technikon three of the seven librarians who completed the questionnaire identified only one way of acquiring information. In contrast, at the Cape Technikon, all librarians identified at least two or all three opportunities as important ways of acquiring information.

In the section provided for comments in the questionnaire one librarian from Cape Technikon commented that she also acquired knowledge by doing background relevant research into the subject, whereas another remarked that she learnt by participating in database demonstrations and by talking to colleagues about specific problems.
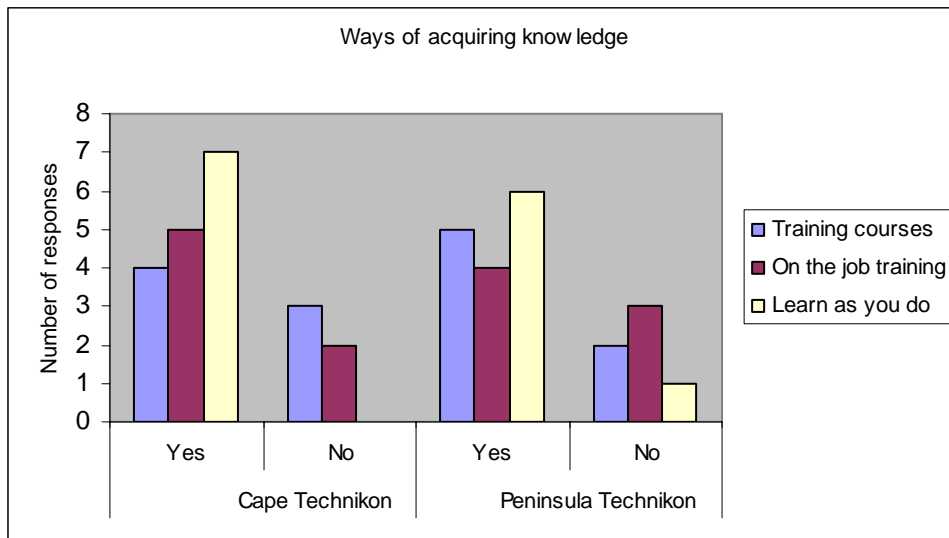
**Figure 4.2.1:** Ways of acquiring knowledge

### 4.2.2. Attitudes towards knowledge sharing

| Attitude towards sharing knowledge with colleagues | | |
|---|---|---|
| | **Cape Technikon** | **Peninsula Technikon** |
| Strongly agree | 4 | 5 |
| Agree | 2 | 2 |
| Neutral | 0 | 0 |
| Disagree | 0 | 0 |
| Strongly disagree | 0 | 0 |

**Table 4.2.2:** Cross-tabulation of attitudes towards sharing knowledge with colleagues

Table 4.2.2 above and Figure 4.2.2 (page 46) summarize the attitudes of librarians of both institutions towards knowledge sharing. Specifically, they were asked whether they found a general need to share their knowledge with their colleagues. Out of seven respondents, at the Cape Technikon, four strongly agreed with this, whilst two merely agreed. One did not select any of the given options. She only remarked that she would like to share her professional experiences with her colleagues, but there was very little time to do so; moreover she had also found the others not particularly interested in sharing their knowledge with her. Another librarian commented that she did share her knowledge in areas where she knew more than her colleagues. Generally, it seems, knowledge was shared regarding databases, interesting articles, new publications, and

changes that are about to take place. The Peninsula Technikon results with regard to this question were similar to the above, with five respondents strongly agreeing and two agreeing.
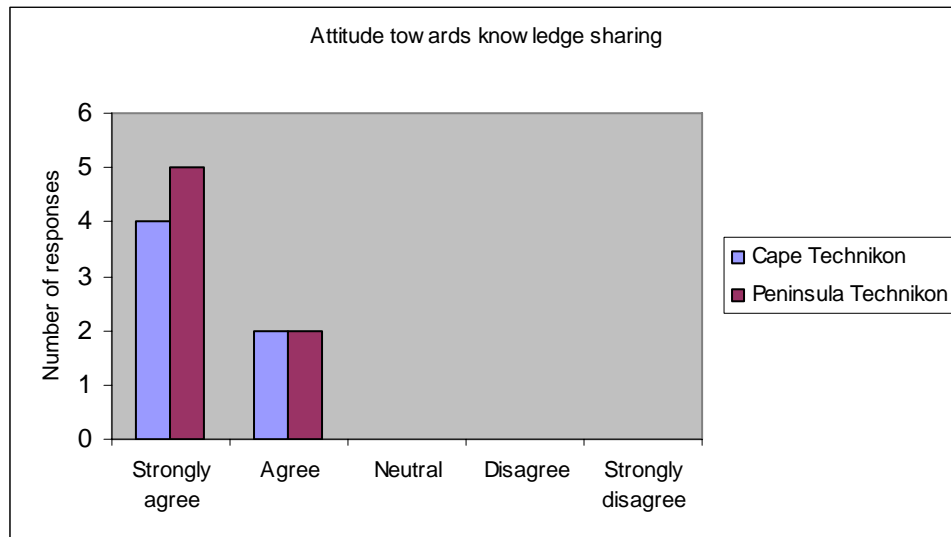


**Figure 4.2.2: Attitudes towards sharing knowledge with colleagues**

### 4.2.3.  Context of knowledge sharing

| Context within which knowledge is shared | | | | |
|---|---|---|---|---|
| | **Cape Technikon** | | **Peninsula Technikon** | |
| | **Yes** | **No** | **Yes** | **No** |
| In meetings | 4 | 3 | 4 | 3 |
| Upon colleague's request | 7 | 0 | 5 | 2 |
| In a team situation | 7 | 0 | 5 | 2 |
| Common interest driven | 7 | 0 | 3 | 4 |

**Table 4.2.3:** Cross-tabulation of the context within which knowledge is shared

Table 4.2.3 above and Figure 4.2.3 (page 47) summarize the answers to the question asked of respondents with regard to the context within which knowledge is shared in the two libraries, i.e. in meetings, upon request by a colleague, in a team situation, or only if common interest existed. Out of seven respondents, in both libraries, four agreed that they shared knowledge in meetings, whilst three disagreed. In the

remaining contexts, while all seven at the Cape Technikon indicated that they would share, some at the Peninsula Technikon reported that they would not. One of the respondents at the Cape Technikon commented that it was important to spread the knowledge base to enable multi-skilling.
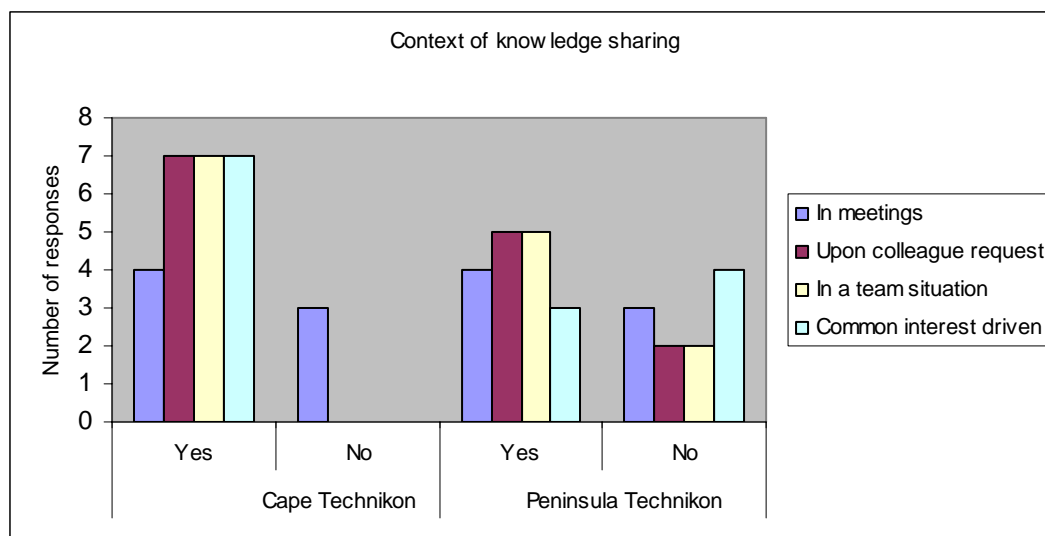


**Figure 4.2.3:** Context within which knowledge is shared

### 4.2.4.  Perceptions of freedom and willingness to share knowledge with colleagues

| Perceptions of freedom and willingness to share knowledge with colleagues | | |
|---|---|---|
| | **Cape Technikon** | **Peninsula Technikon** |
| Strongly agree | 4 | 6 |
| Agree | 1 | 0 |
| Neutral | 0 | 1 |
| Disagree | 2 | 0 |
| Strongly disagree | 0 | 0 |

**Table 4.2.4:** Cross-tabulation of the perceptions of freedom and willingness to share knowledge with colleagues

Table 4.2.4 above and Figure 4.2.4 (page 48) present the respondent's perceptions of freedom and willingness of librarians in both institutions to share knowledge with each other. Out of seven respondents at the Cape Technikon, four strongly agreed that they always felt free and willing to share knowledge. One merely agreed, whilst two disagreed. At the Peninsula Technikon, on the other hand, six of the seven respondents

strongly agreed while one was neutral. Of the two librarians who disagreed at the Cape Technikon, one commented that although she might have relevant background knowledge she did not always feel free to approach senior staff with her opinions and ideas because of her junior status. The second one's comment was that her knowledge was neither wanted nor welcome. She felt that there was a serious lack of discussion in the library, and that professional interactions often devolved into grumblings and expressions of jealousy and bitterness.
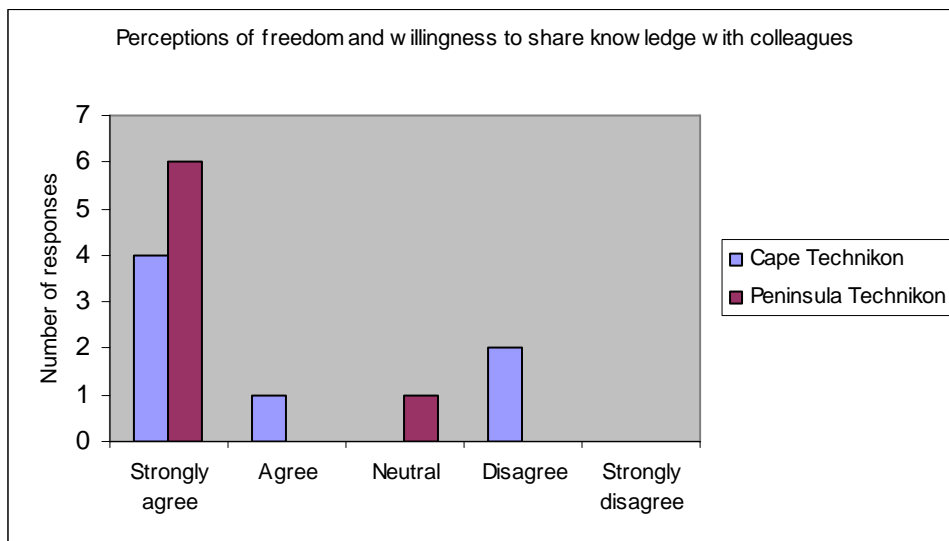


**Figure 4.2.4:** Perceptions of freedom and willingness to share knowledge with colleagues

### 4.2.5. Perceptions regarding the existence of a mentoring programme

| Perceptions of existence of a mentoring program | | |
| --- | --- | --- |
| | **Cape Technikon** | **Peninsula Technikon** |
| Strongly agree | 1 | 1 |
| Agree | 2 | 3 |
| Neutral | 1 | 1 |
| Disagree | 2 | 2 |
| Strongly disagree | 0 | 0 |

**Table 4.2.5:** Cross-tabulation of the perceptions regarding the existence of a mentoring programme

Table 4.2.5 (page 48) and Figure 4.2.5 below present librarians' varied perceptions with regard to the existence or lack of a mentoring programme within the two libraries. In each of the libraries only one out of seven respondents strongly agreed that there was a mentoring programme. Two agreed at the Cape Technikon, compared to three at the Peninsula Technikon. One was neutral, in both libraries, whilst two disagreed that such a programme in fact existed. One respondent from the Cape Technikon did not indicate whether the said programme existed or not.
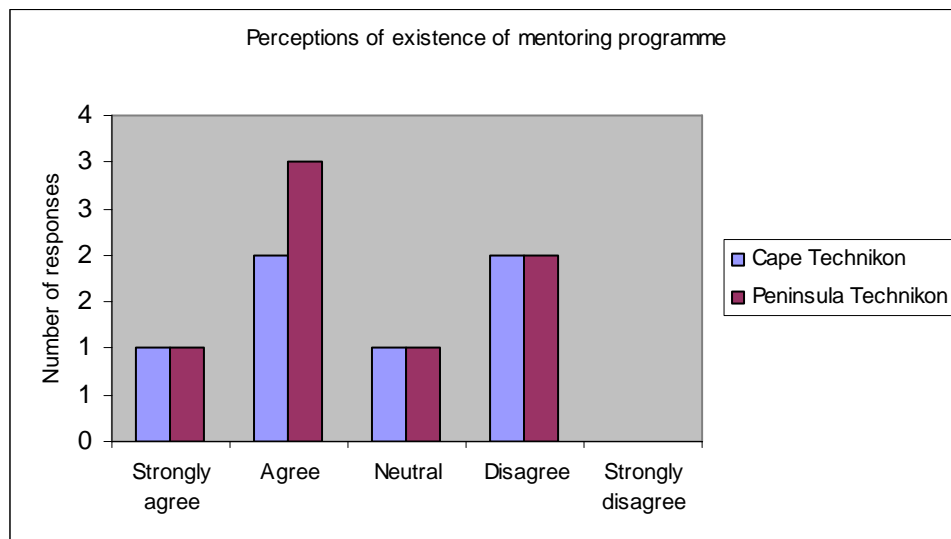


**Figure 4.2.5:** Perceptions of the existence of a mentoring programme

### 4.2.6. Perceptions of the prevalence of teamwork

| Perceptions of degree of prevalence of teamwork | | |
|---|---|---|
| | **Cape Technikon** | **Peninsula Technikon** |
| Strongly agree | 2 | 3 |
| Agree | 5 | 4 |
| Neutral | 0 | 0 |
| Disagree | 0 | 0 |
| Strongly disagree | 0 | 0 |

**Table 4.2.6:** Cross-tabulation of the perceptions of the degree of prevalence of teamwork

Table 4.2.6 (page 49) and Figure 4.2.6 below present the respondents' perceptions of the degree of prevalence of teamwork within the two libraries. Respondents were asked whether they typically worked in teams or groups. Out of seven respondents, two strongly agreed that they did at the Cape Technikon, compared to three at the Peninsula Technikon. Five agreed from the Cape Technikon, compared to four from the Peninsula Technikon. In essence, then, all respondents in both libraries replied that working in teams or groups was a common phenomenon.
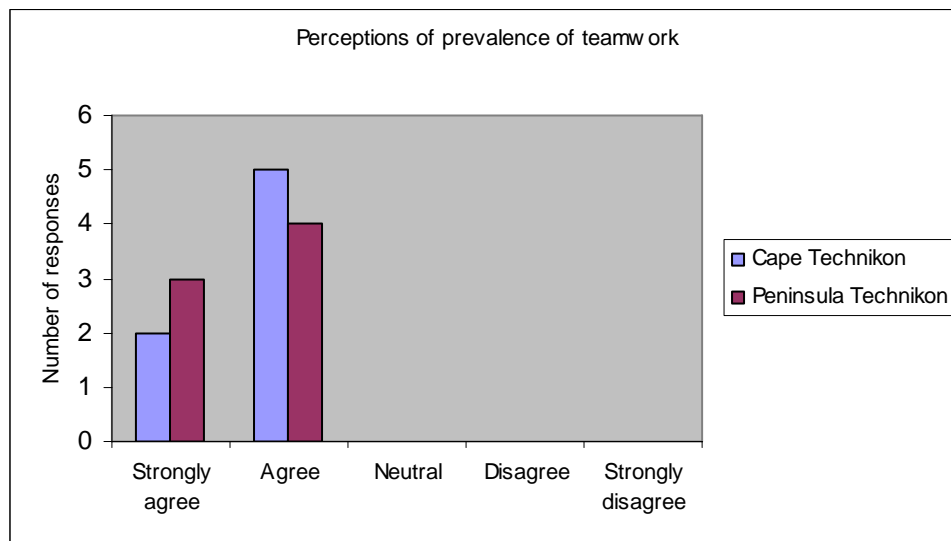


**Figure 4.2.6:** Perceptions of the prevalence of teamwork

### 4.2.7. Sources of information about the library

| Sources of information pertaining to library | | |
|---|---|---|
| | **Cape Technikon** | **Peninsula Technikon** |
| Newsletter | 4 | 2 |
| Intranet | 3 | 1 |
| Grapevine | 4 | 2 |
| Other | 6 | 3 |

**Table 4.2.7:** Cross-tabulation of the sources of information pertaining to the library

Table 4.2.7 above and Figures 4.2.7a & b (on pages 51 and 52 respectively) summarize where librarians obtain information about their own library. Out of seven respondents four from the Cape Technikon indicated that they obtained information from the

newsletter, compared to only two from the Peninsula Technikon. Three from the Cape Technikon reported using the intranet as their main source of information, compared to only one from the Peninsula Technikon. At the Cape Technikon four mentioned the so-called "grapevine" as an important source of information compared to two from the Peninsula Technikon. Six at the Cape Technikon also referred to other sources, which included meetings and e-mail. At the Peninsula Technikon only three referred to other sources, such as meetings, other librarians, supervisors and managers. On highlighting the challenges of an environment overloaded by ever-changing contexts and information, one respondent from the Cape Technikon commented: "Suddenly a situation will crop up that requires a management decision, and you will find out policy has changed or people are working in a different way as it suits the department or the individual".
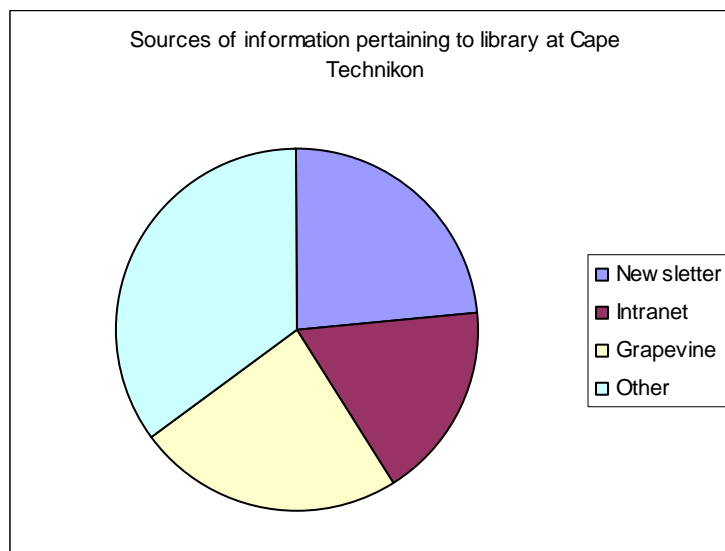


**Figure 4.2.7a:** Sources of information about the library at the Cape Technikon
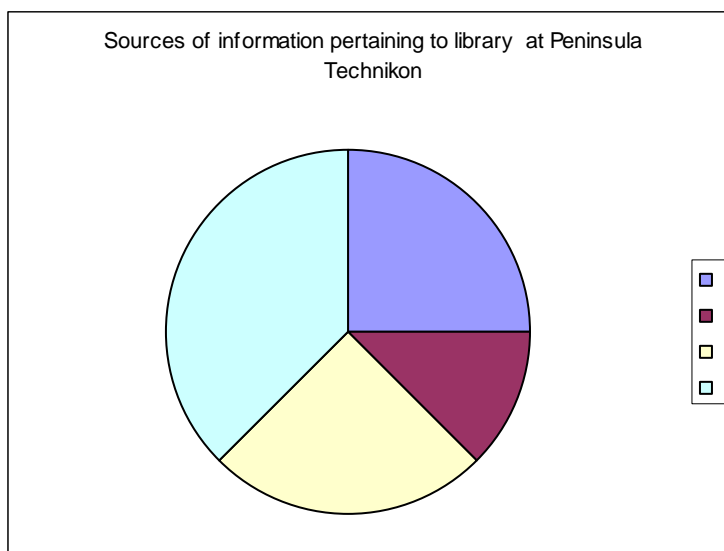
Figure 4.2.7b: Sources of information about the library at the Peninsula Technikon

## 4.2.8. Regularity of departmental meetings

| Regularity of departmental meetings | | |
|---|---|---|
| | **Cape Technikon** | **Peninsula Technikon** |
| Once a week | 2 | 0 |
| Every fortnight | 0 | 0 |
| Once a month | 3 | 4 |
| Never | 0 | 1 |
| Other | 5 | 2 |

**Table 4.2.8:** Cross-tabulation of the regularity of departmental meetings

Table 4.2.8 above and Figure 4.2.8 (page 53) present the regularity with which departmental meetings are held within the two libraries. The librarians' responses were quite varied in this regard because some librarians, especially at the Cape Technikon also referred to meetings they hold individually with senior librarians. These seem to be held once a week. Out of seven respondents from the Cape Technikon, three indicated that departmental meetings were held once a month, whilst five indicated "other". Two of the respondents commented that meetings were only held when the need arose, and one said that they met once or twice a year. At the Peninsula Technikon, on the other hand, four respondents indicated that departmental meetings were held once a month, one indicated that they were never held and two the "other".

One of the respondents at the Peninsula Technikon commented that there was no Head of Department in their department, the post was vacant. The other commented that the departmental meetings were only held when the need arose.
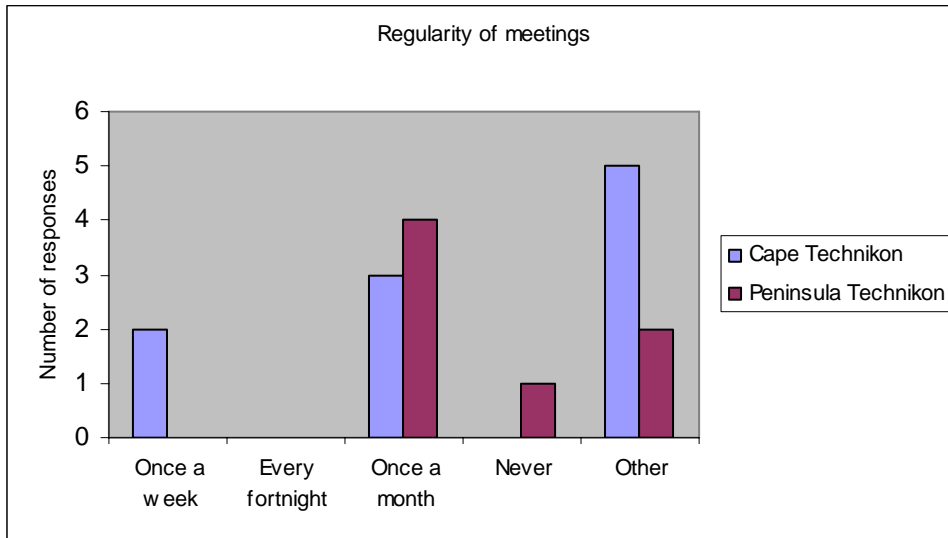


**Figure 4.2.8:** Regularity of meetings

### 4.2.9. Availability of a list of subject specialists to all staff and users

All the respondents at the Cape Technikon library agreed that a list of subject specialists was available both to staff and users on the intranet, some also mentioned the library web page. An astonishing observation, however, was made at the Peninsula Technikon, when three of the seven librarians maintained that there was no list of subject specialists in their library, the other three reported that they did have such a list.

### 4.2.10. Recording of acquired knowledge

Respondents were asked whether they ever recorded the knowledge they acquired about their jobs regardless of how they acquired this knowledge. Five respondents from the Cape Technikon agreed that they did record their knowledge, whilst two disagreed. In the comments section it emerged that knowledge was recorded in a procedure manual that was kept in the library. One respondent reported that she had

typed up documents of her knowledge, and that she had presented a paper at a conference about her job and was due to present another one. At the Peninsula Technikon, on the other hand, only one out of seven respondents agreed that he recorded his knowledge. Knowledge, according to the only one who responded positively, was recorded in a policies, procedures and processes manual.

### 4.2.11. Library policies

When respondents were asked how they found out about current or changing library policies, some indicated that they found out about these from the intranet, whilst others mentioned e-mail, the manual and meetings. They also accessed a listserve called Coollist, which was started to keep the library staff informed about the merger. Some of the respondents at the Peninsula Technikon also mentioned their Heads of Department as important sources from which they learnt about the library's policies.

### 4.2.12. Conference attendance

Here respondents were asked if they ever attended conferences. Out of seven respondents from the Cape Technikon, four indicated that they did, whilst the remaining three indicated that they did not. One of the respondents who responded negatively added a comment that she was probably going to attend a conference in October this year (2004). At the Peninsula Technikon, five of the seven respondents responded positively to this question, whilst only two indicated that they did not attend conferences.

### 4.2.13. Perceptions of being informed about the merger process

Respondents were asked if they felt they were well informed about the process of the merger. At the Cape Technikon six of them indicated that they did feel well informed, whilst only one responded negatively. At the Peninsula Technikon, on the other hand, five of the respondents gave a positive response, whilst two said they were not informed.

## 4.2.14. Information about the merger

Here the respondents were asked how they obtained information about the merger. All seven from the Cape Technikon indicated that they subscribed to the listserve (Coollist) that was started to keep the library staff of both libraries (Cape Technikon and Peninsula Technikon) informed about the upcoming merger. Some also mentioned e-mail, the intranet, minutes of meetings and communication from management as sources of information. Others commented that they attended workshops and meetings about the merger. One mentioned the so-called 'grapevine' as her main source of information about the merger, reporting that she never bothered to read the intranet or the Coollist. It would have been interesting to find out more about the apparent lack of interest. This could have been revealed if follow-up interviews had been done after administering the questionnaires. Respondents from the Peninsula Technikon mentioned similar sources to the ones identified by the Cape Technikon's respondents.

When looking at the above finding one couldn't help realizing that there are some knowledge management practices present, though at different levels within the libraries of these two institutions. The following section will look at the findings from the in-depth interviews which were conducted with the senior staff of both libraries.

## 4.3. Findings from in-depth interviews
(See Appendix B, page 84).

Presented below are the findings from the in-depth interviews conducted among the senior library staff members of the two institutions. Two senior staff members were interviewed from each library. These low numbers are due to the fact that most of the senior staff were involved in meetings and various initiatives regarding the pending merger, and thus unavailable. Even the ones who were finally interviewed were difficult to get hold of. The senior staff members who were interviewed at the Cape Technikon will be identified as Respondent A and Respondent B, while those who were interviewed at the Peninsula Technikon will be identified as Respondent C and Respondent D.

### 4.3.1. Ways of acquiring knowledge

According to Respondent A at the Cape Technikon library, new staff members went through an intensive induction process, which involves spending time in each department of the library. In addition Respondent B looked after the training needs of new staff. At the Peninsula Technikon it emerged from the discussions with both respondents that on-the-job-training, peer training, mentoring, performance evaluation and networking were the main ways for staff to acquire knowledge in their library.

### 4.3.2. Processes for developing employees

According to Respondent A at the Cape Technikon, a skills development programme was in place. As part of this, a coaching programme has been developed, whereby supervisors identify the training needs of their subordinates and entered them into the programme. Three people were involved in coaching an employee, namely the supervisor, Respondent B and another colleague. Respondent B is responsible for training all the library staff. She did not only support library related training but also training that is outside job related issues. Respondent B reported that each staff member had to sign a performance development contract with his or her supervisor, and that, as part of this, key performance areas and training needs, if any, would be identified. At the Peninsula Technikon library these involved a variety of staff development programmes, conferences and workshops, as well as a budget allocated for formal studies. Respondent C also mentioned the manual for tasks and procedures as a way of developing employees.

### 4.3.3. Ways of encouraging employees to share and transfer skills and knowledge

Respondent A of the Cape Technikon reported that subject specialists met regularly every six months to share their knowledge with others. On the other hand, Respondent B mentioned that staff members who attend conferences report back to their colleagues and share the newly acquired knowledge and skills with them. They were required to do so formally. Demonstrations of databases were also given when necessary. Also, each section of the library submitted monthly reports. Knowledge was also shared

informally among staff members. At the Peninsula Technikon respondents mentioned sharing knowledge in meetings and informally, as well as using peer training as the main ways of encouraging the sharing of skills among employees.

### 4.3.4. Key stumbling blocks and key enablers to transformation in the library

Language differences and the physical space (i.e. different locations of the library) were identified as key stumbling blocks to transformation at the Cape Technikon library. Firstly, as Respondent A indicated, when new staff members joined the library, language can sometimes be a problem because of the different backgrounds of the people. In such a case, a staff member would be sent to the Learning Centre to improve their communication in English, which is the medium of communication at the Cape Technikon. Secondly, the physical distance between the branch libraries and the Main Library sometimes hampered communication. Fortunately, the telephone and e-mail do help to some extent in this regard, although, as Respondent B indicated, these were not enough. Respondent B identified mentorship, which was provided through the coaching programme, as a key enabler of transformation. According to Respondent D at the Peninsula Technikon there were no stumbling blocks to transformation as transformation had been embraced. Respondent C echoed these sentiments.

### 4.3.5 The role of senior staff in ensuring that the employees are connected to the right social networks

Respondent B at the Cape Technikon identified conference attendance as a way of connecting employees to the right social networks that would enable them to acquire new knowledge which would help them do their jobs effectively and efficiently. Respondent B thus made sure that staff members attended conferences and workshops that would help them acquire the knowledge that would help them to be effective and successful in their jobs. The national skills development plan was also mentioned by Respondent A as another way of connecting employees to the right social networks. At the Peninsula Technikon conferences, symposiums, taking part in LIASA (the Library and Information Association of South Africa), and participation in CALICO (Cape Library Cooperative, which is a cooperative of the five higher education institutions in

the Western Cape) were seen as important ways of encouraging employees to become connected to the right social networks where they could acquire knowledge that would enable them to be effective and efficient in their jobs.

### 4.3.6. Preventing useful knowledge from leaving the library

From the discussions with Respondent A at the Cape Technikon library it emerged that multi-skilling was a way of making sure that useful knowledge was retained when staff members retired or resigned from the library. This also ensured that the remaining staff members were able to perform a wide range of tasks. According to Respondent B, the coaching programme was identified as another way of retaining knowledge for present and future use. Respondent C at the Peninsula Technikon library mentioned that there was a mentoring programme and a succession plan in place to prevent important information from leaving the library when people resigned or retired.

### 4.3.7. The role of leadership in ensuring a culture of learning and knowledge sharing

At the Cape Technikon, both respondents concurred that the introduction of the coaching programme and multi-skilling were seen as the role played by Cape Technikon leadership to ensure a culture of learning and knowledge sharing. At the Peninsula Technikon Respondent C mentioned initiatives such as strategic planning, whereby senior library staff go away for a weekend once a year to plan for the future of the library, and "participatory management discourse" as ways of ensuring a culture of learning and knowledge sharing. At the Peninsula Technikon, participatory management discourse was, according Respondent C, the process whereby the Heads of Departments reported back to their staff on the management meetings and then take the concerns of their staff to the management meetings.

### 4.3.8. Forums and processes for employees to share their personal and work experiences

In both libraries staff meetings were identified as forums where staff members could share their personal and work experiences. Respondent A at the Cape Technikon

library also alluded to a competition that had been introduced in the library to encourage knowledge sharing among the staff members.

### 4.3.9. Is there a culture of sharing in the library?

In both libraries the answer to this question was a confident "yes", although there was a "yes/no" response by Respondent B at the Cape Technikon who also reported that there was no deliberate hoarding of knowledge that was identified within the library. At the Peninsula Technikon Respondent C mentioned the team building exercise as a way of ensuring a culture of sharing in that library.

### 4.3.10. Cultural blocks that existed presently, and those that can be expected after the merger

From the in-depth discussions with both respondents at the Cape Technikon, it emerged that no cultural blocks existed at the time and none were expected after the merger. All staff members were seen to be working well together. Staff members of both libraries, the Cape Technikon and Peninsula Technikon, were working on policies and procedures, at different levels, to streamline their work in preparation for the merger. The listserve was used for keeping the staff informed about the merger.

As was the case at the Cape Technikon, no cultural blocks were identified at the Peninsula Technikon. Diversity training was mentioned in both libraries as a way of addressing cultural differences. This is a training course offered at the Peninsula Technikon for all staff members. Staff members from different backgrounds come together and learn about each others' cultures and traditions.

### 4.3.11. The level of readiness of the library staff for the merger

The feeling, in both libraries, was that the library staff, in general, were indeed ready for the merger. Respondent B at the Cape Technikon, in fact, felt that the library staff were "more ready than anybody else in the institution". Further, according to

Respondent A at the Cape Technikon no job losses were anticipated, a promise to that effect had been made, and thus staff members felt secure in that regard.

## 4.3.12. Better way of using knowledge, skills and competencies

At the Cape Technikon good teamwork was identified as a better way of using knowledge, skills and competencies within the library. It was also felt by Respondent A that there was scope for more forums of communication. According to Respondent C at the Peninsula Technikon, there would be need to examine training needs and conduct a staff audit with a view to enhancing the quality of service.
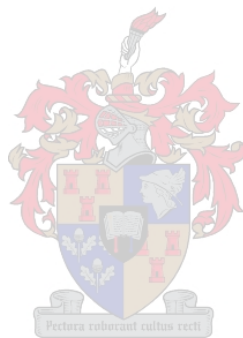
# CHAPTER 5

# INTERPRETATION OF THE FINDINGS

## 5.1. Introduction

The previous chapter revealed many interesting observations, some of which no doubt generate curiosity. The findings of the two technikons varied significantly with regard to the ways of acquiring knowledge, the attitudes towards knowledge sharing, as well as the perceptions about the pending merger. The purpose of this chapter is to analyze and interpret the findings presented in the previous chapter.

## 5.2. Findings from questionnaires completed by the librarians

### 5.2.1. Ways of acquiring knowledge

Table 4.2.1 and Figure 4.2.1 (on pages 44 & 45 respectively) in Chapter 4 indicate that librarians acquire knowledge in a variety of ways, ranging from training courses, on-the-job-training and on-going learning by doing. As Ruggles (1999) mentioned, for an organization to improve its operational efficiency, it must be able to harness the knowledge that already exists inside it in either explicit or tacit form. Judging from the variety of the responses and the emphasis on learning by doing, it is clear that both tacit and explicit knowledge are being nurtured at Cape Technikon. This demonstrates that some level of knowledge management practices exists within the Cape Technikon library.

With regard to the Peninsula Technikon, on the other hand, the selection by three of the seven librarians of only one way of aquiring knowledge was a concern. However, it would be incorrect to infer, based on just this observation, that there is a general absence of knowledge management practices at the Peninsula Technikon libraries.

One of the objectives of this study was to ascertain if there were any knowledge management practices at all in the libraries of these institututions. The above findings thus do contribute to the objectives of the study.

### 5.2.2.    Attitudes towards knowledge sharing

As discussed earlier the librarians of both the two institutions displayed a positive attitude and inclination towards knowledge sharing. As Takeuchi and Nonaka (2004) maintained, knowledge is created in an organization through, among other things, dialogue, discussion and the sharing of experience. The above finding is thus encouraging as it implies that some knowledge management practices do exist in both sets of libraries.

### 5.2.3.    Contexts within which knowledge is shared

Table 4.2.3 and Figure 4.2.3 (on pages 46 & 47 respectively) indicate that knowledge is shared in a variety of contexts, be it in meetings, upon request by another colleague, in a team situation, or when there is a matter of common interest. Of interest was the fact that all the respondents agreed that they would share knowledge in three of the four types of contexts, i.e. when a colleague needs help, in a team situation and also with colleagues who share common interests, which proves the existence of knowledge management practices at both institutions.

Nonetheless, it is of concern that three respondents at the Cape Technikon (see Table 4.2.3, page 46) reported that they did not share knowledge in meetings. Whilst the reason for this is not known, it would have been interesting to find out why, perhaps through a follow-up interview.

It is of concern that at the Peninsula Technikon six out of seven librarians who completed the questionnaires did not indicate that they would share knowledge upon request by a colleague, two did not indicate that they would share knowledge in a team situation, and four did not indicate that they would share knowledge if common interest existed. This observation is hard to ignore as it shows some reservation

towards knowledge sharing in this library, a symptom which seems to contradict the prevalence of knowledge management practices in other areas of operation.

### 5.2.4. Perceptions of freedom and willingness to share knowledge with colleagues

Table 4.2.4 and Figure 4.2.4 (on pages 47 & 48 respectively) show that there is a relatively high level of freedom and willingness to share knowledge with colleagues at the Cape Technikon, with five of seven respondents confirming this. This further alludes to a noticeable prevalence of knowledge management practices at the Cape Technikon.

In respect of the Peninsula Technikon, despite the answers given by the respondents to the previous question, an overwhelming feeling of freedom and a willingness to share information was expressed by them. This came as a surprise, in the light of earlier findings. Perhaps the reason behind this could have been established through follow-up interviews (see limitations of the study).
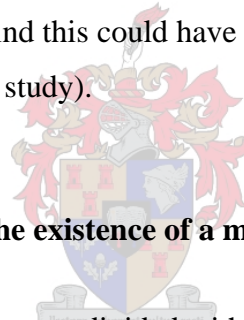
### 5.2.5. Perceptions regarding the existence of a mentoring programme

The librarians at both institutions were divided with regard to the existence or lack of a mentoring programme, despite such programmes being mentioned by their seniors during in-depth interviews. It would be interesting to find out the reason for differences in opinion among the librarians themselves, whilst the leadership is quite enthusiastic about the programme. This might have been clarified by follow-up questions, which was unfortunately not within the scope of the current study. That said, the existence of the mentorship programme, as acknowledged by some librarians and elaborated on by the seniors, is on its own a strong indication of the existence of knowledge management practices.

### 5.2.6.  Perceptions of the prevalence of teamwork

As indicated in the previous chapter, the librarians of both institutions showed that a teamwork approach and culture is critical. This again alludes to the prevalence of knowledge management practices in the libraries of the two institutions.

### 5.2.7.  Sources of information about the library

Table 4.2.7 and Figure 4.2.7 a and b (on pages 50, 51 & 52 respectively) show that there are a variety of sources from which librarians obtain information about what happen in the library. The sources ranged from newsletters, and the intranet to the so called "grapevine" or word of mouth. Six of the seven librarians at the Cape Technikon added that they also obtained information through means other than the three specified above. When there are so many ways of finding information, the challenge is consistency and accessibility, but most importantly sharing. As already indicated above, sharing seems to be happening quite effectively at the Cape Technikon library, which alleviates the negative implication of having so many sources of information.

The responses from the Peninsula Technikon library, on the other hand, were more reserved or conservative, which might indicate that these sources are underutilized in providing information at the Peninsula Technikon library.

### 5.2.8.  Regularity of departmental meetings

Table 4.2.8 and Figure 4.2.8 (on pages 52 & 53 respectively) show that there is no agreement among staff as to the regularity of meetings. This might perhaps be due to work schedules. Whatever the reason, the acquisition and sharing of knowledge might be hampered when people working as a team are not able to attend the same meetings together more often. The inconsistency of the responses with regard to the regularity of meetings needs to be investigated for the above reason.
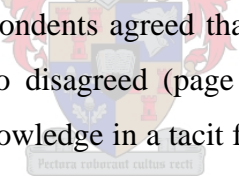
Having said the above, the assertion by one of the librarians at the Peninsula Technikon that they never hold meetings is a more serious concern.

### 5.2.9. Availability of a list of subject specialists to all staff and users

All the respondents at the Cape Technikon agreed that there was a list of subject specialists available to both staff and users (page 53). This bodes well for an environment where knowledge management practices prevail.

On the other hand, the fact that librarians of the Peninsula Technikon are divided regarding the existence or non-existence of a list of subject specialists may be an indication that there is either no list, or if it is there its existence has not been communicated to all the librarians.

### 5.2.10. Recording of acquired knowledge

At the Cape Technikon five respondents agreed that they did record their knowledge when necessary, whilst only two disagreed (page 53). As Allard (2004) indicated, someone may hold procedural knowledge in a tacit form, which is characterized by the fact that he or she has performed the procedure repeatedly, but there is not yet a way (e.g., a shared language) to formally pass this knowledge on to others. The tacit version of such procedural knowledge may be amenable to being recorded in a manual, thereby being converted into explicit knowledge (Allard, 2004). This highlights the need to ensure that there is ongoing proper and diligent recording of knowledge. The fact that documenting knowledge is appreciated at the Cape Technikon again points to an environment characterized by knowledge management practices.

Conversely, as revealed earlier, six of the seven librarians at the Peninsula Technikon reported that they did not record acquired knowledge – clearly, a sign of poor or lack of knowledge management practices.

### 5.2.11. Library policies

As the findings indicated, both institutions use the intranet, e-mail, manuals and meetings. The respondents at the Cape Technikon also referred to a listserve called the Coollist, which was started to keep the library staff informed about the merger. This is consistent with Rowley's (2000) observation that most libraries in higher education have a web page, which not only acts as an advertisement about the organization, but may also offer links to selected sources of information, including databases and lists of experts. This certainly seems to be the trend at these two institutions where technology is playing such an important role in the provision of important information, including knowledge about the merger.

### 5.2.12. Conference attendance

Both institutions demonstrated a willingness to send their librarians to attend conferences. It was mentioned, specifically at the Peninsula Technikon though, that, in order to be sent to a conference a librarian must have some expertise in their field and be involved in the work of the professional library organizations. When they come back from these conferences they are required to report back to their colleagues. This indicated an appreciation that knowledge could be acquired through a variety of methods – again, a good sign of the prevalence of knowledge management practices.

### 5.2.13. Perceptions of being informed about the merger process

All six but one of the respondents from the Cape Technikon indicated they were well informed about the merger. This compares favourably with five who felt informed and two who did not from the Peninsula Cape Technikon. This is a good sign for both institutions.

### 5.2.14.  Information about the merger

Respondents from the two libraries mentioned a variety of ways through which they are kept informed about the merger. These included e-mail, the intranet, minutes of meetings and communication from management. Others indicated that they attended workshops and meetings specifically about the merger. As Segil (2004) maintains, a merger is a crucial event for individual employees over which they have no control. Employees do not often recognise a merger as a collaborative exercise, but assume that domination will inevitably take place. Management must therefore facilitate the integration process and communicate mutual benefits and shared power, by helping employees to see what is attractive in the other organization's culture. It must also help to diffuse the feelings of threat and make the most of opportunities for meaningful cooperation between employees. If communication about the merger between the two institutions is conducted in an open and participatory manner, the negative impacts associated with mergers could be minimized.
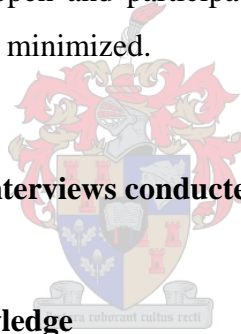
### 5.3.  Findings from in-depth interviews conducted with senior staff

### 5.3.1.  Ways of acquiring knowledge

The implementation of an induction process for new staff members as articulated by Respondent A at the Cape Technikon is a good initiative that can only enhance important attributes such as teamwork and a knowledge sharing culture. The same applies to the staff development initiatives, such as the mentorship programme and peer training that were mentioned in the in-depth interviews at the Peninsula Technikon. All of these initiatives will enhance a knowledge sharing culture, which will continue to be crucial after the merger.

### 5.3.2.  Processes employed for developing employees

The ideas of the coaching programme and the performance development contract as highlighted by both respondents at the Cape Technikon, clearly shows that they are

committed to the development of their staff. This highlights the prevalence of knowledge management practices within the Cape Technikon library. The same can be said about the mentorship programme alluded to at the Peninsula Technikon.

### 5.3.3. Ways of encouraging employees to share and transfer skills and knowledge

The commitment of the subject specialists who meet every six months to share their knowledge with each other is another indication of a strong knowledge sharing culture. This is accompanied by a commitment to ensure that those who attend conferences report to others on their return, in addition to ensuring that each section of the library submits monthly reports. These principles and commitments further re-enforce the perception held in this study that the Cape Technikon demonstrates a strong prevalence of knowledge management practices. The Peninsula Technikon also demonstrated these attributes from the range of initiatives they referred to, such as sharing knowledge in meetings and informally, as well as using peer training as the main ways of encouraging the sharing of skills among employees.

### 5.3.4. Key enablers and key stumbling blocks to transformation in the library

As seen in the discussions with Respondent A of the Cape Technikon, they are committed to removing stumbling blocks to transformation, which include language and communication problems caused by the distance between the main library and the branches. The interventions in this regard include sending people to the Learning Centre and using appropriate technologies to communicate. Removing barriers to transformation is a clear sign of the prevalence of knowledge management practices. Whilst no key enablers or stumbling blocks to transformation were identified at the Peninsula Technikon it is critical that proper attention is given to the investigation of these, as they could be potential threats during the merger.

### 5.3.5. The role of senior staff in ensuring that the employees are connected to the right social networks

Both institutions have shown a commitment to networking to ensure that employees are connected to the right social networks. Initiatives varied from conferences, symposiums and being part of professional networks. These mechanisms no doubt enhance and stimulate learning among staff, and are clear indications of the prevalence of knowledge management practices.

### 5.3.6. Preventing useful knowledge from leaving the library

Coaching and multi-skilling have been mentioned by Respondent A at the Cape Technikon as two ways of ensuring that knowledge is retained in the organization after resignation or retirement of staff members. This was corroborated by Respondent B who saw the coaching programme as a way of "capturing knowledge and making sure that it stays within the library for present and future use". Similarly, the succession planning programme, the mentorship programme and peer training at the Peninsula Technikon library are very useful initiatives in this regard. The above initiatives are a clear sign of the prevalence of knowledge management practices within the libraries of the two institutions.

### 5.3.7. The role of leadership in ensuring a culture of learning and knowledge sharing

As mentioned in Chapter 4, both Respondent A and Respondent B at the Cape Technikon library concurred that the introduction of the coaching programme and multi-skilling were seen as the role played by the Cape Technikon library leadership in ensuring a culture of learning and knowledge sharing. This indicates a well thought out strategy and commitment to knowledge sharing that is being supported at the very top of the organization. As Takeuchi and Nanoka (2004) asserted with reference to the "middle-up-down" approach, top management provides a sense of direction regarding where the company should be headed, while front-line employees look at the actual implementation. This seems to be the case at the Cape Technikon. Although leadership

at the Peninsula Technikon was committed to enhancing a learning and knowledge sharing culture, this intention did not filter down to the rest of the staff. This was reflected in the apparent lack of coherence in some of the responses between senior staff and librarians at the Peninsula Technikon.

### 5.3.8. Forums and processes for employees to share their personal and work experiences

Staff meetings were identified by both institutions as forums where staff members could share their personal and work experiences. As mentioned earlier a competition was introduced for the library staff of the Cape Technikon to encourage knowledge sharing among them. This is in line with what Liao [et al] (2004) maintain, i.e. that a knowledge sharing culture needs to be created to include an incentive or reward system to motivate employees to share their knowledge. This certainly indicates that the Cape Technikon library in particular, is on the right track as far as inculcating a knowledge sharing culture is concerned.

### 5.3.9. Is there a culture of sharing in the library?

Judging from their responses reported in Chapter 4 (page 59), and given the above information, one would think that Respondent A and Respondent B at the Cape Technikon were being modest in their response. There is clearly, and without any doubt, a culture of sharing in their library. Whilst the responses of Respondent D and Respondent C of the Peninsula Technikon were also confident in this regard there were quite a few contradictions in the librarians' responses to the questionnaire. This suggests that the sharing culture at the Peninsula Technikon is not as well entrenched as at the Cape Technikon library.

### 5.3.10. Cultural blocks that exist presently, and those that can be expected after the merger

The confident responses offered by both Respondent A and Respondent B (page 59) to the effect that there were virtually no blocks that could threaten the success of the

merger, do not come as a surprise in view of all the elements and mechanisms that seem to be in place. On the other hand, the response from the Peninsula Technikon, which seems to paint a picture of readiness without having acknowledged potential stumbling blocks, leaves a slight feeling of pessimism, as to whether some potential difficulties are not perhaps being confronted. This is exacerbated by the fact that there generally seems to be a difference in perceptions between the librarians and their seniors at the Peninsula Technikon. In contrast, there was an unquestionable level of synergy between the librarians of the Cape Technikon and their seniors.

### 5.3.11. The level of readiness of the library staff for the merger

The confident responses offered by both Respondent A and Respondent B (page 59) of the Cape Technikon came as no surprise. On the other hand the seniors of the Peninsula Technikon might be ready for the merger, whereas it looks as though the staff are not.

### 5.3.12. Better ways of using knowledge, skills, and competencies

Judging from the responses, it is clear that an environment of good team spirit and cooperation exists among staff and management within the Cape Technikon library. This is no doubt augmented by effective communication, which further enables a much more relaxed and confident mode during the pending merger. There was not as relaxed an atmosphere detected at the Peninsula Technikon, perhaps because of the pending retirement of the Chief Librarian on the eve of the merger. In an informal conversation one of the subject librarians alluded to the unfairness of the position of going into the merger without their Chief Librarian.

### 5.4. The findings behind the findings

The above findings have raised some interpretations or conclusions which might perhaps be regarded as subjective on the part of the researcher. But then again, the nature of qualitative research is that it is "subjective". In order to address this issue, it

became necessary to see beyond the responses on the questionnaires, to arrive at some of the conclusions and interpretations below. There was a need to look at other issues, such as interpreting the environment and the feel and attitudes of the people within those environments.

It is for the above reasons that the following observations, which formed part of the basis for giving the interpretations and conclusions reached above, have been included:

1. **Appendix C**: A comparison of the number of comments made per institution per question in the questionnaire shown in Appendix A (page 81). It was assumed that the more people had much to say and many comments to make, then they might be freer, more willing, excited and enthusiastic about what is going on. In this regard the participants in this study at the Cape Technikon library seemed more eager than the participants at the Peninsula Technikon in some respects.

2. **Appendix D**: A comparison of the feel of the environment, the culture and the attitudes of the senior staff interviewed (see Appendix B on page 84). This was done in order to detect tensions and other things that could indicate that things are not as good as they are said to be. In this regard, again the Cape Technikon library displayed a more positive environment.

# CHAPTER 6

# RECOMMENDATIONS AND CONCLUSIONS

## 6.1. Introduction

Part of the objectives of this study was to make recommendations on how the libraries of the Cape Technikon and the Peninsula Technikon could apply knowledge management practices successfully after their merger. From the findings of this study, it is clear that there are several areas which need improvement.

## 6.2. Recording of knowledge

It emerged from the study that some librarians recorded their knowledge for future use, and others did not. The importance of this exercise cannot be over-emphasized. It is one of the most important ways of capturing knowledge that might otherwise leave the organization through retirement and resignations. Recording individuals' tacit knowledge, and by so doing making it explicit, would help both libraries to create new knowledge even after the merger. Takeuchi and Nonaka (2004: 59) confirm that for tacit knowledge to be easily leveraged by the organization as a whole, it must become explicit. When tacit and explicit knowledge interact, innovation emerges.

Jantz (2001) also concurs with the above, when he states that, in an ideal knowledge management framework, the librarian would organize the aids, personal notes, and tacit knowledge that he or she uses to provide a service, so that other librarians could benefit from that knowledge. Recording one's knowledge is a highly recommended form of managing one's knowledge in order to improve the productivity and efficiency of the library by not having to depend entirely on one librarian's specialized knowledge.

It is therefore recommended that both institutions ensure that there are processes in place to ensure that knowledge is recorded on an ongoing basis.

## 6.3. Promotion of knowledge creation

Individuals are instrumental in the creation of knowledge in an organization. That is why it is important for management of both libraries to ensure that a culture of knowledge sharing exists within the libraries, both before and after the merger. The culture that already exists, needs to be maintained and enhanced. Dialogue, discussions, experience sharing, sense-making and communities of practice need to be encouraged, because all these help in the creation of knowledge.

Takeuchi and Nonaka (2004) believe that, coupled with the intention of the organization, autonomy at the individual level is one of the key conditions of knowledge creation. If the librarians in both libraries are allowed to act autonomously as far as circumstances permit, it is more likely that they will motivate themselves to create new knowledge. This will enhance an environment where knowledge creation and sharing become an embedded culture that will enhance the success of the merged libraries.

## 6.4. Acquisition and sharing of knowledge

The Common Knowledge Database at New Brunswick Campus Libraries is a good example of how knowledge can be acquired and shared among librarians. Librarians from the Peninsula Technikon and the Cape Technikon could learn much from this initiative. Both libraries need to develop more ways of acquiring useful knowledge and capturing it properly. From the interviews it emerged that there were already a number of ways, such as training courses, mentorship programmes, conferences, etc., that were used to acquire knowledge from within and outside the libraries. However, the fact that some of the librarians do not mention (or even know about) the existence of a mentorship programme means that more needs to be done to ensure that there are effective ways of acquiring and sharing knowledge.

It is recommended that the Cape Technikon and the Peninsula Technikon follow the Common Knowledge Database of New Brunswick Campus Libraries elaborated on in this study (see page 34 for details).

## 6.5. Sense-making

Sense-making, as Boland and Yoo (2004) mentioned, is an organizing process of social interaction that continually constructs both the organization and its environment. This is exactly what is happening in these two libraries at the moment. Teams of librarians are holding meetings to make sense of what is happening in their respective environments and organizing them. This sense-making exercise needs to be an ongoing phenomenon even after the merger, if both libraries want to stay abreast of change and remain effective and efficient.

## 6.6. Forgetting

Forgetting is also a very important component of knowledge management in that knowledge that is no longer useful needs to be forgotten. As the two libraries are busy preparing for the merger, they might find that after the merger there are practices that will no longer be necessary. As De Holan [et al] (2004) point out, organizations that want to transform themselves must not only acquire new capabilities, but they must also forget old knowledge that traps them in the past. For example, one of the merging institutions could have a technological capability to perform a particular function, e.g. recording of knowledge, whereas this was done manually at the other institution. The institution where this function was performed manually would have to abandon the manual practice in favour of the more efficient technological practice. Both libraries must thus learn to manage discontinuity.

## 6.7. Conclusion

For the merger to be successful, both libraries must address the challenge of managing their knowledge properly, especially in the creation and nurturing of a knowledge management culture. The above recommendations would enhance the successful implementation of knowledge management practices within these two libraries.

This study revealed that both the Cape Technikon and the Peninsula Technikon do display some level of the prevalence of knowledge management practices. However, it was clear from the findings, that, to a large extent, the Cape Technikon was the more advanced partner in this regard. The need to examine each others' cultures and knowledge management practices is an important exercise, especially within libraries, which are central to the knowledge business of higher education institutions.

Given the level of enthusiasm displayed in both institutions, however, there is hope that this could become a succesful merger. However, the enthuasiasm needs to be displayed at both levels, i.e. by staff and senior management alike. Much enthusiasm about programmes (e.g. mentorship), as well as other processes that were in place to help create and share knowledge within the libraries, was displayed by the senior management of both libraries. Unfortunately, though, in some cases the resr of the staff did not necessarily show the same level of enthusiasm, and others did not even know about the existence of such programmes. It is important that all these initiatives and programmes are shared and owned by both staff and senior management alike.

As these two libraries will be working together as one library in the near future, there are a number of problem areas that need to be addressed. It is hoped that the observations and recommendations made in this study will help to ensure the smooth merging between the libraries of these two institutions
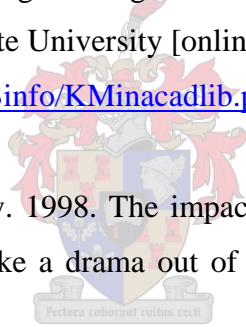
## REFERENCES

Allard, Suzie. 2004. Knowledge creation. *Handbook on knowledge management 1: knowledge matters.* Berlin: Springer-Verlag, 367-379.

Barnett, Ronald. 1993. Knowledge, higher education and society: a postmodern problem. *Oxford review of education,* vol. 19, iss.1, March. Available: EBSCOhost [07 August 2004]

Boland, Richard J. & Yoo, Youngjin. 2004. Sensemaking and knowledge mangement. In *Handbook on knowledge management 1: knowledge matters* /edited by Clyde W. Holsapple. Berlin: Springer-Verlag, 381-392.

Branin, Joseph J. 2003. Knowledge management in academic libraries: building the Knowledge Bank at the Ohio State University [online]. Available: http://www.lib.ohio-state.edu/KBinfo/KMinacadlib.pdf [07 August  2004]

Cartwright, Sue & Cooper, Cary. 1998. The impact on the people assets: Evaluation and preparation: how not to make a drama out of a crisis. *The antidote from CSBS,* issue 12, 28-30.

Chatzkel, Jay. 2003. Braintrust International 2003 Conference, San Francisco, CA. *Journal of knowledge management,* vol. 7, no. 4, 136-143.

Choo, Chun Wei. 1998. *The knowing organization: how organizations use information to construct meaning, create knowledge, and make decisions.* New York: Oxford University Press.

Dankert, Holly S. & Dampsey, Paula R. 2002. Building reference strengths through peer training. *Reference services review,* vol. 30. No. 4, 349-354.

De Camara, Don & Renjen, Punit. 2004. The secrets of successful mergers: dispatches from the front lines. *Journal of business strategy,* vol. 25, no. 3, 10-14.

De Holan, Pablo Martin, Phillips, Nelson & Lawrence Thomas. 2004. Managing organisational forgetting. *MIT Sloan management review,* Winter, 45-51.

Fundamental impacts of the global knowledge economy on strategic management. 2002. In *Strategic management in the knowledge economy: new approaches and business applications* / edited by Marius Leibold, Gilbert J. B. Probst & Michael Gibbert. Erlangen Germany: Publicis and Wiley.

Hawkins, Brian. 2000. Proceedings: Libraries, knowledge management, and higher education in an electronic environment [online]. Available:
http://conferences.alia.org.au/alia2000/proceedings/brian.hawkins.html   [11   February 2004]

Hubbard, Nancy. 2001. *Acquisition strategy and implementation.* New York: Pelgrave.

Jansen, Jonathan D. 2002. Mergers in higher education: lessons learned in transitional contexts – setting the stage. In *Mergers in higher education: lessons learned in transitional contexts* / edited by Jonathan D. Jansen. Pretoria: University of South Africa.
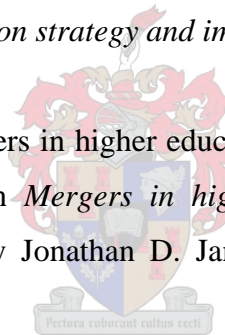
Jantz, Ron. 2001. Knowledge management in academic libraries: special tools and processes to support information professionals. *Reference service review,* vol. 29, no.1, 33-39.

Jarvis, Peter. 2000. The changing university: meeting a need and needing to change. *Higher education quarterly,* vol. 54, no. 1, January, 43-67.

Kerkham, A. S. 1986. The information needs of lecturers at Cape Technikon and the ability of the Technikon library to meet those needs. Thesis (Mbibl) – University of Cape Town.

Kinghorn, Johann. 2002. Understanding organizational sense making: a diagnostic tool for strategic leadership in conditions of complexity. In *Strategic management in the*

*knowledge economy: new approaches and business applications* / edited by Marius Leibold, Gilbert J. B. Probst & Michael Gibbert. Erlangen, Germany: Publicis and Wiley, 315-324.

Leibowitz, Jay & Chen, Yan. 2004. Knowledge sharing proficiencies: the key to knowledge management. *Handbook on knowledge management 1: knowledge matters.* Berlin: Springer-Verlag, 409-424.

Liao, Shu-hsien [et al.] 2004. Employee relationship and knowledge sharing: A case study of a Taiwanese finance and securities firm. *Knowledge management research and practice,* 2, 24-34.

Notice No. 1700, Government Gazette No. 25737. Cape Technikon and Peninsula Technikon. Higher Education Act, 1997 (Act No. 101 of 1997) Merger of public higher education institutions [online]. Available: SABINET – Database: Government Gazettes.

O'Donnell, Jane. 2000. Knowledge management opportunities for academic librarians [online]. Available:

http://www.caval.edu.au/wpr/crig/pa/crigforum%20km%20jod.htm [14 May 2004]

Peninsula Technikon web site [online]. Available: http://www.pentech.ac.za

Rossouw, Henk. 2004. Leveling the learning field. *The chronicle of higher education,* 16 April [online]. Available:

http://chronicle.com/weekly/v50/i32/32a03801.htm [16 April 2004]

Rowley, Jenifer. 2000. Is higher education ready for knowledge management? *The international journal of educational management,* vol. 14, no. 7, 325-333.

Ruggles, Rudy. 1999. Gaining the knowledge advantage. In *The knowledge advantage: 14 visionaries define marketplace success in the new economy* / edited by Rudy Ruggles & Dan Holtshouse. Dover, USA: Capstone.

Sandeland, Eric. 1998. Developing a robust model of the virtual corporate university. *Journal of knowledge management,* vol. 1, no. 3, March, 181-188.

Segil, Lorraine. 2004. Mergers fall or stand by trust. *Sunday times business times,* 15 August: 5

Skyrme, David J.1999. *Knowledge networking: creating the collaborative enterprise.* Oxford: Butterworth-Heinemann.

Takeuchi, H. and Nonaka, I. 2004. *Hitotsubashi on knowledge management.* [Singapore]: John Wiley & Sons.
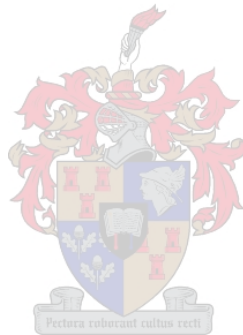
**APPENDIX A:**

**Knowledge management practices evaluation questionnaire for librarians**

The purpose of this self-administered questionnaire is to evaluate knowledge management practices within the library of your institution. There are no right or wrong answers. Check the questions carefully, as in some areas it is appropriate to tick more than one response. Additional comments will be most welcome as they will add more value to the observations, and ultimately any recommendations of the study.

1. I acquire the knowledge that I need to do my job effectively and efficiently by:
   (Tick the appropriate answer/s)
   a) Attending training courses?          Yes / No
   b) On the job training?                 Yes / No
   c) Learning as you do your job?          Yes / No
   d) Other                                 Yes / No
      Specify
      …………………………………………………………………………...

2. I always find that there is a need to share my knowledge with my colleagues
   (Tick appropriate answer)
   a) Strongly agree
   b) Agree
   c) Neutral
   d) Disagree
   e) Strongly disagree
      If you agree, specify types of knowledge / give more details
      …………………………….....……………………………………………………………
      ……………………………………………………………………………………………

3. I usually share my knowledge :
   (Tick appropriate answer/s)
   a) In meetings?                          Yes / No
   b) When a colleague needs help?           Yes / No

c) In a team situation?                          Yes / No

d) With colleagues who share common interests?   Yes / No

e) Other                                          Yes / No

   Specify / give more deatails

   ……………………………………………………………...……………………

   …………………………………………

4. I always feel free and willing to share my knowledge with others

   (Tick appropriate answer)

a) Strongly agree

b) Agree

c) Neutral

d) Disagree

e) Strongly disagree

   If you disagree, specify why

   …………………………...………………………………………………………………

   …………………………………………………………………………………………..

5. We have a mentoring programme within the library

a) Strongly agree

b) Agree

c) Neutral

d) Disagree

e) Strongly disagree

6. We typically work in teams or groups

a) Strongly agree

b) Agree

c) Neutral

d) Disagree

e) Strongly disagree

7. I find out about what is happening in the library through:

   (Tick appropriate answer/s)

a) A newsletter?                Yes / No

b) Intranet?                    Yes / No

c) Grapevine?                   Yes / No

d) Other                       Yes / No

   Specify / give more details

   ……………………………………………………….

8. We hold departmental meetings?

   a) Once a week              Yes / No

   b) Every two weeks          Yes / No

   c) Once a month             Yes / No

   d) Never                    Yes / No

   e) Other                    Yes / No

   Specify

   ………………………………………………………………………..

9. Is there a list of subject specialists available to all staff and users?      Yes / No

   If yes, how do you access it? …………………………………………………………..

10. Do you ever record the knowledge you have acquired about your job? Yes / No

    If yes, where? ………………………………………………………………………….

11. How do you find out about the library policies?

    ……………………………………………………………………………………………

12. Do you ever attend conferences?      Yes / No

13. Do you feel well informed about the process of the merger?  Yes / No

14. How do you get information about the merger?

    ………………………………………………………………………………………….

**APPENDIX B:**

**In-depth interview questions for senior staff for evaluating knowledge management practices within the library**

**In-depth questionnaire**

1. How do staff members acquire the knowledge they need to do their jobs effectively and efficiently?
2. What are the processes employed for developing your employees?
3. In which ways are employees encouraged to share and transfer skills, and knowledge?
4. What do you think are the key enablers, on the one hand, and key stumbling blocks / inhibitors, on the other, to transformation in the library?
5. What is your role in ensuring that your employees get connected to the right social networks to be effective and successful?
6. How do you ensure that useful knowledge does not leave the library?
7. What is the role of leadership in ensuring a culture of learning and knowledge sharing?
8. Are there forums and processes for employees to share their personal and work experiences?
9. In your view, is there a culture of sharing in the library?
10. What are the cultural blockades that exist presently, and those that can be expected after the merger?
11. How ready are you (the library staff) for the merger?
12. How would knowledge, skills, and competencies in your library be used in a better way than you see them being used at this point in time?

**APPENDIX C:**

A comparison of the number of comments per institution per question in the questionnaire shown in Appendix A (page 81).

| Question no. | Cape Technikon | Peninsula Technikon | Difference |
|---|---|---|---|
| 1 | 2 | 1 | 1 |
| 2 | 5 | 3 | 2 |
| 3 | 2 | 1 | 1 |
| 4 | 2 | – | 2 |
| 5 | – | – | – |
| 6 | – | – | – |
| 7 | 4 | 4 | – |
| 8 | 4 | 2 | 2 |
| 9 | 5 | 3 | 2 |
| 10 | 4 | – | 4 |
| 11 | 7 | 6 | 1 |
| 12 | 1 | – | 1 |
| 13 | 2 | – | 2 |
| 14 | 6 | 6 | – |

**APPENDIX D**:

A comparison of the feel of the environment, the culture and the attitudes of the senior staff interviewed

| Factor/ Issue | Cape Technikon | Peninsula Technikon |
|---|---|---|
| Getting an appointment | Getting an appointment handled efficiently and with relative ease. | It was very difficult to get an appointment |
| During the interviews | Respondents were relaxed, it was a pleasant atmosphere | Respondent C kept glancing at his watch during the interview |
| Access to staff | Allowed to make individual appointments with the librarians before meeting with senior staff | Not allowed access to librarians until such time as determined by Respondent C |
| Quantity of comments on the questionnaires (see Appendix C page 85). | More comments | Less comments |
| General atmosphere | Vibrant, active | Passive |
| Interest in this study | A copy of this thesis was asked for | Nobody asked for a copy of this thesis |