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Organizational Learning Flow in a Granting Council

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**Organizational Learning Flow
in a Granting Council**

by

Nouhad El-Eid Hammad

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**A thesis submitted in partial fulfillment
of the requirements for the degree of
Master's of Arts (Ed)
Faculty of Education
at the University of Ottawa
December 17, 2008**

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Your file Votre référence
ISBN: 978-0-494-59889-4
Our file Notre référence
ISBN: 978-0-494-59889-4

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Acknowledgments

This thesis started as a result of my performance appraisal at the Social Sciences and Humanities Research Council (SSHRC). Undertaking graduate studies was an aspiration of mine, not a recommendation made by my supervisors. Yet this objective may not have been achieved, had I not indicated this desire in my learning plan. Thus I began my journey at the University of Ottawa's Faculty of Education: Brad Cousins opened the Faculty's doors and encouraged me to research my work setting. Tim Stanley warned me of the challenges that lay ahead; and other professors helped me along the way. However, if it were not for my thesis supervisor, Marielle Simon, who led me into the intricate path of research and who acted throughout the past years as my moral support by never failing me, this document may have come to an early end. Her rigour, combined with her patience and understanding, helped me get to my destination. The two members of the Thesis Committee, Maurice Taylor and Brad Cousins, ensured that I did not leave any concept unexplained and contributed to enhancing the quality of this document.

The SSHRC transformation initiative helped crystallize my research interests. With Marielle's assistance, my focus changed from the utilization of knowledge to organizational learning. In the early stages of my coursework, Mary Crossan's name came up in a casual conversation during the heat of the grant competition with my colleague, Lolan Merklinger, a former Program Officer of the management committee. Dutifully writing this name on a little piece of paper, I found it months later hidden in the corner of my purse. In the meantime, I discovered this researcher again when, thanks to Professor S. Goh, I changed my literature review from the field of education to

management. Call it destiny, an expert in the field and a Board member kindly accepted to contribute to my study.

In addition to SSHRC financial support, I owe it to my previous supervisors, Yves Mougeot and Les MacDonald, as well as the past and present management teams, that I was able to subject this remarkable agency to objective enquiry. I am also grateful to another Board member and my co-workers who participated in the interviews and whose insights reveal the tremendous human capital found in this organization. In addition, my colleague Terry McPherson put her seal on the final edition of this document. Of course, mentioning SSHRC cannot occur without mentioning its researchers. This acknowledgement would be incomplete if I did not thank the Education Committee (17) chairs, members, applicants and evaluators who, through their commitment to science, had greatly inspired me. I am especially grateful to Dennis Thiessen who, with Yves Mougeot, provided my recommendation letters.

While in Lebanon, I was inspired by my parents, Jamil El-Eid and Neife Shams, who taught me how to commit myself to public institutions, to community and to integrity. Nuha and Nawal Abou Ayash introduced me to the work of Ayn Rand. K. Junblatt and J. Batatu personified erudition. I cannot miss recognizing my cousin and mentor at AUB, Hayat Bualuane, and my sisters May El-Kadi, Linda Mezher, and Wadad Fatayri who took care of my mother, thus allowing me to do the work to which she would have excelled. My appreciations also go to my friends and neighbours in Ottawa and in the Middle East, especially Diante and Soufan. Finally, I am grateful to my daughters and junior editors, Lama and Maysa, and my husband, Nizar, who brought me to the world of science by making us immigrate to Canada - a place I earned to call home.

*To my parents,
Jamil El-Eid and Neife Shams,
who had four girls and wished
that I was a boy*

Organizational learning flow in a granting council

By Nouhad El-Eid Hammad, MA (Ed), University of Ottawa, 104 pages

Abstract

This program of research examines the perceptions of the flows of learning in a Canadian granting council during its renewal initiative. This case study will answer the following research questions: How do employees of a granting council perceive the flow of learning during the organization's transformation into a knowledge council? More specifically, how do they perceive the feed-forward flow between the individual and the group, and the feedback flow between the organization and the individual? Based on Crossan, Lane and White's (1999) 4I Framework and on the organizational learning, organizational change and social construction literatures, this qualitative study sheds light on two problematic relationships that may lead to tension at the junctures of the flows between the individual and the group, and the organization and the individual. Face-to-face, semi-structured interviews were conducted with 15 participants, and data was analyzed using Miles and Huberman's (1994) methods for interpretation. The data revealed that those who are heavily involved in the renewal conceptualization retain the learning that occurs during organizational changes. It also suggests that some factors consolidated under the constructs of capabilities/capacities, skills, roles and infrastructure, could be considered as indicators of the flows of learning. The findings confirm that middle management has a fundamental role in amplifying knowledge and in engaging and integrating employees. Preliminary results also show that routines are mostly at the individual and group levels, and that along with hierarchy, do not obstruct the flow of learning as much as is commonly believed. This research contributes to theory by studying the learning component during a renewal exercise, by building on the 4I Framework, by providing empirical data, and by extending research on organizational learning in federal granting agencies. Its implications for practice are that the mechanisms to spread organizational learning need to be taught, and that organizations could be considered as neutral rather than benevolent organisms where power is not malevolent, but residing in a set of relationships that employees have to navigate. The fields of education and management may benefit from the narratives that this research provides regarding the learning needs of knowledge workers.

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School: University of Ottawa

School location: Canada – Ontario

Keywords: Feed-forward and feedback flows of learning; tension; granting councils; organizational learning; organizational change.

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Chapter 1

Introduction

Research Context, Problem and Objectives

Research institutions are in an advantageous position in this knowledge based-economy because they are mandated to promote and transfer knowledge. In recognition of the granting councils' role in stimulating the production of knowledge, the Government of Canada (Government) has increased the budgets of the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council (NSERC), and the Social Sciences and Humanities Research Council (SSHRC) by several billion dollars since 1997. At the same time, the Government (Department of Finance, Federal Budget 2006) has requested that these agencies demonstrate the return on investment of the grants they disburse. Such an obligation constitutes a challenge to institutions involved in the business of research because knowledge is difficult to measure (Corbyn, 2008; Newman & Conrad, 2000) and the impact of research cannot solely be assessed through bibliometric counts of publications, citations and patents, and other evaluative methods (COSEPUP, 1999).

Despite the difficulties involved in measuring the scientific, economic, and social value of research grants, the Canadian granting agencies are undertaking studies and conceiving new criteria to meet this requirement. These endeavours, however, need to be accompanied by an examination of the mechanisms governing their internal flow of learning because the transfer of knowledge has both direct and indirect impact on the

quality of the grants allocated. Also, while their vision is to advance knowledge nationally and internationally, it is also important to research the Councils themselves in order to determine how they promote it internally.

This investigation is focused on the process of learning and the production of knowledge, and studies the flow of learning at one particular granting agency, as investigating all three councils would exceed the scope of a master's thesis. Its specific objectives are to explore staff perceptions of the learning acquired during the agency's transformation exercise, and the feed-forward and the feedback flows of learning at the junctures between the individual and the group, and between the organization and the individual. These junctures are essential to study because they form sensitive platforms in the transfer of learning, and may become barriers that impede the flow of learning that provoke tension at the individual, group and organizational levels. In addition, this thesis highlights the knowledge transferred during the organization's transformation because organizational change is, by itself, considered a learning experience (Parent, Roch & Béliveau, 2007). In addition, linking organizational learning to events makes learning a tangible means of exploration and helps one locate the retained knowledge.

A Case Study of SSHRC

The thesis uses SSHRC as an instrumental case study because this agency launched a strategic renewal exercise that aimed to reposition itself from a funding agency to a knowledge council, and transform "knowledge into action" (SSHRC, Strategic Plan, 2005, p. 5). This choice may be considered a convenience sample because I work as program officer at SSHRC. However, this affiliation allowed me to provide an

insider's perspective, despite the potential conflict of interest inherent to my dual role as researcher and staff member.

This thesis is based on Crossan, Lane and White's (1999) 4I Organizational Learning Framework and is anchored in the organizational learning literature as this field of research examines learning processes. In addition, because this study investigates an organization during its renewal planning exercise, it also draws from the literature in the field of organizational change, which is strongly linked to organizational learning. Both domains of research are supported by the social construction perspective, which brings to light the relations between the self and the other(s). To achieve its objectives, this investigation was conducted with qualitative research methods in order to provide readers with narratives and in-depth descriptions of individuals' perceptions of the phenomenon being studied.

The Field of Organizational Learning

The concept of organizational learning was first introduced in 1963 by Cyert and March and further developed by Cangelosi and Dill in 1965 (Easterby-Smith, Antonacopoulou, Simm & Lyles, 2004). Organizational learning has several definitions, all of which emphasize the role of action in learning. For the purposes of this paper, organizational learning is defined as a "process of change in individual and shared thought and action" (Vera & Crossan, 2005, p. 123) that enables an organization to "transform information into valued knowledge" (Casey, 2005, p. 138).

Learning is the action of gaining knowledge; it is defined as going beyond acquiring new insights to being "in the service of effective action" (Argyris, 2004, p. 7).

Learning is ubiquitous and informal especially in work settings, and cannot be isolated from the social environment in which it occurs. Knowledge is the substance of learning (Vera & Crossan, 2005) and its definition continues to evolve: Polanyi (1962) describes it as justified personal beliefs, while Nonaka (1994) views knowledge as a creation of the flow of information, rooted in people's commitment and value systems. Glazer (1998) considers it a commodity unlike any other because it is sustainable and valuable only when used. Davenport and Prusak (1998) offer a working definition of knowledge; they rank it above data and information because it is "a mix of values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information" (p.5).

The transfer of knowledge implies the acquisition, assimilation, transformation and exploitation of new knowledge (Jones, 2006), and its move from an initial location to where it is needed and applied (Alavi & Tiwana, 2005). Locating the paths of learning, and in this case organizational learning, is not easy because emotional factors (Fineman, 2005), conflicting identities (Corley & Gioia, 2005; Child & Rodrigues, 2005) and the conditions supporting the transfer of knowledge (Alavi & Tiwana, 2005; Elkjaer, 2005; Szulanski & Cappetta, 2005) interact, and promote or inhibit learning. Because of its many forms, organizational learning is embedded in 1) physical artifacts - equipment, databases and documents, 2) organizational structures - roles, reward systems and procedures, and 3) people - skills, values, beliefs and practices (Carroll, Rudolph & Hatakenaka, 2005).

Organizational learning is associated with organizational change theories because it is considered a principal means for strategic renewal (Stata, 1989). It leads to the

creation of tactical plans that respond to the “changing patterns of external competition, regulation and demand, and to the changing internal environment of workers’ attitudes and aspirations” (Argyris & Schön, 1978, p. 21).

Previous trends had separated the field of organizational learning, which is the interest of academics, from that of learning organization which targets the professional community, and whose literature is prescriptive rather than descriptive (Tsang, 1997, Örténblad, 2001). A learning organization is described as an ideal form of organization that continuously seeks learning and that has the capacity to learn effectively. An organization’s combined, individual, collective, structural and cultural learning capacities, its capacity to organize work and the capacity of its leadership to learn and to promote learning, form an aggregate indicator that measures an organization’s progress towards becoming a learning organization (Easterby-Smith & Araujo, 1999).

More recent research tries to fuse organizational learning, knowledge and capabilities (Elliot, Rouse, Vera, 2008). While a few researchers differentiate between capacity and capability as Kelly, Futoron and McGrath (1990) do, there is little evidence that the organizational learning literature makes a clear distinction between these two concepts. Nevertheless, the notion of absorptive capacity is gaining momentum in this emerging literature. It is reconceptualized as a dynamic capability, with tangible and intangible resources and capabilities, that enhances a firm’s ability to gain and sustain a competitive advantage, as well as to change and innovate (Kim, 1998; Jones, 2006; Easterby-Smith, Graça, Antonacopoulou & Ferdinand, 2008, Eastereby-Smith & Prieto, 2008).

Significance of Thesis

Research in organizational learning has been criticized for being insufficiently supported by experiential data (Bapuji & Crossan, 2004). This trend has changed since the 1990s as the field witnessed phenomenal empirical growth due to its links to the newer domains of knowledge management and learning organization. Moreover, most of the previous studies were quantitative and referred to private sector enterprises. This thesis links organizational learning with organizational change analyses and uses a transformation exercise in a public sector organization, as a learning component. By adopting qualitative methods that provide rich narratives, this thesis also answers the future research needs of many scholarly publications that have called for the exploration of organizational learning processes through the use of these techniques. This research contributes to the literature on the granting councils, a section of the public sector that has been understudied (Godin, Trépanier, Albert, 2000). It also strengthens the domain of organizational behaviour in education and higher education by integrating the concepts of organizational learning into these fields.

On a practical level, this thesis may provide the granting agencies and other knowledge-based institutions with insight on the factors that support and hinder the transfer of learning. It may also assist the Treasury Board of Canada by providing deep knowledge on implementing organizational learning in departments and agencies, thus, enabling these to build “a capacity to anticipate and to adjust to change and a disposition to transformation” (Treasury Board of Canada, 2003, p. 5).

This research does not deal directly with tension; however, its findings may suggest that unequal levels of knowledge create conflicts, and that leveling knowledge

may lead to better working relationships. This research may also bring a new understanding to informal learning, and to the learning opportunities missed when employees do not share their knowledge. Moreover, as fulfilling the information needs of knowledge workers in advanced economies may become the next demand to enhance work environments (Florida, 2002), researching ways to smooth the paths of learning is worthy of investigation.

Finally, the results stemming from this research may have an impact on science policy and higher education administration. Academic institutions and government departments responsible for these portfolios have systems comparable to that of the granting councils. Improving operations in one agency may spread to these settings and alleviate the concerns experienced by faculty and staff alike. In addition, although this research focuses on organizational learning in a granting council context, the results may also be transferable to other knowledge-based sectors.

Organization of Thesis

This document is structured as follows: Chapter 2, The Conceptual Framework, highlights organizational change, social learning, and organizational learning perspectives on which this research is based. Chapter 3, Methods, describes the qualitative, instrumental case study methodology, the sample, and the techniques I have used for data collection, analysis and data verification. Chapter 4, Documents, offers an historical and contextual perspective of this research with a summary of the most important documents that are linked to SSHRC's transformation and learning policies. Chapter 5, Findings, is an account of participants' narratives organized according to the

research questions. This chapter is complemented by Appendix D, which contains participants' answers presented in table format numbered in the same order as the interview questions. Chapter 6, Discussion, presents an analysis of the interview and document data based on the reviewed literature, and outlines the theoretical constructs that emerged from this study. Chapter 7, Conclusion, summarizes the contribution of this research to theory, and its implications for practice and policy. It also outlines certain limitations to the findings and offers suggestions for future research.

Chapter 2

Conceptual Framework

Three Streams of Literature

The literatures on organizational change, social construction and organizational learning inform this research. These fields are interrelated because individuals are a function of their social interactions, and the relationships they establish in work settings prompt organizational learning and renewal. These streams also explain workers' behaviour and they reveal the paths of learning and obstacles that employees encounter when transferring and receiving knowledge. The conceptual framework is based primarily on the work of Argyris, Nonaka, Crossan and that of their colleagues.

Organizational Change Approaches

Organizational change takes place in both the private and public sectors, and aims to align the external competitive environment with internal resources, strategy and performance (Bryson & Alston, 1995). Decision-makers use terms such as strategic planning, organizational renewal or transformation, to indicate the depth of the modifications they seek or the publicity they wish to attract while embarking on organizational change.

Boyne and Walker (2002) view strategy making in the public sector not as a weapon to defeat competitors, but “as a means to improve public services whether these are provided by one agency or whole networks of organizations”. The authors define strategy content as a “pattern of action through which organizations propose to achieve desired goals, modify current circumstances and/or realize latent opportunities”. They divide this process into strategic stance, which seeks to maintain or improve performance, and strategic actions which organizations take to operationalize their strategic plans.

Nutt and Backoff (1997) define transformation as “creating a sustainable metamorphosis from visions that produce radical changes in an organization’s products/services, consumers/clients, market channels, skills, sources of margin, competitive advantage, and persona, [and] integrating these changes with core competencies” (p. 235). However, this definition applies more to private sector companies because, as Boyne and Walker (2004) suggest, public organizations have limited access to changing markets, services and revenues, and the change they initiate tends instead to be directed towards internal organization (structure, culture, leadership), and external organization (inter-organizational relationships and collaboration). Moreover, drastic changes are effective in specific contexts only (Hammer & Champy, 1993), and are not considered particularly suitable for public service organizations (McNulty & Ferlie, 2004). Most organizations therefore opt for harmonization between continuity and change (Crossan et al., 1999; Mintzberg, Ahlstrand & Lampel, 1998) and do not make extreme changes unless dictated by political, economical, or technological forces.

Mintzberg et al. (1998) emphasize that, in practice, successful changes are incrementally achieved. The authors describe the process as “alternating from cycle to cycle between bursts of energy concentration and periods of energy diffusion”, and shifting “from corporate upheavals to learning and renewal” (p. 335). They recommend a course of change that goes from internal to external foci, suggesting that efficiency must first be improved before chasing new opportunities. The authors also advocate going from top-down to delegated action, and addressing staff emotion and intellect before proceeding to the actual re-organization. In turn, Kotter and Cohen (2002) prescribe eight specific steps for successful organizational change. These are as follows: increasing urgency, building the guiding team, getting the vision right, communicating for buy-in, empowering action, creating short term wins, not letting up, and making the change stick. These steps are recommended so that the intensity of the effort is concentrated on laying the groundwork before any organizational change takes place.

These methods are consistent with March’s argument (1991) for continuous balance between exploration of new possibilities or new learning, and exploitation of old certainties or utilization of existing knowledge. March’s approach is central to many organizational learning theories; in practice, however, organizations are more likely to rely on exploitation because once they are settled they tend to favour established, proven systems (Crossan et al., 1999). In addition, the incentive to change may not be a priority for management teams, particularly in public sector organizations, which do not face severe external competition. Nonetheless, bureaucracies do change because of external or internal pressure, or because they are influenced by individuals’ personal goals, growth, business and social interactions. These factors may have effect on the individual, group

and the organization's learning dynamics. This rationale, which has been highlighted by the social construction perspective, has contributed to the understanding of informal and contextual dimensions of learning (Elkjaer, 2005).

Social Construction Perspective

A second literature that informs this research is the social construction perspective, which views learning as ubiquitous, and part of human activity and work practices (Berger & Luckmann, 1966; Defillipi & Ornstein, 2005; Elkjaer, 2005; Gergen, 1999; Schwandt, 2000). Theorists in this field believe that individuals construct knowledge based on the language, symbols and experiences which they encounter and interpret from their daily life as this is the reality that imposes itself on them the most (Berger & Luckmann). The meanings that people establish are also a function of the dialogues and actions that result from their interactions with others: "It is within relationships that we acquire the sense of the real and the good, the sense of value, justice and joy" Gergen states (p. 234), and in this sense "to be means to communicate" (p. 131).

Based on this approach, Elkjaer (2005) draws a parallel between individual learning and social learning theories, and maintains that individuals cannot avoid learning since it is an integral part of participation, and that organizational learning cannot be separated from the social context in which it takes place. According to this author, "to be and become – or emerge as – a knowledgeable person demands participation in social processes, which also involves relating to other beings and to (and with) the cultural and historically produced artifacts of the social worlds" (p. 46).

Hutchins (1991) and Barley (1996) revealed the validity of the social construction perspective in two ethnographic studies that provide detailed accounts of how a navigation team and technicians from different industries rely on interactions, lengthy and spirited conversations and on context, rather than on existing manuals and procedures, in order to solve unexpected problems. Choo (2005) in turn uses the two space shuttle tragedies - Challenger, 1986 and Columbia, 2003 – to demonstrate, from the information processing perspective, how knowledge acquired from sense making was not properly communicated and how the interpretation of the problem was not adequately analyzed. In his research, Choo found that the hierarchical structure at NASA, the reliance on reporting channels, and the compartmentalization of knowledge led to misinformation and also to a repeat of similar mistakes. These tragedies were the result of the fallibilities of interaction between “meaning, knowing and acting” (p. 251). Following such major disruptions, identified as “a defect in collective reasoning” (Gergen, 1999, p. 136), triggers, or new challenges facing their environments, organizations may launch strategic renewal exercises that aim to reposition their stature, functions and products.

Organizational Learning Theories

The organizational learning literature is the body of research that is most pertinent to this project. A number of academics identify organizational learning as instrumental to strategic renewal (Crossan et al., 1999; Bontis, Crossan & Hulland, 2002; Bapuji & Crossan, 2004; Fiol & Lyles, 1985). Researchers in this field believe that the rate at

which individuals and organizations learn is the only sustainable competitive advantage through which innovation can be achieved and performance improved (Levinthal & March, 1993), especially in knowledge intensive industries (Stata, 1989). Although based on individual learning theories, organizational learning is not the sum of all staff knowledge. As Argyris and Schön (1978) note “there are too many cases in which organizations know less than their members and cases in which the organization cannot seem to learn what every member knows” (p. 9). Organizational learning emphasizes the role of action in learning, but changes in the level of knowledge do not necessarily entail changes in behaviour and vice versa.

Argyris and Schön’s Early Models of Organizational Learning

Argyris (1985, 1993, 2004), and Argyris and Schön (1978) define organizational learning as the detection and correction of errors, and the result of a collaborative, reflexive and meaningful inquiry, which propels individuals to investigate the nature of problems, their causes and their consequences. For these authors, effective action is the fundamental objective of human and organizational performance; and action, is effective to the extent that it is consistent with intention, is persistent and does not harm the existing level of organizational performance (2004, p. 7). This theory of action distinguishes between espoused theories, composed of values and beliefs, which individuals think that they adhere to or claim to adhere to, and theories-in-use which actually govern their behaviour. Institutions learn when organizational inquiry becomes embedded in the organizational theories-in-use, and recorded in organizational memory through the media of maps and images.

Argyris and Schön identify three processes through which organizations learn if they are not blocked by individuals' defensive routines: The first, single-loop learning, permits the organization to carry out its present policies and objectives without changing them. The second, double-loop learning, takes place when the error is detected and corrected in ways that involve the modification of an organization's underlying norms and values, policies and objectives. The third, deutero-learning (or second order learning), is a permanent effort to continuously reflect on and inquire into previous contexts of learning, failure to learn and the factors that facilitated or inhibited learning.

These authors' work is situated within the applied learning perspective, which "suggests that learning is grounded in direct experience and also requires active intervention by trained facilitators or consultants to improve organizational and individual learning practices" (Defillippi & Ornstein, 2005, p.29). Nonaka (1994), however, finds fault with the double-loop learning model because it assumes that an inside or an outside person is capable of knowing objectively the right time and method for putting it into practice. This author suggests that questioning work methods should instead be a built-in ability that individuals exercise in their daily activities through four modes of knowledge conversion.

Nonaka's Model of Knowledge Creating Organizations

Nonaka (1994) proposes an upward spiral model of knowledge creation in which the organization plays a leading role in articulating, amplifying and making knowledge relevant to its business. For this researcher, the interaction between tacit knowledge (Polanyi, 1962) and explicit knowledge creates new insights through a spiral process of

four modes of knowledge conversion - combination, socialization, externalization and internalization. The quality of the knowledge created is affected by the variety and richness of individuals' experiences, as well as, their commitment and value systems. Independent, self-organizing teams in Nonaka's Middle-up-down Model act as revolving cells where knowledge flows horizontally and vertically, and provide "the organization with a strategic ability to acquire, create, exploit and accumulate new knowledge continuously and repeatedly" (p. 32). In this model, all members of the organization are important and teams trigger the creation of knowledge through mutual trust and the establishment of implicit perspectives (p. 24). Built on the behavioural patterns of Japanese firms, which favour speed in production, and overlap of functions and knowledge redundancy, this model views middle management as having a central role in the knowledge creation process. Middle managers combine the vision of top management, translate it into micro specific information and hand it to frontline employees who are immersed in the daily activities of the organization. Consequently, they are the bridge between these two organizational layers because they synthesize the tacit knowledge of both, and incorporate it into the organization's products.

Nonaka's model is solid but incomplete as it does not specify how the conversions effectively take place. In addition, unlike Crossan and her colleagues (1999), it does not refer to the tension that occurs during learning conversions.

Crossan, White and Lane 4I Organizational Learning Framework

Crossan, Lane and White (1999) propose a theoretical framework (Table 2-1) that complements the theories and models elaborated above. This framework layers the

processes accompanying learning at individual, group and organizational levels, and links organizational learning to organizational change through feed-forward and feedback flows of learning which move data, information and knowledge across these three levels.

This framework has four premises: 1) organizational learning involves a tension between exploring new learning, and exploiting what has already been learned; 2) learning happens at three organizational levels individual, group and organization; 3) four social and psychological processes, the 4Is - intuiting, interpreting, integrating and institutionalizing - support learning and constitute the stocks of learning; and 4) cognition and action have reciprocal effects (Crossan et al., 1999).

A feed-forward flow explores new knowledge and moves learning from the individual, to the group, and into the organization. A feedback flow exploits existing knowledge and moves learning from the organization to groups and individuals. A balance between these two flows enables organizations to avoid the learning traps (Bapuji & Crossan, 2004) associated with employing either familiar solutions (familiarity trap), proven solutions (maturity traps) or solutions closer to the known ones (propinquity trap). The 4I processes are a theoretical simplification of a complex system and, in reality, they are not discrete and may not occur at every level.

The intuiting process is an individual drive that produces and is produced by experiences, images and metaphors. Intuiting is sub-conscious, subjective and involves patterns of recognition and the development of tacit knowledge that is difficult to spell out. Individuals explain concepts to themselves and to others through images and

Table 2-1. 4I Framework of Organizational Learning

Level	Process	Inputs/Outcomes
Individual	Intuiting	Experiences Images
		Metaphors
Group	Interpreting	Language Cognitive map
		Conversation/dialogue
Organization	Integrating	Shared understandings Mutual adjustment
		Interactive systems
	Institutionalizing	Routines Diagnostic systems
		Rules and procedures

Note. From “An organizational learning framework: From intuition to institution”, by M. Crossan, H.W. Lane, and R. E. White, 1999, *Academy of Management Review*, 24(3), p. 525. Copyright 1999 by the Academy of Management Review. Reprinted with permission of the author.

metaphors. For example, the image of Kennedy calling citizens to ask for what they can do for their country still resonates with many public servants. Similarly, the concept of “employer of choice” is a metaphor that employees have come to understand as an organization’s intent to develop individuals’ potential, while taking into account work-life balance. The varieties of individual experience enrich the intuitive process, and the commitment to recreate the world according to personal perspectives, promotes the formation of new knowledge (Nonaka, 1994). Once expertise is developed, it becomes

an unconscious recollection of skills, or what this author calls “knowing with the body” which transcend the subject-object distinction.

The interpreting process is shared by individuals and groups; it helps develop, and is a function of the language and cognitive maps that individuals create in relation to the domains in which they operate (Crossan et al., 1999), as well as the conversations they hold with themselves and others. Interpreting gives meaning to data and to events; it facilitates the construction of cognitive maps (Daft & Weick, 1984) that recognize patterns of behaviour and gives the sensation of “déjà vu”. Through language, metaphors and analogies, individuals make their tacit know-how and perceptions explicit. Conversations and dialogue – the latter defined as “a discipline of collective thinking and inquiry” (Crossan et al., 1999, p. 529) – provide the tools needed to explain opinions and ideas, and make connections between them. At the receiving end, individuals interpret the same information differently based on their own established cognitive maps and independent of the quality of the information or meaning that the holder attaches to it (Crossan et al.). Defensive routines - defined as thoughts or actions used to protect the usual ways of dealing with reality - are employed in some instances and may block learning (Argyris and Schön, 1978). As an example, managers who are accustomed to working independently may refuse to seek help or learn alternative ways of performing although new employees, procedures or software could help them speed the production of reports.

The integrating process is based on shared understandings and mutual adjustments that lead to foreseeing future needs – defined as interactive systems (Crossan et al., 1999) - and align them with present knowledge. Integrating takes place at group and

organizational levels; individuals discuss their ideas with their peers where they get their assumptions tested and confronted by other members of the group. Here again, language and dialogue play an important role as they allow individuals to learn, share and renew their vocabulary, develop new meanings and understanding, adjust their behaviour to others, and plan systems that direct the organization towards its future goals. As an example, shared understanding could be developed through discussion of best practices or common experience. The deeper the conversations and the “thinking that lies beneath” them, the higher is the quality of the dialogue (Crossan et al., 1999, p.529). The context surrounding the integrating process is critical because learning is not only a cognitive exercise but also relies on actions that support the acquired knowledge. A good example of this would be a manager who preaches the benefits of teamwork and yet mentors some employees but not others, thereby undermining the sought after learning. Living common experiences, undertaking coherent, collective endeavours, sharing practices and resolving conflicts are essential to comprehending how meaning develops amongst group members (Barley, 1996; Hutchins, 1992).

The institutionalizing process is shared between groups and the organization as a whole. This process captures the learning embedded in the systems, structures, rules, procedures, routines, and practices established in the first place to optimize the organization’s outcomes. For example, answering clients’ requests within 24 hours demonstrates the practices acquired by employees through their organization’s culture. Institutionalizing permits leveraging learning among individuals through staff interaction (Crossan et al., 1999).

Crossan's impact on the literature and academia is undeniable as evidenced by the number of scientific articles and course outlines in which she is cited. This is because her research delineates the boundaries between organizational learning, organizational knowledge, learning organization and knowledge management. More importantly, Crossan and colleagues' framework (1999) describes the complexities involved in the transfer of learning and the problematic relationships in the feed-forward and feedback flows of learning that could create tension and inhibit knowledge transfer. Although these authors do not define tension and its manifestations, they identify three significant, intricate and sensitive areas in the feed-forward and feedback flows of learning (Fig. 2-1).

The feed-forward flow of learning between the individual and the group involves two complex transitions at the juncture of the interpreting and integrating processes. The first lies in the shift from personally constructed cognitive maps to shared understanding, which requires individuals' ability to effectively communicate their tacit ideas and concepts through words and actions. Following this, even if individuals are capable of adequately articulating their thoughts, the other members of the group need to allow their own cognitive maps and belief systems to be receptive to new ideas. Furthermore, the ability to perceive, to contextualize and to make sense of complex issues may vary from one individual to another, and depends on internal or external factors that may affect this predisposition. Relying solely on cognitive processes for the integration of knowledge is not sufficient; it requires shared actions that stimulate the development of common understandings.

The feedback flow also faces challenges at the interface between the organization and the individual through the institutionalizing and the intuiting processes.

Institutionalizing may dry-up or silence the intuitive process because, as Crossan and colleagues (1999) put it, “the language and logic that form the collective mindset of the organization ... present a formidable fortress of physical and cognitive barriers to change” (p. 533), and past successful actions and a hierarchical structure may prevent new individual insights and initiatives to emerge.

A weakness in Crossan et al. (1999) and Bontis et al.’s (2002) analyses is that the authors do not elaborate on the feed-forward and the feedback flows, or on the forces that move them. In addition, they do not expand on March’s definitions of exploration as “search, variation, risk taking, experimentation, play, flexibility, discovery and innovation”, and on exploitation as “refinement, choice, production, efficiency, selection, implementation and execution” (p. 71). Moreover, the authors note that organizations may restrict learning in order to prevent bottlenecks, as may occur in the form of capacity buildup. This view treats knowledge as a product that could be regulated; however, if this were to happen, it would in fact contradict the first premise of the 4I because change often needs tension buildup in order to be triggered. In addition, Bontis, Crossan and Hulland’s (2002) findings based on research conducted with 32 mutual fund companies need to be verified as these authors claim that their research results could be generalized across knowledge-intensive, service-oriented industries but are limited by national and cultural issues, and hierarchical structures.

Kim with his 1998 research on a South Korean car company does not dwell on national or cultural limitations. Instead, he states that organizational learning is a function of an organization’s absorptive capacity, which requires learning capability and problem-solving skills. Learning capability is defined as the capacity to assimilate

knowledge for imitation purposes, and to possess problem-solving skills that enable organizations to innovate. Prior knowledge and intensity of efforts are two important elements of absorptive capacity that indicate the level of organizational learning effectiveness. Building on Kim, as well as on Zahra and George's (2002) differentiation between potential absorptive capacities and realized absorptive capacities, Jones (2006) associates the development of these with the change agent's role.

Parallel to the concept of absorptive capacity is the work of Mazutis and Slawinski (2008) who also tackle the role of leadership, as does Collinson (2007) who aggregates groups and organizations' capacities under the categories of identity formation, social infrastructure, structures and routines. Similar work has been done by Cousins, Goh, Clark and Lee (2004), who consider an organization's mission, vision, leadership, culture of experimentation, transfer of knowledge and teamwork as the building blocks of organizational learning capacities. These authors also call, quite justifiably, for the development of organizations' evaluation building capacity and the use of evaluative inquiry and consequences as tools to enhance collective learning.

The review of this literature reveals that many questions remain unanswered, especially that most of these studies relied on quantitative studies. Further research, using qualitative techniques that delve into organizations' processes, is therefore needed (Easterby-Smith et al., 2008). In particular, we should expand our understanding of the learning component during the period of change itself instead of relying on archival data (Bapuji & Crossan, 2004). Second, we should examine the junctures that obstruct the organizational learning flows because they have not been sufficiently analyzed. Third, we need to look for the forces that propel or hinder the learning flows, build on the

theories described above and fill the research gaps represented in the dearth of empirical data. Finally, we have to research public granting organizations in order to strengthen the organizational learning and organizational change literatures, and provide scholarly knowledge that inform government decision-making.

Research Questions and Conceptual Framework

Formulated along the axes of the interpreting and integrating processes in the feed-forward flow, as well as the institutionalizing and intuiting processes in the feedback flow (Crossan et al., 1999), the current research project will address the following research questions: How do employees of a granting council perceive the flow of learning during the organization's transformation into a knowledge council? More specifically, how do they perceive the feed-forward flow of learning between the individual and the group, and how do they perceive the feedback flow between the organization and the individual?

This research is based on Crossan et al.'s framework (1999) and takes the problematic relationship in the feed-forward flow between the interpreting and integrating processes, and in the feedback flow between the institutionalizing and intuiting processes as its phenomenon of interest (Fig. 2-1).

The framework assumes that tension may occur in the feed-forward flow between the individual and the group, and in the feedback flow between the organization and the individual. Tension is defined as a state of being stretched or strained, and a feeling of

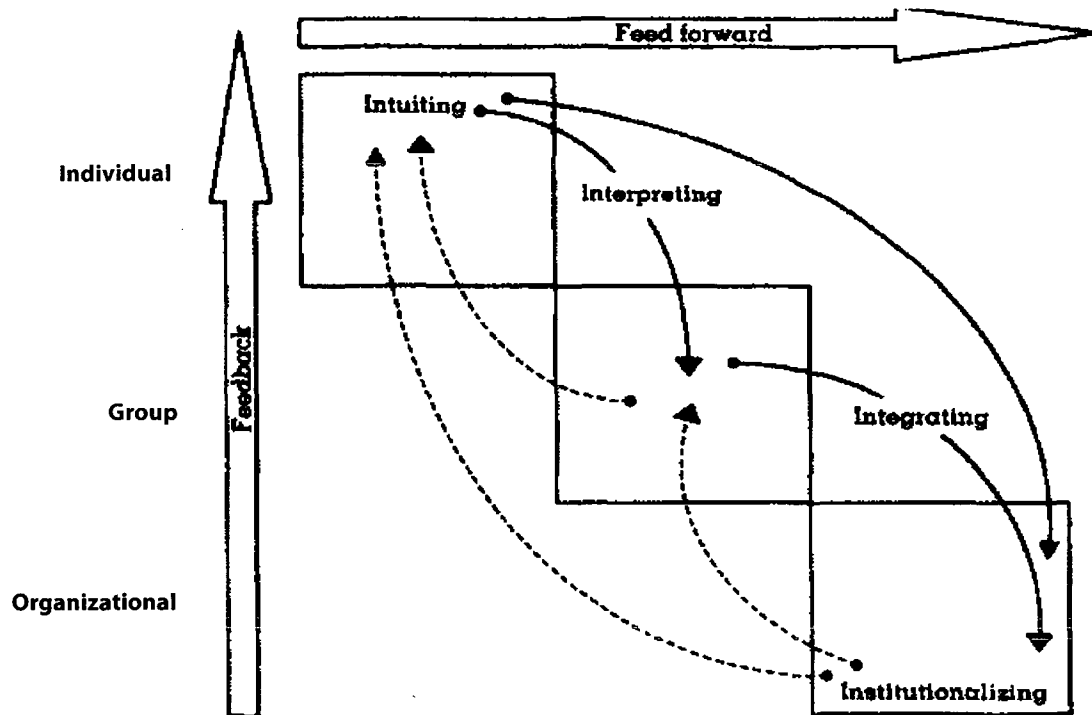


Figure 2-1. Organizational Learning as a Dynamic Process

From "An organizational learning framework: From intuition to institution", by M. Crossan, H.W. Lane, and R. E. White, 1999, *Academy of Management Review*, 24(3), p. 532. Copyright 1999 by the Academy of Management Review. Reprinted with permission of the author.

uncertainty about the outcome of certain actions; it arises when paradigms shift and when boundaries are misinterpreted, and when personal and organizational values and beliefs conflict (Moore, 2007). This program of research deals with tension as a derivative that may emerge during the course of the study but does not directly target it because addressing this issue may limit staff participation and divert their attention from the thesis' focus on organizational learning.

To limit the scope of this project, and to focus on the problematic relationships assumed in the theory, the framework will focus on the feed-forward flow at the juncture

between the interpreting (individual) and integrating processes (group), and on the feedback flow at the juncture between the institutionalizing (organization) and intuiting processes (individual). That is, it will not go from the individual to the group and the organization and the reverse path as Crossan et al.'s framework (1999) stipulates, or from the group to the organization and back, as in Sun (2006).

The components of the interpreting and integrating processes - language, cognitive map, dialogue, shared understandings, mutual adjustment and interactive systems - frame the feed-forward axis. The components of the institutionalizing and intuiting processes – routines, diagnostic systems, rules and procedures, experiences, images and metaphors – frame the feedback flow.

The framework assumes that dialogue and coherent shared actions are essential to creating understanding, meaning and gratifying experiences among individuals, and to securing unproblematic transfers between the interpreting and integrating processes. Evidence of a smooth transition between these two processes can be detected in sentences that mention the free expression of ideas, sharing knowledge, developing reasoning methods, capturing good suggestions, moving ahead with debated ideas, providing conclusions drawn from conversations and reports from meetings and conferences, enquiring into sources of problems and successes, and resorting to dialogue in order to solve differences of opinion.

Likewise for a smooth transition to occur between the institutionalizing and the intuiting processes, it is assumed that organizations need to set aside what has been learned in order to allow for new ideas to be pursued. Revisited rules, routines, structures and systems may provide the opportunity for individual learning to emerge (Crossan et

al., 1999). Evidence of a smooth transition between these two processes, may be seen in participants' responses that refer to the organization's encouragement to review its ways of doing, staff incorporating the organization's image, appropriating the organization's visions, overcoming obstacles, achieving individual and institutional goals and milestones, cultivating shared experiences, expertise and intuition, and espousing the organization's strategic objectives.

Tension in the learning flows may be evident in sentences that express breaks in dialogue between the individual and the group, staff voicing strained feelings and uncertainties, the organization inhibiting individuals from pursuing insights and leads or developing expertise and initiatives within the work environment, and evidence of important divergence between personal and organizational values and beliefs. Tension that arises from power relationships or other factors will be described in the present research when they are identified as having a negative impact on the organizational learning processes.

Summary

In summary, the organizational change literature highlights the fragility of strategic renewal exercises, and prescribes different steps for effective organizational renewal. The social construction perspective draws attention to the importance of dialogue and the social contexts in which learning occurs. The organizational learning literature emphasizes the spins that organizations take between espoused theories, and theories in-use, and the defensive mechanisms that staff use to protect their ways of doing, their own interests and those of the organizations. It also describes the complex

relationships at play that convert tacit knowledge into explicit knowledge. The literature suggests that the transfer of learning is not a smooth process. As it passes through cognitive and behavioural obstacles that need to transcend the individual, the group and the organization's walls, tension among the three levels may be created. Organizations, and more particularly, middle management, play a leading role in articulating and amplifying tacit and explicit knowledge, and to an extent that differentiates one workplace from another. Moreover, the ways in which organizations deal with and correct errors, situates their learning modes within the single-loop, double-loop or deuterio-learning models. Also, public organizations may behave differently than companies in the private sector because of their national and cultural dimensions, and their hierarchical structure. Organizational capacities have come to be considered as inherent or intangible components of the organizational learning processes, hence the movement to create a fusion between organizational learning, knowledge and capabilities (Elliot et al., 2008).

Despite their strength, the above three streams of literature have some weaknesses. For example, the theories on change, which discuss competition stemming from the external environment, do not sufficiently address its domino effect on internal competition. Moreover, even though financial profit may not govern employees' actions, particularly in the case of public institutions, competition for prestige or higher positions cannot be dismissed as a possible factor that may obstruct the flow of learning.

The social construction literature emphasizes the unifying role of communication, however, it does not address the danger of creating an ideology of commitment based on the obedience of lower-rank staff members who can get taken-in by the rhetoric of

executives (Easterby-Smith, 1997). It also fails to explore the influence of “one bad apple” on an organization’s culture as a whole. And it does not call attention to the danger of innocent young workers falling prey to the traps of manipulators.

The organizational learning literature oversimplifies the process of learning in that it views it as something that can be organized into a hierarchy, as a change in learning to a change in behaviour, a change of cognitive maps through explicit sharing of knowledge, or the integration of theory and action (Easterby-Smith, 1997).

Notwithstanding the above critiques, these three streams of research provide an excellent theoretical basis for investigating the flows of learning in an organization during its transformation exercise. Using Crossan et al.’s 4I Framework (1999) and a qualitative methodology with thick narratives, this research program will provide a more thorough understanding of the flows of learning. It will thus respond to gaps identified in previous research studies that criticized organizational learning for being normative and for covering large industries mainly through quantitative research.

Chapter 3

Methodology

Qualitative Methods

Organizational learning is difficult to explore because it deals with situated and sometimes complex relationships. Qualitative methods are best suited for research in this field because they help understand processes, discover unspecified contextual variables, describe poorly understood phenomena (Merriam, 2002), and shed light on the differences between stated and implemented practices. Moreover, qualitative instruments provide investigators with a tool to probe and receive elaborate answers, and readers with narratives of participants' perceptions. They also offer an opportunity for unexpected themes to develop, and they compel the researcher to situate the acquired knowledge within each participant's context. As Miles and Huberman (1994) stated, "qualitative data are not so much about behaviour as they are about actions, which carry with them intentions and meanings and lead to consequences" (p. 10). In addition, a qualitative methodology based on an instrumental case study provides intensive and in-depth descriptions of a unique, bounded and integrated system. In instrumental case studies, the organism chosen is of secondary interest because it plays a supportive role only and facilitates the understanding of phenomena shared by entities with similar characteristics (Stake, 2000).

This case study features a personnel consisting of knowledge workers under the pressure of multiple demands and a huge number of grant proposals to process. This research will explore possible patterns of organizational learning in research funding organizations and other institutions with similar characteristics. Its findings may help identify factors that facilitate or hinder the flow of learning, and may assist government departments and agencies in adopting learning strategies that would maintain their preparedness for change.

Sample Organization

I chose SSHRC as a case study of the Canadian granting councils because I have been an employee in this organization since 1999, and also because it embarked on a strategic renewal exercise that aimed to transform the agency into a knowledge council. My observations of this workplace exemplify what Miles and Huberman (1994) call a sustained encounter with the setting. The sample includes staff and Board members; the Council's standing and selection committees, as well as external stakeholders are excluded because they are too broad a sample to investigate within the scope of this qualitative research program, and because they are not directly involved in the governance of this organization.

The Council was created by an Act of Parliament in 1977 (R.S., 1985); it is mandated to promote and assist research and scholarship in the social sciences and humanities, and advising the Minister of Industry with respect to such issues (SSHRC Act, 1985). The Council advances knowledge through the support of basic and targeted research and the building of national capacities; it also facilitates communication among

scholars, and encourages the use of funded results within the academic community and the public at large (SSHRC website, 2006). On the occasion of its 25th anniversary, the former president launched a strategic initiative with the intent to decentralize the Council and create institutes specialized in thematic areas. This move was prompted by the Council's aspiration to reposition itself as a knowledge broker and to receive additional federal funding in order to satisfy the increasing demands of students and researchers. This was also a result of the pressure that the government put on SSHRC and other granting councils - formalized in the 2006 Budget - to demonstrate the return on its investment.

A unit of less than five employees was formed at SSHRC and dedicated full-time support to this initiative. Five inter-divisional working groups were later established in 2004 in order to involve staff in the transformation exercise. They focused on five dimensions: areas of excellence (qualitative analysis); operating grant models; efficiencies and economies in peer review; infrastructure; and undergraduate research training programs (the latter is a group in which I participated). The work of these groups will not be further discussed because the reports they produced did not appear to have affected the transformation exercise.

SSHRC is organized into 15 units, and the number of permanent and term employees varies between 160 and 190. Its presidents are appointed, with renewable terms by order of the Governor in Council (GIC). The Council's classification system for the director and vice-president positions follows the Government executives' ranking EX 1 to EX 4. Officers below the director level are ranked in accordance with the Hay's classification system with Group Levels ranging from 1 to 10, aggregated per points.

Executives are non-unionized permanent staff, while managers, officers and administrative personnel, excluding human resources, are unionized.

Similar to other knowledge-intensive institutions, the high mobility of staff (Jaime, Gardoni, Mosca, & Vinck, 2005) and the employment of annual term employees put SSHRC at risk for knowledge loss as contingent workers have been found to impede the flow of knowledge within a firm (Castaneda, 2001). At the other end, some employees who have worked in this organization for a long time may have set routines despite the availability of new products, technologies or practices. Program officers at SSHRC have at least the equivalent of an undergraduate degree, with many holding Master's and PhD degrees. In most cases, staff members have to pass interviews and written tests in order to be hired or promoted. Many of these employees could be designated as knowledge workers because they are highly educated, have career loyalty specific to an area of expertise, are given significant autonomy in how they perform their tasks, and they enrich the information they receive (Hayes & Walsham, 2005). The Council's clients are primarily university administrators, faculty, students, non-government organizations and community associations. The Council reports to Parliament through the Minister of Industry and follows guidelines established by central federal agencies, such as the Treasury Board, the Public Service Commission and the Privy Council.

As a federal institution, SSHRC cannot spend more than 8% of its budget on internal operations - the remained must be allocated to grants and fellowships. These are awarded through national competitions, mostly adjudicated by university researchers in what is known as the peer review system. To satisfy the adjudications' complex and

numerous requirements, staff members carry heavy workloads and exchange of information among them is limited due to time constraints. Implementing new programs and technologies and dealing with an increasing number of applications have been a recurring challenge for all staff. In addition, inadequate channels of communication between divisions have been a cause of continuous concern (SSHRC Employee Engagement Surveys, 2001 and 2008) and the Council's attempts to rectify this problem have been short lived. The application of knowledge management procedures and the adoption of modern governance principles are being gradually implemented and may improve the lines of communication amongst staff and divisions.

It is important to emphasize that I undertook this study during a transitional period in the life of the organization during which the staffing of new executives took more than two years to complete. By 2008, SSHRC had a new management team, which consisted of a president, three vice-presidents, seven directors and the newly created position of Chair of the Board.

Participant Sample

Fifteen individuals agreed to participate in the interviews (Table 3-1): one Board member; six employees from the Programs Branch, which includes Research and Dissemination Grants, Strategic Grants and Joint Initiatives, Fellowships and Institutional Grants; five from the Common Administrative Services Division, commonly known as CASD, which includes Human Resources, Finance, Information Management, Meeting and Travel, Administration; and three from the corporate divisions which include Policy, Planning and International Affairs, Corporate Performance, Evaluation and Audit, and

Communications. These individuals were selected in order to achieve representativeness according to the setting, individuals and activities (Maxwell, 2005, p. 89). A table that provides detailed characteristics – Division name, Age Group, Gender and Group Level – was created with NVivo software and is partially reproduced in Table 3-1 in order to maintain participants’ confidentiality. Participants are indicated as P2 to P16.

Table 3-1. Participants’ Attributes

Participant (P.)	Branch
2; 3; 6; 12; 15; 16	Programs Branch
4; 8; 9; 11; 13	Common Administrative Services Division (CASD)
5; 7; 10	Corporate Division
14	Board

None of the participants was a close friend or a direct supervisor. Attempts were made to recruit additional Council members but one declined and another did not respond. I tried to invite administrative assistants but those who answered refused to participate on the grounds that they were uncomfortable participating in the project. I did not approach those employees who are known to me to be displeased with the organization. As well, some individuals excused themselves from participating on the same grounds, expressing concern that they may not be objective. In all, five employees declined to participate and five others did not respond to my requests. The individuals I interviewed are classified in the EX category, and Group Levels between 5 and 10.

Interviews were preceded by a pilot project conducted with Dr. Mary Crossan, who is a Board member at SSHRC¹. Dr. Crossan provided advice on the relevance of the questions and suggested some others and, while doing that, she indirectly answered my research questions.

Data Collection Instruments

This research program uses face-to-face, semi-structured interviews as its primary research instrument. Interviews enable participants to describe their perceptions and to vocalize their concerns, and although they do not provide a neutral tool for data collection, they are effective for the understanding and the development from the “what” to the “how”, and the realization that realities are plural (Denzin & Lincoln, 2000). During the interviews, I intentionally avoided making any personal comments so that my own experience did not interfere with participants’ perspectives. I also sought to create an atmosphere which enabled a change of consciousness in myself and the respondent whereby reality would be understood as an on-going interpretive accomplishment for both of us (Fontana & Frey, 2000).

The review of archival records, documentation and my direct observations are the secondary sources of evidence in this research study. I consulted documents related to SSHRC’s transformation, such as Piper’s Killam lecture, From Granting Council to Knowledge Council (v. 1, 2, 3); the Knowledge Council: Strategic Plan 2006-2011; Framing our Direction: 2008-2010; documents that describe the organization’s structure; the learning policies - The Learning Policy (2003), A Framework for Smart Learning

¹ The research framework was chosen prior to learning that Dr. Crossan was a Board member.

(2006); HR Annual Reports 2005-2006 and 2006-2007; and, the Council minutes of meetings from 1997 to 2007. This data collection method was used in order to provide an historical context and constituted a source of data that was needed to verify participants' perspectives in the context of "an underlying, latent phenomenon [organizational learning] that is itself not fully measurable" (Bontis et al., 2002, p. 459). The review of these documents also helped detect differences between the Council's espoused theories and theories-in-use.

It is important to indicate that my observations of the setting since 1999 were never recorded. However, they constitute a latent source of reference throughout this document.

Interview Protocol

The interview questions (Appendix B) were developed in two phases. They are open-ended questions, aggregated under sections I, II, III and IV, with I and IV having been developed subsequent to the pilot phase. The questions in sections II and III were modeled after Bontis and colleagues' 2002 study (Table A. I., Construct definitions and sample survey items, p. 462) and address research questions II and III.

Section II, which addresses employees' perceptions of the feed-forward flow of learning between the individual and the group, has eight sub-questions numbered 1 to 8. These deal with the interpreting and integrating processes and include themes linked to bringing forward ideas, debating propositions, reporting conclusions, explicit knowledge, capturing ideas and suggestions, collective learning experiences, successes and mistakes, and dialogue.

Section III, which addresses employees' perceptions of the feedback flow of learning between the organization and the individual, has eight sub-questions, numbered 9 to 16. These questions deal with the institutionalizing and intuiting processes, and include themes linked to routines and policies, standards and visions, solving problems, corporate image, emergence or hindrance of ideas, variety of work, expertise, and commitment to a knowledge council.

Seven supplementary sub-questions, numbered A to D in section I, and E to G in section IV, were adapted from Crossan and Berdrow's Interview protocol (2003, p. 1096), and were added on Dr. Crossan's advice in order to link the research questions to the specific period of the transformation exercise. Sub-questions A to D target research question I, namely employees' perceptions on the flow of learning during the organization's transformation into a knowledge council. These questions ask for a story about the transformation, the name of the documents that supported it, and the subsequent learning acquired by self and others. Sub-questions E to G, sought to solicit participants' perceptions of the challenges facing the Council and their own abilities to meet them, and were to provide additional information on the future learning needs of the organization and that of its employees.

The questions were translated into French so that participants were able to have the interview in the language of their choice. The original 16 sub-questions were attached to the request for interview e-mail so that participants would have some knowledge of their content as the pre-thesis course projects had demonstrated that such questions are difficult to answer immediately. During the pilot project, Dr. Crossan was also mindful of the complexity of these questions; hence her recommendation to add

other questions in order to situate the learning within a specific context. Participants responded to questions A to G without difficulty. At the beginning of each interview, I briefly explained the general framework of the research and the difficulties associated with the transfer of learning that could occur between the individual and the group, and between the organization and the individual. The questions did not focus directly on tension because it may not exist, and because I did not want participants to be distracted from the focal theme of organizational learning or be apprehensive of the interview questions. Participants' comments did not indicate that they had prepared elaborate answers in advance of the interviews.

The interviews were conducted between August and November of 2007 during the day, in managers' offices or in discreet meeting rooms, and each lasted for approximately one to one and a half hours. The pilot project and the other Board member interview were carried out over the phone. With participants' approval, all but one of the interviews were recorded on an Ipod, as per this participant's request. I transcribed the interviews with Express Scribe Transcription Playback and Microsoft Word software. The transcripts, except for those from the pilot study, were subsequently sent to participants for verification. Only one transcription was returned to me with minor corrections, although the request for participation clearly stated that the interviewees could ask for changes.

Data Analysis

The data collected were vast, and contained mundane information that was difficult to aggregate under commanding themes. I proceeded by creating a table for

each question with participants' answers. The data was aggregated into 23 tables (A to G and 1 to 16 for a total of 23 questions) with columns and rows that included participants' identification number and their corresponding comments. I also itemized, as much as is possible in qualitative research, the number of participants who had similar perceptions, whether positive, negative or neutral. Following Miles and Huberman (1994), I then created tables that corresponded to the feed-forward and the feedback flows. However, because the cells could not fit a printed page and provide meaningful content at the same time, I separated the tables according to the questions (Appendix D), merging the answers of questions A/B, and C/D only.

To generate meaning (Miles & Huberman, 1994), I used data reduction, matrices and various techniques, such as noting patterns, seeing plausibility, clustering, counting, making contrasts and comparisons, and noting relations. The data analysis was assisted by immersion in the data, the use of bins and categories to aggregate emerging themes, causes, explanations and relationships (Bazeley, 2007), the solid theoretical framework and the NVivo 7 software, and also through my ten-years of experience in this environment.

Creating nodes in NVivo with headings that corresponded to the questions resulted in some emerging themes. The following are the abbreviated titles of the nodes: A) transformation; B) documents; C) individual learning; D) learning for colleagues; 1) ideas and opinions; 2) explicit knowledge; 3) capturing ideas and suggestions; 4) debating propositions; 5) providing conclusions; 6) collective learning experiences; 7) success and mistakes; 8) dialogue; 9) routines and policies; 10) corporate image; 11) standards and visions; 12) solving problems, 13) variety of work; 14) expertise; 15)

emergence or hindrance of ideas; 16) commitment to knowledge council; E) challenges facing the Council, F) personal abilities; and G) comments.

These nodes were later amalgamated under Tree Nodes that followed the framework's two flows of learning. Other free nodes were created as they emerged from the text, such as tension, president, people, culture, training, business as usual, silos, and employer of choice but were later integrated with the others. I also used NVivo to write a memo for each participant (Miles & Huberman, 1994), which were then linked to the transcripts and included a biographical profile of the 15 participants, and my own interpretations and analysis of the answers provided. The profiles were included in the draft research document however, were later discarded as they could potentially reveal participants' identity, and they did not provide information beyond what was already presented. I also prepared a master memo that included items that led to conclusions and theory building. These techniques helped me absorb the vast data laid out briefly in Appendix D.

I used Miles and Huberman's (1994) Document Summary Form (Appendix E) to analyze the Council minutes. The paragraphs in the Council minutes pertaining to the transformation were cut and pasted from the original documents and are reported in Chapter 5.

The final data analysis was achieved through connecting strategies using rich thick quotations (Denzin & Lincoln, 2000; Merriam, 2002). Taking note of unusual comments that showed some tension, making inductions supported by the literature, and finding intervening variables (Miles & Huberman, 1994) were effective in establishing the key conclusions of this research.

Trustworthiness

A multitude of strategies was used in order to maximize the trustworthiness of this study. Having been an employee in this environment for almost a decade carries with it a history of assumptions, values, sour relationships, as well as proud moments. In the heat of research however, and in the spirit of rigour, I adopted a realist stance. In other words, my research should be viewed as impregnated by realism, reflecting my awareness of the values of human systems and of the difference between an enduring reality and a changing one, expressed in people's perceptions of their own world. In this I agree with Gergen (1999) that:

To the extent that my interests determine how it is I describe the world, then my descriptions lose the capacity to objectively describe. To the extent that you believe I am personally invested, you will cease to listen to me as an objective observer and hear what I say as an expression of personal interests. (p. 21)

In addition, this thesis presents the testimonies of 15 participants, providing unique contextual and meaningful explanations stemming from live recollection of one environment at one particular moment in its trajectory. Thus, the mixture of theory, stories and interpretations I am offering in this thesis should be considered as real and at the same time fallible (Krauss, 2005).

This research may be tainted with lens of the social construction approach reviewed in Chapter 2. This could be considered as limiting the scope of my analysis to one genre of explanation as I focussed on understanding organizational learning through

the impact of intersubjectivity, dialogue, embodiment and dialectics (Cunliffe, 2008), which highlights my perception of human beings as influenced by the relations of their selves, the words and new vocabularies they exchange and create, the gestures they make, the emotions they display, and the opposing directions through which they often interact. However, despite the emphasis on this approach, other perspectives were used as well in this document such as the information processing approach to explain absorptive capacities, and the applied learning perspective to explain Argyris and Schön's concepts of intervention. The behavioural / evolutionary approach could have certainly been adopted to understand the history dependence of this work setting.

Participants' characteristics may also be a threat to the trustworthiness of this study. Government employees are known to be reluctant to participate in research endeavours investigating their jobs (Bontis, 1998). In this project, probably because they work in a research setting and know the importance of participation, most respondents in the middle to upper positions agreed to my e-mail invitation. The few individuals in key positions who did not answer my e-mail and the other administrative staff who turned down my request could have been considered as an added element of trustworthiness.

The interview instrument could also be viewed as a risk factor. However, although some of the questions were hard to understand, the interview format allowed participants to ask for clarifications. This format made it also easier for me to fathom issues that I was unfamiliar with. It is important to note that participants' answers are subjective perceptions that reflected their personal stories, and even though the questions were not meant to solicit confidential information, negative experiences and preoccupations, a few participants expressed personal concerns and showed some

emotion. This helped me detect the tension they felt but their answers may be linked to specific incidents occurring at that specific time.

To summarize, researching my own work setting was difficult especially during data interpretation because my dual role as committed researcher and employee collided at this stage. However, the support I received from both my school and work supervisors encouraged me to continue this study with integrity and rigour.

Chapter 4

Documents

Historical and Contextual Perspective

This Chapter provides an overview of SSHRC documents that are directly related to its transformation and to learning. These documents were consulted because they provide secondary sources of data that may validate participants' perceptions and because they "offer historical, contextual and procedural information necessary for the studies of strategic transformation" (Pettigrew in Lant, Milliken and Batra, 1992, p. 586). At the same time they help locate the Council's espoused theories (Argyris & Schön, 1978).

Martha Piper's Killam speech (2002), the Board meeting minutes from 1997 to 2007, the booklets *From Granting Council to Knowledge Council* (v. 1, 2, 3), and the *Knowledge Council: SSHRC Strategic Plan 2006-2011*, constitute the main documents presented in this chapter. Policy documents pertaining to learning are: The *Learning Policy* document, dated February 5, 2003; and The *Framework for Smart Learning* dated January 16, 2006. Commissioned papers and other documents were consulted but are not referenced in this study due to their lack of direct relevance to the subject matter.

Piper's Killam Lecture

The 2002 Killam Annual lecture delivered by Martha Piper, former president of the University of British Columbia, can be considered as the triggering event for the

SSHRC renewal exercise. In her speech, Piper called for the building of civil society through knowledge and scholarship. She advocated a funding increase to the Council and a reorganization of its structure along academies or networks that would enhance the establishment of this society.

Board Minutes

Part of Piper's speech reflected the message that the former president of SSHRC continually asserted to Board members. Since his arrival at the Council, he repeatedly emphasized the importance of social sciences and humanities research in affecting societal change. His vision consisted of having SSHRC play the role of a knowledge broker vis-à-vis the Government and through the dissemination of research results to the public. He also relentlessly called for a proportional increase to the SSHRC budget that would appropriately reflect the number of faculty and students enrolled in the social sciences and humanities.

The transformation initiative was formally mentioned in the March 2003 Board minutes. The president justified the pursuit of a transformed council based on the urgent need to address the demographic and disciplinary changes occurring in universities. For reasons never publicly disclosed, the Government did not extend the former president's term, and the transformation initiative with its conception of the Council as decentralized institutes, was informally brought to a halt with his departure on August 31, 2005.

From Granting Council to Knowledge Council

Volume 1 of the document *From Granting Council to Knowledge Council* (2004) provides a rationale for the transformation initiative. A renewed Council was to address the changes reflected in society, academia and the research environment. The document set the principles upon which the Council is built. It asked the research community to provide comments to questions related to the Council's basic goals and values, new programs and approaches, improvement of current programs, increase of linkages and knowledge flows outside universities, and to the proposed new structure. Volume 2 (2004) demonstrated in number format that although social sciences and humanities faculty and students form the majority of the academic body, SSHRC receives less funding than CIHR and NSERC. Volume 3 presented a list of the 81 universities and 100 organizations consulted.

Knowledge Council: SSHRC Strategic Plan 2006-2011

The *Strategic Plan* described the Council's new vision and principles, and emphasized the impact of research and the values of excellence, independence, inclusiveness, impact, connection, learning, building capacity and accountability.

The Learning Policy

The *Learning Policy* document, dated February 5, 2003, states that the objectives of this policy are to make the Council a learning organization, to help employees fulfill their current and future job requirements and to prepare for succession planning.

Individual learning needs are to be identified during ongoing communication between managers and employees, as well as during performance evaluations.

The learning needs are to be fulfilled through a variety of means, such as program and non-program related learning, on-the-job and formal learning opportunities, management development programs, internal and external assignments, employment equity initiatives, and mentoring. Workplace activities consist of reading appropriate journals and periodicals, on-the-job training, job-shadowing, job-rotation, career broadening assignments within and outside SSHRC, mentoring, exchanges with universities, industry, associations and other government bodies, and exploring new partnerships, and innovative approaches to learning, such as team training, ad hoc learning teams, cross-utilization of staff, self-directed and technology-assisted learning. In this document learning and organizational learning are defined as:

Learning: At the individual level, learning is the acquisition of new knowledge, ideas and skills that changes the way an individual perceives, understands or acts. It is enhanced by the freedom to think creatively and leads to innovation; it's the overall framework for the individual activity underlying all forms of training and development. For employees dealing with the substance of research proposals, it is the means of keeping up with developments in the fast moving fields of research supported by SSHRC.

Organizational Learning: Organizational learning occurs both through individual learning and as a collective process of creating and capturing new ideas, knowledge and

insights. Effective organizational learning produces new and better ways of achieving the evolving mission of the organization in a changing environment.

A Framework for Smart Learning

The *Framework for Smart Learning* (2006) states that as a knowledge-based organization, the Council is committed to continuous learning. The Framework was issued as part of the Council's succession strategy and good management practices, to address demographic changes and their impact on staff recruitment and retention. The Council is to minimize the loss of corporate knowledge by investing in learning activities, and to seek opportunities for the development of intellectual and professional growth, and clear career pathways for advancement. The Framework's goal is to attract, retain and motivate staff, and its guiding principles are equity, accommodation, transparency and reciprocity - the latter intended for both managers and employees to acquire and to share knowledge and skills.

The learning activities are grouped under three categories:

- 1) Council specific which are mandatory, such as employee orientation, people management, executive leadership and federal government orientation, and legislative/regulatory requirements, and common learning experiences which are not obligatory, such as communication skills.

- 2) Major job families are divided into four groups: executive, supervisory, program and service delivery, and administrative support. These learning options represent a "learning path" for each job family through which managers and employees

can identify job-related learning needs, as well as determine career-related developmental learning opportunities.

3) Individual and group-specific learning needs: Corporate key learning priorities are identified as: (a) learning investments for succession which includes mentoring and (b) learning-enabled bilingualism.

Learning advisors, Human Resources, management and employees are responsible for implementing the Framework. Of interest in this document is the commitment of management to “assess operational workloads to ensure equitable access to training opportunities and for mentoring employees” and for employees to share knowledge with their colleagues.

The skills required for executives are: providing leadership and direction, thinking strategically, inspiring and engaging people, managing human, financial, material resources, and self-management. The skills required for supervisors are: managing performance, resolving conflict, influencing and motivating employees, and managing change. The skills required for officers are: thinking analytically and conceptually, managing and coordinating projects and programs, consulting and facilitating, networking and partnering, client service, and using specialized information systems.

The HR Annual Reports

The *HR Annual Reports* (2005-2006 & 2006-2007) provide a snapshot of the workforce profile, staffing and recruitment procedures, as well as the type of training offered on a cyclical basis. They reveal that the budget devoted to professional

technology training is separate from the overall budget allocated to other employees because technical staff have to keep up with rapid changes in the field.

Framing our Direction

In *Framing our Direction 2008-2010* (2007), the new president established the values of quality, connections, and impact, along with fostering the development of talented and creative people, as SSHRC's vision for the future.

Summary

In summary, the documents generated during the renewal initiative were mostly written for external stakeholders. Transforming SSHRC into a knowledge council and obtaining additional government funding for its activities were the former president's objectives, as expressed at the start of his tenure in 1997.

The learning documents describe the Council as a learning organization, and call for formal and on-the-job learning, mentoring, succession planning and varied experiences. They separate the learning requirements by job families and list the personal skills needed for each category.

As a footnote to this chapter, it is worth noting that change is certainly still under way at the Council, although decentralizing the organization into independent institutes has never materialized. The current management team is refining the renewal strategy through a consolidation of its activities and programs, and is also working on strengthening its internal mechanisms and relations with other granting agencies.

Chapter 5

Findings

Chapter 5 provides a synopsis of participants' responses, organized according to the three research questions (Yin, 2003). Readers can find the list of the sub-questions in Appendix B. A concise version of the transcripts is presented in table format in Appendix D (Tables A D. 1 to A D. 21) in order to offer empirical support to the research and to help locate participants' comments. Some participants are quoted more than others because their comments offer a logical link to the emerging arguments of the study. The terms "director" and "manager", "division" and "unit", are used interchangeably to maintain confidentiality. Participants are identified as P. 2 to P. 16.

I. The Transformation

Employees' perceptions of the flow of learning during its transformation into a knowledge council were captured through four sub-questions (Appendix B, A-D); these required participants' recollection of the initiative, the documents that supported it, and their perception of the learning that they and their colleagues had acquired as a result of this exercise.

Identified as a bureaucratic trend witnessed many times in Government departments and agencies (Table A D.1) or as a means to increase the organization's funding, the transformation was "Business as usual" (P. 2) for the majority of the interviewees. Participant 4, for example, indicated that:

SSHRC did not transform itself, SSHRC simply evolved to its next logical step. I guess, the transformation for the public, the researchers and the people I meet in universities, they say, you use the word transformation because you want a significant amount of money to fund research. For that increase of money, you have to demonstrate to your masters, i.e. the public and parliament, that what you are doing is very much transforming the way we view the world.

Participants remembered the past president as the initiator of the transformation. They recalled how he championed the role of the social sciences and humanities, and the efforts he employed in order to have the Council play a leading role within the Government and the public. The new programs created during his term were more incremental than transformative, and they were slowly directing the Council towards community involvement. As Participant 14 reminisced:

He was really seeking ways to make the Council, let's say more responsive; we saw lot of things happening well before those few years, like the development of the CURA [Community-University Research Alliance] was a very important step, the Fine Arts and the Aboriginal programs; all those were very important, they were pieces that led to trying to make clearer to the public the role of the Council, and the role of knowledge and the importance of knowledge in society.

Participants unanimously confessed that the transformation process was not fully developed and operationalized for people to understand its impact on their daily activities. Some participants in the CASD divisions thought that Programs staff understood the idea better than they did, while in fact all participants noted its vagueness. The concept was difficult to define according to Participant 8, and this is why the debate is being renewed; or that the initiative was not well conceived from the beginning and this is why the vision was never achieved, as Participant 10 pointed out. The dissemination activities accompanying the transformation exercise were more effective in some units than in others but, overall, its conception was not sufficiently discussed to obtain staff buy-in. In addition, once the initiative was launched, it was not promoted further with the majority of employees, which made it difficult for them to identify with the idea. The change in leadership convinced some participants that such major visions do not last from one president to the next.

One participant expressed concern regarding “staying on the fence”, neither retracting nor implementing the transformation. Most participants were hopeful about a change in the organization’s culture. Others mentioned that the president’s attempt to bring out the best in employees and the replacement of the executives constitute a change.

All participants remembered the considerable amount of documents and e-mails produced during the renewal exercise (Table A D.1). Participant 14 pointed out:

Some documents were meant specifically for the government, and then there were documents that were much more generally meant. There were lots of emphasis

and a lot of work in those documents to try to find wording that would appeal to people and would make them read more, and would bring alive the kind of work we have done in the social sciences and humanities; they were not written for the academic community but for the general public to make people think that this stuff really matters.

Some interviewees identified the Strategic Plan as the main transformation document but many could not recall any title. Participant 7 was of the opinion that the massive external consultations generated information too vast for the small Transformation unit to incorporate and disseminate.

Employees who worked closely with management witnessed the efforts employed to formulate the transformation's objectives. This exercise led them to a process of learning translated into understanding how leaders function, reflect, represent ideas, define, articulate and design programs (Table A D.2). They became acquainted with Treasury Board regulations, they communicated with government, university and other organizations. They also had their assumptions and beliefs tested as they were involved into strategy making. Senior officers shared Participant 16's view that "bold new projects force people to learn". Participant 5 provided these details about the process:

What you see at that level is the number of factors that could be considered in the process of organizational change, and they are broad and not obvious. The executives at the time really wrestled with all the factors that ought to be considered regarding changing the organization from a relatively simple business

into what is becoming an increasingly complex business. I learned how the business process functions, how senior management goes about making these decisions, and the factors that are considered, that range from the wholly political to financial, from the very rational, very logical approaches to things that are not logical at all, like emotions, perceptions and feelings, and all that had to be brought together for effective decision-making and that was a great learning experience.

The majority of the interviewees stated that the transformation has triggered a thinking process rather than actual learning. This initiative led to an informal dialogue among employees, and some formal discussions in the working groups responsible for specific aspects of the transformation. However, others declared: “We had an observers’ role” (P. 3); “it is up there where they talk” (P. 11). Participant 9 noted that some directors did not sufficiently explain to staff what the initiative meant:

Part of the problem is that before this information was only at the director’s level ... nobody was telling us what is happening at the Council, where we want to go, I feel like they never included us with this type of information, and even the director did not share it. When I go to management meetings now, I tend to learn more what they are doing, and the others feel the same way, some may not care whether they learn or not, but I believe that they would say that they are learning more and more.

For those indirectly involved in the transformation, the perception was that they did not learn anything new or that the learning consisted of distilling, analyzing requirements, and trying to figure out the impact that the initiative would have on daily activities, the organization, its clients and the public at large.

II. The Feed- Forward Flow of Learning

To answer the research question “how do granting council’s employees perceive the feed-forward flow of learning between the individual and the group”, participants were asked eight sub-questions linked to key components of the interpreting and integrating processes (Appendix B, 1-8). It is assumed that addressing issues such as bringing forward ideas, debating propositions, reporting conclusions, explicit knowledge, capturing ideas and suggestions, collective learning experiences, successes and mistakes, and dialogue, would stimulate participants’ discussion of the feed-forward flow.

Participants revealed that supervisors who have their doors open to staff, who are genuinely interested in change, and who listen, help employees formulate new ideas (Table A D. 3). A culture of consultation, informal channels, individuals willing to learn from each other, respect and security, managers asking for ideas and giving reasons for accepting or dismissing them, empower employees to express themselves. Regularly scheduled staff and management meetings, corridor exchanges, one-on-one encounters with supervisors, are the common ways for inviting employees to bring forward opinions. Some differences were noted in this regard however, and these varied with participants’ classified positions, from those in mid-scale hierarchy who never have formal staff meetings, to Council members receiving a call from the president before each Board

meeting to solicit their views and insights on what needs to be brought to the table. Overall, and in the words of Participant 12, what helps most to promote ideas is genuine enquiry and the feeling that the meeting has not been organized solely to shelve yet another report:

Il faut avoir le sentiment que ce n'est pas juste un exercice pour faire croire ... il faut qu'on sente que l'administration veut vraiment connaître notre opinion et agir en conséquence. Si on prend un autre exercice pour mettre sur une tablette, ce n'est pas intéressant de participer.

In most divisions, there are no formal processes for making knowledge explicit (Table A D. 4). Similar objectives, less competition among staff and team spirit facilitate the exchange of information. While Participant 15 revealed that “there is no scope to present non-work related knowledge and that there is no engagement at the staff level”, other participants noted that directors expect their employees to be proactive (P. 13). Participants 8 and 9 indicated that individuals’ knowledge might be discovered by chance and then put into use for special projects. Most participants gave the impression that “officers feel certainly empowered to bring forward their ideas ... it is still up to the individual to take the initiative ... [and] some do more than others” (P.16). “Brown bag lunches” organized mainly by the Evaluation Unit and the CASD Discussion Forum, provide employees the opportunity to present knowledge acquired during conferences and other events.

There do not appear to be systematic mechanisms in place to capture new ideas or suggestions within divisions (Table A D.5). Some are retained through verbal communication or integrated into the minutes of important meetings. Post-mortems, retreats, and special projects or working groups are the main vehicles used for improving processes and implementing suggestions. At the Board level, sub-committees, in-camera sessions, the segment after the president's speech, and social gatherings provide opportunities for members to exchange or capture ideas. However, as Participant 16 noted "the challenge is not finding ideas or inviting ideas but the promise to act on those ideas in the middle of the urgencies you have to deal with".

Debating propositions is not uniformly exercised across the Council (Table A D. 6). In some units, they are presented to staff as a *fait accompli*. Differences of opinion occur mostly among senior staff members who have to build their case in order to obtain management approval. Debates also take place in working groups but it is the directors, and the president in some cases, who make the final decisions. Participant 15 noted: "I don't think there is any process of formal engagement when individuals suggest something; if management wants something [it gets done]... but if the idea comes from the individual, I don't know". There is a bureaucratic procedure for escalating issues in larger divisions, with staff relying mostly on verbal communication or e-mails before their requests are formalized. At the Board level, propositions are pre-determined by the agenda and are raised to benefit from the collective wisdom, with spontaneous suggestions being sent to committees for further discussion.

Directors decide on the flow of information when it comes to reporting on conferences, training and meetings (Table A D. 7). Management, standing committee

meetings and university visits are regularly reported verbally in some divisions. Generally, there does not appear to be a widespread practice for reporting back to staff on other events because the time it takes to write them, and the mechanisms to circulate reports may impede such procedures. If written, the reports do not appear to be kept in a public repository for staff consultation. As Participant 16 noticed:

The learning that does not go on is huge ... We are so busy, we get the report done and what you do with it, at that point you send it by e-mail to your superior, maybe to your colleagues, does it go to other sectors, who do I send it to? A lot of slipping, it is better to have a central place for this stuff for everybody to go in and index it by key words, so people can find quickly who went to a conference on a given topic, and include all the departmental meetings, agencies. The point is not to make it an 85-page long [report].

This grey literature, which constitutes solid resources and which could generate an important amount of ideas, may be lost because there is no formal mechanism to distribute it. As Participant 5 stated: "It needs to be circulated, the channels for doing that are yet to be formally established, ... the VPs, and senior management are the gatekeepers, they decide if it is ... of benefit to circulate". Directors also play a key role in transferring the flow of information between staff and management. The stream of information appears seamless in some units, but not in others. There is also a perception that some staff members do not need or are not interested to know everything.

Learning experiences vary from one unit to another (Table A D. 8). The most enriching ones appear to be when working together on the same project, or when creating new programs or during peer meetings outside the Council. Employees receive their learning from senior officers mostly at the time of hiring. Participant 7 had this to say when recalling her shared learning experience:

Some of my most positive memories is going to conferences with [x]; we used to stay on Friday until 8 pm, talking about personal stuff but always mixed with work. It allowed us to share ideas, to have intellectual discussions, knowing fully well that we would not be able to achieve everything, but getting them out and aligning ourselves, helped us work as a team. Having those kinds of relationships outside the work settings are crucial to building that kind of rapport that helps you to work well together, and to learn from each other. It makes people more approachable ... and you know what this person can contribute.

The reward system in this organization is in the process of being developed and there are attempts to instil a culture of recognition (Table A D. 9). Success is celebrated collectively in most divisions but formal individual recognition and awards are bestowed in CASD only. Putting their expertise to work seems to be the best way to reward employees. Finding time, and “the interest of directors protecting their turf, and limited connections between divisions” have constrained the opportunity to celebrate success. As to mistakes, they are discussed briefly in most divisions, if not brushed-off (P. 15), for fear of embarrassing individuals or because bureaucracies are not supposed to make

mistakes and for preserving the Council's public image. In some divisions, mistakes are discussed during retreats as lessons learned.

Dialogue is used to varying degrees (Table A. D. 10): some participants believe that engagement is determined according to hierarchy while others stated that there is no reason for differences of opinion because people work independently. However, the skills needed to engage in dialogue are inherently sought in job profiles. As Participant 13 acknowledged:

It is inherent within their responsibility set to be able to do that and quite often we assess this ability during the staffing process through a line of questioning and we expect that in terms of their experience as well ... so ongoing dialogue ... absolutely, open communications are promoted almost daily in terms of the need to be truthful, the need to be open, the need to move things forward.

Employees are also encouraged to work towards consensus or to address contentious points directly amongst themselves.

III. The Feedback Flow of Learning

To address the research question, how do the granting council's employees perceive the feedback flow of learning, between the organization and the individual, participants were asked eight sub-questions linked to key elements of the institutionalizing and intuiting processes (Appendix B, 9-16). These are routines and policies, standards and

visions, solving problems, corporate image, emergence or hindrance of ideas, variety of work, expertise, and commitment to the organization's new vision. The questions were assumed to facilitate participants' discussions of the feedback flow.

Participants noted that routines are mostly reviewed at the individual and divisional levels (Table A D. 11). As Participant 13 explained:

Quite honestly, I cannot give you an answer to the first part of the question, which reflects on routines and I am not sure what you are getting at; routines are usually intrinsic to the service responsibility and divisional responsibility that an individual has. An organization's routine is less tangible for me; I cannot really put my finger on it.

Other participants reported that their units were too busy to reflect on routines and that flaws may not be fixed because they serve the practical interests of a few executives. Rethinking and initiating some policies had sometimes been the result of external complaints or government directives rather than a pro-active disposition of the organization. In some units, communication breaks down among the hierarchical echelons resulting in staff not being informed of new policies and procedures. Employees may also be too busy to attend information sessions offered for this purpose.

There were two slightly different views of the corporate image (Table A D. 12): Participants who deal directly with research applications, and independently of their ranking within the organization, viewed the corporate image as one of promoting

excellent research across Canada, rigorous competitions, service to clients and collaboration with universities. Participant 3 declared:

Je pense que oui, pour la plupart des gens, c'est un conseil du savoir, on l'est déjà. Quand un chercheur ... m'appelle, je lui dis les forces et les faiblesses de son projet; ce genre de communication est unique au CRSH, ce n'est pas comme une compagnie d'assurance, il y a un contenu derrière ce que nous faisons et c'est oublié par quelques uns.

Participants who serve the Council's corporate needs cited the new objectives of "quality, connections and impact", and others indicated professional service to SSHRC and NSERC as the corporate image. However, although not specifically mentioned in participants' answers to this question, belief in the social sciences and humanities permeated participants' words throughout the interviews. Participant 7 said it most convincingly:

New staff feel that there is at the level of SSHRC officers and managers commitment that stands from our collective belief and appreciation of the social sciences and humanities; when the president calls us to arms to demonstrate impact, it is like a vocation, there is so much potential and sensitivity to knowledge sharing, there is real commitment. I have not worked at other departments, but I know some others who did, they are surprised that people work

here on the week-ends or do overtime out of the kindness of their heart, they put so much importance in what they do.

The majority of participants chose the President's all staff meetings and e-mails as the main channels used to convey the organization's visions (Table A D. 13). Participant 16 noted:

A lot is centered on the president, this is his main job of course to set the overall vision and standards, and the idea after that is we are busy implementing those broader objectives, and what he says is a function of what the Board said but also what we are saying and feeding to him.

Participants disclosed that standards are set informally and that people are allowed to take the time to understand the requirements of their job and to learn from senior staff: "...we are a deadline driven organization ...the process works well, because we have very few failures ... again it is informal, often done between individuals". Another interviewee revealed that executives set standards through leading by example, mentoring, monitoring of work, reward and recognition systems, annual performance assessments, and through comparison with international and national entities. The Board member indicated that it is the careful selection of colleagues that sets standards.

Participants pointed out that the pace for solving problems depends on the complexity of the issues or the source that raised them (Table A D. 14). They had the perception that problems get solved at a quicker pace when they are flagged by an

external source, such as central agencies, universities and researchers, rather than when they are raised internally. Participant 8 joked that:

Depending on where it comes in, who is involved, it may get resolved much sooner than if it is at the bottom, I find that if it is at the bottom it tends to stay at the bottom, and I don't know if people want to leave it at that level. It is two things, the bottom does not have the authority, although the top thinks that they have given them that authority but they don't, and the bottom just does not realize when it should be bumped up.

Other interviewees commented that the speed for solving problems depends on the strategic priorities of management, the Board, the directors, and how urgently the issue is viewed. Some participants complained that there is no clear pathway for addressing escalating issues, but revealed later that the terms of reference are being redefined.

Most participants stated that opportunities for acquiring diversified experiences are rare (Table A D. 15). They attribute the organization's structure, specialized jobs, the time it takes to train employees and the Human Resources division for this gap. As Participant 8 put it:

We have been talking about succession [planning] for years, to get people to try different things, the organization will sometimes identify one person, two or three

and facilitate different experiences for that person, but as a whole the organization's structure is not there.

Personnel movement is usually towards external organizations with potential for permanent departures. Participant 14 noted that there should be a positive chemistry between the Council member and staff, along with a willingness to serve in order to assume new responsibilities at the Board level.

Staff expertise is cultivated depending on the managers or the divisions (Table A D. 16), at times it falters and at other times it is actively sought. Participant 5 was of the opinion that "there is a degree of freedom to develop expertise". Another participant noted that expertise is sought only at the time of hiring or nomination, and others believe that there is an expectation that individuals will develop their own. Fear of dependency on employees and bottlenecks, in form of not being able to provide advancement opportunities in case staff acquire skills above their job requirements, were cited as the rationales for the organization not actively encouraging expertise. None of the interviewees complained of being denied specific training but some thought that the quality of the generic courses could be improved.

Participants seemed to concur that the organization neither facilitates, nor impedes the emergence of new ideas (Table A D. 17). Participant 9 commented that the organization accepts new ideas as long as they are not overwhelming; another mentioned that there are seven steps before a decision is taken. An interviewee stated that the Council is a prudent organization and that people do not change easily because they are defensive. Other nuances were noticed: one participant claimed that "it is just not there, it is not in the

corporate culture to listen to ideas from staff; Participant 13 said that the president “has openly communicated the fact that he needs to hear from staff, what the issues, the challenges, opportunities for improvement, efficiency gained are”; and Participant 16 noted that persuasion up to a point is necessary to have ideas accepted. The Council member faulted individuals’ willingness to listen but not the organization’s structure for hindering the emergence of new ideas.

The question regarding employees’ commitment to a knowledge council revealed an overall consensus (A D. 18). As Participant 11 stated:

Few individuals, who think that their job is to work from 9 to 5, are not interested in the idea of a knowledge council. The majority of staff, however, is committed to this idea although they find it fluffy and not concrete. Personnel wants the Council to move to the 21st century; however they have concerns that with changes in the executive, initiatives will be dropped and knowledge will not be passed to society and produce impact on policies affecting [issues such as] Aboriginals, abuse, and education.

Thus, because the concept was not properly defined and its impact on daily work was never described, staff were committed to the idea but did not know what a knowledge council meant in practical terms.

IV. Challenges and Comments

Questions E and F (Appendix B) sought to solicit additional comments to situate the flow of learning in terms of the future challenges facing the Council and participants' attitudes towards them. At the end of the interviews, participants were given the opportunity, in question G, to express their final thoughts.

Most participants viewed the demonstration of the value of research in the social sciences and humanities as the major challenge facing the Council (Table A D. 19). Providing continuous service to clients and a budget increase to satisfy the academic community were also identified as important challenges. Mentioned as well were: the proliferation of programs and the limited resources supporting them, strengthening the foundations and the structure of the organization, creating a knowledge mobilization unit to integrate impact and connections, a shift from strategy to action, from the silos mentality to unified objectives, funding the humanities, keeping a balance between basic and targeted research, staying at arm's length from the Government, and clarity of vision. Engaging, integrating, training, promoting and retaining staff, were considered as real concerns by a few interviewees. As Participant 11 noted:

To educate the people working for the organization and let them know that they are part of a team, so they have a feeling that what they do is an accomplishment. Some people do see it and what role they play. If you are in a section that has no contact with other parts, then you don't understand and the challenge would be to have to make them understand where they fit in the organization, make people feel that they are part of the organization.

The automation of research applications was considered as facilitating program delivery because it would allow staff to employ their time on more intellectual tasks, such as communicating with academia and the public (Table A D. 20). Participant 6 argued that new technologies cannot be regarded as a technical issue anymore and that their impact on all initiatives should be integrated within program delivery:

It is funny how these things [technology] require a champion and there should be a champion among staff; it is an accident that I raise it, how to build a champion among staff, if the president is not rethinking the system ... you need two kinds of people, an innovator and a conservative one, who says don't forget the humanities and basic research, and the other who needs to raise red flags, to say "watch out".

A few senior staff expressed concern about not having access to information and to management. Training of new directors was perceived as a possible hindrance to people's ability to perform. As Participant 9 mentioned:

To be able to bring directors on board, to get them to understand, but everyone is so busy; they tend to say, we will do that later; for me it is time, because they think we got new directors, everything is going to change, no it is not. A whole new learning curve is associated with those changes and people expect the changes to be instant but they are not. So people have to understand that they need to take the time to change, this is why it takes time to change a culture.

Participant 10 was of the opinion that unity at the top, well-conceived initiatives, and a stable cadre of management that will make good on deliverables, are important to enhance employees' ability to perform. Participant 7 had concerns about not being able to attract qualified individuals to work for the Council because of the perception of the lack of learning opportunities: "People come to work for the money but they come also for the learning". Or, as Participant 5 believes:

If we are going to a knowledge council we have to develop expertise, to expand skills, and to move up the hierarchy as appropriate, because people make the decision about what is good for the organization and what is good in their mind [for themselves], and both of those need to be addressed.

Not all participants raised additional issues (Table A D. 21). One noted that the organization is very hierarchical and that "it depends on where you are on the totem pole ... you get the right information" but added that there is a promise for improvement with the new president.

Emerging Themes

Some themes emerged during data analysis that could be considered as indicators of the factors that contribute to helping or hindering the feed-forward and feedback flows of learning. They are summarized in table format at the end of this Chapter.

The feed-forward flow of learning at the interpreting and integrating juncture is perceived to flow smoothly with managers who are open-minded, who listen, who are

interested in change and who make staff feel respected and valued. At the same time, employees who are ready to learn and to adjust their perceptions, to ask questions, to change and adapt, and have the tendency to be proactive, invigorate the flow of learning. Regular staff meetings, post mortems, teamwork, encounters with external peers and reporting on conferences, meetings, and training, formalize the exchange of ideas. As well, a culture based on inside consultations, the opportunity to express ideas, to make comments and suggestions, social gatherings, strengthens the informal learning between senior and new officers.

Participants perceive the feed-forward flow of learning at the interpreting and integrating juncture to be hampered by managers who limit the circulation of reports, or who believe that staff do not need to know everything. When staff meetings are not regularly scheduled, dialogue is interrupted and employees may feel isolated; they may consider themselves as outsiders and may suffer from the weight of hierarchy. Not having systematic mechanisms for sharing knowledge and the non-existence of an electronic repository for reports generated by training, conferences and meeting materials constitute an important loss of information transfer. In addition, the time it takes to act on sound ideas hinders the progress of the feed-forward flow of learning.

The feedback flow of learning at the institutionalizing and intuiting juncture is perceived to flow smoothly when the president helps raise issues, when there is clarity and unity of vision at the top, when strategy is put into tactics and when there is integrated planning. Management's accessibility, sound initiatives, and the meeting of deadlines, also speeds the feedback flow of learning. Employees who are given credit and whose expertise is acknowledged and rewarded feel empowered. Receiving training on

policies and traveling with peers or supervisors allow employees to learn. A structure based on focused agendas and actions, performance appraisals that integrate the organization's objectives to lower echelons, and flexible procedures, help make interventions occur at the right time. Exchanges among employees that favour the criticism of ideas, rather than the person, provide a safe environment for the transfer of learning from the organization to individuals.

Discontinuity in leadership is considered a major disruption to the feedback flow. Directors, who neither report nor share key information interrupt the flow of learning. In addition, the lines of communication that break midway, personnel departure or its non-integration and little internal job promotion, thin training, limited expansion of skills and perceived hierarchy, also hamper the flow of learning. Staff, who believe that management is not engaged and is not responding to their concerns or who do not receive guidance or feedback on their work, feel that they are not encouraged to provide ideas. At the same time, employees who do not attend information sessions and who do not report on their activities inhibit new learning. Limited exchange of employees within and among divisions and branches restrict their areas of expertise to one discipline or profession.

A workplace that simply adapts to technology rather than rides it, gaps in the terms of reference, policies, accountability and documented procedures, the proliferation of programs, as well as blurred priorities are all perceived to hinder the smooth flow of the feedback flow. A Human Resources division, on which many expectations are based, is perceived to contribute to some tension in the learning flow. Irregular "lunch and learn" sessions, and a reactive rather than a pro-active attitude to mistakes, poorly

communicated important messages, and reports with limited distribution, do not shift the culture from silos to a whole, and do not contribute to stable relationships that are conducive to easing the flow of learning.

The following tables showcase some emerging indicators of the feed-forward and feedback flows of learning, arranged by participants' comments and by individual, group and organizational levels. Participants' main comments are shown in Appendix D.

Table 5-1. Indicators of the Feed-Forward and Feedback Flows

Participant	Indicator	Level
2-16	Managers:	Individual
	Open-minded	
	Interest in change	
	Listens	
	Respects staff	
	Values staff knowledge	
	Shares information	
7, 9, 13, 16	Give credit	
9, 13, 15, 16	Engage staff	
	Staff	
2, 7, 13, 14	Flexibility, readiness to learn, adjust	
4, 5, 8, 11, 14, 16	Persuasion	
4, 14, 16	Persistence	
2, 3, 6, 7, 9, 11, 16	Initiative	
2-16	Commitment to SSH	
4, 13, 14	President solicits input	
	Meetings	Group
3, 10, 16	Hallway discussions	
2-16	One-on-one/staff meetings	
2, 3, 4, 7, 10, 13, 14, 15, 16	Post mortems/Retreats/travel/social gathering	
4, 5, 7, 8, 9, 16	Brown bag lunches/Lunch discussions	
3, 5, 7, 15, 16	Reporting from meetings, conferences, training	

Table 5-1 (Continued). Indicators of the Feed-Forward and Feedback Flows

Participant	Indicator	Level
2-16	President's vision	Organization
8, 9,13	Decision-making bodies/Accountability	
5, 8, 16	Outside complaints	
6, 11, 15	Integration of technology	
4, 6, 11, 12, 15, 16	Performance appraisals	
8, 9, 13	Policy documentation	
5, 7, 9, 10, 11, 16	Dissemination of reports	
2, 3, 5, 6, 7, 10, 13, 16	Developing expertise	
7, 9, 11, 12, 13, 15	Exchange of personnel	
3, 4, 5, 7, 8, 9, 12, 13, 15	Training	

Chapter 6

Discussion

This Chapter discusses the research results based on the theoretical perspectives reviewed in Chapter 2. First, it aims to analyze employees' perceptions of the organizational change initiative and of the feed-forward and feedback flows of learning presented in the order of the interview questions. Second, the data pertaining to the feed-forward and feedback flows will be discussed based on Carroll and colleagues' (2005) identification of the embedded zones of organizational learning, namely 1) physical artefacts – equipment, databases, and documents, 2) organizational structures – roles, reward systems and procedures, and 3) people – skills, values, beliefs, and practices. Similar to Snowden's (Lambe, 2007) categorization of knowledge assets as including talent in a separate category, a sub-category termed capabilities/capacities will be included under the category of people. Third, the emerging indicators that appeared in this study to support the feed-forward and feedback flows of learning more often than others will be presented as separate new constructs of the 4I framework. Tension, which is assumed to be an inherent component in the transfer of learning (Crossan et al., 1999), but which was not targeted in the interview questions, will be highlighted whenever expressed directly or indirectly.

I. Perceptions of the Learning Flow during Organizational Change

This case study suggests that organizational renewals in government agencies may not be triggered by weak situations. Instead, as Hammer and Champy (1993) suggest, they may be provoked by ambitious and aggressive management teams, who are prepared to use their influence in order to meet the organization's present and future demands, and who seize the momentum offered by the Government's growing support for their mandate.

Strategic exercises are generally top-down initiatives conceptualized by a limited number of high-ranking employees. They trigger learning in varying degrees within the organization: those close to management learn from the experience and are aware of the changes to be implemented. However, without adequate communication of the rationale for the organizational change, its planning stages and impact on responsibilities and tasks, the remaining employees may perceive that they are peripheral to the exercise and that learning did not occur at the individual level. Other reasons for employees' disengagement from such initiatives may be that the planned changes were not actually implemented, the organization had not sufficiently disseminated the newly acquired knowledge, staff had not read the documentation pertaining to the exercise, or that the proposed changes had no effect on employees' daily work and/or the organization's culture. Employees may perceive the replacement of the management team (Lant, Milliken & Batra, 1992) during organizational renewals as the most concrete change that had occurred, especially if the initiative did not involve job loss.

II. Perceptions of the Feed-Forward Flow of Learning

The conversion of knowledge into organizational learning passes through complex processes (Crossan et al., 1999). Managers and directors (Nonaka, 1994) are perceived as the major influence that affects the feed-forward flow of learning. Persuasion (Senge, 1990) and informal channels are tools used by upper and lower ranked employees and Board members to get ideas accepted.

Structures and electronic systems, such as one-on-one meetings, less hierarchy, regular staff meetings, e-mails, and social gatherings facilitate the process. Limited dissemination of the grey literature - defined as internal government reports (MacDonald, 2007) - constitutes a huge loss of information that restricts employees' ability to sense the environment (Choo, 2006), to share new understandings and to develop interactive systems capable of foreseeing the organization's future needs (Crossan et al., 1999).

Being asked for their opinion, a willingness to learn from each other, and homogeneity in groups stimulate dialogue and debate among staff members (Berger & Luckmann, 1966; Crossan et al.; Nonaka). Group training, living common experiences, working groups (Elkjaer, 2005; Barley, 1996; Hutchins 1991), off-hours discussions or when traveling are opportunities for in-depth staff interactions (Crossan, et al., 1999; Gergen, 1999) during which members share insight and not only data (Davenport & Prusak, 1998), express aspirations, and discover each other's potential. Not openly showcasing individual success, tolerating shaky ideas and not discussing individual and collective mistakes lead to repeats of similar errors and to single-loop rather than the preferred double and deuterio-learning modes (Argyris & Schön, 2004, 1985, 1978). Defensive behaviours, practiced by high and low level employees, hinder organizational

learning, and get unevenly addressed depending on circumstances, personnel departure or external influences.

Employees may have unequal access to rich-content work environments that help them develop new vocabularies, meanings and dialogue (Berger & Luckmann, 1966; Crossan, 1999; Gergen, 1999), make their knowledge explicit, or enhance their cognitive maps (Crossan et al.). Time and work pressures prevent them from holding deep conversations that would enable collective interpretation and integration of internal knowledge.

Directors are considered the divisions' gatekeepers, they are the link within and outside their units and feed the different groups they belong to with external information. Some directors may not be interested in engaging with or enhancing the group's learning environment, because they may have the impression that not all employees need to have access to, or are interested in being apprised of available knowledge. However, this view runs counter to employees' desires to be informed of matters that encompass the whole organization, and prevents them from gaining a heightened sense of belonging. This perception confirms Nonaka's view that "middle management sometimes plays the role of change-agent for the self-revolution of the organization" (1994, p. 32) and has the responsibility to amplify tacit knowledge, especially in large organizations.

Internal documents that pertain to learning promote life-long learning but do not emphasize living common experiences, sharing understandings, and developing common vocabularies. Creativity and innovation are mentioned in the definitions of learning and organizational learning but may not be part of management's discourse.

Tension in the transfer of learning may be difficult to detect, even in organizations located in countries where free speech is exercised. Expressions such as the admission that employees are stopped when they target persons and not ideas, staff becoming frustrated and bypassing direct supervisors, meetings not being held at the unit level, shelved reports, retreats that are repeats of the same things, no engagement when ideas come from staff, limited circulation of documents and reports from conferences, meetings and training sessions, are all factors that indicate some of the unease that exists among staff members.

In summary, the feed-forward flow of learning from individuals to groups in some granting councils may be confined, and dialogue may be limited to a few individuals in upper level positions. Data and information, but not knowledge (Davenport & Prusak, 1998), could be the exchange format that employees use during their regular staff meetings. Middle management's unintentional practices may impede the transfer of learning, as well as the discovery and optimization of new knowledge. This could be the result of "leaders not maintaining continuous self-reflection to increase the quality of the knowledge created" (Nonaka, 1994, p. 27), or organizations and their personnel not acting as an interactive system and feeding on each other.

III. Perceptions of the Feedback Flow of Learning

Findings from this investigation reveal that routines are a function of divisional processes and individual behaviour, which differs from Crossan et al.'s (1999) 4I Framework which places routines at the organizational level. Conversely, because the line of communication sometimes breaks down between management and personnel

or/and among divisions, it may be inferred that it is internal communication, rather than routines, that impede organizational learning.

In cases where the channels of communication are not systematically opened (Kotter & Cohen, 2002) in the feedback flow, the learning acquired by the organization is not absorbed at the individual level (Crossan et al., 1999); in this case, the intuiting processes may be hampered by communication systems that dictate “who talks to whom” (Crossan et al., p. 533), rather than a “collective mindset ... that present[s] a formidable fortress of physical and cognitive barriers to change”. This conclusion supports Horning and Rousseau (2007) who refute the commonly held belief that employees resist change, labelling it as an outdated assumption. In addition, because agencies’ presidents tend to display openness with all staff, and because they give the perception that the organization is horizontal, they alter the popular belief that hierarchy is as overwhelming as the concept is usually thought of in government departments.

Perceptions of the corporate image may differ according to employees’ functions; in this case study, the first group depicts it as service to excellent research and the academic community, while the other group views it as commitment to quality, impact and connection, and service to the organization itself. These two images are not entirely reflective of each other’s reality, and do not include the role of the central agencies on the organization’s policies and overall governance.

Standards may vary by division, making them the responsibility of individuals rather than the sole responsibility of top management, and a function of an organization’s hiring practices (Nonaka, 1994, p. 26). In addition, not pro-actively defining challenges

and not developing measures to solve them (Goh, 2002; Nonaka, 1994) keep an organization vulnerable to unpredictable directions and do not stimulate innovation.

This research study shows that persistence is practiced by staff, as well as by Board members, in order to further their ideas. Determined individuals take initiative, suggest issues and hold several discussions until their ideas grow and become part of a group idea. Thus, independent of their status, committed individuals solidly prepare their ground so that their suggestions gain acceptance. In the case of heads of agencies and because of their authority over their inner groups, these leaders' ideas may be interpreted and integrated in the feed-forward flow; however, the institutionalization of their initiatives may depend on the Government and external stakeholders' buy-ins.

This case study confirms Crossan et al.'s (1999) statement that organizations may not actively support expertise because it makes them dependent on one person and because it can create bottlenecks if individuals outgrow their job requirements. Thus, organizations may seek generic competencies and offer in-house courses that may be below the aspirations of a few knowledge workers.

Staff may have the perception that institutional and individual goals are not aligned if the organization does not profusely demonstrate commitment to the interests of its personnel. In the long run, this may create a dichotomy in people's minds between the progresses of one at the expense of the other. Strengthening structures and policies, shifting the culture of the organization to dismantle silo mentalities, and attending to workforce retention through recognition, all create positive effects. The above is also a reminder that strengthening the internal foundations of the organization, before focussing

on external issues, may secure longer-term organizational changes (Mintzberg et al., 1998).

Interestingly, employees understand the nature of the challenges facing their organization, but do not articulate what is expected from them individually. When organizations set new goals, employees do not appear to reflect on how their own functions should be altered to help achieve these new objectives. For example, participants easily identify management stability, access to information and executives, state-of-the-art training, balance of power, and the total integration of new technologies, as essential requirements for performance but do not enquire into what they individually could do to better prepare themselves for future challenges. This leads to the conclusion that either organizations do not specify what they want from their employees, or that employees do not take a pro-active approach regarding their roles and responsibilities.

Missing in participants' narratives was the influence of directors on their divisions and their ability to integrate staff. Jones (2006) provides empirical evidence as to the roles of managers as gatekeepers, boundary spanners and change agents and identifies them as social actors who are key to the transfer of knowledge. By engaging staff and by communicating information vertically and horizontally, directors are able to increase the absorptive capacity of their organization and to accelerate the adoption of progressive endeavours. Concurrently, organizations may appear as not purposefully nourishing employees' intuition and not being actively engaged in amplifying their knowledge, even though they financially support their formal training. Management also may be pressured by time and may have "a limited information processing capacity to deal with a mass of information" (Nonaka, 1999, p. 30).

Evident in some interviews was the lack of understanding of what higher order learning can achieve and the distinction between professional and scholarly knowledge. The claim by a few participants that it takes too much time to train individuals is standing in the way of diversifying employees' experiences. A culture that combines both streams of knowledge could help encourage personnel exchange, and create an intellectual climate that instills the responsibility of sharing knowledge in all staff. In such an environment, meetings will not be a ritual but a venue to discover new meaning and goals, and where old practices and beliefs may be shattered in order to create better understanding. As Gergen (1999) tells us in a different context:

What is obviously true and good for one community is often specious or repugnant for another ... Each word, proposition, or proposal must be provisional, open to deconstruction and moral/political evaluation. With each move in discourse, a myriad of possibilities are abandoned, meanings suppressed, and life forms threatened. We are compelled to make meanings together, but each movement in meaning is also a potential death to the alternatives. (p. 221)

Participants expressed tension related to the organization not being aware of what they know, can do, and want. The perception of unfairness in some cases and response to human resources issues has negative effects on employees' morale and their willingness to share their knowledge.

In summary, the reviewed data shows that the organizational learning flows in the granting councils do not face major tension. It indicates however that the feed-forward

and feedback flows of learning could be maximized at the personal, individual and organizational levels and that more effort could be used to fulfill the vision of a knowledge council.

Constructs of Organizational Learning Flow

The 4I Framework may not have all the components to explain the dynamics of the feed-forward and feedback flows of learning and additional factors need to be added in order to produce a more complete picture of the organizational learning system. These factors are identified as indicators that facilitate the flows and are consolidated under the constructs of capabilities/capacities, skills, roles and infrastructure. Table 6.1 below, which is an extension of Table 5.1, lists the constructs and its components and is organized in parallel with the 4I Framework.

The *capabilities/capacities* construct, at the individual/intuiting level, could include indicators such as commitment, flexibility, initiative, interest to learn, and persistence. These are critical to the smooth transfer of learning and to implementing organizational structural changes because they contribute to the persistent pursuit of long-term personal and organizational goals, and to going beyond the mere fulfillment of existing roles or organizational values (Horning & Rousseau, 2007).

The construct of *skills* situated at the individual-group/interpreting level, could include components such as, asking questions, communicating, following up on objectives, listening, as well as persuading. As with the other categories, this list is not exhaustive and could include additional skills identified by Weick and Van Orden (1990).

The construct of *roles*, at the group/integrating level, could include the responsibility of, being accessible, engaging colleagues and subordinates, recognizing and respecting staff (Taylor, Abasi, Pinsent-Johnson, & Evans, 2007), sharing data, information and knowledge, being fair, giving credit where and when it is deserved, mentoring and valuing staff knowledge, and soliciting input. A role is defined as a set of behaviours that others expect of individuals in a certain context (Floyd & Lane, 2000). This incorporates the role of managers, to both promote and share knowledge amongst others, to set a tone for learning and to encourage creativity. This task is complex and depends, as Zhou and Woodman (2003, p. 633) suggest, on managers' personal characteristics (openness to experience, functional background, cognitive complexity); managers' relationship with employees (liking, trust, transactive memory, power); and organizational influences (communication openness, creativity orientation, managerial discretion, tolerance of mistakes).

The construct of *infrastructure*, at the group-organizational/institutionalizing level, could include establishing clear procedures, policies, terms of reference, following up on performance appraisals, personnel exchange and training, dissemination of reports and evaluations, and the integration of technology in future planning. Holding regular meetings - one-on-one, staff, post-mortems, retreats – and organizing teamwork, support knowledge sharing (Jones, 2006) and are key to providing incentives for the organization and groups (Reich, 2007) to collect accurate and meaningful understandings of lessons learned. Connecting with clients and peers furthers the organization's ability to acquire adequate and updated information. Establishing an infrastructure that promotes communication and an intellectual culture, based on shared beliefs and norms that merge

scholarly and professional knowledge, facilitates decision-making and reduces problems associated with governance and uncertainty (Weick & Van Orden, 1990). Moreover, creating such an environment is vital to stimulating creativity and innovation and to facilitating the exchange of knowledge. It also constitutes some of the groundwork that organizations should employ to prepare their employees for change and expansion.

To summarize, the individual components within the constructs of capabilities/capacities, skills, roles and infrastructure could better integrate the feed-forward and feedback flows of learning in the 4I Framework. They could also offer an alternative understanding to the flows as exploration and exploitation of knowledge (Crossan et al., 1999; March, 1991). The proposed constructs do not distinguish between new and possessed learning as two distinct flows, but as one that is continuously being replenished by internal (including tacit) and external (including explicit) sources of knowledge.

Table 6-1. Constructs and Indicators of the Feed-Forward and Feedback Flows

Learning Flow	Level	Constructs	Indicator
People (Intuiting Process)	Individual	Capabilities/ Capacities	Commitment Vision & initiative Flexibility Interest to learn Persistence
	Group	Skills	Asking questions Communicating Following-up on objectives Listening Persuading
Structure (Integrating Process)		Roles	Accessibility to leadership Engaging & integrating staff Recognizing & respecting staff Sharing knowledge Soliciting input
Physical Artifacts (Institutionalizing)	Organization		Reports/Evaluations/Policies Meetings
		Infrastructure	Performance appraisals/Training/Exchange Technology Terms of reference

Chapter 7

Conclusion

Based on a qualitative, instrumental case study methodology and using Crossan et al.'s (1999) Organizational Learning Framework, this research study aims to answer the following research questions: How do the employees of a granting council perceive the flow of learning during the organization's transformation into a knowledge council? More specifically, how do they perceive the feed-forward flow of learning between the individual and the group, and how do they perceive the feedback flow between the organization and the individual? This research took place at SSHRC in 2007 during a transitional phase between two different management teams. Participants' answers were for the most part retrospective but also intertwined with current and past impressions.

This research provides further evidence that hastily planned strategic renewal initiatives are rarely effective, and that changes are best adopted when they are well conceptualized and incrementally executed. This organization's concentration on external consultations left a void in the internal dialogue towards a knowledge council. Most employees felt that they were peripheral to this exercise because they were not involved in its conceptualization.

The archived documents related to the transformation of this organization validate participants' perceptions that documents produced during the organizational change may have been written for public consumption rather than for informing staff. They also confirm that organizational change initiatives need solid conceptualization before they

are launched. Some participants did not appear to have read these documents or other commissioned studies. In this sense, individuals share the blame for not having absorbed the new learning that was available.

This study leads to the conclusion that employees espouse the thinking of their organization and understand the motives behind organizational renewal, and that their mental modes can grasp and embrace these exercises, as long as the strategic and implementation plans supporting them are well defined. It also suggests that staff cannot be peripheral to organizational initiatives and that management should consider them as the first line of its sounding board.

The reviewed documents on learning promote continuous learning, preparedness for current and future job requirements, succession planning, and the development of officers' analytical and conceptual skills. In reality, as supported by participants at all levels, gaining additional skills, for example through taking part in strategic discussions or secondment experiences, may not be prevalent practices. Nonetheless, because mentoring and cross-utilization of staff occur sporadically, the learning policies cannot be considered as espoused theories only but theories-in-use as well, albeit promulgated by individual initiative rather than a regularly practiced organizational planning tool.

The semi-structured interviews have shown as well that there are no significant discrepancies in this organization between its theories-in-use and espoused theories (Argyris & Schön, 1978) and that tension does not flare-up unless sparked by personality traits. Single-loop learning is used in the administration of the organization, with double-loop learning occurring at the creation and introduction of new programs and technologies, or during retreats and post-mortems. Whether or not deutero modes of

learning were in practice during the transitional period could not be verified from the limited data collected.

This investigation leads one to conclude that the techniques used to spread and to level knowledge throughout the granting councils is not being uniformly applied. In addition, some factors were identified as possibly furthering or hindering organizational learning, and ultimately obstructing creativity and innovation as well. These are discussed in the next sections as constructs that may complement the 4I Framework and constitute this study's contribution to theory and practice.

Contributions to Theory

This study provides a better understanding of organizational learning by presenting empirical data that tests and validates theories already established in this field. It also forms a link between the organizational learning and organizational change literatures and offers tangible examples of employees' perceptions regarding renewal exercises. Studies in these domains have traditionally lacked substantiation from real life events in order to protect confidentiality or the employers' image.

This research contributes to theory by building on organizational learning theories (Larsson, 1998). It identifies components of constructs that could lead to a better conceptualization of Crossan et al.'s (1999) feed-forward and feedback flows. Although neither exhaustive nor exclusive, these could be positioned at the three organizational levels and the 4I processes.

At the individual level, the construct of capabilities/capacities may include commitment, flexibility, initiative, vision, interest to learn, and persistence. Openness to

learn and flexibility facilitate the acquisition of new ideas. Initiative, vision and commitment to work boost the intuitive process. Persistence keeps employees engaged and, at the same time, protects them from organizational disruptions and tension.

At the group level, the construct of skills enables the interpreting process. Numerous skills are needed for individuals to understand each other because employees may be too busy or may not share the same conceptual maps to initially comprehend new propositions. Asking, communicating, listening, following-up on objectives, and persuading (Senge, 1990) are some of the skills required to boost the flow of learning, and individuals who possess or who acquire them are better positioned to defend their ideas and to secure protection from decision-makers (Crossan & Berdrow, 2003).

The construct of roles is situated between the group and organizational levels. Roles contribute to channeling the flow of learning: being accessible, raising issues, engaging, integrating and recognizing staff, valuing staff knowledge, and being fair, especially for high ranking employees, facilitates the integration process. The flow of learning cannot expand if numerous staff members do not perceive that they are integrated into their group and the organization. Directors have a catalyst function in this endeavour because they have a sealing effect on their divisions as they can encourage their staff to share good practices. They are also the official and the most important link to channel learning inside and outside divisions. As such, they play a significant role and are a driving force in thinking strategically, and in inspiring and engaging people (Floyd and Lane, 2000), especially during critical episodes in the life of an organization.

At the organizational level, the construct of infrastructure includes continuous staff development through formal and informal training, staff exchange, and monitoring

of performance appraisals, the establishment of clear terms of reference, meetings, policies and procedures, and reporting mechanisms. These strengthen the flow of learning and institutionalize the acquired knowledge. This research study has revealed that routines are often set at the personal or divisional levels and do not obstruct the learning flow. Instead, communication constitutes a barrier to spreading knowledge and the more the process is structured, the better the diagnostic systems operate. The use of more technology (Goh, 2002) is highly desirable for the transfer of learning but its mere use is not sufficient; what is mostly needed is an infrastructure that takes full advantage of technology to integrate the infinite possibilities it offers to spread and to retain knowledge and to outreach as far as possible.

In addition, living common experiences is important to developing new meaning but would not be sufficient to building common understanding, especially in knowledge-based organizations. Rational decision-making has to be based on thoroughly understanding the issues from multiple perspectives. This is why scholarly and professional knowledge need to merge (Hirschhorn & Geelan, 2008) in order for employees to better understand each other, to infiltrate mental models and to conceive new realities that move learning across organizational levels and categories. Also, the silo mentalities can be traced back to employees not possessing the depth and breadth of knowledge necessary to perform effectively in 21st century granting institutions. This leads one to believe that the separation between theoretical and practical knowledge cannot be maintained, and that a grasp of both is paramount for the smooth flow of learning.

Implications for Practice and Policy

The findings of this research study lead to many practical conclusions. The idea “that organizations think” (Gergen, 1999, p. 136), or the reification of organizations, is not in doubt. However, the concept of corporate consciousness may be wishful thinking. Instead, individuals should consider organizations as neutral entities and should take the initiative to influence others until their ideas become integrated and institutionalized. Moreover, hierarchy may be part of an exaggerated belief system because, as this research has shown, all working individuals regardless of their status have to make efforts in order to have their suggestions and interests adopted. This validates the Post-structuralism understanding of power as being diffused, “residing not in a structure or a person but in a set of relationships, with no exact location and being neither malevolent, nor mystifying” (Gergen, 1999, p. 207). This understanding implies that employees need to navigate the maze of relationships to achieve their personal objectives.

Directors have the most important roles in transferring learning because they are the bond between the operational and the strategic elements of an organization (Jones, 2006). Corridor discussions or on-the-spot suggestions during meetings may be an insufficient means by which to integrate opinions because the vast amount of information that management deals with may prevent them from absorbing the impact of the recommendations.

Time should also be understood as an important factor in determining the transfer of learning. Not only does it have an impact on the maturation of ideas, but it also has an influence on workload and on people’s ability to listen when they are under pressure to carry out their numerous responsibilities. As such, employees need to initiate activities

that better demonstrate their aspiration to grow, and they also need to be persistent despite setbacks they may face. Moreover, although standards are nurtured by institutional and personal values and practices, they are also a reflection of an organization's hiring practices (Nonaka, 1994). Consequently, they are a factor in the fluctuation of the learning flow and feed it depending on who is in charge.

Another implication for practice is what Larsson (1998) terms the “pragmatic criterion”. For this author, research involves including practical-hermeneutical dimensions that aim to improve communication and create dialogue and platforms for understanding between people - a goal that the current study has indirectly supported through its use of qualitative research. This project may also provide grounds for emancipatory understanding (Larsson) that challenges the belief of government bureaucracies as hierarchical blocs administered by unquestioned routines and procedures.

Finally, the contribution of this study to the literature and to practice may be in its discovery that government agencies, despite being at arms length from the Government, do not have free reign to launch drastic transformations without its full support. Agencies depend on the Government's buy-in for the operationalization of their new directions (Boyne & Walker, 2002), and as such, they need to provide solid proposals for them to be funded, just as employees or researchers do.

Limitations

Triangulation techniques were to be used to secure the trustworthiness of data collected from the semi-structured interview questions, the documentation and archival

analysis, and indirectly through my observations of the workplace. However, the documents reviewed in relation to the transformation exercise did not supply sufficient information about the triggers of the transformation and the discussions that took place at the management table. Moreover, a mixed-method approach may have provided added support to the results of this study as quantitative data better indicate the exact number of individuals who hold similar perspectives. Notwithstanding these gaps, the large number of participants that represented all divisions at the organization offered a comprehensive picture of the research site.

This research would have benefited from the participation of the former president, vice-president and past directors of SSHRC whom I did not contact in order to spare them any feelings of regret or unease they may still have toward the transformation process. Also, two key employees, whose input could have brought better understanding of the renewal exercise and the learning processes, did not answer my e-mail requests to participate in the study.

Another limitation to this study is the probability that some participants had prepared tactful answers to the questions sent in advance of the interviews, and thus, their true perceptions of the learning flows may not have been accurately reflected. Although this may have been a possibility, there was no indication during the conversations that participants had planned elaborate comments that hid their actual knowledge of the work setting. Also, as no attempt was made to interview dissatisfied employees, an additional limitation to this research may be the lack of a measure of the depth of existing tension in the work setting. This lacuna is important although not critical because the examination

of tension is not the focus of this research project and is considered a derivative of the phenomenon under study.

I acknowledge an important gap in the research in that the transcripts were sent to participants for member check but not for respondent validation of my interpretation. This would have provided added support to the rigour of the methodology used. However, it was difficult to follow this procedure because although a consensus may have emerged in the overall findings of the study, some interpretations were bound to offer different directions, depending on each participant's position. These directions may not necessarily eliminate each other, as Popper (1999) would like to achieve in scientific enquiries. Larsson (1998) justifies not following this triangulation technique in qualitative research because texts may be interpreted from many individual perspectives and because realities are multiple.

My status as student-researcher and program officer at SSHRC, with a number of tacit observations, may constitute a limitation to this study because of the choices I made regarding the raw data that was reported. As such, it is difficult to measure the degree of bias despite my intention to view the work setting as an outside entity. However, the complexity of the task at hand and the duty to follow rigorous and objective research methodologies mitigated any subjective thoughts I may have had.

Once again, it is necessary to reiterate that I undertook this study during a period of transition at SSHRC, which followed a complete change of the higher management positions of president, vice-presidents and directors. As such, it was sometimes difficult to ascertain if participants' reflections were based on their perceptions and memories of the previous administration and if they were attaching their emotions onto the new

executives, without taking into consideration possible variations between these two management teams. However, this could be interpreted as an added strength of the current study because it may lead to an investigation of whether or not perceptions inherited from previous managements prevail until evidence of change is demonstrated with new teams of executives.

This research may also be criticized for appearing as an evaluation of the granting council or a study in the field of learning organizations. This is perhaps unavoidable in an investigation that shares the characteristics of practitioner inquiries, which are unable to completely separate the identity of the researcher, the methods used and the characteristics of the research site. Moreover, as Johnson, Beaty and Farmer (2007) note, researchers using qualitative methodologies are active learners who tell the story from participants' views and who understand knowledge as "knowledge of the self, knowledge gathered and knowledge of the context in which it is studied". Therefore this research study reflects participants' words, beliefs, and to a certain extent, the researcher's hope that it will bring improvement to their work setting.

Lastly, it is important to emphasize that it would be desirable to generalize from the findings of this research. However, as Stake (2000) and Larsson (1998) argue that, for case studies, one can at most aim for generalizations by which readers are able to relate the findings of an investigation to its usefulness and relevance outside a particular case's context.

Future Research

This study may lead to further research in a variety of directions. The first question to ask is “How is an organisation’s underlying tacit vision related to the success of its renewal exercise?”. Transforming tacit visions into common vocabulary may play an important role that has not yet been sufficiently investigated in the organizational change literature. Using narratives, such research would entail interviewing executives who have led successful and unsuccessful organizational changes in order to investigate the extent to which their vision was formulated and applied. The study of tacit knowledge needs to be undertaken from psychodynamic/behavioural perspectives and would benefit employees who have visions and yet do not know how to convey them to produce the desired effect.

Second, this research may lead to investigating tension in public sector workplaces. Tension was not directly addressed in the interview questions of this research study in order to avoid alienating potential participants; however, future studies need to be undertaken in unfamiliar settings in order to explore how deeply employees feel tension and how much of it they hide. Unless it contravenes the Privacy Act, a qualitative research study could be done with individuals who were on stress leave in order to explore the nature of the tension they felt and its impact on their relations with their jobs and colleagues.

Another area of enquiry could investigate the factors that make individuals disinterested in organizational change. A question to ask for example is “What is the root causes of employees’ aloofness towards their work?” especially that it is a setting in which they spend much of their conscious time. Through the use of surveys and focus

groups methods, future research could lead to a better understanding of work commitment and its role in performance.

A fourth interesting area to investigate is the reason why some individuals share information and others do not. The findings of the present study suggest that the spread of knowledge is unequal, for reasons that were not explored but also because of negligence of its effect on integrating and inspiring staff. This research could also create a link between the role of ethical positions and standards for which there is a current lack of understanding (Scarbrough, Robertson, Swan & Nicolini, 2007). Based on the assumption that inspirational leaders are the ones who take the time to transfer their knowledge, and using a mixed-method approach, this type of research question would ask individuals about the characteristics of colleagues who have inspired them. This question is of importance to young individuals who are attracted to work in the public service.

Fifth, in future research I would investigate why support personnel are not comfortable participating in research projects, and how they conceptualize personal agency (Taylor et al., 2007). Is it because they have lost hope and they do not expect their knowledge to contribute to the overall management of the organization? An investigation of this nature may best be undertaken from a feminist approach.

Sixth, this research study has shown that some units are better than others in of their use of communication tools. It would be interesting to use the Employee Surveys that the federal and provincial governments conduct and ask individuals working in organisations that have better results than others to describe characteristics of good communication, how they are maintained, and whether the line of communication is a monologue rather than a dialogue. Qualitative research undertaken across a number of

agencies could provide some indication on the processes that ensure satisfactory vertical and horizontal lines of communication, as well as the nature of the inhibitors to the flow of learning.

Seventh, preliminary findings of the current study reveal that employees' perceptions of a succession management team may remain the same as towards the former team until they see a change that convinces them of the two different management styles. Conducting a historical research that asks employees at what point they started to see real differences and whether these were qualitative, rather than demonstrated in profits, would necessitate going to several organizations which went through an organizational change. Changes are usually incrementally felt but the style of leadership may tell of the changes that later on materialize.

Eighth, this study may be replicated with a focus on executives in order to explore their perceptions of how they were aided by their personnel. A question such as "Did your colleagues help you achieve your vision?" would focus on the efforts employed from the bottom up to implement management's objectives, putting the focus on the upward move that supported the organization's renewal. This research would focus on individuals' and groups' contribution to bringing about change, as the current research findings revealed that employees waited to receive directions regarding changes to their jobs rather than take proactive steps towards defining their positions' future goals. Future research in this area would use a mixed method approach to evaluate staff efforts measured in the number of actions taken and the moral support received.

Ninth, the components found in the current study to explain the learning flows ought to be developed further. For example, of the many identified in this research which

indicators could be investigated quantitatively or qualitatively? A meta-analysis could need to be conducted to validate the constructs and to choose the ones that could be used to evaluate organizational learning preparedness. Following this meta-analysis, the research should be replicated in other organizations and in contexts where there were no transformations.

Tenth, the empirical definitions of capabilities and capacities and the difference between the two could also be investigated. If these are being included in organizational learning, more research should be done to expand the field beyond its investigation of processes and to enquire which capabilities or capacities could be further conceptualized, measured and validated.

Eleventh, future research should investigate if the distinction between the two flows of exploration and exploitation can be maintained if we were to measure the constructs pertaining to these flows. A methodology using surveys and scenarios could be employed to validate the findings of the current study. This research would be of benefit to those enquiring into measuring the impact of organizational learning on performance.

Twelfth, the research findings suggest that routines do not play the important role that is usually ascribed to them. Future research could concentrate on the positive and negative effects of routines, how they affect culture, and if they help maintain the values incrementally acquired in the history of an organization. A historical study could be done with individuals who have been with an organization for more than 10 years, in order to enquire as to how some routines have started and the contributing effect of each on organizational output.

Finally, as noted by Participant 14, the Internet has revolutionized the world of knowledge by democratizing it. Therefore, it would be beneficial to examine public servants' perceptions of their role in this regard, how they may be affecting the learning flow on a large scale, and how they could become members of a worldwide creative class (Florida, 2002). A comparative study of public servants from developing countries could also be undertaken to further understand their perceptions of their impact on the learning flows within their own circles.

As a final thought, if this research study has any messages, the main one is that individuals, groups and organizations share equal responsibility in transferring their learning and knowledge so that real dialogue can be established at all levels.

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APPENDIX A

Request for participation

E-mail - Subject: Confidential

Dear xx,

As you know, I work in the Research and Dissemination Grants Programs Division. I am also a student at the University of Ottawa, preparing an MA thesis entitled:
Understanding organizational learning at the granting councils.

Organizational learning is the field of study that investigates how learning and the transfer of knowledge occur within organizations. Learning starts at the individual level; it becomes organizational when knowledge is embodied in 1) physical artifacts - equipment, databases, and documents, 2) in organizational structures - roles, reward systems, and procedures, 3) and in people - skills, values, beliefs, and practices.

I would like to invite you to participate in my research. My objective is to conduct qualitative research through individual, face-to-face interviews with 15 SSHRC employees and two Board members. The information you will provide will be dealt with anonymously and none of the responses will be disclosed to supervisors or other co-workers.

This request is written in English on the assumption that you are Anglophone, however, we could conduct the interview in the language of your choice. Attached you will find a bilingual list of the interview questions, as well as the Consent Form that certify that your identity will not be revealed. The interview is to last an hour and will be tape-recorded with your permission. It will be held during lunch hour or after working hours and in a private place of your choosing.

If you agree to participate in my research thesis, please note that you can withdraw from it at any time before, during or after the interview and that the data will be destroyed at once. Once you receive a copy of the transcript, you could advise me of any changes you wish to bring to it within 10 days of its receipt.

Thank you for your cooperation. I would appreciate receiving your answer, whether you are able to participate or not, as soon as possible.

Nouhad Hammad
Program Officer
Tel. 992-5146
Office: 1027

Requête pour participation

Courriel - Objet: Confidentiel

Bonjour,

Comme vous savez, je travaille dans la Division des programmes de subventions de recherche et de diffusion de la recherche. Je suis aussi une étudiante à l'Université d'Ottawa, et je prépare une thèse de maîtrise intitulée : « Understanding organizational learning at the granting councils ».

L'apprentissage organisationnel est un champ d'étude qui explore comment l'apprentissage et le transfert du savoir se produisent dans les organismes. L'apprentissage commence au niveau individuel et devient organisationnel quand la connaissance est incorporée dans 1) les objets – équipement, bases de données, documents, 2) dans les structures organisationnelles – rôles, systèmes de récompense, procédures, 3) dans les individus – habiletés, valeurs, croyance, pratiques.

Je voudrais vous inviter à participer à ma recherche. Mon but est de faire une étude qualitative, à travers des entretiens face à face avec quinze employés du CRSH et deux membres du Conseil. L'information que vous fournirez sera traitée d'une façon anonyme et vos réponses ne seront révélées ni à vos superviseurs, ni à vos collègues.

Cette requête est écrite en français car je pense que vous êtes francophone; cependant nous pourrions utiliser la langue de votre choix durant l'entrevue. Ci-joint, vous trouverez une liste bilingue des questions de l'entrevue ainsi que le Formulaire de consentement qui certifie que votre identité ne sera pas révélée. L'entrevue durera pendant soixante minutes et sera enregistrée sur bande magnétique avec votre permission. Elle aura lieu à l'heure du lunch ou hors des heures du travail et dans un endroit privé qui vous conviendrait.

Au cas où vous accepteriez de participer à ma recherche de thèse, veuillez noter que vous pourrez vous en retirer à n'importe quel moment, avant, durant ou après l'entrevue et que les données seront détruites immédiatement après. Une fois que vous aurez reçu une copie de la transcription, vous pourrez m'avertir de tout changement que vous aimeriez en apporter dans les dix jours qui suivront.

Merci de votre collaboration. Je vous prie de me laisser savoir aussitôt que possible si vous êtes ou si vous n'êtes pas en mesure de participer.

Nouhad Hammad
Agent de programme
Tel. 992-5146
Bureau : 1027

APPENDIX B

Interview Questions

Questions not sent to participants before interviews

I. The Transformation

- A. Could you tell me a story about the transformation of the Council?
- B. Could you identify a document that is related to the transformation?
- C. Do you have the perception that any of these led you to a process of learning?
- D. What about other staff members?

IV. The Future

- E. What are the three major challenges for the future?
- F. What factors will facilitate or impede your ability to deal with these challenges?

Wrap-up

- G. Are there other areas that we have not covered that you feel are important?

Questions sent to participants before interviews

II. The Feed-Forward Flow

1. What helps individuals bring forward their ideas and opinions to their divisions?
Can you give an example?
2. Are individuals encouraged to make their knowledge known to their divisions? If yes, how? Can you give an example?
3. What do divisions use to capture individuals' new ideas or suggestions for improvements? Can you give an example?
4. What processes do divisions use to debate propositions suggested by individuals?
Can you give an example?
5. Do individuals provide to their divisions conclusions or reports from meetings and conferences? Could you explain?
6. What kinds of learning experiences do you have with your division colleagues?
Can you give an example?
7. Does your division celebrate successes, does it discuss mistakes, if so, how?
8. Do members of your division use dialogue to solve differences of opinions? If yes, how? Can you give an example?

III. The Feedback Flow

9. How does the organization help individuals to reflect on routines and policies? Can you give an example?
10. Does the organization promote a corporate image that individuals share? If yes, what is it?

11. How does the organization reach to individuals to share standards and visions? Can you give an example?
12. Does the organization solve problems in a timely way? Can you give an example?
13. Does the organization offer a variety of work experiences to individuals? Could you explain?
14. Does the organization cultivate and maintain individuals' expertise? Could you explain?
15. Does the organization facilitate or hinder new ideas to emerge at the individual level? Can you give an example?
16. Do you think individuals are committed to the idea of a knowledge council? Could you expand?

Questions de l'entretien

Questions non pas envoyées aux participants et participantes avant l'entretien:

I. La transformation

- A. Est-ce que tu peux me raconter une histoire à propos de la transformation du Conseil?
- B. Est-ce que tu peux identifier un document qui a un rapport avec la transformation?
- C. Est-ce que tu as l'impression que cette histoire ou ce document t'ont amené à un processus d'apprentissage?
- D. Est-ce que c'est aussi le cas pour les autres membres du personnel?

IV. Le future

- E. Quels sont les trois principaux défis du Conseil ou de la division, soit pour les prochaines années ou le future?
- F. Quels facteurs faciliteront ou empêcheront ton habilité à rencontrer ces défis?

Pour terminer :

- G. Est-ce qu'il y a autres domaines que nous n'avons pas couverts et qui, à ton avis, sont importants?

Questions envoyées aux participants et participantes avant l'entretien:

II. Le flux vertical

1. Qu'est-ce qui aide les individus à présenter leurs idées et leurs opinions à leur division? Donnez un exemple.
2. Est-ce que les individus sont encouragés à révéler leurs connaissances à leur division? Si oui, comment? Donnez un exemple
3. Que fait votre division pour capter les nouvelles idées et les progrès apportés par les individus? Donnez un exemple.
4. Quels processus sont utilisés par votre division pour débattre les propositions suggérées par les individus? Donnez un exemple.
5. Est-ce que les individus présentent à leurs divisions leurs conclusions ou des rapports après avoir assistés à des réunions et conférences? Expliquez.
6. Quelles expériences d'apprentissage partagez-vous avec vos collègues de votre division? Donnez un exemple.
7. Est-ce que les succès sont célébrés par la division? Est-ce que les fautes sont discutées par la division? Si oui, comment? Donnez un exemple.
8. Est-ce que les membres de la division utilisent le dialogue pour résoudre les différences d'opinions? Si oui, comment? Donnez un exemple

III. Le flux descendant

9. Comment est-ce que l'organisation aide les individus à réfléchir sur les routines et politiques? Donnez un exemple.
10. Est-ce que l'organisme promouvoit une image corporative que les individus partagent? Si oui, quelle est-elle?
11. Comment est-ce que l'organisation communique avec les individus pour établir des standards et développer des visions? Donnez un exemple.
12. Est-ce que l'organisation résout les problèmes à temps? Donnez un exemple.
13. Est-ce que l'organisme offre une variété d'expériences de travail aux individus? Expliquez.
14. Est-ce que l'organisme maintient et cultive l'expertise individuelle? Expliquez.
15. Est-ce que l'organisation facilite ou empêche les nouvelles idées des individus à se développer? Donnez un exemple.
16. Est-ce que vous pensez que les individus se sont appropriés l'idée d'un conseil du savoir. Élaborez.

APPENDIX C

Université d'Ottawa • University of Ottawa

Faculté d'éducation

Faculty of Education

Consent Form

Title of thesis: **Understanding organizational learning at the granting councils**

Thesis Supervisor: Dr. Marielle Simon, Faculty of Education
(613) 562-5800 x 4145; marielle.simon@uottawa.ca

Student researcher: Nouhad Hammad, University of Ottawa,

Invitation to participate: I am invited to participate in the above mentioned research conducted by Nouhad Hammad and Marielle Simon in preparation for an MA thesis.

Objective of the Study: The goal of this research is to examine how the flow of learning occurs at SSHRC between the individual and the group and between the organization and the individual during its transformation into a knowledge council. The outcome of this thesis will be an understanding of the organizational learning flow at SSHRC.

Participation: My participation will consist essentially of a 60-minute, individual face-to-face interview during which I will be asked questions about key components of organizational learning. The interview will be conducted in the language of my choice. A bilingual list of questions is provided in an attached document.

The interview will be scheduled at my convenience, during lunch hour or after working hours, and will be held in a private place of my choosing. It will be tape-recorded with my permission. Once I receive a copy of the transcript, I will advise the student of any changes I wish to bring to it within 10 working days of its receipt.

Benefits: My participation in this study will help the student to fulfill the requirement of the MA degree. The research will benefit the field of Organizational Studies in Education and will contribute to providing empirical data on the learning flows in a granting council during its transformation into a knowledge council.

Confidentiality: The information I will share will remain strictly confidential and will be known only the student, and the Thesis Supervisor after removing all personal information. The contents of the interview will be used for academic purposes only. I do not expect to provide any private information, and if this happens inadvertently, the student will respect the confidence that I have entrusted her with.

Anonymity: When possible, data will be presented in an aggregate form in the thesis and fictitious names will be assigned to participants in the case where verbatim responses are offered. Anonymity will be further protected by not providing relevant attributes within the thesis and in future official or informal discussions.

Emotional Risks: The risks of this research are minimal. Some responses may trigger unpleasant memories but no personal information will be sought or probed.

Conservation of data: The data collected from the tape recording of the interviews and transcripts will be kept in the student's home in a locked filing cabinet and/or under password protected computer programs. All documents and tapes that identify the participants will be destroyed five years after receiving the MA degree.

Publication of thesis: The thesis will be published according to the University of Ottawa's regulations.

Voluntary Participation: I am under no obligation to participate and if I choose to participate, I may withdraw from the study at any time and/or refuse to answer any questions, without suffering any negative consequences. Should I decide to withdraw, the data I provided will be destroyed at once.

Acceptance: I, _____, agree to participate in the above research study conducted by Nouhad Hammad of the Faculty of Education, University of Ottawa, under the supervision of Dr. Marielle Simon.

If I have any questions about the study, I may contact the the student at (613) 996-2569 or Thesis Supervisor at (613) 562-5800 (extension 4145).

If I have any ethical concerns regarding my participation in this study, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland Street, Room 159, (613) 562-5841 or ethics@uottawa.ca.

There are two copies of the consent form, one of which is mine to keep.

Participant's signature:

Date:

Student's signature:

Date:

Université d'Ottawa • University of Ottawa

Faculté d'éducation

Faculty of Education

Formulaire de consentement

Titre du projet: Understanding organizational learning at the granting councils

Nom du superviseur : Marielle Simon, Faculté d'éducation
(613) 562-5800 x 4145; marielle.simon@uottawa.ca

Nom de l'étudiante : Nouhad Hammad, Université d'Ottawa

Invitation à participer: Je suis invité(e) à participer à la recherche susmentionnée, menée par *Nouhad Hammad et Marielle Simon* dans le contexte d'une thèse de maîtrise.

But de l'étude: L'étude a comme but d'examiner comment le transfert du savoir se produit au CRSH entre l'individu et le groupe et entre l'organisation et l'individu au cours de sa transformation en un conseil du savoir. Le résultat de la thèse de maîtrise prendra la forme d'une compréhension approfondie du flot de l'apprentissage organisationnel au CRSH.

Participation: Ma participation consiste principalement à m'entretenir, individuellement et en face à face durant une période de soixante minutes pendant laquelle je répondrai à des questions se rapportant à des thèmes clés de l'apprentissage organisationnel. L'entretien aura lieu dans la langue de mon choix. J'ai accès à une liste bilingue des questions, fournie dans un document ci-joint.

L'entretien aura lieu selon ma disponibilité, c'est-à-dire durant l'heure du lunch ou après les heures du travail et dans un endroit privé de mon choix. Notre conversation sera enregistrée sur bande magnétique avec ma permission. Une fois que je recevrai une copie de la transcription, j'aviserai l'étudiante de tout changement que je voudrai y apporter dans les dix jours ouvrables qui suivront.

Bienfaits: Ma participation à cette recherche aura pour effet d'aider l'étudiante à remplir les exigences de sa thèse de maîtrise. Elle aura des bienfaits aussi sur le domaine de l'administration éducationnelle et contribuera à fournir des données empiriques sur le flot de l'apprentissage dans un conseil subventionnaire en période de transformation en un conseil du savoir.

Confidentialité: J'ai l'assurance de l'étudiante que l'information que je partagerai avec elle restera strictement confidentielle et sera connue d'elle et de sa superviseure après avoir enlevé toute information personnelle. Je m'attends à ce que le contenu ne soit utilisé que pour des buts académiques et que la confidentialité sera respectée si par hasard de l'information personnelle est échangée.

Anonymat : L'anonymat est garanti de la façon suivante : si possible, les données seront présentées en totalité dans la thèse et des noms fictifs seront assignés aux participants dans les cas où des réponses doivent être rapportées mot à mot. L'anonymat sera protégé aussi en ne fournissant aucun attribut personnel, soit dans cette thèse ou dans toute discussion officielle ou informelle.

Risques émotionnels: Les risques de cette étude sont minimaux. Quelques réponses pourraient susciter des souvenirs déplaisants mais aucune information personnelle ne sera demandée ou examinée en profondeur.

Conservation des données: Les données recueillies, soit celles sur papier et celles sur support électronique - bandes magnétiques, questionnaires, notes, seront protégées de façon sécuritaire au domicile de l'étudiante dans un classeur sous clef et/ou avec des mots de passe dans les logiciels. Tous les documents et les bandes magnétiques seront gardés jusqu'à cinq années après l'obtention du diplôme de la thèse de maîtrise. Ils seront ensuite effacés et complètement détruits. Les données sur l'ordinateur n'identifieront pas les participants et seront effacées durant les cinq années qui suivent.

Publication de la thèse : La thèse de maîtrise sera publiée selon les règlements de l'Université d'Ottawa.

Participation volontaire: Ma participation à la recherche est volontaire et je suis libre de me retirer en tout temps, et/ou de refuser de répondre à certaines questions, sans subir de conséquences négatives. Si je choisis de me retirer de l'étude, les données recueillies jusqu'à ce moment seront détruites immédiatement après.

Acceptation: Je, _____ accepte de participer à cette recherche menée par Nouhad Hammad de la Faculté d'éducation, Université d'Ottawa, laquelle recherche est supervisée par Marielle Simon.

Pour tout renseignement additionnel concernant cette étude, je peux communiquer avec l'étudiante au (613) 992-5146 ou sa superviseure au (613) 562-5800 (poste 4145).

Pour tout renseignement sur les aspects éthiques de cette recherche, je peux m'adresser au Responsable de l'éthique en recherche, Université d'Ottawa, Pavillon Tabaret, 550, rue Cumberland, salle 159, Ottawa, ON K1N 6N5, Tél.: (613) 562-5841, Courriel: ethics@uottawa.ca

Il y a deux copies du formulaire de consentement, dont une copie que je peux garder.

Signature du participant(e):

Date :

Signature de l'étudiante :

Date :

APPENDIX D

Synopses of Participants' Responses

(Refer to Appendix B for interview questions)

Table A D.1. Question A & B - The Transformation: Story & Documentation

P.	Description
2	Business as usual, friendlier place with new president/NA
3	Swift effect of M. Piper's speech/From Granting Council to Knowledge Council.
4	Evolution, already a knowledge council/Strategic Plan.
5	Debates, decision-making, conceptualization/Strategic Plan.
6	Publicize or perish, Piper's Killam lecture, doubts about requested budget.
7	Observers' role, excitement at the beginning/Strategic Plan.
8	Change came from hiring NSERC staff/Many documents.
9	Change in culture with new executives, new set of goals.
10	Heightened efforts, page is now turned/Three documents named.
11	Transformation too broad, shifting away from knowledge/Lengthy e-mails.
12	Vivid memory of the former president's speech and researchers' exposition.
13	No appropriate closure, confusion/New and previous documents.
14	Incrementally building programs responsive to society/Documents for public.
15	Confusion of director/Consultation documents, knowledge council documents.
16	Pause, shift to research dissemination, translation, co-production/Strategic Plan.

Table A D.2. Questions C & D - Process of Learning for Self and Others

P.	Description
2	NA
3	Yes, there was some learning but employees had an observer's role.
4	Tremendous learning, testing assumptions, proactive, setting new targets.
5	Great deal of learning/Greater effort to include the outside community.
6	Leadership/staff knew about the process, empathetic to knowledge mobilization.
7	No learning/Tremendous learning for those involved but no dissemination.
8	Process of thinking but no impact on work.
9	No learning, more information is shared nowadays.
10	No new learning/Same for colleagues.
11	No learning/no input was sought.
12	No learning/Perhaps some for those involved.
13	Learning for those involved/Questioning regarding practical impact.
14	Ongoing, awareness of how government works, listening, framing what you say.
15	Broadened dialogue/Hard to say for others.
16	Representation, design of program, distilling, analyzing.

Table A D.3. Question 1 - Ideas and Opinions

P.	Description
2	Staff meetings, one-on one with supervisor.
3	Open -minded managers, post-mortem, culture of consultation.
4	Meetings at different levels, asking, listening, staff going directly to executives.
5	Informal channels, individual medium, staff to director, brown bag lunches
6	Management that validates staff, people like their job, not afraid to make suggestions.
7	Managers making space for staff, individuals willing to learn from each other.
8	Respect, security, opportunity to express ideas in meetings.
9	Management's openness, repeated invitation for opinions, investigating rationale.
10	Staff meetings, e-mails.
11	No staff meetings, individuals provide ideas without being solicited.
12	Serious quests for opinions, homogeneity in groups, resentment for outsiders.
13	Open dialogue management style, different regularly scheduled meetings.
14	President calling members before each Board meeting.
15	Supervisors truly interested in change.
16	Being asked, rewarded; brainstorming, retreats provide opportunities to share interests.

Table A D.4. Question 2 - Explicit knowledge

P.	Description
2	E-mails for input.
3	Informal, mentoring of new employees.
4	Leadership, safe environment, comparison, permanent forum, agenda items.
5	Director sees senior and junior staff as primary sources of ideas.
6	Team players, no competition, same institutional objectives.
7	Presentations, acknowledgement of previous experience.
8	Meetings, presenting, assisting in special projects.
9	Do not find out about people's knowledge until something comes up.
10	No interdiction to speak up, no one refuses to listen.
11	Ideas are listened to and put into application.
12	No interest for others to listen.
13	It is an expectation to be proactive, retreats.
14	Opportunities within and outside Council meetings.
15	No scope to talk or to bring that kind of knowledge, no engagement at that level.
16	Could be improved; senior officers take the initiative and work ideas up the ladder.

Table A D.5. Question 3 - Capturing Ideas and Suggestions

P.	Description
2	No formal mechanisms, ideas get stewed first.
3	Post-mortem, special projects, ad hoc consultations.
4	Meetings, retreats, setting objectives, performance appraisal, feedback.
5	No sophisticated learning strategies yet, ideas are not captured in a systematic way.
6	Ongoing training, ideas implemented in the next competition.
7	Meetings, e-mail, documentation if going outside unit, informal through director.
8	Writing background of issue, objectives, options, preferences, taking up the hierarchy.
9	Discussion, trial, formal documentation if going outside division.
10	Minutes for important meetings.
11	No formal process for capturing suggestions.
12	Meetings are opportunities to check on tasks.
13	Solutions to problems documented; dialogue and collaboration engrained in the culture.
14	Working committees, in camera session, after president's speech, social contexts.
15	Suggestions are implemented after post-mortem.
16	Challenge is to work on ideas in the midst of other requirements.

Table A D.6. Question 4 - Debating Propositions

P.	Description
2	Meetings, e-mails, 20 programs to manage.
3	Open door policy, meetings.
4	During meetings, agenda are used to focus on tasks and as an action list.
5	Bi-weekly staff meetings.
6	Hierarchy in discussing work issues.
7	Informal, real exchange, meetings, e-mails, documents.
8	Formal documentation, including background, processed up the hierarchy.
9	Context, alternatives, impact, consultation, minutes.
10	Public documents raise debates, decision-making with those involved.
11	No formal process or structure.
12	No debate, rather presentations.
13	Documents for new projects, newsletter relaying management messages.
14	Pre-determined by agenda, if something comes up, it will be sent to committees.
15	No process or engagement when ideas come from individuals.
16	Need to have special meetings or briefing pages.

Table A D.7. Question 5 - Providing Conclusions

P.	Description
2	Not often, some in staff meetings, interesting to hear about standing committees.
3	Not often, reports on university visits, some from courses taken.
4	2-page report of training, objectives and incentive for participation, interest to others.
5	No formal mechanisms for circulation, time issue, director's decision.
6	University visits, reporting during monthly divisional meetings, not to assistants.
7	Presentations, templates for meetings.
8	Reports from university visits and central agencies.
9	Reporting on conferences and courses only to those who may be interested.
10	Not often, talk about conferences in the context of other issues.
11	Reports are not received.
12	Reports are not received.
13	Depending on how widely representative the conference is.
14	Determined by executive vice-president or relevance of issue.
15	University visits, conferences, standing committee during staff meetings.
16	Some reporting, all reports should be placed in one folder in intranet.

Table A D.8. Question 6 - Collective Learning Experiences

P.	Description
2	Feeding on each other, retreats.
3	Staffing, training, university visits.
4	Training, retreats, presentations of projects during CASD Discussion Forum.
5	Learning during creation of new programs, learning from mistakes.
6	In-house courses, training, university visits.
7	Outside working hours, intellectual discussions, teamwork, gauging potential.
8	University visits allow learning about self and others, learning from outside peers.
9	Meetings, CASD Discussion Forum.
10	Retreats, working together is fulfilling, feeling of achievement for Council and beyond.
11	Training of new employees, off-site lectures and workshops, no performance appraisal.
12	Training.
13	Internal meetings, learning from outside peers how they face challenges, networking.
14	Formal and informal interactions.
15	Training, sharing tricks.
16	Creation of new programs, retreats.

Table AD.9. Question 7 - Successes and Mistakes

P.	Description	
	Celebrating success	Discussing mistakes
2	During staff meetings.	Short and sweet.
3	Regularly after competitions.	Less often.
4	Thank you cards, individual meetings.	Should focus on conditions of success.
5	Limited by directors' interests.	Tendency not to discuss mistakes.
6	Collective, frequent acknowledgments.	No big mistakes, keeping positive aspects.
7	Give credit even after individuals leave.	Retreats, presentations of lessons learned.
8	Celebrations, awards.	Individual discussion.
9	Awards.	No singling out.
10	Special outings.	No finger pointing.
11	E-mails, pizza, doughnuts, going out.	Mistakes ignored if persons are sensitive.
12	Presentations about own success.	Delays viewed as mistakes.
13	Positive reinforcement.	Discussion of lessons learned.
14	Award ceremony, beginning of meetings.	In camera.
15	Collective, no bonus or time off.	Brushed off, fear of embarrassment.
16	No mechanism for individual recognition.	Maybe, takes a resilient organization.

Table AD.10. Question 8 - Dialogue

P.	Description
2	No differences of opinions because officers have different responsibilities.
3	Varies, depending on directors.
4	Discussions get stopped when persons and not ideas get targeted.
5	Limited extent, individuals make their case, directors' decision.
6	Encouragement not to bottle up.
7	Work towards consensus and build case.
8	One-on-one to solve problems, hierarchy in unresolved issues.
9	Verbal communication or e-mails.
10	During meetings, could occur in corridor.
11	Dialogue should be encouraged when the difference of opinions becomes personal.
12	Hierarchy, discussions at same employee level.
13	Embedded skills to resolve issues within job profiles and job interviews.
14	Issues sent back to SSHRC or committees.
15	Work groups but director's decision prevails.
16	Nature of work is individual, no real conflicting opinions.

Table AD.11. Question 9 - Reflecting on Routines and Policies

P.	Description
2	Through HR training sessions.
3	Regularly in division, three or four times during all-staff meetings.
4	Oral culture, encouragement to write down metric indicators and business processes.
5	Operation committees, no clear pathway to discuss radical ideas, no suggestion box
6	Routines at divisional level; president raises policy issues.
7	Individual and group level, organization for systems; persons acting informally.
8	Routines at individual and divisional levels, presentations of issues at meeting.
9	E-mails, intranet; employees too busy to attend sessions set by organization.
10	Division too busy to review routines; status quo suits executives.
11	Communication to directors and others but line breaks along the hierarchy.
12	Review of procedures sometimes when implementing new technologies.
13	Routines divisional responsibility, policies not centrally communicated.
14	Policies reviewed as per government agenda.
15	Divisional level.
16	Regularly depending on circumstances and outside complaints channeled to directors.

Table A D.12. Question 10 - Promoting a Corporate Image

P.	Description
2	Employer of choice, responding to the needs of the community.
3	Excellent research in Canada, rigorous competitions, collaboration with universities.
4	Logo represents professional quality service to SSHRC and NSERC.
5	Quality peer review, connection with SSH community, value of work.
6	Service and care to clients, mobilization of research results, quality of work.
7	Collective belief in the SSH, vocation, importance of work, knowledge sharing.
8	Promoting social sciences and humanities research.
9	Being professional.
10	Quality, connections, impact; divisional silos.
11	Promote university research, vision obscured with fancy words.
12	Best support to universities and researchers.
13	Quality, connections, impact, value of research.
14	Broadening research beyond academic environment, democratization of knowledge.
15	Learning council but image has not reached day-to-day life of employees.
16	Excellent peer review, service to clients, connection to academia, value of research.

Table A D.13. Question 11 - Sharing Standards and Visions

P.	Description
2	Through all staff meetings.
3	Review of manuals, task forces, comparison with national and international entities.
4	All staff meetings, statistical comparisons, leading by example, objectives, rewards.
5	Informal, very few failures, openness to inform, educate, allow officers to learn.
6	Directives from government, e-mails, all staff meetings with president.
7	President for policies, others for standards, but staff may not understand importance.
8	All staff meetings with president, e-mails.
9	All staff meetings with president.
10	All staff meetings with president for policy; director sets standards.
11	President, e-mails, all staff meetings.
12	All staff meetings with president.
13	All staff e-mails and meetings; president engaging employees to get feedback.
14	Council members carefully chosen, orientation sessions.
15	All staff meetings with president.
16	Centered on president via e-mails and all staff meetings.

Table A D.14. Question 12 - Solving Problems

P.	Description
2	Depends, program problems appear to be solved in a quicker way now.
3	Depends if the problem has implications on factors beyond the Council's control.
4	Performance appraisal, bring-forward system.
5	Depends on strategic, Board and directors' priorities.
6	Management may be frightened by directions or ramifications.
7	Depending on the nature of the problem, senior positions take too long to staff.
8	Depends on which level of the hierarchy the problem lands.
9	No, especially if problems involve many divisions.
10	Reactive rather than proactive, cutting corners, realization of error after the fact.
11	No quick solutions for some problems, no ownership.
12	Not quick but perhaps because of bureaucracy.
13	No clear governance and terms of reference pathway to escalate problems.
14	Depends if problems are viewed as urgent.
15	External problems get solved in a quicker way.
16	Quickly solved if they come from universities or central agencies.

Table A D.15. Question 13 - Variety of Work

P.	Description
2	Extra activities, secondments are encouraged.
3	Yes but not across divisions.
4	Job shadowing, interdivisional exchanges spotty, not as successful as I like us to be.
5	No, because of specialization of jobs.
6	Training, secondments, university visits, external committee membership.
7	Structure of organization and HR do not help.
8	People are afraid to loose their jobs, some get selected to receive a variety of experiences.
9	No time to train.
10	External secondments, no communication among divisions.
11	Not encouraged because of training requirements.
12	Few, preference given to outside recruitment.
13	Division provides support for individuals to gain a diversified experience.
14	Willingness of member, chemistry with staff.
15	Big frustration, little opportunity for advancement.
16	Onus is on individuals to express interest and to demonstrate the right energy.

Table A D.16. Question 14 - Expertise

P.	Description
2	Encouragement of lifelong learning.
3	Expectation that the person will cultivate it; AUCC service, support for courses.
4	Encouragement of generic competencies, need to develop relationships at both ends.
5	Allowed to grow, organization relies on it.
6	HR learning plans, annual performance appraisals, generic skills.
7	Maintained, depending on division.
8	Sought at the time of hiring.
9	Attempts but fear of bottleneck because of few existing opportunities for advancement.
10	Expertise is maintained through courses, preferably taken in the evening.
11	Only at a certain level, no acknowledgement of corporate knowledge and experience.
12	Considered dangerous but organization is willing to pay for courses.
13	Maintained through a special training budget.
14	Cultivated depending on directors.
15	Classification system promotes generic skills, human capital wasted.
16	In-house training, need to implement performance appraisals' learning plans.

Table A D.17. Question 15 - Emergence of Ideas

P.	Description
2	Call on employees to adjust and to be flexible; management is open to new ideas.
3	It is getting better, prudent organization, people are defensive, change is not easy.
4	New internal governance, making directors more accountable.
5	Culture of equality and openness, recognition that all are working for SSHRC business.
6	Programs are running well, management preoccupied with external entities.
7	Hard to say.
8	To be listened to depends on where the person stands on the hierarchical totem.
9	Yes, but not if ideas are overwhelming.
10	Control is lost once an idea is submitted.
11	No facilitation and no hindrance, seven steps to get a decision made.
12	No, in order to keep procedures simple.
13	President is facilitating the tabling of new ideas not formally but through his actions.
14	Depends on individuals' willingness to listen, not on structure.
15	Neither, invitation for input on decisions already made, no suggestion box.
16	Both, engaging president, but getting Council information has been restricted.

Table A D.18. Question 16 - Commitment to Knowledge Council

P.	Description
2	Still in development, too many variables, may be a bureaucratic trend.
3	Already a knowledge council, communication with researchers is unique.
4	New definition with objectives, action plan, mapping out individual contribution.
5	Committed to the idea but waiting to be developed.
6	It is in our self-interest to be committed to knowledge mobilization.
7	Committed to SSH, generating knowledge, putting Canada on the map.
8	People don't understand it but are committed to the idea.
9	Do not know about people's commitment.
10	Never communicated properly, appeared as trend of the day.
11	Some are committed, some are not, concept needs to be fleshed out.
12	Fantastic idea but not appropriately channeled to the masses.
13	Committed to the idea of the importance of research results and link to knowledge.
14	Transition period, people do not know what it means.
15	Not in the corporate culture, commitment to peer review, knowledge to Canada, public.
16	Lost momentum, committed to components of knowledge council.

Table A D.19. Question E - Three Challenges Facing the Council

P.	Description
2	Continuing funding of research.
3	Corporate memory, value of research, budget increase to satisfy demand.
4	Clarity of vision, managing clients' expectations, demonstrating relevance of research.
5	Knowledge mobilization, integrating connections and impact in programs, budget.
6	Electronic revolution, humanities, balance between basic and targeted research.
7	Shift from strategy to action, from silos to whole, enhanced learning to attract staff.
8	Getting off the fence on the transformation, strengthening foundation and structure.
9	Training new management, retaining staff.
10	Internationalizing, disseminating and demonstrating value of SSH research.
11	Technology, integrating people, demonstrating value of SSH research.
12	Demonstrate value of SSH and communication of research results.
13	Budget, leadership continuity, proliferation of programs that consumes resources.
14	Communication with academia and public, funding, students, internationalization.
15	Promoting staff, demonstrating value of research, maintaining client service.
16	Demonstrate economic value of research, defend intellectual impact, being innovative.

Table A D.20. Question F - Abilities to Meet the Challenges

P.	Description
2	NA
3	Have sufficient personnel.
4	Access to executives, creating the proper environment for it to bubble up.
5	Open management, shifting resources, state of the art training, job opportunities.
6	Riding the technology wave, champions, forward thinking, innovator and conservative.
7	NA
8	Strengthening procedures, processes and policies.
9	Time, workload, training to accelerate learning curve.
10	Unity at the top, well conceived initiatives.
11	Fixing technological problems, a stable executive, proliferation of programs.
12	Clear role.
13	Appropriate path for decision-making and escalation, alignment of corporate priorities.
14	Stable management, making good on deliverables.
15	Automation, willingness to change and share information, promotion from within.
16	Persuasion, sufficient time to gather evidence and map out proposals.

Table A D.21. Question G - General Comments

P.	Description
2	Interesting work, positive collaborative environment and knowledge sharing.
3	The Council doing well despite its limited resources.
4	Create the environment to let it bubble up, mobilizing internal knowledge.
5	NA
6	NA
7	NA
8	Hierarchic, promise of openness with new president.
9	NA
10	NA
11	Staff need to know that their work is important.
12	NA
13	Recognize being part of a bigger organization, facilitating external employee exchange.
14	NA
15	Telework, flexible hours.
16	NA

APPENDIX E

Document Form

Name:

Date:

Event:

Significance:

Brief summary of content:

If document is central: