COLLABORATIVE KNOWLEDGE PRODUCTION: QUALITY OF LIFE IN SASKATOON

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By

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ABSTRACT

Collaborative research partnerships are a predominate model in current academic research and funding. A corresponding expectation of formal knowledge production is the applicability of research results to practical situations. The inclusion of knowledge users in the production process is understood as the most likely way to ensure the application of knowledge. The increased interaction and collaboration within the formal knowledge system affects the nature and implications of knowledge production. Stemming from observations of changes in the natural and information sciences, Gibbons *et al*. (1994: 34) describe Mode 2 knowledge production as "contextualized, heterogeneous, and reflexive production of knowledge for the purpose of application". However, Gibbons *et al*. (1994) do not adequately address the changes of knowledge production within the social sciences. This project aims to fill this gap in the Mode 2 theory.

This thesis provides a case study of a Community-University partnership as an example of collaborative and applied research in the social sciences. Findings from a qualitative, interpretative and thematic analysis of documents indicate that the Mode 2 theory does not entirely describe research characteristic of the social sciences, and lacks in three essential components: issues related to institutional adjustments and ethics; funding and sustainability for Mode 2 research; and conflict and unequal power relations within partnerships. However, Mode 2 research is found to describe the essential framework for which this collaborative research partnership in the health and social sciences operated.

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And to Manorama, who inspires me to find and stay on “the point”.

All my work is dedicated to my beloved children,

Omega and Will.

TABLE OF CONTENTS

LIST OF FIGURES

Appendixes

Chapter One

Introduction

" … a model based on a system of collaborative organization, dedicated to the democratic pursuit of knowledge for the public good."

- Francis Bacon (1627), *The New Atlantis*

1.1 Academic Knowledge Production

Academic knowledge production is experiencing shifts in its cognitive and institutional structures. Jacob (2001:13) describes the current landscape of knowledge production as manifested by:

> 1) a focus on collaborative research and tied funding; 2) coordination of research priorities; 3) shift in the general objective of research policy from funding science to funding innovation and application; 4) an emphasis on custom research for specific stakeholder groups; and 5) a focus on different types of accountability measures for monitoring and evaluating university research output.

Similar observations describing such characteristics of contemporary knowledge production are widely recognized (Gibbons *et al*. 1994; Etzkowitz & Leydesdorff, 1998; Funtowicz & Ravetz, 1991; Elizinga, 1995; Ziman, 1995; Rip & van der Muelen, 1996; Stehr, 1994; Whitley, 1984).

The debates on the nature, extent, and implications of changes in formal knowledge production essentially recognize that knowledge is no longer produced in isolation, but is a collaborative and social endeavor. The conceptualization of knowledge as a collective process involves networking, negotiation, inter-personal communication and influence with a greater emphasis on interdisciplinary and co-partnerships in research (Harvey, 2002). Latour (1998) describes science as a social activity where science and society are no longer separate. As the university creates greater links between the academy and non-academic partners, the social world has increased participation in the genesis of knowledge within the

"knowledge society" (Stehr, 1994). Delanty (2001:8) argues that "the university cannot enlighten society as the older model of the university dictated". As such, Braskamp and Wergin (1997:87) argue that "through partnerships, the research and institutional agenda can be intricately connected to communities outside the academy".

With the focus on collaboration, the underlying purpose of knowledge production becomes the "application" of research and the "transfer" of findings back into context, effectively addressing the "relevance gap" of research (Transfield and Starkey, 1998; Huff, 2000; Hodgekinson, 2001; Garvin and Lee, 2003; Edqvist, 2003; Starkey and Madan, 2001). However, Delanty (2001:4) argues that collaboration in scientific research is not a new phenomenon, rather it is "just increasing in intensity". Delanty (2001) further argues research has always largely been directed by the need for social usefulness. Therefore, the point is not that collaborative knowledge production is 'new', but that with an increased level of cooperation and intersecting linkages informing research, society as a whole would witness an improvement in societal wellbeing. Expanding the "knowledge network" (Jacob and Hellstrom, 2000) with the involvement of the knowledge "users" or "consumers" in the development of research is understood to result in outcomes that are more responsive to user needs and social demands (Souren & Poppen *et al*. 2007).

In terms of supporting increased collaborative research, the call for a "new social contract" or "new deal" (Amara, 2004; Gibbons, 1999; Guston & Keniston, 1994; Martin, 2000; Rich, 1997; Demeritt, 2000; Lubchenco, 1997) describes changes in the traditional institutional structure where science was financed primarily by government funding while managed autonomously by the scientific community (Bush, 1945; Steelman, 1947). The changing role of the state as the primary funder of scientific inquiry has increased the competitiveness of universities to find alternative funding. Moreover, funding requirements come with the expectation on universities to produce research that meets various social and economic needs, in turn devoting less to producing knowledge for "its own sake"

(Martin, 2000). However, this new social contract is not simply a new language, but involves new practices as well. This shift is encompassed in the era of science where proof of utility or the use of knowledge is increasingly becoming the standard of scientific rigor. As such, "good science" is defined in terms of that which is "useful" (Scott, 2003), where knowledge without application, or cashable in some way, is considered to be without value (Lyotard, 1984; Smith and Lipsky, 1993; Hanney, 2004).

1.2 Mode 2: Knowledge Produced for the Purpose of Application

Gibbons *et al*. (1994) discuss the production of knowledge for the purpose of application, termed "Mode 2" science. Essentially, Mode 2 knowledge is produced at the interface between the users and the producers of knowledge. The application of the research findings is a result of this collaboration. However, the involvement of knowledge users and non-academic partners challenges traditional scientific norms and practices, directly affecting the characteristics of the knowledge system as a whole.

Although not the only theory of contemporary knowledge production, Gibbons' *et al.'s* Mode 2 is the most popular (Hessels and Lente, 2010). Mode 2 knowledge production is not 'new' (Weingart, 1997; Godin and Gingras, 2000; Jacob, 2001; Hessels, 2008). Interdisciplinary and applied science has a long history. What does appear to be new, however, is the new balance emerging between the Mode 1 and Mode 2 paradigms. In addition, Gibbons *et al*. (1994) argue Mode 2 science is fundamentally different from traditional Mode 1 science. Mode 1 is framed as "disciplinary science", where research designs are grounded in the traditional Newtonian model of the natural sciences. Guided by the linear scientific method of observation, hypothesis, prediction, and experimentation, the quality of scientific findings of Mode 1 science is based on the sole criteria of the peer review mechanism. In contrast, according to Mode 2 science, the collaborative interaction of diverse actors across disciplines and sectors creates knowledge that

is more diverse, trans-disciplinary, context-dependent, reflexive, and solution orientated. Moreover, conducting research and generating knowledge using a Mode 2 model implores broader criteria for assuring the quality of research findings, including the responsiveness of research results to social needs.

The theory of Mode 2 knowledge production stresses the interplay between the tacit knowledge of practitioners and the research activities of academics to produce knowledge for the purpose of application. Mode 2 demonstrates observed changes in the way contemporary knowledge is produced. However, the discussion remains largely within the natural sciences, with some description of changes in technological development and research activities within the humanities. The discussion is limited, as it fails to include current trends within the social sciences. Expanding the discussion in terms of the social sciences is important, as Huberman (1990) reminds us, "linkages are virtually built into the process in the physical and natural sciences, while we have loose, episodic linkage in the social sciences".

1.3 Knowledge Production in the Social Sciences

The social sciences accredit their philosophical roots from that of the natural sciences. The natural sciences exemplify 'explanatory science', which is pursued in order to describe, explain, and predict (Aken, 2004) in the fundamental quest to explain reality or "truth" (Bunge, 1967), or at least, enhancing a shared understanding (Gergen, 1982). On the other hand, 'applied sciences', such as medicine and engineering, seek "knowledge for real world situations" (Aken, 2004: 19). As such, applied science is pragmatic in the search for a solution to an identified problem. According to Eisenhardt (1989: 547), the applied sciences develop theories through multiple case studies, based on cross-case analysis, and systematic reviews based on "theoretically saturated supporting evidence" (Eisenhardt, 1989: 547).

Although the social sciences are often not regarded as applied sciences, it is not because the model is not valid. Aken (1994: 30) suggests that this transition has

not occurred simply because explanatory science has become the benchmark for academic reputation, a "common academic tendency". Acknowledging social science as an applied science not only recognizes the capacity to create pragmatic solutions to real-world problems, it also supports the professionalization of the social sciences. Professionals are trained to analyze problems and use their disciplinary knowledge to design solutions for specific problems. Freidman (1970: 82) argues "it is the autonomous position of the professional in society which permits the re-creation of the layman's world" through the influence of social development and policy direction. A framework to guide the application of knowledge is useful for the social sciences to utilize expertise in the advancement of societal wellbeing. However, Mode 2 as a framework for knowledge produced for application is poorly embedded in sociological literature (Hessels and Lente, 2010) despite an emphasis on participative and socially accountable knowledge.

1.4 Purpose of this Study

The primary purpose of this thesis is to apply the Mode 2 theory of knowledge production to research in social science by using a case study of a Community-University research partnership to illustrate collaborative social research. To meet this objective, the following research questions will guide the discussion:

> Is the Community-University Institute of Social Research Quality of Life Project an example of Mode 2 Knowledge Production? In what ways is it or is it not, and to what extent?

To answer these questions, a critical test of the Mode 2 framework will be conducted using a contemporary case study of collaborative social research, the Quality of Life in Saskatoon project. As the Mode 2 theory is grounded in evidence from studies of the natural and technological sciences, the goal of this case study is to explore the applicability of Mode 2 knowledge production to social science

research. This case study is expected to contribute a framework to guide and evaluate collaborative research in the social sciences.

1.5 Organization of the Thesis

Chapter One, as presented above, is an introductory chapter outlining the context and purpose of the study, including the guiding research questions. Chapter Two presents a literature review that discusses current thought on collaboration and user involvement in knowledge production. The chapter opens with the presentation of the concept of the knowledge system (Holzner & Marx, 1979) and the increase of user/producer interaction. In addition, the literature review presents the characteristics of Community-University research partnerships, as an example of collaborative social research. Chapter Three describes the research design and methodology. This research is conducted as a case study methodology. A qualitative method is used to conduct an interpretive and thematic document analysis. Chapter Four describes the case study and dataset. Chapter Five, the analysis section, reviews the case study in terms of the Mode 2 theory. The final chapter presents the conclusions of the case study and the limitations of the Mode 2 theory in terms of Community-University research partnerships. In short, I conclude the case study evidence generally supports the propositions of the theory of Mode 2 knowledge production. The theory of Mode 2, however, is found to be not comprehensive or developed enough to fully describe the aspects of this collaborative research partnership.

Chapter Two

Literature Review

"… a vision of reality based on awareness of the essential interrelatedness and interdependence of all phenomena… it transcends current disciplinary and conceptual boundaries and will be pursued within new institutions. At present, there is no well-established framework, either conceptual or institutional that would accommodate the formulation of the new paradigm…many individuals, communities, and networks are developing new ways of thinking and organizing themselves according to new principles"

- Capra (1983: 265). *The Turning Point*, New York: Bantam Books

2.1 Contemporary Knowledge Production

In this chapter, I discuss the role of collaboration and user participation in the production of knowledge. Knowledge production is understood as a component of a broader knowledge system. Within an integrative system, changes in the production of knowledge result in changes throughout the entire system. The next section highlights key contemporary theories that discuss the role of collaboration and user participation in the production of knowledge. This section emphasizes a predominant theory, Gibbons *et al*. (1994) Mode 2 New Production of Knowledge. Mode 2 conceptualizes knowledge produced for the purpose of application as a collective process of networking, negotiation, inter-sectoral communication and multidisciplinary influence. The final section presents Community-University (CU) research partnerships as an example of a collaborative knowledge production in the social sciences. The section concludes with a description of the elements of CU research partnerships.

2.2 Conceptual Framework

2.2.1 The Knowledge System

The knowledge system (Holzner & Marx, 1979) refers to what is essentially the division of labor in the knowledge society (Graham, 2008). Holzner & Marx (1979) identify spheres within a system that characterize the primary components of the knowledge cycle, namely the production, organization, transfer, utilization, and implementation of knowledge (Figure 1.0). The system is not linear; spheres are interdependent, therefore they overlap and interact with another. As such, a change in one sphere results in change in the other elements of the system. Moreover, the properties and behaviors of individual spheres influence the knowledge system as a whole.

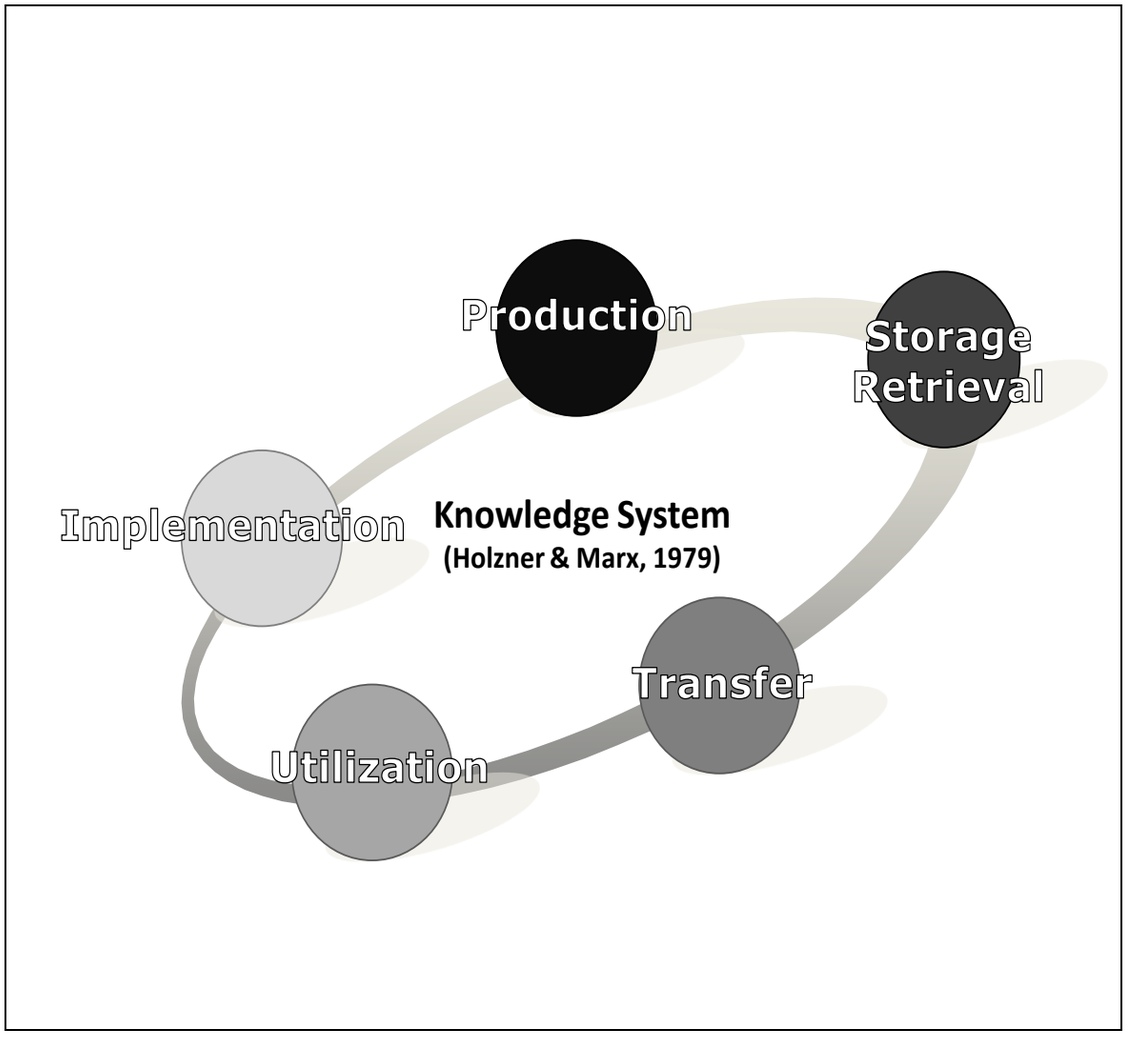


Figure 1.0 – The Knowledge System (Graham, 2008)

Traditionally, knowledge production activities have been performed by academics with a high degree of autonomy. However, Barre (2001) discusses the 'hybridization' of knowledge systems whereby those who have conventionally remained outside of academia, including governments, practitioners, and private users of scientific knowledge, now contribute to the direction of activities within the system. The effort to bring together the producers and consumers of knowledge is understood to increase the relevance of research (Graham and Dickinson, 2007). As such, the interaction between practitioners, policy makers, and researchers is identified as the biggest single catalyst for the restructuring of the knowledge system (Boden *et al*., 1998) and is widely understood as the key to enhance the flow of knowledge through the system (Hanney, 2004; Wagner and Leydesdorff, 2005; Hodgekinson *et al*. 2001).

2.2.2 Interactive Knowledge System

The conceptual framework for this work emphasizes interaction or collaboration as a key mechanism that: ties the universe of theory to practice; links researchers with those who need research, facilitates increased access to knowledge and resources, and creates value and commitment to research findings (Hubberman, 1987; Simpson, 2002; Hemsely-Brown & Sharp, 2003; Currie, 2005). An axiom of this paradigm is that in order to produce research that is of value to users, the involvement of users is paramount. As such, the more the interaction between researchers and users is sustained and intense higher the quality of research findings (Baldwin, 2000). Empirical studies indicate that the collaborative involvement of the intended users, stakeholders, and other beneficiaries of research are the best assurance of its application (Caplan, 1979; Landry *et al*., 2001; Wethington & Breckman, 2007; Baumhaum *et al*., 2008; Hubbard & Ottoson, 1997).

Hemlin and Rasmussen (2006) describe the shift from *product* to *process* controlled research. They suggest that traditional research emphasizes the end product of the research process, whereas a more interactive approach focuses on

intersecting components of the entire research process. The most common assumption in a traditional linear model is that finding a use for knowledge begins after it is produced or created (Kerr, 1981). However, an interactive model understands that producing knowledge for the purpose of application is not a one-way flow of information, but is an ongoing and reciprocal process of interaction and exchange among producers and users of knowledge (Landry *et al*., 2001; Jacobson, Butterill, and Goering, 2003; Lomas, 2000; Baumbusch et. al., 2008; Huberman, 1983). This perspective identifies that rather than producing knowledge and trying to understand how to apply it, researchers are concerned with the collaborative involvement and commitment of user groups in the process of knowledge production and dissemination (Caswell and Shove, 2000).

Increased interaction between researchers and practitioners is understood to be an important way to bridge the research-practice gap (Hubbard and Ottoson, 1997; Green *et al*., 1995; Williams, *et al*., 2008). An interactive model maintains that interpersonal contact is a key factor in knowledge diffusion and utilization (Backer, 1991; Thompson, Estabrooks, Degner, 2001; Huberman, 1994). Interaction enables researchers to better understand core concerns, issues, and characteristics of user groups; in turn allowing practitioners to see the potential use and value of the research. Furthermore, consistent contact throughout the research process allows both sides to gradually distinguish the form in which findings are likely to be most meaningful (Beyer, 1982). Caplan (1979) identifies that the lack of interaction as the primary reason for non-utilization of research findings.

2.2.3 Implications for Knowledge Production

Knowledge production in an interactive knowledge system denotes a clear recognition that knowledge does not derive exclusively from individual thought, (Harvey, Pettigrew & Ferlie, 2002) but from a collective processes of networking, negotiation, interpersonal communication, and influence (Polanyi, 1962; Harvey, Pettigrew & Ferlie, 2002; Gibbons, 1999; Fisher, Atkinson-Grosjean, House, 2001). Interactive knowledge production requires the close interaction among groups of

stakeholders during all stages of the research process. As such, stakeholders, or those who are most affected by the research, become active agents in the definition and solution of scientific problems. Moreover, issues are not specified in scientific terms alone, but are framed by the experiences and influence of those involved throughout the process.

Jasanoff (1996) contends that the co-production of science results in the mutual shaping of scientific knowledge and social thought, where those who contribute in the development of knowledge production also become agents for social change. As such, those who contribute to the production of scientific knowledge play an active role in defining and shaping legitimate understandings within society; in turn determining prevailing norms, values, and ideologies (Mannheim, 1936; Etzioni, 1967; Smith, 1990; Knorr Cetina, 1999). In short, those involved in the production of knowledge shape a constructed view of reality that frames common understandings (Berger & Luckmann, 1967).

2.3 Theoretical Debates

2.3.1 The Post-Modern Turn

The transformation of the knowledge system toward collaborative knowledge production is described by Rip (1997) as an emerging post-modern research system. Reflecting on the fragmented and heterogeneous nature of 'post-modernity', the post-modern interpretation suggests that the university can no longer claim a monopoly on 'truth' (Readings, 1996; Lyotard, 1984; Fuller, 1993; Harvey, Pettigrew & Farlie, 2002; Delanty, 1998). This 'end of knowledge' (Fuller, 1993) marks the end of a particular mode of knowledge production where the universal certainty in the rationality of science no longer provides a basis for the legitimization of science. Lyotard (1984) suggests that it is the use of knowledge that now legitimizes its production, and further argues that the university institution will become irrelevant, if not fall victim to consumerism and corporatism, if a performative function is not established.

2.3.2 Post Academic Science

Ziman (2000) argues that it is extreme to suggest that the sciences are embracing a post-modern regime. However, he does acknowledge that "post-academic science" is a decisive break in the academic tradition. The revolution in science is perceived as sociologically and philosophically different from the traditional model, with a greater emphasis on the utility of knowledge and collective problem solving (Ziman, 1996). Post-academic science claims that closer links between academics and funding bodies jeopardize traditional academic ethos established by Merton (1973), specifically the commitment to objectivity. Post-academic science argues that the threat to the objective inquiry of science is a "serious issue in a world where not all socially important problems are of recognized commercial, technological or political concern" (Ziman, 2000: 5). Ziman (1996) argues that socio-economic power threatens to be the final authority where research becomes 'industrialized' or shaped to appease stakeholders and commercial interests.

2.3.3 The Triple Helix

The Triple Helix theory encourages the role of the "entrepreneurial university" in economic development (Etzkowitz, 2003). In fact, the authors argue that the increased interaction among the university, industry, and the state is a product of the structural changes within the nation-state where the institutional spheres are increasingly interlinking (Martin & Etzkowitz, 2000). The intersection among these three spheres of the knowledge society creates a new role for science beyond simply the utilization of research findings. Within a supplementary layer of knowledge production are institutional mechanisms that integrate push/pull factors on knowledge demands (Etzkowitz and Leydesdorff, 2000). For instance, institutional mechanisms market basic research findings, while providing support for industrial and governmental research needs (Metcalfe, 2010). The Triple Helix theory acknowledges the changes in funding patterns that encourage research and

development (R&D) partnerships. Moreover, the authors claim that the commercialization of academic science is not a new innovation; rather they stress the historical continuities (Baber, 2001).

2.3.4 Post-normal Science

In Post-normal science, the rapid change in the structure of science is characterized by two key properties: radical uncertainty and multiplicity of legitimate perspectives (Ravetz, 1996). Funtowicz and Ravetz (1993) argue that the epistemological base of science is fragmented and more complex than the traditional 'normal' or rational understanding. As a result of this high degree of uncertainty, science "must be managed for the common good" (1993: 102). To ensure the quality of research for both the academic and for the public, the open dialogue among all who are affected is required. Post-normal science proposes an "extended peer community" which incorporates all involved perspectives as stakeholders, but not necessarily as co-producers of knowledge. As such, Post-normal science focuses on the process of knowledge production, and the incorporation of the various perspectives brought into the realm of science and decision-making.

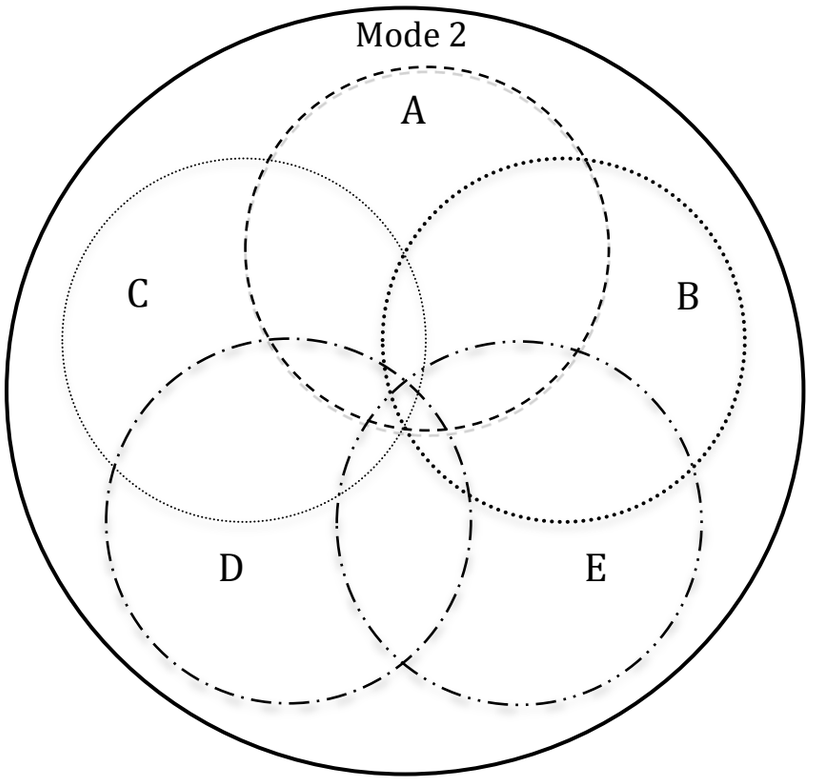
2.3.5 Mode 2 New Production of Knowledge

The authors of the New Production of Knowledge argue that 'Mode 2' research does not arise from commercial dimensions, such as market or technological demands; rather through a co-evolutionary process involving science and social forces (Gibbons, *et al*., 1994). Mode 2 acknowledges the shift in the knowledge system to address the "crisis both of social legitimization, and of methodological, epistemological, and even normative authority" (Jacob, 1997). Gibbons *et al*. (1994) present Mode 2 knowledge production as an endeavor where practical utility is the paramount justification for scientific research, with the expectation that research

findings will lead to increased benefits to society (Kleinman, 2003; Tuunainen, 2005).

As such, Mode 2 emphasizes an iterative process of knowledge co-generation through the negotiation with all the involved actors (Jacobs, 1997). This process stresses the importance of partnerships, interaction, and collaboration in knowledge production, involving both expert and tacit knowledge. To facilitate this interaction, the Mode 2 model necessitates an institutional interface to guide collaborative arrangements, informal networks, strategic alliances, interconnections, and modes of exchange and communication (Gibbons, *et al*., 1994). Although the linkages between producers and end users are understood as vital for successful Mode 2 research and innovation (Ozga, 2007), Bleiklie (2002) argues that the 'rules of engagement' of this interaction are unclear and undefined, while "leading to high degree of uncertainity" (Gibbons, *et al*., 1994:66).

Mode 2 research is often presented as a per contra to so-called 'Mode 1' research. Mode 1 is described as research produced within traditional, disciplinary frameworks. Typically, the Mode 1 progress is linear, proceeding in stages, and research groups tend to be homogenous in terms of skill and experience. This is contrasted with Mode 2 research, which is not embedded within a single disciplinary framework. Mode 2 is a non-linear, systems approach, where dissemination is part of the knowledge production process, and research groups combine heterogeneous skills and experience. However, empirical evidence indicates that both 'modes' are in effect and are to be understood as parallel systems of knowledge production with different goals and structures (Godin, 1998; Cohen, McAuley, and Duberley, 2001). As such, this work discusses Mode 2 research based on its own distinguishing features (Figure 2.0).



A = Contextualized, localized setting; communication with stakeholders; action orientation; response to specific need
B = Trans-discipline, multi-discipline; trans-sector; integration of disciplinary and practical epistemology
C = Heterogeneous and organizational diversity; network structures; alliances; interdependency; off-site meetings; further partnering
D = Social Accountability and reflexivity; ongoing dialogue; interaction; interconnection of issues; engagement; critical examination
E = Quality Control; application of findings; objectives achieved; responsiveness

Figure 2.0 – Mode 2 Production of Knowledge Theoretical Model

2.4 Mode 2: Theoretical Assumptions

2.4.1 Knowledge Produced in Context of Application

From the onset, Mode 2 research is produced for the purpose of application. As such, Mode 2 science argues for research that is "contextualized". In essence, low, medium, or high contextualization refers to the intensity or level of communication between the producers and users (Nowotny *et al*., 2001). Gibbons argues the more contextualized the production of knowledge, the greater the ability for findings to respond to a specific social need. Furthermore, working in context increases the sensitivity of researchers to the broader implications of research findings (Gibbons *et al*., 1994; Barber, 2000).

Giddons *et al.* (1994: 3) describe contextualization as "knowledge produced within the context of application", essentially suggesting that research results produced within a Mode 2 framework are applicable and provide useful solutions to local or specified problems. Guided by a specific and identified need or goal, contextualized research shifts from identifying the problem, towards shaping or producing a desired outcome.

In order to address local concerns or identified needs, an increased collaboration between researchers and the community is required. This collaboration or co-production of knowledge involves experts, including academics and those who are within the context of the work. This co-production blurs the boundary between what is academic or expert knowledge, and what is considered social or tacit knowledge (Gibbons, 1998). Tacit or practical knowledge is embedded within the context (Polanyi, 1966), and is a required resource for academics or experts to fully understand the depth of the context of application. As such, within Mode 2 research tacit and expert knowledge are not dichotomous states of knowledge, but mutually dependent and reinforcing.

The linking of local knowledge with scientific knowledge is discussed more fully by Nowtony *et al*. (2001) whereby the level or degree of contextualization refers to how society 'speaks back' to science. Through more porous boundaries

between the two spheres, the co-production of knowledge is formed where research questions and outputs are applicable to the needs and demands of users. The distinction between the three intensifying degrees of contextualization is determined largely on level of engagement and interaction between and among all the producers and users of the knowledge.

2.4.2 Trans-disciplinary

Gibbons *et al*. (1994) argue for a trans-disciplinary approach, where research "teams", encompassing a range of disciplinary and practical epistemologies, form in response to generating a greater understanding to specific issues. The mutual penetration of knowledge bases recognizes the increasingly complex interconnections and institutional interdependencies of society (Pestre, 2003). Furthermore, Nowotny, Scott & Gibbons (2000) suggest that the dialogue between disciplines and across social boundaries address issues in a more inclusive and holistic manner. An obvious challenge in a trans-disciplinary approach is the differences in language and epistemological assumptions between disciplines, and across sectors. Gibbons argues that Mode 2 research must be guided by a clear consensus of an appropriate framework and guiding methodology.

The mutual interpenetration of disciplinary epistemologies, including a diverse range of knowledge bases, is the foundation for trans-disciplinary research. Similarly in Mode 2 research, trans-disciplinary research involves perspectives from various academic disciplines as well as other experts and users of the research. However, for Mode 2, trans-disciplinarity is also closely connected to the contextualization of the research. Collaborating on a specific goal, the objective or "creative act" is to mobilize and manage multiple perspectives, and develop pragmatic solutions and broader understanding of complex issues (Gibbons, 2008).

Gibbons *et al*. (1994) suggest that trans-disciplinary research starts with real world problems. Through mutual learning, all those who have something to

say about the particular problem contribute to the conceptualization of the issue, and in turn, the knowledge of all participants is enhanced. As such, Bleiklie (2002) argues that deriving knowledge from a collective and distributive pool of experts opens up concepts and interpretations, allowing the investigation of wider and more diverse ranges of topic areas with broader research results. Moreover, in the process of a trans-disciplinary approach, biases are minimized (Zierhofer and Burger, 2007).

Collaborating on a common issue, but through different disciplinary and practical epistemologies, trans-disciplinary research arguably addresses the existing weakness of the traditional Mode 1 model which defines and frames the issue through particular disciplinary criteria (Gibbons *et al*. 1994). Not based or derived from any leading discipline, trans-disciplinary research contributes to the reconstruction and development of new methods, theories, and understandings based on the response to particular contextualized issues. In the process of disentangling complex issues and interrelationships between various knowledge claims, theories and appropriate methods to gather the necessary information are developed. However, according to Gibbons (1994: 29) "trans-disciplinarity arises only if research is based upon a common theoretical understanding and must be guided by a clear consensus as to appropriate framework and approach to frame the research question". Although theories and methods may be developed and evolve specifically within the context of inquiry, Gibbons is clear that an epistemological foundation must be established in order to guide inquiry.

In order to address complex problems and answer questions outside disciplinary realms, Gibbons suggests that networking and linkages among players are of key importance (Gibbons 1994:39). Understanding that there is no one way to uncover knowledge, interdisciplinary research is conducted in teams. The integration of different skills and perspectives in knowledge production create network structures and interdependencies among members. However the strength of the group, and their capability for action, is highly dependent on the collective linkages and commitment of the actors involved. As knowledge is produced and

transferred by the experts and actors involved, Zierhofer and Burger (2007) argue that perhaps the greatest contribution of generating knowledge through interdisciplinary means is not the size or span of the group, but the function and effectiveness of the team.

2.4.3 Heterogeneity and Organizational Diversity

Mode 2 research is argued to be heterogeneous in terms of the combined skill and the knowledge base of those involved in the research process (Nowotny, *et al*. 2001). As such, heterogeneity involves a diversity of stakeholders and expertise in knowledge generation. As knowledge is produced in new environments with new participants, this heterogeneity and diversity broadens the complexity of issues brought to the research and policy setting arenas. Groups or "epistemic communities" (Gibbons, 2001) are organized outside traditional academic spheres, and dissolve or redefine themselves once the research is complete. As such, the network and strategic alliances of Mode 2 research creates interdependence within the group, developing 'trading zones' and 'transaction spaces' for future projects (Nowotny *et al*., 2001).

Nowtony *et al*. (2001: 209) purpose the concept 'agora' as the "public space that invites exchange of all kinds and creates a context in which wishes, desires, preferences, and needs can be articulated". Essentially the agora is a space where all interested agents who wish to be involved in the knowledge system can openly participate alongside academics, governments, private business, and various practitioners; and thus facilitate opportunities for society and science to enter inter dialogue. As such, the agora, "where the 'solution' is negotiated" (Notwotny *et al*. 2001: 58), opens the system of knowledge production to involve all concerned parties. According to Gago (1998), this negotiation encourages "enlightened policy making decisions". The degree to which this knowledge production process engages and interested members participate in the agora will reveal the extent of diversity and heterogeneity of the knowledge generated (Nowotny *et al*. 2001).

To support the Mode 2 claim of organizational diversity, a bibliometric

study found that the non-university contribution is increasing in academic publications (Godin and Gingras, 2000). However, the study concluded that although intersectoral collaboration is growing, universities remain at the center of knowledge production. Hicks and Katz (1996) also identified that an increasing number of organizations outside of the academic institutions are also publishing in academic journals, in turn increasing the heterogeneity of scientific knowledge production.

Gibbons (1998) argues that the structures and strategies to facilitate the exchange and networking of institutions are necessary for collaborative problem solving. Mode 2 research works at the boundaries between institutions and organizations. Knowledge exchange is the heart of Mode 2 knowledge production. As such, organizations and roles which facilitate the process of interaction and exchange is necessary for Mode 2 functioning. This "orchestration process" (Gibbons, 1998) ensures the two way flow of information and knowledge among all players. As these roles and structures are still poorly institutionalized, Ryecroft and Kash (1999) argue that organizations themselves must become adept at operating as networked organizations and facilitating interchanges.

Mode 2 research increases the vested interest and drivers of the research, drawing on alliances with financial resources within a distributed knowledge production system. With an increased demand for 'matched funding' and governments no longer taking primary responsibility for funding research in the universities, Jacob (2001) suggests that this implies a change in economic rationale for funding university research whereby planning for funding by a range of institutions becomes part of the overall management strategy. Bleiklie & Byrkjeflot (2002) note that as a significant shift in the formal institutionalized knowledge system, and suggest that outcomes will depend to a great extent on the kind of knowledge alliances and knowledge regimes that becomes established. Institutional and inter-agency collaboration presents an important role for linking institutions and facilitating type roles to help with flow of communication, framing of research questions and developing contextualized methodologies.

2.4.4 Social Accountability and Reflexivity

The production of socially accountable research is a central demand on contemporary scientific inquiry (Jacob, 2001). Fundamentally transforming the way in which academic research is conducted, the development of socially accountable knowledge encourages interaction amongst diverse actors, in turn recognizing the interconnections between social, political, economic, and environmental issues (Hagendjik, 2004). Identifying the importance for a hybrid configuration of knowledge, Mode 2 reframes knowledge production to include a range of players that the context of inquiry may depend on. Nowtony *et al*. (2001) describe the production of 'socially robust knowledge' as a shift from a culture of scientific autonomy to a culture of scientific accountability, moving the boundaries between science and society.

Gibbons *et al*. (1994) argue that contextualized knowledge created within problem solving environments heightens the social accountability and reflexivity of the knowledge generated. Responding to demands for public participation and democratic involvement in decision making processes (Abelson & Gauvin, 2004; Jasanoff, 2003; Elam & Bertilsson, 2002), the Mode 2 knowledge process becomes permeated by measure of social accountability. Involving the public, science deepens the level of understanding as inquiry operates from the standpoint of the actors involved. Moreover, creating a user/producer interface frames the whole knowledge production process. Knowledge becomes more responsive as a pragmatic truth to a specific situation.

Knowledge that is produced as a reflexive process involves the ongoing interaction between users and producers, mutually guiding research questions and outcomes. Gibbons *et al*. (1994) argue that this iterative process develops a deeper understanding of issues, exposing interconnections and dependencies. As knowledge production includes a wider diversity of actors, Nowotny (2000) argues that human agency is brought back into the process, making knowledge more "socially robust". Nowotny *et al*. (2001) described this process as a shift from

"scientific autonomy" to "scientific accountability", where scientific autonomy is replaced by a wider and more democratic distribution of knowledge production. As Nowotny (2000) puts it, "as society becomes more knowledgeable, knowledge becomes more social".

Nowtony *et al*. (2001) identify the strong affinities between scientific and democratic societies. In this context, democracy is understood as a form of governance in which all members of the community share equally to the process of decision making. Accordingly, knowledge cannot continue to advance as a closed and constrained activity, separated from society; rather, knowledge must be created with a focus on issues of grater social participation and responsibility. Nowotny (2000) argues that science produced in democratic societies cannot continue as a closed and constrained activity separated from society; rather knowledge must be created with greater social participation and responsibility. As such, in Mode 2 research, "good science" involves research that is produced inclusively and with maximized benefits to society (Delanty, 1998; Scott, 2003; Nowotny, *et al*. 2001).

Gibbons (1999) pleads for a 'new social contract' between science and society in response to the increasing concern about the lack of effective public participation. According to Guston and Keniston (1994:32):

> the changed world of modern science and modern government means that it is imperative to search for and begin to define a new social contract, or series of contracts, between the institutions of democracy and the institutions of science. The scientific community needs to reach out and justify its claim on public resources by demonstrating where and how it is relevant in solving public problems.

The participation of a multiplicity of involved agents in the definition and solution of problems increases the connection to the broader application of inquiry. Contextualized within society, drawing on the experiences, knowledge, and concerns of the 'ordinary person' (Hessels and Lente, 2008) reflect the values and

goals of society. Giddens (1998) suggest that introducing a plurality of views continually transforms the frame of reference and better reflects the reality in which the inquiry attempts to portray.

An important consideration for Mode 2 research is its critical dependency on telecommunication technologies. These tools have set the stage for an explosion in the number of interconnections and possible configurations of knowledge and skill. The outcomes are socially distributed as communication takes place across institutional and demographic boundaries. Furthermore, as research and scientific values becomes more widespread in society, a steadily more informed and educated public become a stronger influence on science.

2.4.5 Quality Control

Changes in the terms of quality control for Mode 2 research emerge alongside notions of extending social accountability of science. Mode 2 is evaluated in terms of the responsiveness to the concerns of those who use the research. Gibbons *et al*. (1994:33-34) describe quality control as "defined in terms of the contribution the work has made to the overall solution of trans-disciplinary problems" and therefore "judged by a particular community of practitioners". As Mode 2 research is highly local and contextualized, the quality of the work is evaluated in terms of what the project set out to accomplish. The ultimate test for quality control of Mode 2 research is whether individuals in the group disseminate research findings by initiating concrete action or policy change.

The broad changes in the production of knowledge are fundamental to changes in the quality controls of scientific knowledge. Quality control is traditionally conducted and institutionalize through the 'peer review' process, assuring the validity and reliability knowledge. Shifting from solely the traditional peer review standard, Mode 2 necessitates additional forms of quality control whereby knowledge is validated by a more diverse and diffused external criteria. Research cannot rely solely on scientific measures of quality research as social knowledge is also involved and integrated. Rather, knowledge may become

endlessly challenged, and often fiercely contested, by a much larger potential community.

Mode 2 research is, by definition, accountable to social forces. Rather than being subject to a relatively narrow form of peer review, research is accountable to social forces outside the conventional scientific community. Nowotny (2003) offers: "what is needed in addition to reliable knowledge is socially robust knowledge". Nowotny *et al*. (2001) suggests that socially robust knowledge is produced through a process in which new scientific results are tested within the relevant social context. As such, knowledge does not only have to be valid, approved by scientific standards, it also needs to be approved by wider society.

The connection between science and society also means that new and different demands are imposed on universities by new regulatory bodies and the public (Delanty, 1998). The actors involved in knowledge production play an active role in defining legitimate sources of knowledge within society; in turn determining prevailing norms, values, and ideologies. Moreover, the reciprocal penetration and joint production of knowledge between science and society has affected the definition of 'knowledge' (Aram, 2004). A broader participation in knowledge system expands the knowledge matrix (Nowotny, *et al*. 2001:118) where "people have been allowed a place in our knowledge, thus the context can and does speak back" (Nowotny, 1999).

The key to quality control in 'mode 2' knowledge production is that outputs are actually sold or utilized. Knowledge is evaluated in terms of responsiveness to a wide range of social implications, addressing the concerns of a wide section of the community. What counts as knowledge is what works – knowledge that can be applied to practical situations. Therefore the knowledge generated is evaluated in terms of efficiency or usefulness. As such, the soundness of the findings is evaluated by the community that it affects.

2.5 Mode 2 Research Institutions

Jacob (2001) singles out the relatively new "semi-autonomous, hybrid institutions within the university" as key players in collaborative Mode 2 research and networking activities. Situated within the university, these small to medium sized research centers represent the user/producer interface within the institution. Managing university and community partners, the centers serve as an inter-organizational bridge and play an important role to: increase linkages, establish partnerships, evolve networks, pursue funding avenues, implement protocols and standards, provide a place for negotiation, and facilitate the structural couplings between science and politics (Tuuniana, 2002; Metcalfe, 2010, Hessels and Lente, 2010).

Institutions that bring academics and stakeholders together play an important role in managing activities within the agora. In this space, science becomes a social process (Nowotny, 2000; Duijn *et al*., 2003) contributing to the democratization (Callon, 1980; Delanty, 2001; Jacobs, 1997) and legitimization of the "science project" (Habermas, 1989). As a result of interacting, partners are better able to identify priorities, develop appropriate research questions, direct outcomes, and foresee the impact of research from the perspectives of various actors.

Although intrinsically linked to university resources, infrastructure, faculty, and researchers, Mode 2 centers are without an established position within the academic institution. Reliant on external and tied funding, these centers are dependent on the ongoing motivation of a skilled and respectable research team to prepare research proposals, establish community partnerships, and seek funding sources. The reliance on external funding impedes the quantity and efficiency of the research generated (Eakin & MacLean, 1992; Currie *et al*., 2005). Metcalfe (2010) presents three essential 'flows' necessary to sustain intermediating organizations: flow of actors, flow of resources, and flow of commerce. Moreover, Jacobs (2001) insists that in order for Mode 2 centers to remain effective and sustainable as a

strategic interface for community-university relations, institutional support, including stable funding and formal agreements, must be established.

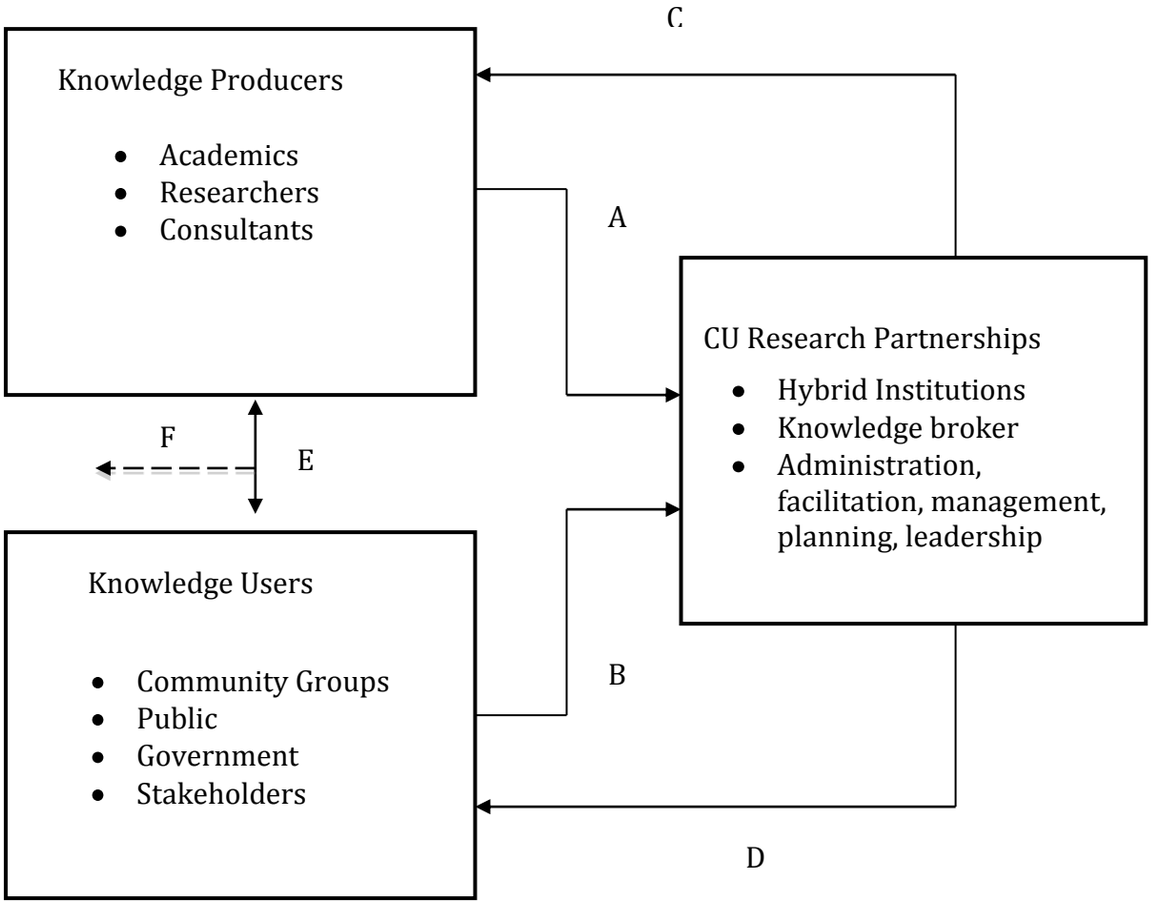
2.6 Community-University Research Partnerships

Community-University (CU) research partnerships are an example of collaborative research in the social sciences. CU partnerships bring together knowledge users and producers to better understand and respond to complex social and health issues (Figure 3.0). The underlying assumption of CU partnerships is that engaging multiple perspectives in the research process is the most appropriate method to identify central issues and develop applicable solutions (Anyon and Fernandes, 2007; Lasker *et al*., 2001; Schulz, Israel & Lantz, 2003; Holland, *et al*., 2001). The community partners in CU alliances include the public, practitioners, community groups, government agencies, and other stakeholder groups, and represent the intended knowledge users or beneficiary groups (Currie *et al*., 2005). Community partners provide professional and tacit knowledge, basis for research questions, and economic, social and human capital resources. Academic partners involve the university institution, academics, administrative staff, and ethical regulation boards, which provide specialized expertise, resources, infrastructure, and research funds.

Hegedoorn, Link & Vonortas (2000) broadly define research partnerships as "…cooperative arrangements engaging companies, universities, and government agencies and laboratories in various combinations to pool resources in pursuit of a shared objective". Combining skills and resources among partners, directed towards a common goal, the assumption of research partnerships is that the outcomes are greater than if an issue was approached in an isolated manner (Schulz, Israel & Lantz, 2003; Anyon & Fernandez, 2007; Shore, 2008; Silka & Renault-Caragianes, 2006; Reback, 2002; Israel *et al*., 1998). However, partnerships require strong and committed relationships. The ability of a partnership to make a contribution to research and influence policy and practical decisions depends on

the ability of the partners to work together and overcome challenges (Baker, 1999; Baum, 2000).

Research and development (R&D) activities supported by public-private research partnerships are common in the fields of manufacturing, science, and technology (Kingsley & O'Neil, 2004; Shapira *et al*., 1997; Siegel, 2003; Hall, Link & Scott, 2003; Currie *et al*., 2005; Etzkowitz, 1990). CU partnerships are similar in arrangement to R&D partnerships whereby partners jointly identify the nature of the problem. As Renaud (2003) explains, community partnerships serve the same function for the human and social sciences as industry partners and commercialization pressures do for the natural sciences. In both kinds of partnership arrangements, the user and the producer groups contribute to knowledge production.



Input/ Output Legend:

A: Expert knowledge, research design, ethical regulation, infrastructure, funding
B: Professional opinion, tacit knowledge, access, research questions, resources
C: Academic publications, social contribution
D: Action plans, information bulletins, grey literature, reports, policy briefs
E: Equitable participation, trust, communication, networking, commitment
F: Conflict

Figure 3.0: Flow of Resources and Activities in CU Research Partnerships

2.7 Elements of CU Research Partnerships

2.7.1 Equitable Participation and Commitment

The equitable contribution of partners is an essential component of CU partnerships, from selection and framing of the research question, to data collection, analysis, and dissemination (Nahemow *et al*., 1999; Schulz, Israel, & Lantz, 2003; Lasker *et al*., 2001; Roussos & Fawcett, 2000; Israel *et al*.. 2006). Equal engagement in the research process ideally helps to satisfy the needs of the whole group, framing the research in a way that directly benefits all partners. Furthermore, it is assumed that full participation from community partners better informs research questions, provides access and a higher quality of data, and produces results that influence policy making decisions (Williams, *et al*., 2008; Baker *et al*., 1999; Israel *et al*., 1998). Equitable participation also involves a long-term level of commitment and investment in the partnership from all the stakeholders, with a willingness to invest resources in the coalition (Schulz, Isreal & Lantz, 2003; Schensul *et al*., 2006).

In order to maintain engagement and commitment to the project, partners need to experience personal, organizational, or community benefits (Suarez-Balcazar, Harper & Lewis, 2005). Inequitable benefits can strain the relationship, threatening the long-term viability of the partnership (Israel et al., 2006). Schulz, Israel, & Lantz (2003) point out that equitable engagement does not necessarily mean that all partners engage in every aspect of the research process to an equal extent. The basic understanding of partnerships implies that different partners may be more heavily involved at different time in research or dissemination activities, depending on areas of expertise. This is a strong advantage to partnerships – diverse resources and skills are applied where appropriate, in turn not exhausting the resources and energies of participants throughout the process. Buckeridge *et al*. (2002) argue that any perceived inequities may be overcome if a clear division of expertise is employed.

Expecting the equitable participation and commitment among partners assumes that realistic planning is in place that identifies clear project focus, goals, tasks, and timelines, with the means to support these objectives (Baum, 2000). However, even with sufficient planning, partnerships take a considerable time commitment and require a dedication to the overall goals of the project (Alter & Hage, 1993; Bevilacqua *et al*., 1996; Buckeridge *et al*., 2002; Anyon & Fernandez, 2007). Moreover, the quality of engagement is affected by the commitment and length of time spent on the project. Schulz, Israel & Lantz (2003) found that over time individuals develop both skills and relationships with other partners, which enabled them to exert influence in the decisions of the group. As such, partners with an ongoing motivation to support the success of the project may have a greater influence on the process and the outcomes of the partnership than that of a newer member.

2.7.2 Communication and Networks

A primary component of successful CU partnerships is effective communication (Holland, *et al*., 2001; Suarez-Balcazar, *et al*., 2005; Nahemow, *et al*., 1999; Mattessich and Monsey, 2001). More communication between and within groups creates tighter links, broader networks, and greater interdependence among partners (Mattessich and Monsey, 2001). Baldwin (2000) identifies that links established among collaborators, including the potential influence of an integration of networks, holds a great opportunity for research findings. Such a network not only draws upon multi-sector knowledge and resources, it also determines further investment and ongoing commitment to the study (Dunnett, 2004; Kothari, Birch and Charles, 2005).

Huberman (1994) stresses the importance of maintaining networks through ongoing interactivity and communication. It is the ongoing communication and networking activities at the interpersonal and institutional levels that hold out the best promise for improving and extending professional knowledge (Hargreaves,

1996; Laundry, 2007; Davies, 2002; Baumhaum *et al*., 2008). Isreal *et al*. (2006) suggest that research partnerships should include advocates for CU partnerships from multiple sectors who can serve as communication facilitators or spokespersons, and able to provide ongoing long-term support for the research project.

2.7.3 Dissemination

Silka *et al*. (2004) suggest that collaborative and participatory approaches to research stem from weaknesses in other models that do not adequately link problem to applicable solutions. Albiek (1995) suggests that the purpose of establishing links is to formulate a plan for action. A notable component of CU partnerships is the active engagement of all partners in the dissemination of the research. The participation of stakeholders is embodied in "strategic plans", "action priorities", "discourse of action", and "collaborative action plan" strategies (Baumbusch *et al*. 2008; Kegler *et al*., 1998; Zeldin, 1995; Reback *et al*., 2002). This shared responsibility emphasizes the mutual effort to ensure that research becomes part of a process that facilitates change in the form of practice, policy, or behavior in individuals, organizations, and systems.

An innovative tool that facilitates the dissemination of knowledge is the use of a research liaison. Such a person is referred to as an "opinion leader", "research champion", "action researcher", "knowledge broker", "policy entrepreneur", "change agent", "linking agent" or "facilitator" (Jacobs, 1997; Weissert, 1991; Mitrom and Vergari, 1996; Mackenzie 2004; Williams, *et al*., 2008). The function of this position is to interpret and synthesize research findings, attach solutions to problems, engage group networks to raise awareness of research findings, shape the terms of the policy debate, disseminate findings to public audiences, and fill the gap between producers and users of knowledge (Kingdon, 1984; Hemsley-Brown and Sharp, 2003; Jacobson, Butterill, Goaring, 2003; Weissert, 1991; Mintrom and

Vergari 1996; Williams, *et al*., 2008). This position in the knowledge system is acknowledged as a key vehicle for dissemination activities (Williams, *et al*., 2008).

2.7.4 Conflict

The difference of opinions, methodological approaches, or core assumptions can lead to conflict among partners, and are common in multidisciplary and inter-sectoral work (Nahemow *et al*., 1999; Ashmore, *et al*., 2001; Alter & Hage, 1993; Silka, 2004; Slatin *et al*., 2004; Kegler *et al*., 1998; Bushanan, 1996; Schensul, *et al*.,2006; Buckeridge *et al*., 2002). This issue can be addressed if all key stakeholders are included early in the project development, where conceptual and methodological issues can be addressed before they interfere with the success of the project (Schensul, 2002). Schensul, *et al*. (2006) identify the importance of a management structure that is able to resolve conflict between partners.

Unequal resources are cited as a primary point of conflict among partners (Riger, 1999). Suarez-Balcazar, Harper & Lewis (2005) identify a potential for conflict where partners with access to funding and resources attempt to exert control over the research process or direction of the project. However, conflicts of interest may be unavoidable. By their very nature, partnerships between universities and communities involve people and organizations balancing multiple roles and responsibilities. For example, a partner may represent both a collaborator and a funding agent in the project. Funding criteria shapes the deliverables and expectations of the research project, and therefore shapes the motivation for such a partner. Moreover, "stakeholders will try to use their participation in the project to promote their interests" (Jacobs, 1997:85).

2.7.5 Funding

The major challenge faced by all CU partnerships is securing ongoing funding that supports the core infrastructure of the research partnership (Isreal, *et al*., 2006; Baldwin, 2000; Larson, 2003). Although funding patterns of the major Canadian research funding agencies support collaborative and community based research projects, CU research projects continue to have challenges in securing sustainable funding and resources to support the work. The distraction of securing ongoing funding diverges the focus from the research project and places increasing demands on the resources of the partners (Mattessich and Monsey, 2001). Furthermore, the lack of ongoing and sustainable funding weakens partnerships, reducing the commitment and moral of the partners over time (McLeroy *et al*., 1994).

However, the amount of funding for community-linked research is growing (Boutilier, Mason, & Rootman, 1997). Many funding agencies that sponsor research programs explicitly require collaborative research conducted between the university and community agencies. For example, the Social Sciences and Humanities Research Council of Canada (SSHRC) has offered Community-University Research Alliance (CURA) funding programs, designed to promote interaction between academic researchers and community organizations. For the Canadian Institute for Health Research (CIHR), collaboration and partnership is a central vision (Bernstein, 2003). The Natural Science and Engineering Research Council of Canada (NSERC) also emphasizes partnerships, not only with industrial partners, but also with community groups (Coderre, 2003).

The reliance on external and public funding sources affect the expectations and objectives of social and health research whereby the participation of community partners is directly associated with the "social relevance" and "transference" of research to policy and practice (Frank, 2006; Garvin and Lee, 2003). As such, CIHR's mandate is to develop new knowledge and to mobilize that knowledge into action (Bernstein, 2003); SSHRC champions the "generation of

applied research, engaging in collaborative research that is driven by need and by the basic issues that exist" (Renaud, 2003: 16); Canadian Health Services Research Foundation (CHSRF) identifies that partnerships meet the crucial demand for research transfer, identifying that the best predictor of use of research results is user involvement in the research process itself (Lomas, 2003); moreover, NSERC's William Coderre stated that "basic research is the search for real knowledge. So our goal is Canadian excellence in the creation of knowledge and the use of that knowledge" (Coderre, 2003: 8).

2.7.6 Ethical Considerations

CU partnerships question some of the fundamental ways that universities create knowledge. As a result, several ethical issues arise. Wing (2002) identifies that community research involves ethical dimensions regarding the autonomy and risk of harm to entire communities, not simply to "individual research subjects whose welfare is the traditional domain of institutional review boards" (Wing, 2002). Schensul *et al*. (2006) question the Eurocentric nature of institutional ethical standards. A further concern is in regards to the protection of community knowledge, such as indigenous knowledge (Shore, 2008; Boyer *et al*, 2005; Brown and Vega, 1996). In response to these concerns, instituting ethical standards that evaluate the impact on communities and the contribution to the academic value of research are necessary (Silka, 2004; Silka & Renault-Caragianes, 2006; Schensul *et al*., 2006; Garvin & Lee, 2003; Buckeridge, 2002).

Critics of community-university research partnerships suggest that community based partnerships do not produce 'good science' in that research is watered down in the need to find common ground within partnerships (Stiffman *et al*., 1984; Galinsky *et al*., 1993). However, others argue quality and validity of research is improved by engaging local knowledge and including the experiences of those involved (Israel *et al*., 1998). Acknowledging this issue at the CUExpo at the University of Saskatchewan in 2003, Steven Lewis (2003: 2) offered that:

> we should not dumb down universities in service of creating happier space for partnerships. Not all useful insights and profound reflections originate in a focus group or telephone survey. Interaction alone is rarely sufficient for advancing human understanding; there is no easy path to truth… A good partnership will combine the intellectual capital and rootedness of the community with the rigor of the university and enhance both.

2.7.7 Supporting Institutional Structures

Collaborative research raises questions about the kinds of institutional support required to advance integrative activities increasingly required of researchers (Slatin *et al*., 2004). Buckeridge *et al*. (2002: 13) identifies university partners "feeling unsupported by the academic culture, which places more value on individual rather than collaborative research". Institutional mechanisms that support community research alliances involve the revision of the hiring, tenure, and promotion guidelines within academia (Savan, 2004; Buckeridge, *et al*., 2002; Silka, 2004; Holland *et al*., 2001). Souren *et al*. (2007) found that the main barriers to producing collaborative research that is not at the level of individual resistance or funding incentives, but originates in an institutional culture that does not foster interaction between science and policy. Silka (1999) acknowledges that the shift in institutional support mechanisms and merit structure will go a long way towards encouraging community research partnerships within the academy, in turn meeting the mission-related demands universities are declaring for themselves (Silka & Renault-Caragines, 2006; University of Saskatchewan, 2008).

Community partners hold well-founded distrust of community based research projects (Israel *et al*., 1998; Silka & Renault-Caragines, 2006; IOM, 1998; Reback *et al*., 2002; Holland *et al*., 2001). This fundamental issue of trust between community partners and university researchers requires the long-term commitment of the academy to a collaborative research process (Nahemow *et al*., 1999; Schensul, *et al*., 2006; Anyon & Fernandez, 2007). Instituting a commitment to community research encourages trusting relationships and facilitates the enormous potential of collaborative research (Nahemow *et al*., 1999; Suarez-

Balcazar, Harper & Lewis, 2005). Such a commitment requires secured institutional support in terms of ongoing human, physical, and economic resources.

2.8 Summary

Collaborative research partnerships are a common approach to contemporary knowledge production. However, this approach is a shift for the formal knowledge system. The introduction of stakeholders and funders of research external to the academic institutions has induced change within the system. Characteristics of these changes to knowledge production are described by Mode 2 as: contextualized, trans-disciplinary, heterogeneity, with a focus on social accountability and usefulness of the knowledge produced. Community-University research partnerships are a practical example of research conducted with multiple stakeholders for the purpose of identifying solutions to practical social problems. The CU framework helps to bridge the application of the Mode 2 theory to a practical case study of a collaborative Community-University research partnership, in turn allowing the case study to further inform the inclusiveness of the theory. Further work can extend to the implications of collaborative, inter-sectoral, participatory and committed user/producer interaction identified within knowledge production on the other components of the larger knowledge system.

Chapter Three

Methods and Data

"… it is a question not simply of defining a specific method, but rather, of recognizing an entirely different notion of knowledge and truth"

- Gadamer (1979). *The Problem of Historical Consciousness*. University of California Press.

3.1 Methodology

This research study tests Gibbons *et al*.'s (1994) Mode 2 theoretical framework. The unit of study is the Quality of Life (QoL) project, a collaborative research initiative conducted by the Community-University Institute for Social Research (CUISR). A thematic content analysis of project documents is conducted in a case study research design. The qualitative data analysis is assisted with the use of NVivo qualitative data management and analysis software. The case study is used to illustrate a project conducted as collaborative social research; and in turn, test the theoretical assumptions of the Mode 2 knowledge production framework in this Community-University (CU) partnership.

3.2 Research Design and Assumptions

This thesis research is conducted as a case study methodology and employs a thematic document analysis. Gerring (2004: 10) defines a case study as "an intensive study of a single unit, observed at a point in time, or some delimited period of time". According to Nicol (2007), a case study is an ideal methodology when a holistic, in-depth investigation is needed. And Ellis (2004) suggests that a case study is to be used when a comprehensive description of a specific case for the purpose of a detailed analysis is needed.

In this project, a case study methodology is chosen as the most appropriate way to systematically collect and analyze data from a specific example of collaborative and inter-sectoral social research, namely the QoL project, and compare these findings with predominant theoretical propositions. As such, this study is specifically designed as an "instrumental case study" as it attempts to reveal theoretical concepts or observable phenomenon (Stake, 2000). According to Stake (2000: 437), in an instrumental case study:

> …the case is of secondary interest, it plays a supportive role, and it facilitates our understanding of something else. The case still is looked at in depth, its contexts scrutinized, its ordinary activities detailed, but all because this helps the researcher to pursue the external interest. The case may be seen as typical of other cases or not. Here the choice of case is made to advance understanding of that other interest.

For this thesis, the QoL case study is used to identify the presence and implications of Mode 2 propositions within collaborative social research.

The primary strength of the case study model is the depth of analysis that it offers. However, a common criticism of case study methodologies is that a single case is incapable of providing generalizing conclusions (Giddens, 1984). However, Hamel *et al*. (1993) and Yin (1993) argue that a single case study is considered acceptable when it meets established objectives. In this instance, the case is chosen to test theoretical propositions about collaborative knowledge production, and is not intended to infer to all examples of knowledge production within the social sciences. Furthermore, Schwandt (2001) points out that a single case is understood and accepted as a specific study that explores a specific phenomenon of interest, in this case a particular process of collaborative knowledge production, and the findings are understood to be bound by time and place.

3.3 Data Retrieval

A case study design supports the analysis of data over a period of time (Posavac & Carey, 1997). The retrieved documents for this analysis span the period from the initial conceptualization of the QoL project in 1998, the renewal of the project's funding in 2004, and the third and final iteration of the project in 2007. The documents are understood to be comprehensive, and date from February of 1998 to August of 2007. The analysis includes documents from the fifth and final Community Forum in June of 2007, and the subsequent months of the project wrap-up in order to analyze the direction of the QoL project after the funding for the project had ended. Documents were retrieved from files of both the CUISR office and a management Board Director who was involved in the project since its initiation. Documents were cleaned for analysis by removing all duplicate entries. In total, 288 documents were analyzed to inform this discussion.

Documents used for analysis are those which frame the process of the QoL project. These include: initial roundtable discussions which conceptualize the project, documents from three successful applications for federal funding, meeting minutes, community forum notes, media publications, peer reviewed publications, project director notes, strategic planning minutes, various projects initiated to support the QoL project objectives, methodological designs, evaluations, support letters, project data analysis, public attendance records, and stakeholder information. A list of project documents included in the analysis is found in Appendix A. The breadth and depth of the documents used in the analysis allow for a detailed understanding of the comprehensive nature of the project, which incorporated multiple stakeholders and academic disciplines, diverse student and community projects, an extensive evaluation and trend analysis of the quality of life in Saskatoon across neighbourhoods, as well as planning meetings which helped to focus and sustain the project, while identifying avenues for dissemination and application of project findings. These documents supported the researcher to understand the practical application and implications of conducting research in a collaborative and multi-disciplinary framework.

Permission to use data retrieved from documents was granted by a project Research Director. However, to ensure the confidentiality of project participants and management team, no information is given in the presentation of the data that may be used to identify participants. All data are stored in an NVivo file and can be searched to ensure accuracy of information and quotations as presented in this manuscript. Findings were discussed with four QoL stakeholders to ensure accuracy of interpretation. These informants were identified based on duration of involvement in the QoL project. Two of the key project informants were involved in the QoL project from the initial planning stages to the final phases of the project; and the other two informants played pivotal roles in the project, one as a project liaison and the other as a link to the broader public through the media. As a qualitative study, the feedback from informants is an important component to the trustworthiness of the findings, and has been integrated into the interpretive analysis.

3.4 Qualitative Analysis

A qualitative research method is chosen to analyze text related to the QoL case study. As a non-numerical approach, qualitative methods allow for a descriptive and interpretative account of a phenomenon (Leinginger, 1985). As such, a qualitative method is appropriate for this research design as it allows for an intensive study of project documents, and a comprehensive interpretive analysis of the content.

A thematic content analysis is used as a descriptive method to present the textual qualitative data (Moustakas, 1990). Thematic analysis allows for the presentation of a large amount of data to be interpreted in terms of themes. As such, selections of text from QoL project documents are grouped to identify themes, patterns, and underlying relationship of the CU partnership case study and the Mode 2 theory. By identifying and systematically coding key themes and search words, all the observed instances were collected and informed the interpretation of the data. This interpretation is presented in Chapter 5.

Themes are developed for the analysis based on both the characteristics of Mode 2 knowledge production, as described by Gibbons *et al.* (1994), and key themes that emerge out the CU partnership literature. Search concepts were developed for each of the themes, as presented in Figures 4.0 & 5.0. These concepts are designed to describe and illustrate each theme. Using key search words to frame concepts, the project documents are reviewed several times to find evidence or counter-evidence of each theme. Data are systematically coded and grouped into Mode 2 theoretical assumptions and CU partnership characteristics. From these themes, the data are analyzed to identify the degree in which the project documents illustrate each Mode 2 assumption. Moreover, through the analysis, several CU characteristics merged easily into the Mode 2 framework, while other characteristics did not. The results of this analysis are fully described in Chapter 5.

To assist in the analysis, the use of NVivo 8 qualitative analytical software is used to sort and organize the data. All project documents included for analysis were uploaded into the NVivo 8 program. The documents were reviewed several times, and all text that is interpreted as evidence is collected and stored in files corresponding to each theme. The interpretation of the data, by nature, reflects the researcher's own preconceptions about the data. The researcher was involved in the context of the QoL project for several years, providing a larger context for interpretation and understanding of the documents in the context in which the project occurred. The analysis shifts from quotations and excerpts from the project documents, as presented in Chapter 4, to the interpretations of the data and the fit within a Mode 2 framework, presented in Chapter 5. The data are interpreted, where insights or examples of Mode 2 knowledge production and CU characteristics are identified, and this evidence is coded into the relevant themes and stored in an available NVivo 8 file. Data are coded until saturation occurs, whereby "...no additional data are being found… as similar instances are seen over and over again, the researcher becomes empirically confident that a category is saturated" (Glaser & Strauss, 1967: 65).

Mode 2 Themes	Search Concepts
Contextualization	
	- Localized - Respond to a specific need - Degree/ intensity of communication between users/ producers - Co-creation of knowledge - Problem solving/ application orientation
Trans-disciplinary	
	- Multi-disciplinary and multi-sector - Priorities guided by a consensus - Framework of 'action' - Multi-disciplinary and multi-sector - Further collaborations and teams develop
Heterogeneous and organizational diversity	
	- Diversity of skills and knowledge bases - Knowledge produced outside university structures - Network structures linking agencies - Collaborative agreements/ strategic alliances - Funding from diverse contexts - Use of facilitating roles to bridge players
Social accountability and reflexivity	
	- Sensitive to broader implications of work - Promotion of public/ social interests - Democratic involvement of all impacted by work/ engagement - Operate from the standpoint of those impacted by research - Evidence of the agora - Issues understood in pragmatic and scientific terms
Quality Control	
	- Are findings applied - Finds are disseminated and used by participants - transferred - Expands the understanding of knowledge/ contributes to the overall solution - Met goals/ objectives of the project - Responsiveness to a wider social need - Usefulness and validity confirmed by the community of practitioners

Figure 4.0: Listing of Mode 2 Themes and Search Terms

CU Themes	Search Terms
Equitable participation	
	- Power/ trust - Commitment/ long term involvement - Investment/ resources - Engagement - Benefit/ meet needs of all partners
Communication and Networks	
	- Degree/ intensity of communication - Linkages/ further partnering - Multi-sector knowledge - Inter-personal relationships - Interface/ space/ agora
Dissemination	
	- Applicable knowledge - Action Plans/ discourse of action - Mutual effort to apply research/ direct change - Knowledge broker/ liaison/ policy entrepreneur
Conflict	
	- Early inclusion of stakeholders - Conflict resolution strategy/ management structure - Unequal resources/ control/ agenda setting - Collective discourse/ community voice
Funding	
	- Secure funding source - Core infrastructure secure - Sustainability - Outcomes linked to funding
Ethics	
	- Ethical concerns raised/ supported - Quality control of research generated - Community group representation
Institutional Support	
	- Academics feeling supported - Resources allocated - Formal structures/ MOU for CU partnerships - Project aligned with mission of institution - Long-term commitment

Figure 5.0: Listing of CU Characteristics and Search Terms

3.5 Validity and Reliability

A qualitative analysis is fundamentally different than quantitative analysis whereby in qualitative research, it is not desired to judge the 'truth/ false' nature of an observation, and therefore the validity and reliability of a study is viewed differently. According to Leinginger (1985: 68):

> Validity in qualitative research refers to gaining knowledge and understanding of the nature, essence, meanings, attributes, and characteristics of a particular phenomenon under study. Measurement is not the goal; rather, knowing and understanding is the goal.

Moreover,

> Reliability focuses on identifying and documenting recurrent, accurate, and consistent (homogeneous) or inconsistent (heterogeneous) features, as patterns, themes, values, worldviews, experiences, and other phenomena confirmed in similar or different contexts (Leinginger, 1985: 69).

Bailey (2007) suggests that the "trustworthiness" of a qualitative analysis is determined by the: credibility, transferability, dependability, and confirmability of the findings. Creditability implies the believability, authenticity, or plausibility of results (Miles & Huberman, 1994). Bailey (2007) suggests only the participants of the phenomenon can judge the credibility of findings. As such, to confirm the creditability of this qualitative research study, supplementary unstructured interviews are conducted. Four key project informants were purposefully chosen based on the involvement in the QoL project. These supporting interviews confirm the accuracy of the findings and conclusions presented in this study, which resulted from analysis of the QoL project documents.

The transferability of the findings refers to their ability to be generalized to other contexts, cases, times, or places (Bailey, 2007). However, the generalizations of conclusions are often considered difficult, and even counter-productive in qualitative, highly contextualized research (Stake, 1995). Yin (1993) argues that transferability may also involve analytic generalizations and identifying theoretical

implications of research findings, which are both supported by the case study method and this current research.

Qualitative researchers recognize that paradigms, views, and values placed on data by analysts are virtually unavoidable (Leinginger, 1985). Therefore, rather than seeking 'objectivity', confirmability of the study is evaluated in qualitative research. Confirmability requires that findings can reasonably be supported by those involved in the process. Therefore, the confirmability, or quality of research findings, must be determined by participants (Bailey, 2007). The quality of the findings of this research is confirmed by the key project informants. Furthermore, the quality of the data analysis is also confirmed with the use of a "data audit" (King & Hinds, 2003: 171) where the data collected was reviewed by the researcher to identify any potential biases or oversights. In this work, the data and findings were reviewed several times over a period of two years, in order to ensure accuracy.

Furthermore, according to Bailey (2007), when findings can be replicated, methods are appropriate, and when the study is agreed to be methodologically sound, dependability is achieved. Dependability is also increased when clear links between data and conclusions are established. The analysis section in Chapter 5 secures the dependability of the data with the demonstration of a clear framework that guided the data analysis, and whereby conclusions are supported by the data presented.

3.6 Methodological Limitations

Although a case study methodology allows for the incorporation of multiple data sources (Posavac & Carey, 1997), the volume, range, and scope of the QoL project documents required a significant and sufficient amount of analysis to support the findings of this thesis. As such, restricting data analysis only to project documents is necessary given the scope of this thesis work and the quantity of documents. However, the perspectives of the participants involved in the QoL project were not

collected. This work could be elaborated with the use of personal interviews with project participants, further securing the creditability and confirmability of the research findings. Furthermore, an analysis of the project's impact on the work of participating agencies, including the impact of this CU partnership on the demands on university institutional structures and operations, is also of great value. These limitations allow for further study of CUISR and the diverse community-university research partnerships that the institute facilitates, and the impact of user involvement in the application of research knowledge.

A high level of confirmability is established with the representation of both an academic and community co-director of the QoL project serving on the thesis advisory committee for this work. However, this representation, and the researcher's own work within the QoL project, limits the range of outsider perspective on the project, and the subsequent research findings.

Chapter Four

Descriptive Analysis

"Quality of life provides an excellent framework for inter-disciplinary, inter-sectoral research that addresses the determinants of health in a comprehensive and holistic way that is understandable to the public".

- Shookner, M. 2002, pg. 2. *Quality of Life Research: International and Canadian Perspectives*. Halifax: Atlantic Health Promotion Centre.

4.1 The Quality of Life (QoL) in Saskatoon Project

The case selected for analysis is the "Quality of Life (QoL) in Saskatoon" project. The QoL project emerged in 1998 from round table discussion among academics from the university; invested community members, including the municipal government and regional health authority; non-governmental community organizations; and private organizations representing the professional sphere. In 1999, this working group submitted a successful proposal to the Social Science and Humanities Research Council (SSHRC) for $591,000 over three years – at the time, the largest SSHRC grant awarded to the University of Saskatchewan.

The QoL project is driven by three primary objectives directed towards policy change and effective action on QoL issues in Saskatoon:

> 1) to improve interface mechanisms between research, policy, and the community;
> 2) to examine policy and program impact of research findings; and
> 3) to evaluate the change in Saskatoon's QoL in three iterations of data collection [1].

The QoL project formally commenced in the city of Saskatoon in 2000, with the first wave of data collection beginning in 2000-2001, and continued every three years thereafter (2001, 2004, and 2007). Data has also been collected for 2010.

The QoL project is directed by the Community-University Institute for Social Research (CUISR), located at the University of Saskatchewan in Saskatoon. As a Community-University (CU) partnership, CUISR supports inter-disciplinary and inter-sectoral research strategies, facilitating links between academic researchers and the broader community[2]. CUISR seeks to promote the "ongoing sustainability of Saskatoon as a healthy city and the equal distribution of quality of life among its residents by promoting applied and community-based research"[3].

The mandate for CUISR is to:

> facilitate partnerships between the university and the larger community in order to engage in relevant social research that supports a deeper understanding of our communities and that reveals opportunities for improving our quality of life [4].

Specifically, CUISR's stated mission is:

> ...to serve as a focal point for community-based research and to integrate the various social research needs and experiential knowledge of the community-based organizations with the technical expertise available at the University. It will promote, undertake and critically evaluate applied social research for community-based organizations, and serve as a data clearinghouse for applied and community-based social research. The overall goal of CUISR is to build the capacity of researchers, community-based organizations and citizenry to enhance community quality of life[5].

With quality of life as an integrated approach to address key social, environmental, and economic determinants of health, the QoL project serves as an instrumental example of collaborative research partnerships which address intersecting issues, applicable to policy makers, practitioners, and the public.

4.2 Community-University Institute for Social Research (CUISR)

From its inception, CUISR has been a hybrid organization comprised of both university and community partners. Its organizational structure reflects this hybrid

character, with directors representing both the university and the community, equally sharing leadership. In the initial Letter of Intent to establish the CU partnership, it is claimed that CUISR:

> is built on the principle that the community of Saskatoon and the University of Saskatchewan coexist and have much to offer each other. It advocates the creation of an Institute that brings together those community agencies, institutions and University researchers who are interested in social research and community change.[6]

Essentially, the aim of CUISR is to create research partnerships between local community-based organizations and university academics and researchers from across disciplines. According to a project director, the long-term goals of CUISR are to establish: 1) community partnerships; and, 2) university connections[7]. Moreover, a 'partner' within this CU partnership is recognized as:

> an institution or organization, drawn either from the University or the Community, that has made a substantial contribution to the operation of CUISR. This contribution can be financial, in staff time or in-kind. [8]

Throughout its development, CUISR has built and sustained relationships between several diverse researchers, community groups, and policy developers. With its unique relationship with the community, levels of government, and links to the university, CUISR continuously explores the potential of becoming the umbrella structure that facilitates applied research for a variety of non-academic partners who require information for community planning and decision making. In a public presentation, a project director states that:

> … we want to build an institution that would last longer than the immediate commitment of this original investigators and through this, lead a change - in fact a cultural change – in the way university academics do social research… to lay a very firm foundation for a lasting infrastructure. [sic][9]

According to Williams *et al*. (2005: 298) CUISR was the

> first and most visible example of conducting social research both on-campus and within the community, as well as the critical examination of the process

> and products of community-based research…and the nature and characteristics of community-university collaboration.

Non-traditional hybrid research centers, such as CUISR, continue to bud across Canada, with the most established example being York University's Institute for Social Research with over forty years of conducting social research (www.isr.yorku.ca). CUISR documents describe the importance of realizing that community-university research initiatives are important in their own right, and also point to a niche or "competitive advantage" CU partnerships provide in terms of research and training[10] – a cited advantage that the University of Saskatchewan has at its disposal with the existence of CUISR on their campus.

As an innovative endeavor, CUISR faced challenges as a result of not clearly establishing its priorities and defining its role, not only within academia but also within the community. A pressing issue facing the Steering Committee of the QoL project is a clear consensus regarding which activities are appropriate for the QoL project at the academic/community interface: as an 'advocacy' or 'research' role. One project leader maintains:

> it is important to continually remind people that the purpose of CUISR is to provide access to researchers for CBO's and to develop a more positive, more integrated relationship between the U of S community and the Saskatoon community as a whole. There should be no expectations of CUISR being positioned to initiate change, etc.; we merely exist to help organizations gather the information in which they need to forward their mandates more effectively. [11]

Another member sums up the tension in this way:

> we are dealing with a paradox; on one side there is the need to do research, produce knowledge, and influence policy; and on the other we provide a service to our partners by building relationships with the community. Our role is both – to create partnerships and to influence change. [12]

Williams *et al*. (2005) identify the major limitation of the institute is the lack of resources available to effectively guide the process and activities that interface

across research, community, and policy. Moreover, there are few established guidelines on how to effectively communicate and collaborate across domains, in the face of very different cultures and values systems. As an innovation in the knowledge system, hybrid institutions such as CUISR have the challenging task of carving out a role for themselves within the academy and among stakeholders.

4.3 CUISR Organizational Structure

The interdisciplinary and multifaceted nature of quality of life research is embedded in the QoL project. The project combines the skills and expertise of a core team of academic partners, involving faculty from three colleges: Arts and Science, Commerce (now the Edwards School of Business), Medicine; and three Departments: Community Health and Epidemiology, Geography (now the Department of Geography and Planning), and Sociology. Community partners consisted of private, public, business, and charitable organizations, including: The Saskatoon StarPhoenix, Saskatoon Credit Union, the City of Saskatoon, Saskatoon Regional Economic Development Authority, The United Way, Quint Development Corporation, Saskatoon Communities for Children, The Regional Health Authority, and the Regional Intersectoral Committee on Human Services, an organization of senior level leaders in support of integrated and collaborative approaches to human services.

One of the first steps in the project's activities was to bring together a "large group of stakeholders"[13] to gain consensus on an appropriate framework, establish goals, and develop principles and values to guide the work. The importance of establishing a clear purpose and objective for the project was identified, however, it was also understood that this purpose would evolve as the project progressed. The group stressed the importance of establishing a foundation of trust, consensus in decision-making, and adherence to the agreed-upon values, principles, and goals of the partnership[14]. In its second year of operation, the QoL project established a Quality of Life Steering Committee (QoLSC) to direct activities toward the

established objectives of the project (Figure 6.0). The QoLSC operates as a forum for dialogue and information exchange for researchers, community based organizations (CBOs), government agencies, businesses, and other local institutions involved in QoL activities in Saskatoon[15]. The QoLSC sought an equal representation from the university and the community, acknowledging a shared leadership of the community and academic QoL co-leads.

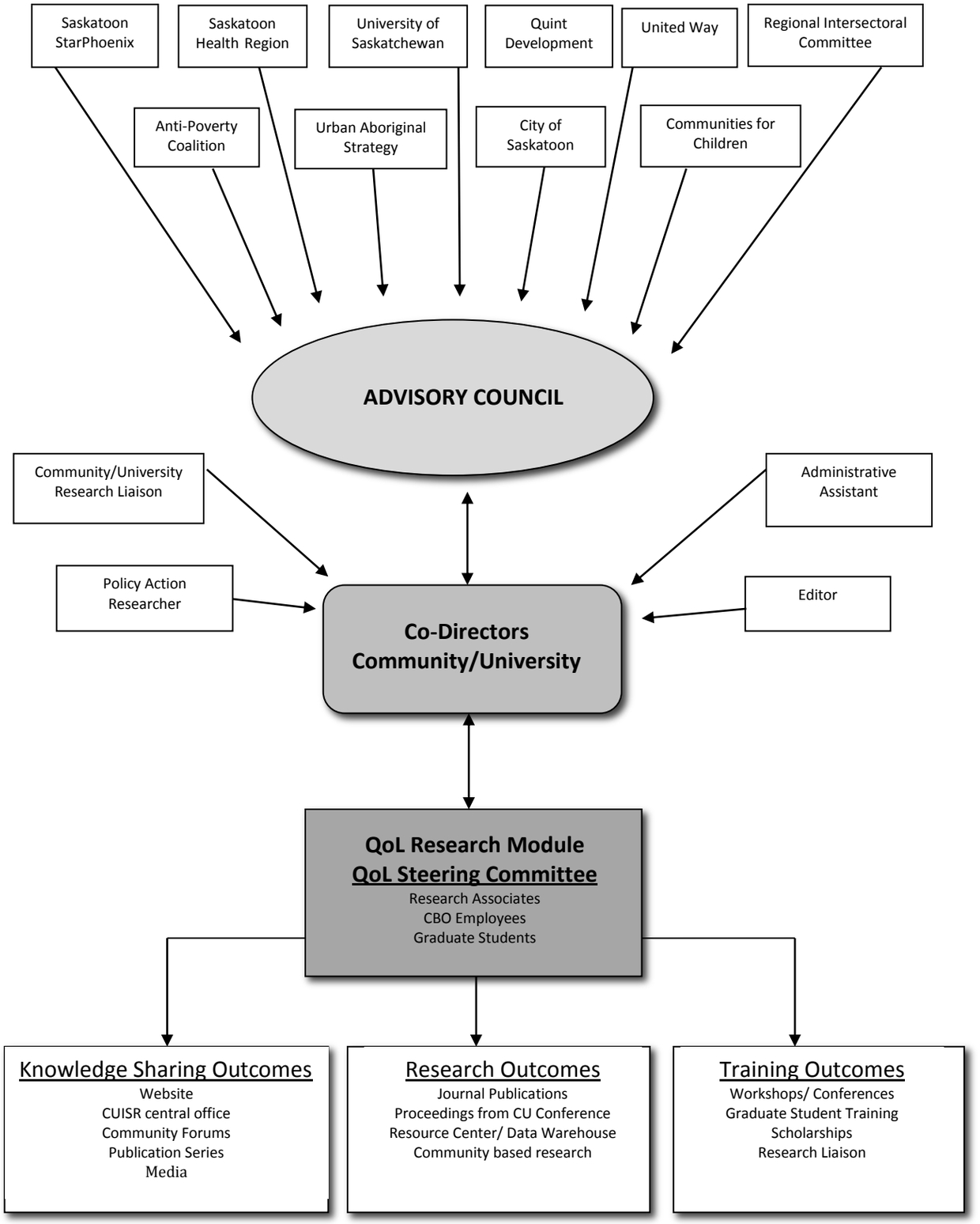


Figure 6.0: Community-University Institute for Social Research Organizational

As a collaborative working group, the QoLSC functioned to connect members in a common vision, and to coordinate and concentrate their efforts. Moreover, the QoLSC reviews the progress of the QoL module in reaching project objectives, and relays all pertinent information back to the community through members' respective workplaces and associations. The partner organizations and agencies represented on the QoLSC serve as horizontal bridges between university researchers and community members, as well as vertical links between upper-level decision-making bodies and community citizens [16].

In an effort to improve the interface between university-based researchers, members of the community, and policy makers, an Action Researcher was hired by the QoL project in the fall of 2002. The role of the Action Researcher is primarily to work as a linking agent for the QoLSC by facilitating knowledge transfer activities of the QoLSC, ensuring that research findings are deliberated at community forums, and in turn that forum outcomes are integrated into the QoLSC discussions[17]. Through the management of the Community Action Plan Information System (CAPIS), the Action Researcher also monitors and relays information about changes in policy, programming, and resource directives. Furthermore, the Action Researcher is acknowledged as a "policy entrepreneur", identifying and connecting with QoL "champions" in the city[18].

The QoL project continuously sought partners who were unrepresented in the QoL work, as well as partnering on other community initiatives. With the refined focus on "poverty elimination", the project was able to create further local and national partnerships with groups working with similar mandates. The local initiative, the Urban Aboriginal Strategy (UAS), merged their work with CUISR's Poverty Elimination Strategy, providing an Aboriginal voice to the QoL project while linking the QoL stakeholders with the work of the Aboriginal community. Moreover, further funding opportunities became available under this integrative work. The collaborative nature of the poverty strategy expanded the intersectoral work "to include those not normally linked with others. This builds relationships between different sectors beyond the current networks"[19].

4.4 Participatory and Communication Processes

The QoL project advocates for an open and participatory process that is accountable to its stakeholders and to the wider society. As such, the project adopted a "plural structure of inquiry" whereby:

> a multiplicity of views, commentaries and critiques, leads to multiple possible actions and interpretations… therefore, [this mode of inquiry]acts as a support for ongoing discussion among collaborators, rather than a final conclusion of fact.[20]

This framework of inquiry encouraged the QoL project to be "accountable to the community for an open and participatory decision-making processes"[21] and "contribute both to the practical concerns of people in an immediate problematic situation and to further the goals of social science simultaneously"[22]. This dual commitment is achieved with the adherence to a guiding set of principles. Among these principles are:

> The relevant persons, committees and authorities have been consulted, and that the principles guiding the work are accepted in advance;
>
> All participants must be allowed to influence the work, and the wishes of those who do not wish to participate must be respected;
>
> The development of the work must remain visible and open to suggestions from others;
>
> Decisions made about the direction of the research and the probable outcomes are collective;
>
> Researchers are explicit about the nature of the research process from the beginning, including all personal biases and interests;
>
> There is equal access to information generated by the process for all participants.

In adherence to these principles, the project developed engagement and communication strategies to involve stakeholders throughout the project, "bringing

research into the public domain"[23]. Such strategies include: the creation of a "data warehouse" or resource center at the University of Saskatchewan; a website to post project activities and publications; one page research summaries available in hard copy; a directory of the QoL community members that facilitates networking activities; quarterly newsletters; monthly Brown Bag Luncheons aimed at an audience of local community groups; postings across the university electronic mail system; and of noteworthy importance, the use of local media including newspapers and television and regular community forum events.

Community Forums represent the primary way in which the QoL project has brought the research project into the public domain and engaged the community in meaningful dialogue. Forums brought policy makers, politicians, community groups, and researchers together to discuss the research and the implications of the results for policy development. Seven rounds of community forums between 2001 and 2007 assisted researchers with developing the research design, conceptualizing findings, and identifying action priorities and future direction of the research. The objectives of these forums were: to facilitate "the mutual learning and collaboration among university and community"; to "improve research outcomes and the dissemination of research through discourse"; to bring "the community into the research process"; ensure the "accountability of the university as part of the community"; and to "inform, engage, and challenge participants to critically reflect on the state of the quality of life in Saskatoon" [24].

A central component of the QoL project was a survey of local citizens regarding their perceived quality of life. A draft 'Quality of Life' survey instrument, designed by the academic team, was presented and critically discussed at a Community Forum in 2000. Feedback from this forum was incorporated into the final survey. Partnering with the local newspaper, the QoL survey was conducted on 995 local citizens from nine socio-economically diverse neighborhoods. Four iterations of the survey were conducted, in 2001, 2004, 2007, and 2010. In addition to the survey, the QoL project also led focus groups and personal interviews in the

attempt to include the perceptions of community groups whose "voices or opinions have rarely, if ever, been heard on quality of life issues"[25], including: senior citizens, disabled people, children, youth, immigrants, aboriginal peoples, single parents, and low-income earners. The work of the QoL project was disseminated publically with a series of inserts in the local newspaper, reaching 72,000 households[26].

Through the various engagement strategies, the QoL project facilitated networking and continuous collaboration of stakeholders and the wider community. Although the main research office and resource center is located at the University of Saskatchewan, the QoL project utilizes a community space in the downtown area which is provided by one of the key partners (the United Way) and serves as a central meeting place and for the presentation of research findings to the community. Moreover, the many Community Forums were also held in a central, downtown location.

4.5 Decision Making and Collaborative Action

"Collaboration is a recipe for change" is a key message delivered by the QoL project. The solutions to QoL issues in Saskatoon became understood as requiring the cooperation and commitment of the entire community. With the understanding that in order to best coordinate actions and priorities, actors within collaborative networks need to have a holistic understanding of the activities within the community. To this end, the innovative "Community Action Plan Information System" (CAPIS) was developed and is publically available in the CUISR resource room. CAPIS includes a bibliography, directory, and a funding granting table, which assisted the learning, collaborating, and leveraging of available resources among collaborators. This system for knowledge management developed by the QoL project created a comprehensive understanding of what is being done, and by whom, and opportunities for further collaboration in QoL enhancement for Saskatoon. Moreover, Community Forums also facilitate the "collaboration among collaborators…" by encouraging "…problem solving type discussions" [27] among

participants. A further example is the "Action Auction" which linked participants together based on a common interest in a "QoL Action Priority"[28].

The ongoing discussions and consultations facilitated by the QoL project led to the development of the Comprehensive Community Action Plan (CCAP). The CCAP is a tool designed to facilitate linkages and further collaboration among agencies working on QoL issues in the community. The CCAP integrated the action plans and community-level initiatives into an inclusive document. The goals were: identify the most pressing QoL issues, determine the QoLSC priorities for action, allocate and coordinate responsibilities among appropriate agencies, and track progress in achieving desired QoL policy outcomes[29]. As a result of this work, "no additional, possibly equally important QoL action priority was identified beyond Poverty Reduction…" which "…connects all of the other Action Priority clusters"[30]. Thereby, the call for "Poverty Reduction" directed and focused all future QoL activities from 2006 onward.

4.6 Institutional Considerations

A collaborative institute that integrates the community with the university is compatible with the mission statement and objectives of its host institution, the University of Saskatchewan; however, at its inception, the university had not seen many examples like CUISR that cross boundaries of colleges, departments, and disciplines. Moreover, CUISR is a unique entity on campus because of its partnerships with many external community groups and levels of government. CUISR claims the:

> project and financial resources that we bring to the University are forcing senior administrators to pay closer attention to community-university research as a key element to an institutional research strategy[31].

CUIR also insists on taking a "more proactive role in supporting fundamental change in university research policy"[32]. As such, conversations about how to institutionalize a structure like CUISR as part of the university are critical.

The University of Saskatchewan established a Task Force in 2007 to resolve some of the issues related to the institutional relationship with Centers, such as CUISR. CUISR was identified as a Type B Center, which according to the *Guidelines for Applications for the Establishment of Centers at the University of Saskatchewan* (University of Saskatchewan, 2008:2) "… are organizationally part of the University and are subject to University management and control"; moreover, they"… will be subject to a systematic review in a form appropriate to its activities, as determined by the Dean or Vice-President to whom it reports". Although the report was thorough in terms of management and regulation of the Centers, no further commitment was made in regards to financial support or ongoing stability of the Centers; infrastructure and space are provided, but all other operating funds are to come from outside agencies. According QoLSC discussions, the formal institutional relationship with the university operates as a partnership that is under the regulatory control of the university without a secure financial commitment. Without providing specific details, one QoLSC member asserts "the university has extracted maximum benefit for minimum investment".[33]

In order to demonstrate the value and impact of their work, a "*CUISR Environmental Scan 2007*" was developed, outlining their organizational, academic, and community assets (Appendix C). This diagram outlines the value of CUISR at the University of Saskatchewan, and the connection with the community, local individuals, and public institutions. In turn, CUISR insists that the university institution formally recognize the diversity of accomplishments that are a part of community-university research alliances:

> … a right to challenge them about how CUISR has matured as an institution by working and learning with, and for and from the community; and just how much that has changed our institutional structure, the ways we do things, how we understand partnerships in ways much more meaningfully than when we started here. [34]

Institutional support is also identified as extremely important to expand the quality and quantity of researchers associated with CUISR and the security of successive leadership [35].

4.7 Summary

The QoL project serves as a case study of a Community-University research partnership with the goal of creating applicable research through the interaction with diverse stakeholders. The project facilitated several avenues for engagement and interfacing among the community and university, particularly through the use of community forums and the media. As a primary objective, the role of the project was to bring stakeholders engaged in QoL issues in Saskatoon together, creating networks and interconnection. Moreover, housed within a hybrid institution, the analysis of CUISR allows for a discussion of Mode 2 research from a broader institutional and policy level in terms of accountability and sustainability of Mode 2 research centers. As an innovative endeavor, CUISR and the QoL project raise several challenges as a CU collaborative research project, particularly in terms of the interfacing role between the community and the university, establishing the clear position of this research partnership between academic research and community advocacy, and securing a role in the academic institution.

Chapter 5

Data Analysis

"After observation and analysis, when you find that something agrees with reason and is conducive to the good and benefit of all, then accept it and live up to it."

- Buddha

5.1 Mode 2 and the QoL CU Partnership

The following analysis draws on the CUISR QoL project case study, as presented in Chapter 4. Project documents range throughout the duration of the project from 1998 to 2007. The analysis is framed around the five key theoretical assumptions of Mode 2 research: knowledge is produced within the context of application (Contextualization); multiple perspectives are integrated into the theoretical and methodological approach and epistemological foundation of the research (Trans-discipline); academic knowledge is created outside the university institutional structure (Heterogeneity); the social realm is engaged during the process of knowledge construction and the science realm becomes accountable to the outcomes of such public engagement (Social Accountability); new knowledge is generated, outcomes are applicable and evaluated by the users of research (Quality Control). This analysis works to identify if the QoL project is representative of Mode 2 research in terms of these five assumptions, and if so, to what extent.

5.2 Mode 2 Theoretical Assumptions

5.2.1 Contextualization

Using the typology of Nowotny *et al*. (2001) low, medium, and high levels of contextualization, this analysis indicates that the QoL project functioned at a medium to strong degree of contextualization. Based on the intensity of communication between users and producers of the research (Nowotny *et al*. 2001), the degree of communication between the academics and community

partners was consistent and persistent throughout the duration of the project. CUISR began as a community project in 1999 in Saskatoon as a result of a series of conversations among academics and community leaders concerned about quality of life issues. This beginning stage of the research process involved consultation with CBO representatives with a "diverse and substantial knowledge base of the broader Saskatoon community through the delivery of social programming"[36]. The objective of this initial consultation was to better understand from all stakeholder perspectives the current quality of life in Saskatoon and predominant community issues.

Community Forums represented the primary way in which the QoL project engaged the community in meaningful dialogue. Forums brought policy makers, politicians, community groups, and researchers together to discuss the research and the implications of the results for policy development. Communication strategies also included the circulation of research summaries, the presentation of research findings at regular Brown Bag Luncheons aimed at an audience of local community groups, and the use of the mass media to target local residents.

The community forums, described as "highly interactive forums designed to inform, engage, and challenge the participants to re-examine quality of life action in the city"[37], served as transaction spaces where diverse players interacted. However, despite regular community consultations, the QoL project was criticized as to whether it was truly representative of community voices. For example, one critique from a Community Forum states: "I would question how inclusive the forum is as most of the participants are paid organizational representatives" [38] while the community co-lead, a senior municipal employee, was seen as not representing "the diversity of community voices, some of which may be in conflict with local government itself"[39]. Moreover, the community was represented at the forums by strategic organizations whose true representation of the community voice was questioned. The involvement of community residents were not evident at these interactive forums, and were mainly involved in the form of survey responses

or focus group participation, which continues to replicate a traditional academic model for public engagement.

The focus of the project was localized, the city of Saskatoon, and the demographics of the city were mapped and targeted in the research design. It seemed that the clear overarching goal of 'advancing quality of life in Saskatoon' was established early on in the project, and much research and effort went into conceptualizing and operationalizing the term 'quality of life'. The local community and organization were engaged to identify how to reach their goal: 100 recommendations emerged from the first round of community consultations in 2001, nine quality of life action priorities emerged out the survey conducted in 2001 and 2004, and 300 action priorities emerged in the 2005 community forum. In 2006 the QoL honed and focused all efforts to improve quality of life through their Collaborative Poverty Elimination Strategy[40].

Through years of iterative dialogue with the community and users of the research, the project clarified the themes and concepts that would direct the work, eventually identifying one encompassing target to direct efforts towards. The decision to focus efforts on poverty elimination was bold and shifted the direction of the project. However, questions about the process surrounding this decision arose. The decision was made in 2006 at the Taking Action forum. Participants at this forum identified the focus for the project. Stakeholders of the QoL project who were not present at the event questioned the legitimacy and transparency of this decision and argued that "no mechanism was used to conclusively decide that Poverty Reduction is the most important QoL priority"[41]. After the forum, the project documents were saturated with comments such as: "facilitating a comprehensive strategy" [42]; "more action on poverty reduction"[43]; "a strong argument for why eliminating poverty is important needs to be made"[44] ; "build new relationships"[45]; "establish a common goal"[46]. Guided and adhered to, this focused agenda attracted new partners, such as the Anti-Poverty Coalition and the Urban Aboriginal Strategy. Although not entirely clear how the decision to focus on

poverty elimination was made, the formation of this working group around a focused goal is typical of Mode 2 research (Gibbons *et al.* 1994).

CUISR's role was to bring the university and community partners together. However, the lack of clarity between community and academic relationships created challenges for CUISR. Without a clear 'advocacy' or 'research' mandate, CUISR struggled as it could not "continue to sell itself as everything to everyone… and [we] must clarify what we can and cannot do"[47]. The research components of the QoL project were executed and followed a rather traditional model of inquiry. However, the methods to address the community concerns were not so clear. What needed to be done in the community to advance quality of life, and who were the active partners to meet these goals, was a focus of the project for over half of the seven years of active engagement with no clear outcome. This said, a great effort to make a coordinated and identifiable impact on policy and programming in Saskatoon was evident. The QoL project produced several pragmatic research outcomes, such as the Community Comprehensive Action Plan Information System (CAPIS)[48] and the Comprehensive Community Information System (CCIS)[49]. Both these tools were developed through the compilation of information from the community regarding activities, initiatives, and policies currently being done to advance quality of life, and to identify what gaps remained. These tools also identified how collective resources would best be used to meet the goal of advancing quality of life in Saskatoon.

In theory, CU partnerships are designed to produce contextualized knowledge. By their very nature, CU partnerships engage the community to identify specific local issues. However, the level of engagement varies within individual CU partnerships. In terms of the overall contextualization, this CU partnership is conceptually an example of Mode 2 research, whereby the project integrated social needs and the knowledge of community-based organizations with the technical and research expertise available at the university. The first community forum was attended almost 100 representatives from multiple levels of government, various CBOs, community groups, and First Nations organizations. Regular community

forums and monthly QoLSC meetings maintained the commitment of the project outcomes directed toward community needs. However, the document analysis also indicates that QoL project maintained its foundation in a traditional or mode 1 model of academic inquiry. Although the project Steering Committee was committed to engaging the community through various forums and media campaigns, the structure of these interactions was generally a push model whereby research question, design, and analysis were first established by researchers, and then presented to the community for comment. Community *participation* in knowledge creation process would be a more accurate statement than the *co-production* of knowledge. An academic co-director claimed early in the project: "community engagement in the project needs to be the focus of our activities as we need more involvement and buy-in from the community partners"[50].

5.2.2 Trans-disciplinary

Trans-disciplinary research suggests that the epistemological basis of all partners and stakeholders are integrated into the design and interpretation of project outcomes, orientated towards an advanced understanding and application of results. In initial project documents, one of the identified key principles for QoL enhancement was the "collaboration and networks of inter-sectoral and inter-departmental organizations"[51]. This core principle outlines the way the QoL project produced knowledge - as a multi-stakeholder and participatory project. Moreover, the "plural structure", defined as "incorporating a multiplicity of views, commentaries and critiques, leading to multiple possible actions and interpretations"[52] represents a basis for trans-disciplinary inquiry.

However, Gibbons (2001) is clear that Mode 2 research is more complex than simply assembling a diverse range of stakeholders and experts to work through a common problem. Trans-disciplinary research requires a consensus on the theoretical and methodological approach, where the final solution to problems is outside of any single discipline, leading to new understanding of an issue. The

QoL project spent considerable time in dialogue with community and academic partners to develop a consensus on the conceptual and analytical framework that would guide the project, and "wherever possible, Board decisions [were] made by consensus"[53]. However, the documents also showed evidence that "consensus based decision making was not seen as conductive to project operations"[54] and was "simply not feasible to involve all participants of the partnership"[55]. These excerpts identify that although consensus was the goal of the project, the need for innovation in knowledge co-creation is necessary to fully envelope this case study as Mode 2 research.

Although not overtly identified in the project documents, there appeared to be two distinct streams of the QoL project: the academic stream which focused on the production of academic-based research through traditional means; and the community stream which developed applied research based on the needs and demands of community partners. The elements of the QoL project that reflects traditional research evidently appear to

> meet the needs of university-based partners… using surveys of selected populations using techniques such as probability sampling and structured questionnaires, and focus groups, all which fall within the current field of survey research methodology[56].

This aspect of the project was guided and directed through an academic lens, and primarily by the academic directors.

However, the community components of the QoL project more closely reflect the parameters of trans-disciplinary research. As an example, the project worked with a committee of community based professionals to develop a methodology for managing and analyzing QoL initiatives within the community. The methodology was not based in a particular discipline. Rather, the "study methodology lies in the identification of connections between seemingly diverse groups and organization dealing with QoL issues"[57]. The research was driven by community partners alongside the active involvement of the community co-director. A Community Action Plan Information System (CAPIS) is the result of this

effort. CAPIS is a "compendium, an analysis, and a purposive contextualization of QoL actions and recommendations from collaborative action plan documents"[58]. Described as both a process and a product; the process was developing an acceptable methodology for sorting and analyzing data, and an analytical framework for examining QoL related action initiatives and interconnections. The product is the information system itself, a tool to respond directly to community issues. This work represents the innovation in methodology, and is reflected in the academic literature with a formal publication[59].

Linking with a broad base of stakeholders was understood to broaden the scope of expertise and capacity of the project. Moreover, the active involvement of diverse stakeholders was also understood as the most "effective approach to increase the likelihood that research results will be translated into policy and services"[60]. The degree of communication and networking activities the project conducted was predominate in the project documents. However, the networking effectiveness and the ability of the participants to influence change directly relates to the motivation and engagement of stakeholders throughout the life of the project. The project leads stayed remarkably stable throughout the seven year period. However, the academic co-director identified that involvement in the project is a huge commitment, and perhaps "may explain some of the current difficulties in maintaining and recruiting new directors to the organization"[61]. This observation further suggests that the challenge experienced by the project to recruit and maintain academic contributors could conclude that Mode 2 generally, and this CU partnership more specifically, did not support the demands and needs of the academic community, creating challenges in academic engagement.

The QoL organizational structure resembles a Mode 2 framework whereby knowledge is jointly produced and directed by a diverse set of stakeholders, with a goal to produce new understandings of QoL in Saskatoon within a framework of action. In practice, however, this effort was not fully realized. A split between the academic approaches and community initiatives seemed to be evident. There is also no evidence that the knowledge produced did, in fact, result in action or an

advanced understanding of QoL issues within the community. Moreover, the project documents do not make mention of trans-disciplinary approaches, and refer only to interdisciplinary, participatory, and community based research. This suggests that either the project leads were not attempting to conduct trans-disciplinary research, were not aware of this theoretical construction as a guiding framework for the project, or as suggested by Weingart (1997:596) the difference "remains vague and ambiguous".

5.2.3 Heterogeneity and Organizational Diversity

Mode 2 is marked by the diversity and heterogeneity of the contributors to the knowledge production process and the multiple sites in which production takes place, specifically outside the traditional environment of the university. This approach to knowledge creation, however, requires new forms of hybrid organizations and knowledge workers to facilitate this exchange. Moreover, the impact of Mode 2 research rests on linking networks of people and organizations. These networks are understood as a key approach to address the complex issues that require the contribution of knowledge users and those affected by the research outcomes, alongside academic knowledge producers.

An integrated and coordinated approach to advancing quality of life in Saskatoon is clear from the beginning of the QoL project. A total of 170 organizations were identified as having an interest in supporting the QoL project activities, with a mailing list of over 1000 organizations and individuals. The QoL project also made use of the local media and community advertisements to reach local residents. The attendance at the final Community Forum was described as:

> …an excellent representation of the decision makers in our community. Their participation in the forum was a continuation of the participation of their organizations throughout the research phases of the project, and demonstrates the commitment within the community to making changes to improve our quality of life. [62]

Community Forums also worked to identify commonalities amongst participants and create linking mechanisms. The 'Action Auction', for example, linked participants together based on a common interest in a specified 'QoL Action Priority'. The interrelationships and overlap between groups and initiatives were used "to focus energies around specific strategies"[63]. Moreover, the CAPIS grouped QoL initiatives within the community as 'Actions'; or 'Recommendations' in order to stimulate deliberate strategies and linking common organizations to achieve concrete policy and program changes.

Although useful work, it is difficult to evaluate from the project documents how effective these linking and networking efforts were at any level in creating coordinated action to advance the quality of life in Saskatoon. However, researchers and community groups identified that they valued the networking and relationship building that occurred as a result of their contribution to the QoL project. According to an internal evaluation, participants claimed that:

> …these networks strengthened the organizations and the personal relationships established were transferred to other situations and used to create new alliances… subsequently we went on to collaborate and collectively develop other research questions.

With the refined focus on 'poverty elimination', the project was able to create further local and national partnerships with groups working with similar mandates. The collaborative nature of the poverty strategy expanded the intersectoral work "to include those not normally linked with others. This builds relationships between different sectors beyond the current networks"[64]. Poverty elimination became the integrating piece for the QoL project, and sparked an organizational change "almost immediately at the conclusion of the project"[65]. The result of a coordinated approach to advance the quality of life in Saskatoon through poverty elimination is beyond the initial QoL project under investigation, and thus cannot be further explored.

Initially, CUISR was physically located in a community based office space.

However, this office was closed during the later stages of the QoL project. A QoLSC director warned "we need to think very carefully about the implications of a location solely on campus"[66]. A QoLSC member argued that "on campus or not, the perception is there that we function in a different universe". [67] Another member rebutted:

> I acknowledge the work being done, in large measure through the QoL Steering Community, to build the community side of CUISR to the stage where I really see it as a partnership. However, we must remain cognizant that we function within the institutional context of the university[68].

Although the office relocated to the university, the concern over CUISR being viewed as orientated too strongly in the university, and was seen as "… really important that we take the ownership of CUISR to the community…"[69]. However, the institute did not comfortably serve or fit within the community or university environments, in turn threatening the sustainability of the institute. Neither side of the partnership seemed to be invested enough in the institute to make long term and tangible commitments to ensure its sustainability. In an effort to improve the interface between university-based researchers, members of the community, and policy makers, the role of the Action Researcher was developed and found to be an essential interface and linking agent for the members of the QoLSC, a role whose value "cannot be overestimated"[70]. This new role within the knowledge system, and within CU partnerships, is promoted by Mode 2 as necessary to bridge partners and address the diverse and transitory nature of problems addressed in this mode of research (Nowtony *et al*. 2001).

CUISR focused on taking a "more proactive role in supporting fundamental change in university research policy"[71]. As such, conversations about how to institutionalize a structure like CUISR appeared in the documents. A CUISR working group explored the possibility of creating an "overarching" entity to house Centers like themselves, while maintaining the autonomy and independence of participating organizations. This "overall umbrella"[72] organization would help to serve as "a local and national hub for CU partnerships, coordinate research

initiatives, and integrate results for more meaningful outcomes"[73]. The integration of initiatives is seen as lending to the creditability to social research initiatives, and able to better address broad, multi-faceted community issues. Supporting arguments suggest that such an entity would attract more attention from larger granting agencies, as well as a cost saving measure of having all groups under one roof. This option is also presented as a solution to space issues at the University, which "hinder the effectiveness of our activities"[74]. Securing space and resources was seen as critical for sustaining the CU institute and its ability to develop ongoing research partnerships and respond to community initiatives. Without this support from the university institution, it is difficult to suggest that Mode 2 is indeed a marked shift in academic knowledge production, and not simply a response to community demands on the academy.

5.2.4 Socially Accountability and Reflexivity

A stimulus for the development of Mode 2 research is to address growing public concerns and the increased public interest in the research process. The QoL project was shown to have worked continuously to engage a diversity of appropriate stakeholders to direct the project objectives. In terms of public involvement, the project worked primarily with CBOs, who were seen to be closely tied to local community needs and representative of the public voice. However, this presumption was challenged by the community, and acknowledge by a CBO representative on the QoLSC: "if we could be so ignorant to assume we represent … the wisdom of the community"[75]. Similar observations were echoed in the community: "the voices of people in the community need to be heard, as well as the U of S, etc."[76]; "Who is setting this agenda?"[77]; "Where is the community? How are they engaged in the process?"[78]; "…continuous need to make an "effort" for social inclusion"[79].

According to a project Research Director, the public or 'lay community members' are a key group of stakeholders; however,

> in practice, this strains against what is temporally and financially feasible. It also risks creating a forum where competing individual interests invoked under the rubric of community precipitate conflict.[80]

Managing the tension between community and academic expectations was a theme prevalent in the project documents. To illustrate, many community partners did not see the need for "academic publications that take much of the time and energy of the academics members… " while "… academic members did not initially see the need to take responsibility for organizing new community action based upon research findings"[81]. As well, there were tensions experienced around survey design and accommodating specific interests, as well as "lists of desired research objectives impossible to satisfy"[82].

Accommodating competing interests required intensive communication and negotiation. In the QoL project "open environment of inquiry and decision making"[83], there was a

> continued recognition of tensions to be managed and the importance of doing so…learning to deal with the cross-cultural sensitivities inherent in the model is a predictor of the success of collaborations. Perhaps some care should be taken to enhance this capacity among the principals and the various stakeholders"[84]

As one document suggests, "there is an overlap of roles and activities in community-university partnerships, but not a blurring of them"[85]. In one instance, the project brought in a third party in order to facilitate a difficult discussion, primarily regarding conflicting expectations and timelines.

A lack of clearly established priorities and expectations at the onset of the project proved to be problematic. A QoLSC member claimed that the project must "draw limits around the partnership, in terms of recognizing that not all group's needs and motivations can be satisfied"[86]. The QoLSC attempted to clarify what research can and cannot be conducted as they were not able to be "everything to everyone"[87]. Moreover, it was identified that more attention to setting priorities would enable "staff to make more effective use of limited time in the face of excessive demands and expectations from a variety of stakeholders"[88]. The QoL

project acknowledged this issue with direction for future initiatives, where "the outcomes and priorities need to be set among participants"[89].

In an effort to take an inventory of who was willing and able to participate in QoL initiatives in the community, and in turn focus strategies and resources, the Comprehensive Community Action Plan (CCAP) was developed. Another example of community driven, and pragmatic research developed by the QoL project, the CCAP identified action priorities and gaps, in turn collectively created a "living document" to develop collective strategies, and become interconnected and accountable to those involved. The QoL project identified that producing an Action Plan is an "effective method for dissemination and translation of research into practice"[90] whereby the success of the project is determined "not by the results obtained at the analysis stage, but by the amount of community mobilization"[91]. However, the range of community mobilization resulting from the Action Plan is difficult to identify or measure from the project documents. It can be concluded that 160 of community partners were included in the CCAP, publically linked together based on compatible goals and mandates[92].

Attempts to bring the "data into the public domain"[93] were many: regular Community Forum events served for critical discussion, a publically accessed website, data warehouse, and resource center were maintained, bi-annual newsletters, brown bag luncheons, advertisements in On-Campus News, Cityside on Shaw TV, CFQC TV community events, and university listings advertised upcoming events and the latest research. CUISR also hosted the first Canadian community-university research conference, CUexpo, which was held in Saskatoon in 2003. Partnering with the local newspaper, the Saskatoon Star Phoenix, also proved to be critical for the dissemination and public discussion of the QoL project mandate and research process. The newspaper communicated the QoL survey analysis results and released of series of theme papers to the broader population of Saskatoon. The project documents suggested that "the community is beginning to feel a sense of ownership and control over the processes that determine social policy and influence quality of life"[94].

The project adopted a 'reflexive critique' to "ensure there is a reflection on issues and processes and make explicit the interpretations, biases, assumptions and concerns upon which judgments are made"[95]. However, from this analysis, it appears to be questionable if the pubic was sufficiently engaged. It seems that those involved in the reflexive critique are the same people driving and moving the project forward. It is difficult to identify where the goals and values of 'ordinary citizens' were voiced and contributed to the research and policy directives. The CBOs were critiqued as not to adequately represent the public voice; however, a method for sufficiently engaging the social realm was not fully development. Moreover, it is unclear what social knowledge the project produced outside of traditional academic understanding of QoL issues, and what QoL initiatives were sustained as a result of community involvement in the research.

5.2.5 Quality Control

Differing from a traditional research paradigm where evaluation and quality control of knowledge production is determined essentially through the peer review system, Gibbons *et al*., (1994) assert that the quality of Mode 2 research must be evaluated "in its own terms" (Gibbons *et al*., 1994:33). As such, Mode 2 research is assessed in terms of whether the project met the criteria of what the project proposed to do.

The initial QoL grant application identified three primary objectives:[96]

> Objective A: Establish three mechanisms to improve the interface between research, community and policy, including: the Saskatoon Quality of Life Steering Committee (QoLSC), an Action Researcher, and a Community Policy Forum
>
> Objective B: Research the policy and program impact of CUISR's quality of life research findings via ongoing tracking and monitoring of community initiatives and resource allocation
>
> Objective C: Evaluate the change in Saskatoon's quality of life through the development of indicators … having two similar data sets collected three years apart will allow a comparative analysis across time.

To evaluate the project based solely on these three objectives, the project would appear to have successfully met *Objective A*, whereby a QoLSC, and Action Research, and Community Forums were all established, working to promote the interface between research, community, and policy. *Objective B* was met with the development of the CAPIS and CCAP. However, the evaluation of these tracking mechanisms has not been developed and the work does not seem to have been maintained. Furthermore, the plan to develop other evaluation tools, such as the performance indicators and a "Comprehensive, Critical Evaluation and Assessment of CUISR Impacts"[97] has not materialized. As such, the QoL project did not fully meet this objective. *Objective C* was moderately met. The QoL project successfully completed and compared three similar data sets which evaluate the publically perceived quality of life in Saskatoon, and a fourth round is now available. This longitudinal data set is useful data for policy and program evaluation and development. However, although publications and briefing papers have been developed which outline the changes in perceived quality of life in Saskatoon, a clear set of quality of life indicators that evaluate and measure the changes in QoL for the city has not been developed or maintained.

As suggested by Gibbons *et al*. (1994), the quality of Mode 2 research is evaluated by user groups, rather than a traditional peer review process. The success of the project is therefore measured in part by the ability of the project to address the needs of stakeholders, and the ability to implement research results. CUISR gathered information through interviews with CBOs, researchers, faculty, and QoLSC leaders to "substantiate the impact [the project] has had on its stakeholders and the extent to which the Institute's activities have achieved the desired outcomes"[98]. Garnered in the form of letters of support, these letters served as testimonials of user groups involved with CUISR. Although a few stakeholders identified that the QoL project has "made a positive difference in the community"[99], project documents reflect that stakeholders were not convinced that the research results had been fully utilized by the community partners. The project Academic Director claimed that:

> stakeholders suggest that the research work undertaken to date has not been utilized to its full capacity by the community research partners and the community at large…currently there are no tools to gauge the degree to which community groups are using CUISR research and changes in attitudes and policies are occurring that will impact quality of life.[100]

CUISR contracted its own external evaluation to identify the ability of the project to "fulfill obligations entered into in the [funding] proposal".[101] This evaluation concluded that:

> By any measure, CUISR has been enormously successful in supporting and conducting applied community research, training highly-qualified graduate students, increasing research and knowledge utilization capacity in the community, and sharing research findings with the community.

However, formal mechanisms for evaluating the impact of the QoL project have not been established. According to project documents "it is still unclear if these strategies will succeed in 'translating' research findings into policy and practice change that, in turn, leads to improved quality of life"[102].

Academic researchers in the QoL project identified the need to move research findings into peer-reviewed, publishable results. Academic leads questioned the ability of the project to support them with this obligation since knowledge produced for users is required more quickly in order to respond to immediate issues. Moreover, collaborative community research:

> challenges university researchers to think of their resource requirements beyond simply generating new findings, and to consider plans for using such findings in policy and program decision-making[103].

Despite conflicting expectations among academic and community partners, the project produced:[104]

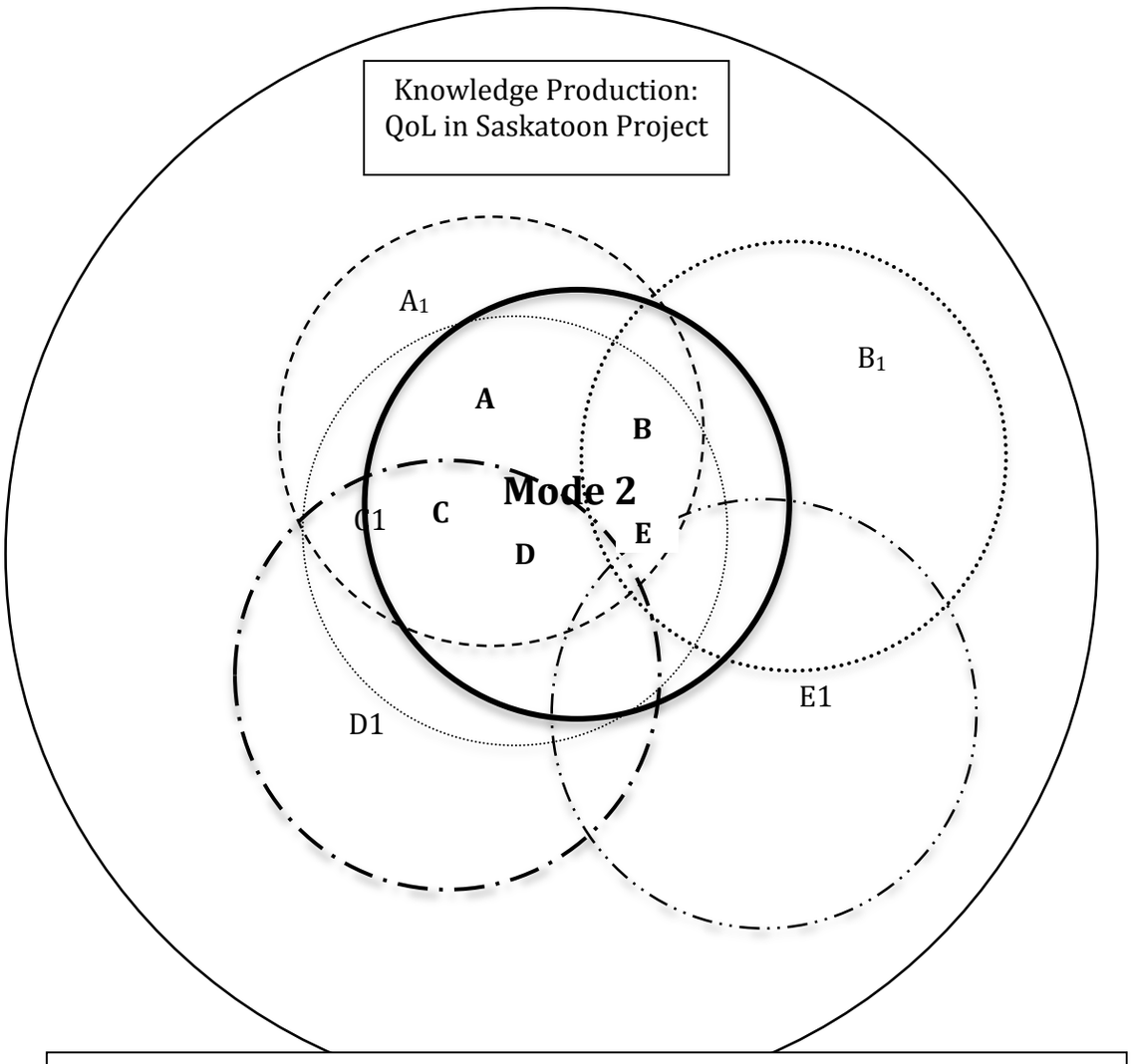
> peer-reviewed papers are appearing in journals (3 published, 2 submitted, 12 in preparation), team members have given 10 conference presentations and an additional 31 presentations have been made to other decision-makers or client groups. Thirty-six non-refereed reports are published or in

> print and a special 26 page supplement on research results was disseminated to 72,000 local households… All project report and finding summaries are posted on the website for public access, and are shared extensively with a network of community QoL researchers across Canada.

Research within the Mode 2 framework is required to adopt a different set of research practices. However, doing so is not in synch with the existing reward structure of the universities. The existence of Mode 2 requires changes in current organizational structures; however, formal institutional standards also need to be put into place in order to evaluate standards of quality in Mode 2 research. Moreover, quality control also must to be organized in such a way so that its stakeholders consider it trustworthy and creditability, and therefore accept and use the knowledge generated. The importance of setting standards and measurements for Mode 2 research is widely discussed in the literature. Gibbons (2001) suggests that Mode 2 quality control is evaluated in two main components: one is institutional and includes formal standards of excellence of Mode 2 research; and the other pertains to the community side and the environment in which research is performed and applied. Project documents did not show evidence that either of these two components for quality control were applied to the project. Formal evaluation of the knowledge produced by the project and evidence of its application are not evident.

The QoL project acknowledged a need for a 'goals evaluation' in order to gauge the effectiveness and impact of the work, and to track policy changes within the community. However, there is no established framework or set of indicators that measure the impact of the QoL project specifically, or Mode 2 research more generally. As such, it is difficult to determine whether, and if so, to what extent the QOL project succeeded in its intent. Moreover, without standardization, the overall value of Mode 2 research for the university or the community is difficult to discuss and legitimize.

Figure 6.0 Mode 2 Applied to QoL Project Case Study



A= localized, users involvement, focused goal, action plans, regular communication, interface established
A_1 = unclear roles, ambiguity to achieve goals, academic push model, traditional 'public engagement' model
B = goal of consensus, principles of equal participation, applied, multiple stakeholders, working groups
B_1 = distinct academic and comm. research goals, new knowledge, consensus not conducive, recruitment
C = strong networks, public dissemination, combined skill sets, further collaborations, linking mechanisms
C_1 = no long term commitments, lack of links between research and outcomes, no coordinated action
D = community control and focus, use of media, communication strategies, purposeful critical reflection
D_1 = weak public voice, w/o practical application, small group guiding the process, w/o evidence of change
E = achieved objective A and part C, user support, application as goal
E_1 = objectives B and C not achieved, no formal evaluation or measurement tool, no evidence of action

5.4 Summary

The QoL project documents were used to assess the presumptions of the Mode 2 theoretical framework in a practical example of a community-university research partnership. Gibbons *et al.* (1994) Mode 2 production of knowledge was found to closely describe the CU partnership that was the CUISR QoL project. The QoL project is a typical example of a CU research partnership where community and university partners collaborate to advance knowledge and develop a comprehensive approach to specific local issues. The QoL project established strong linkages and committed relationships between the community and academic partners, which seemingly persisted beyond the mandate of the QoL project. Despite persistent dialogue throughout the duration of the project and an integrated approach of academic disciplines and community perspectives, the project did not seemingly produce new or innovative knowledge regarding the understanding of quality of life as a result of this collaboration.

The research generated from the QoL project was brought into the public realm for dialogue and mutual shaping through the use of community forums and use of mass media. However, the actual representation of the Saskatoon community in the project was questioned. The project seems split between traditional academic research methods and community focused initiatives. Moreover, the recruitment of academic partners proved to be an ongoing challenge, suggesting that the incentives in participating were not great enough to invest the time and intellectual resources required. As such, toward the end of the project's timeline, the community partners took on the ownership and direction of the project. The intension of the QoL project was to develop research that is shaped to meet the practical needs of stakeholders. However, as a new approach to knowledge production, this collaborative partnership did not have the evaluative framework or established quality control mechanisms to gauge its success. Given that Mode 2 research is evaluated primarily based on the applicability of research results, there is little evidence that the work generated by the QoL project was indeed integrated into policy or tangible community change.

CHAPTER 6

Conclusions

"And at any time, that view they held was sooner or later altered by changes in the body of knowledge."

- Burke, J. 1985. *The Day the Universe Changed*. Boston: Little & Co.

6.1 The QoL Project and Mode 2 New Production of Knowledge

The QoL project supports the growing empirical evidence of case studies which indicate that "a distinct set of cognitive and social practices is beginning to emerge that are different from those that govern Mode 1" (Gibbons, 2001: 1). Findings of this case study identify that although these cognitive and social practices referred to by Gibbons are evident, they are distinct enough to need more development in terms of methods and evaluation tools. For example, the QoL project served as a community-university research partnership with key themes that relate to the identified goal – the advancement of QoL for residents of Saskatoon. The project utilized both an academic model of inquiry with the use of longitudinal data within a mixed method approach. The project also continually engaged the community with Steering Committee representation and regular community forums to inform the direction of the research. However, academic and community initiatives seemed to operate distinctly, and not as an integrated approach, as suggested by the Mode 2 theory. Moreover, the collaboration of academics and community groups, or the integration of expert and tacit knowledge bases, did not seem to advance the knowledge and improvement of quality of life issues.

The QoL project exhibited much success in creating ongoing partnerships and alliances with partners around the issues of QoL in Saskatoon. Additionally, the QoL project contributed to the facilitation of networking and exchange by hosting ongoing community forums. These events brought together many diverse players with common mandates and objectives. The additional relationships that were built

as a result of these interactions cannot be measured within the limitations of this study; however, successful project activities such as the "Comprehensive Community Action Plan" directly linked collaborators for the mobilization and prioritization of community needs and initiatives. Community forum events also facilitated the gathering of people outside traditional boundaries of the university institution. Although application of research results is a key axiom to the Mode 2 theory, there is no clear evidence within the project documents that coordinated action or policy change resulted as a result of the established networks and linkages facilitated by the project.

The diverse make up of members of the Steering Committee worked to inform, direct, and maintain the integration of both theoretical and pragmatic perspectives throughout the project. However, the inclusiveness of the project was an identified concern, not only within the community, but also within the Steering Committee itself. The Committee continued to make an effort to engage and involve sectors that were not represented. Despite these efforts, the concern remained that the QoL project was without the public voice, and was directed by a small group of representatives of the Saskatoon community without full public participation and engagement. Innovation in methodology to fully engage the public in the co-creation of knowledge is needed to further support Mode 2 research.

The findings of the QoL project indicate that the QoL project was not fully integrated into the academic setting, with established reward and merit structures. The model for evaluation of academic knowledge production is strongly based on a Mode 1 traditional model of academic publications and promotion. If Mode 2 knowledge production is indeed occurring within the academy, it is still very much in development. Moreover, the applicability of research results is a key component to the success of Mode 2 knowledge production. The lack of a clear model to direct the application of research findings in the QoL project inhibited the ability to direct tangible change and applicability of the research for use among stakeholders.

6.2 Limitations to the Mode 2 Model in CU Research Partnerships

The findings of this case study of the QoL project illustrate that the general trends of Mode 2 knowledge production are evident within collaborative CU research partnerships. This section identifies the characteristics of CU partnerships found within the project documents which do not align with the Mode 2 framework, in turn inferring to the limitations of the theory in addressing collaborative research in the social sciences. Analytically, when comparing the themes of the Mode 2 theory and the characteristics of CU partnerships, several of the categories were easily integrated. However, the theoretical framework did not fully account for three key considerations pivotal to the QoL CU partnership: issues of Institutional Adjustment and Ethics; Funding and Sustainability; and Conflict. This section will explore these three outstanding CU components, and the limitations of the Mode 2 theory to fully describe projects conducted as collaborative social research.

6.2.1 Institutional Adjustment and Ethics

The discussion presented by Gibbons, *et al*. (1994) lacks direction for institutional change to support Mode 2 research. Rather, Gibbons discusses the Mode 2 research landscape as a functioning paradigm, and does not fully address the actual adjustments required for institutional sustainability of Mode 2 research, and the measurement mechanisms necessary to gauge the impact of this work. Hessels & Lente (2010: 68) sum it up this way:

> in practice, the dominant reward structure of university research is not compatible with all attributes of Mode 2 KP, whereby quality indicators and evaluators favor traditional forms of knowledge above socially robust knowledge.

The QoL project experienced similar challenges. Predominant throughout the project documents, CUISR continually sought support from the academic community, and this effort remained at the forefront of its priorities, compromising the efficiency and effectiveness of the project outcomes. Even though there is an increased interest in research partnerships in academic literature, funding

priorities, and strategic planning at the university, an academic co-director identifies challenges in recruiting colleagues to work with the institute and identifies the necessity for a change of mindset[105]. The lack of a supportive merit and reward system, including established standards of excellence for community and user engaged research, and the acknowledgement of the time obligation necessary to conduct the research, are identified as primary reasons for the lack of academic buy-in for CU partnerships.[106]

Ethical considerations also emerged in the QoL project. CUISR had the benefit of access to university partners and an institutional Ethics Review Committee, which ensures that applied social research maintains high technical standards and protects the interests of the population. However, there are no specific ethical guidelines nor protocols for community based research and research conducted in tandem with research partners. Some student researchers were concerned that there may be repercussions related to the approvals and consents for the information they had collected[107]. In an internal evaluation, the question of who owns the research data and results was also brought forth. The concern is that although CUISR is an organization of both community and university partners, it is perceived that the academics receive credit for the research[108]. Given the growing importance of intellectual property rights, and the ethical and confidentiality concerns of community groups in CU partnerships, Gibbons' Mode 2 would be served by exploring the issues of authorship and ownership of the research produced in these partnerships.

6.2.2 Funding and Sustainability

Gibbons, *et al*. (1994) identify that governments are lessening its priority on financing research. As such, research funding is now required to be found outside the institutional structure. However, the issue of funding is so prevalent in the ongoing sustainability and advancement of CU partnerships that a more pointed and fuller discussion within the Mode 2 literature is warranted. Although external

funding sources increasingly provide incentives for researchers to engage in contextualized research, Hessels & Lente (2010) suggest that the limited rewards for fulfilling these promises almost nullify these incentives.

An obvious consideration for the sustainability of CUISR and the QoL project is the establishment of a secure funding base. As the original SSHRC grant application projected that CUISR would be self-financing after three years, there was an early pre-occupation with the creation of a viable strategy for its sustainability. The increased pressure to seek alternative funding avenues sparked a Sustainability Working Group to search for funding, both within and beyond the university. Once grant monies had expired, research contracts with government and community-based organizations became a major source for funding. As with many other CU partnerships described within the literature, the lack of a secure funding base threatened the productivity of the QoL project. Without this security, key partnerships did not develop into full fruition due to the perceived transitional nature of the project. Furthermore, the ongoing funding search detracts from the mandate, objectives, and resources of the project itself.

Successful CU partnerships require an immense amount of secure human, social, and financial resources. Funding sources for community research partnerships are different from research partnerships in business or technology. Communities are not able to offer the same level of economic capital to the operation of research partnership, resulting in the university carrying more of the financial weight of the partnership. Conversely, community partners contribute much in terms of valuable tacit knowledge in the understanding of complex social problems. Sharing the role of intellectual capital and directing research processes can create strain on academics that have traditionally driven the intellectual pursuits in research partnerships. Acknowledging that partnerships are more than money, the focus on the sustainability of CUISR increased the emphasis on the QoL Steering Committee and their commitment to the project:

> the pre-occupation with human resources, fund-raising, budgets and building can over-shadow the attention needed to effect the various

> adaptations of a merged culture. This remains noteworthy because we must remain committed to an understanding of collaboration as being a whole greater than the sum of the parts… Although the University may provide basic resources, most CBO partners contribute their main resource, the human capital of their staff.[109]

CUISR acknowledged that the tenuous nature of its financial support has limited its effectiveness. The institute continues to appeal for funding that is secure and long-term, and not tied directly to granting success.

Sustained financial support of Mode 2 research would contribute to the long-term benefits and application potential of the research findings. However, an important observation in the QoL project is that the focus of project activities shifted with the funding source, whereby as funding from academic sources dwindled and community partners increased contributions, the research became more community-orientated and less academic in nature. Furthermore, the community partners contributing the most in financial resources "naturally" assumed leadership of the project[110]. Community partners and stakeholders without economic capital to offer the project lost "power in decision making"[111], in turn resulting in a change in membership participation in the QoL project initiatives. One key informant identified these "power relations" as a current tension that will determine the degree of success of the project. To deter such power relations as they relate to economic resources requires a "change of mentality for the funders"[112].

6.2.3 Conflict

Issues of conflict and unequal power relations are not given sufficient attention within the Mode 2 theoretical framework. Although Gibbons *et al*. (2004: 15) predicts "sooner or later cooperation turns into conflict", considering the impact of tension on the activities of the QoL project, and many other CU partnerships, conflict is an issue that needs to be integrated more deeply for a theory to fully apply to knowledge production in such partnerships. As science increases its presence in the 'agora' or public space, the discussion of power relations cannot be

avoided; rather must be brought to the focus of the discussion. Moreover, with the democratization of knowledge, the issue of power can be expected to become an increasing issue within an interactive knowledge system.

Although CU partnerships attempt to mitigate asymmetrical power relations through joint leadership and pooling of resources, the QoL project was not immune to such power predicaments. The project experienced differing motivations, interests, and expectations of the partnership. Despite fostering working relationships among collaborators, tensions emerged among partners. For example, academic members were often seen as lacking sufficient understanding of the community landscape, and community partners were frustrated with the research process[113]. Academics involved in the QoL project experienced that partnered projects take twice as long as non-partnered research due to the trust building and collective decision-making processes with community partners[114]. Moreover, in an independent review, several CBOs indicated that they did not see a CUISR representative at their gathering and felt that more visibility would develop more trust necessary for collective research and action.[115]

The QoLSC recognized subtle and complex power differences between community and academic partners. However, the academic co-director encouraged the QoLSC to view this differentiation not just uni-dimensional:

> there are multiple lines of cleavages that divide people based on who is in the know, what they know, what experiences they have, and what resources and information they are able to routinely access. The power differences are not only between university academics and community organizations, but they are present also within the university and within the community.[116]

Moreover, both partners are to be empowered in their own right: CBO's embody valuable knowledge about the community that can inform academics, and academics offer technical expertise[117]. However, Mode 2 research remains highly contingent on the power relations and interactions implicit in the process. In contending that "social accountability permeated the whole knowledge production process" (Gibbons 1998:4), Gibbons does not give sufficient attention to the

considerable control which corporate interests and funding shape the research agenda, the composition of the team, and the interpretation and utilization of the findings. As such, discussions, methods, and modes of consensus building and conflict management are necessary in the Model 2 theory in order to account for research partnerships in the social sciences.

6.3 Limitations and Future Work

Using Mode 2 as an approach to the social sciences is a worthwhile consideration if a research team is genuinely interested in the relevance and application of their work. Moreover, the framework can guide the production of knowledge for the purpose of application for social science within a collaborative paradigm. However, accounting for interpersonal or conflict management, including the various discourse and cultural differences across disciplines and sectors, is critical. Mode 2 as a framework for the social sciences has more development to do in managing these differences before it can be realized within social realm. Moreover, in order for the theory to be fully applicable for research within the social sciences, a discussion of the institutional considerations necessary to support Mode 2 research must be offered. The lack of financial security and formal support structures of collaborative research prevents Mode 2 research from fully integrating into the academic culture and continuing the momentum within the community.

In accordance with the literature, the development of interfacing organizations, such as CUISR, and roles, such as the Action Researcher, is shown as essential for the ongoing momentum and communication within the project. As a hybrid institution, CUISR is found to be extremely strategic in terms of community and academic network, facilitating the flow of human, physical, intellectual, and economic resources. CUISR also fulfills a management capacity necessary to respond to an increase in demand for inter-disciplinary and inter-sectoral collaborations across many sites on a diversity of issues. However, the QoL project, guided by the QoLSC, struggled with clear roles and expectations among the varied

partners. Further investigation and analysis of the structural couplings between academia, government, and the community is required in order to refine the parameters of such hybrid institutions within the knowledge system.

The Action Researcher served as a human interface between the community and academic worlds and was regarded as the position that moved the project agenda forward. The role of the Action Researcher in engaging the community in the research, interpreting findings, and monitoring action items was crucial to the success of the partnership. This new and strategic position within the knowledge system is worth further inquiry and investment. Further creative and innovative approaches to mobilizing knowledge into the community, such as the Action Researcher, need to be developed to strengthen the application of Mode 2 research.

Innovative research methods that promote community engagement strategies are also needed to better support Mode 2 research. Without full participation of user groups and the wider society, such research initiatives may be ethically questionable to community groups. The use of information and communication technologies, including mass media, is underdeveloped in the effort to include the wider community in the co-production and shaping of research knowledge. In order to engage society, the ultimate stakeholders, more development is necessary in this area.

Although Mode 2 research is evaluated "in its own terms" (Gibbons *et al*., 2004: 33), the lack of mechanisms that evaluate the effectiveness of CU research projects make it difficult to determine if research partnerships indeed create research that is applicable to the community, yet acceptable to university standards. Where the successful application of research results defines the success of the project, evidence that research has provoked policy or practical changes are pivotal for Mode 2 sustainability within the social sciences specifically, and academia more broadly. The development of standardized measurements would go a long way to fulfill the institutional requirement to measure the impacts of research partnerships.

Finally, Gibbons argues that Mode 2 research becomes absorbed into the larger community by a process of professionalism and institutionalization (Gibbons *et al*. 1994: 32). Shifting the practices of the social sciences to replicate the objectives of the applied sciences could create a mass of social science professionals with a corresponding governing code of ethics and regulatory body. Professionalization carves out an important and socially responsive path in relationship with society, while retaining the high standards of academic inquiry. Such potential opportunities are a valuable avenue for further study for the social sciences.

References

Abelson, J. and F.P Gauvin. 2004. Engaging Citizens: One Route to Health Care Accountability. *Health Care Accountability Paper* – No. 2. Health Network: Canadian Policy Research Networks. McMaster University.

Aken, van J. E. 2005. Management Research as a Design Science: Articulating the Research Products of Mode 2 Knowledge Production in Management. *British Journal of Management* 16(1): 19.

Albæk, E. 1995. Between Knowledge and Power: Utilization of Social Science in Public Policy Making. *Policy sciences* 28(1): 79.

Alter, C. 1993. Organizations Working Together. Newbury Park: CA. Sage Publications.

Amara, N. 2004. New Evidence on Instrumental, Conceptual, and Symbolic Utilization of University Research in Government Agencies. *Science Communication* 26(1): 75.

Anyon, Y. and M. A. Fernandez. 2007. Realizing the Potential of Community-University Partnerships. *Change* 39(6): 40(6).

Ashmore, R. D., L. Jussim, and D. Wilder (eds). 2001. *Social Identity, Intergroup Conflict, and Conflict Reduction.* New York, NY: Oxford University Press.

Baber, Z. 2001. Globalization and Scientific Research: The Emerging Triple Helix of State-Industry-University Relations in Japan and Singapore. *Technology & Science* 21(5): 401-408.

Backer, T. E. 1991. Knowledge Utilization – the 3rd Wave. *Knowledge-Creation Diffusion Utilization* 12(3): 225-240.

Bacon, F. 1627. *The New Atlantis.* Quoted in Godin, B. 1998. "Writing Performative History: The 'New Atlantis'". *Social Studies of Science.* Vol. 28 (3): 465-83.

Bailey, C. A. 2007. *A Guide to Qualitative Field Research*. Thousand Oaks, CA: Pine Forge Press.

Baker, E. A., S. Homan, *et al*. 1999. Principles of Practice for Academic/ Practice/ Community Research Partnerships. *American Journal of Preventive Medicine* 16(3): 86-93.

Baldwin, S. 2000. Interactive Social Science in Practice: New Approaches to the Production of Knowledge and their Implications. *Research evaluation* 27(3): 183.

Barber, Z. 2000. An Ambiguous Legacy: The Social Construction of the Kuhnian Revolution and its Consequences for the Sociology of Science. *Bulletin of Science, Technology and Society* 20: 139-155.

Barr, R. 2001. The Agora Model of Innovation Systems: S&T Indicators for a Democratic Knowledge Society. *Research evaluation* 10(1): 13.

Baum, H. 2000. Fantasies and Realities in University-Community Partnerships. *Journal of Planning Education and Research* 20(2): 234.

Baumbusch, J. L., S. R. Kirkham, *et al.* 2008. Pursuing Common Agendas: A Collaborative Model for Knowledge Translation Between Research and Practice in Clinical Settings. *Research in Nursing & Health* 31(2): 130-140.

Berger, P. and T. Luckmann.1967. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York, NY: Doubleday Anchor.

Bernstein, A. 2003. Community-University Research: Perspectives from the Funders. CU Expo International. *Community-University Research: Partnerships, Policy & Progress*. Saskatoon, Saskatchewan. University of Saskatchewan.

Bevilacqua, J. J. 1996. State Services Research Capacity: Building a State Infrastructure for Mental Health Services Research. *Community Mental Health Journal* 32(6): 519.

Beyer, J. M. 1982. The Utilization Process: A Conceptual Framework and Synthesis of Empirical Findings. *Administrative Science Quarterly* 27(4): 591.

Bleiklie, I. 2002. Changing Knowledge Regimes: Universities in a New Research Environment. *Higher Education* 44(3): 519.

Bleiklie, I. and H. Byrkjeflot. 2002. Changing Knowledge Regimes: Universities in a New Research Environment. Higher Education. 44 (3/4): 519-532.

Boden, R., P. Gummett,, D. Cox, and K. Barker. 1998. Men in White Coats, Men in Grey Suits: New Public Management and the Funding of Science and Technology Services to the UK Government. *Accounting, Auditing & Accountability Journal* 11(3): 267-291.

Boutilier, M., R. Mason, and I. Rootman. 1997. Community Action and Reflective Practice in Health Promotion Research. *Health Promotion International* 12: 69-78.

Boyer, B. B., G. V. Mohatt, *et al*. 2005. Building a Community-Based Participatory Research Center to Investigate Obesity and Diabetes in Alaska Natives. *International Journal of Circumpolar Health* 64(3): 281-90.

Braskamp, L. and J.F. Wergin. 1997. *Universities and the New Social Contract*. Baltimore, Johns Hopkins University Press.

Brown, L. and W. Vega. 1996. A Protocol for Community-Based Research. *American Journal of Preventive Medicine* 12(4): 4-5.

Buchanan, D. R. 1996. Building Academic-Community Linkages for Health Promotion: A Case Study in Massachusetts. *American Journal of Health Promotion* 10(4): 262-9.

Buckeridge, D. L., R. Mason, *et al*. 2002. Making Health Data Maps: A Case Study of a Community/University Research Collaboration. Social Science & Medicine 55(7): 1189-1206.

Bunge, M. 1967. *Scientific Research II: The Search for Truth*. Berlin: Springer Verlag.

Burke, J. 1985. *The Day the Universe Changed*. Boston: Little & Co.

Bush, V. 1945. *Science: The Endless Frontier*. Washington, DC: National Science Foundation.

Callon, M. 1980. Struggles and Negotiations to Define What is Problematic and What is Not. *The Socio-logic of Translation*. Dordrecht Reidel.

Caplan, N. 1979. 2-Communities Theory and Knowledge Utilization. *American Behavioral Scientis*t 22(3): 459-470.

Capra, F. 1983. *The Turning Point: Science, Society and the Rising Culture*. New York: Bantam Books.

Caswill, C. 2000. Introducing Interactive Social Science. *Science and Public Policy* 27(3): 154.

Coderre, W. 2003. Community-University Research: Perspectives from the Funders. *Community-University Research: Partnerships, Policy & Progress.* CU Expo International. Saskatoon, Saskatchewan: University of Saskatchewan.

Cohen, L., J. McAuley, *et al*. 2001. Continuity in Discontinuity: Changing Discourses of Science in a Market Economy. *Science Technology and Human Values* 26(2): 145-166.

Currie, M., G. King, *et al*. 2005. A Model of Impacts of Research Partnerships in Health and Social Services. *Evaluation and Program Planning* 28(4): 400-412.

Davies, B. L. 2002. Sources and Models for Moving Research Evidence Into Clinical Practice. *Journal of Obstetric, Gynecologic, and Neonatal Nursing* 31(5): 558.

Delanty, G. 1998. The Idea of the University in the Global Era: From Knowledge as an End to the End of Knowledge? *Social Epistemology* 12(1): 3.

Delanty, G. 2001. *Challenging Knowledge: The University in the Knowledge System*. Buckingham: The Society for Research into Higher Education & Open University Press.

Demeritt, D. 2000. The New Social Contract for Science: Accountability, Relevance and Value in US and UK Science and Research Policy. *Antipode* 32(3).

Denzin, N., and Y. Lincoln. 2005. *The Handbook of Qualitative Research*. Thousand Oaks: Sage.

Duijn, M., L.H. Immers, F.A. Waldijk, and H.J. Stoelhorst. 2003. Gaming Approach Route 26: A Combination of Computer Simulation, Design Tools and Social Interaction. *Journal of Artificial Societies and Social Simulation* 6(3).

Dunnett, J. 2004. *University and Community Linkages at the University of Victoria: Towards a New Agenda for Community Based Research.* University of Victoria: School of Public Administration.

Eakin, J.M and H.M. Maclean. 1992. A Critical Perspective on Research and Knowledge Development in Health Promotion. *Canadian Journal of Public Health* (83):72-6.

Edqvist, O. 2003. Layered Science and Science Policies. *Minerva* 41(3): 207-221.

Eisenhardt, K. M. 1989. Building Theories from Case Study Research. *Academy of Management Review* 14: 532-550.

Elam, M. and M. Bertilsson. 2002. Consuming, Engaging and Confronting Science: The Emerging Dimensions of Scientific Citizens. *European Journal of Social Theory* 6(2): 233-25.

Ellis, C. 2004. *The Ethnographic I: A Methodological Novel about Autoethnography*. Oxford: AltaMira Press, A Division of Rowman and Littlefield Publishers, Inc.

Elzinga, A. 1995. *Shaping Worldwide Consensus: The Orchestration of Global Climate Change Research*. London, Taylor Graham.

Etzioni, A. 1967. Towards a Theory of Societal Guidance. *American Journal of Sociology* 73: 173-187.

Etzkowitz, H. 1990. *The Second Academic Revolution: The Role of the Research University in Economic Development*. Dordrecht: Kluwer Academic Publishers.

Etzkowitz, H. 2003. Research Groups as 'Quasi-Firms': The Invention of the Entrepreneurial University. *Research Policy* 32(1): 109.

Etzkowitz, H. and L. Leydesdorff. 2000. The Dynamics of Innovation: From National Systems and "Mode 2" to a Triple Helix of University-Industry-Government Relations. *Research Policy* 29(2): 109-123.

Etzkowitz, H. and L. Leydesdorff.1998. The Endless Transition: A "Triple Helix" of University-Industry-Government Relations. *Minerva* 36: 203-208.

Fisher, D., J. Atkinson-Grosjean, and D. House. 2001. Change in Academic/ Industry/ State Relations in Canada: The Creation and Development of the Networks of Centers of Excellence. *Minerva* 39(3): 299-325.

Frank, D. 2006. *Reconnecting with History: A Community-University Research Alliance on the History of Labor in New Brunswick*. Labrador, NB: Studies in Working-Class History of the Americas 3(1): 49-57.

Freidson, E. 1970. *Profession of Medicine: A Study of the Sociology of Applied Knowledge*. New York: New York University Press.

Fuller, S. 2004. Philosophy, Rhetoric, and the End of Knowledge: A New Beginning for Science and Technology Studies. Madison: University of Wisconsin Press.

Funtowicz, S. O., and J.R. Ravetz. 1991. *A New Scientific Methodology for Global Environmental Issue*. New York: Columbia University Press.

Funtowicz, S.O, and J.R. Ravetz. 1993. Science for the Post-Normal Age. *Futures* 25(7): 735-755.

Gadamer, H.G. 1979. The Problem of Historical Consciousness. In P. Rabinow and W. Sullivan (eds.) *Interpretive Social Science: A Reader*. Berkeley: University of California Press.

Gago, J.M. 1998. *The Social Sciences Bridge*. Lisbon: Observatorio das Ciencias das Tecnologias.

Galinsky, M. J. 1993. Confronting the Reality of Collaborative Practice Research: Issues of Practice, Design, Measurement, and Team Development. *Social Work* 38(4): 440.

Garvin, L. and R.G. Lee. 2003. Reflections on the "Policy-Relevant Turn" in Research. *Social Justice* 30(4): 40-54.

Gergen, K. J. 1982. *Toward Transformation in Social Knowledge*. New York: Springer-Verlag.

Gerring, J. 2004. What is a Case Study and What is it Good for? *American Political Science Review* 98(2).

Gibbons, M., C. Limoges, H. Nowotny, S. Schwartzman, P. Scott, and M. Trow. 1994. *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies.* London: Sage Publications.

Gibbons, M. 1999. Science's New Social Contract with Society. *Nature* 402.

Gibbons, M. 2001. *Innovation and the Developing System of Knowledge Production*. Summer Institute: University of Sussex.

Giddens, A. 1984. In Yin, R. *Applications of Case Study Research*. Beverly Hills, CA: Sage Publishing.

Giddens, A. 1994. *The Third Way: The Renewal of Social Democracy*. Cambridge: Polity.

Glaser, B. G., and A.L. Strauss. 1967. *The Discovery of Grounded Theory*. Chicago: Aldine.

Godin, B. 1998. Writing Performative History: The 'New Atlantis'. *Social Studies of Science* 28(3): 465-483.

Godin, B. and Y. Gingras. 2000. The Place of Universities in the System of Knowledge Production. *Research Policy* 29 (2):273-278.

Gouldner, A. W. 1962. Anti-Minotaur: The Myth of a Value-Free Sociology. *Social Problems* 9(3): 199-213.

Graham, P. J. 2008. Knowledge Science: Empirical Measures in Knowledge Utilization. Presentation. College of Nursing. University of Saskatchewan.

Graham, P. J. and H. Dickinson. 2007. Knowledge-System Theory in Society: Charting the Growth of Knowledge-System Models Over a Decade 1994-2003. *Journal of American Society for Information Science and Technology* 58(14): 2372-2381.

Green, L. W. 1995. Study of Participatory Research in Health Promotion: Review and Recommendations for the Development of Participatory Research in Health Promotion in Canada. Ottawa: Ministry of Health.

Green, L. W. and S. L. Mercer. 2001. Can Pubic Health Researchers and Agencies Reconcile the Push from Funding Bodies and the Pull from Communities? *American Journal of Public Health* 91(12): 1926-1929.

Guston, D. H. and K. Keniston.1994. *The Fragile Contract: University Science and the Federal Government.* Cambridge: MIT Press.

Habermas, J. 1962/1989. *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*. Massachusetts: MIT Press.

Hagedoorn, J., A.N. Link, and N.S. Vonortas. 2000. Research Partnerships. *Research Policy* 29(4-5): 567-586.

Hagendijk, R. P. 2004. The Public Understanding of Science and Public Participation in Regulated Worlds. *Minerva* 42: 41-59.

Hall, B. H., A. N. Link, *et al*. 2003. Universities as Research Partners. *Review of Economics and Statistics* 85(2): 485-491.

Hamel, J., S. Dufour, and D. Fortin. 1993. *Case Study Methods*. Newbury Park, CA: Sage Publications.

Hanney, S. 2004. Personal Interaction with Researchers or Detached Synthesis of the Evidence: Modeling the Health Policy Paradox. *Evaluation and Research in Education* 18(1 & 2).

Hargreaves, A. 1996. Transforming Knowledge: Blurring the Boundaries Between Research, Policy, and Practice. *Educational Evaluation and Policy Analysis* 18(2): 105-122.

Harvey, J., A. Pettigrew, et al. 2002. The Determinants of Research Group Performance: Towards Mode 2? *Journal of Management Studies* 39(6): 747-774.

Hemlin, S. and S. B. Rasmussen. 2006. The Shift in Academic Quality Control. *Science Technology and Human Values* 31(2): 173-198.

Hemsley-Brown, J. and C. Sharp. 2003. The Use of Research to Improve Professional Practice: A Systematic Review of the Literature. *Oxford Review of Education* 29(4): 449-470.

Hessels, LK. 2008. Re-Thinking New Knowledge Production: A Literature Review and a Research Agenda. *Research Policy*. 37(4): 740.

Hessels, L.K. and H. van Lente. 2010. Re-Thinking New Knowledge Production: A Literature Review and a Research Agenda. *Research Policy* 37: 740-760.

Hicks, D.M. and J.S. Katz. 1996. Where is Science Going? *Science Technology and Human Values* 21 (4): 379-406.

Hodgkinson, G. P., P. Herriot, *et al*. 2001. Re-aligning the Stakeholders in Management Research: Lessons from Industrial, Work and Organizational Psychology. *British Journal of Management* 12.

Holland, B. A. 2001. A Comprehensive Model for Assessing Service-Learning and Community-University Partnerships. *New Directions for Higher Education* 114: 51.

Holzner, B. and J.H. Marx. 1979. *Knowledge Application: The Knowledge System in Society*. Toronto: Allyn and Bacon, Inc.

Hubbard, L. A. and J. M. Ottoson. 1997. When a Bottom-Up Innovation Meets Itself as a Top-Down Policy - The AVID Un-tracking Program. *Science Communication* 19(1): 41-55.

Huberman, A. M. 1983. Improving Social Practice Through the Utilization of University-Based Knowledge. *Higher Education* 12(3): 257.

Huberman, M. 1987. Steps Toward an Integrated Model of Research Utilization. *Knowledge* 8(4): 586.

Huberman, M. 1994. Research Utilization: The State of the Art. *Knowledge & Policy* 7(4): 13.

Huff, A. S. 2000. Changes in Organizational Knowledge Production: 1999 Presidential Address. *Academy of Management Review* 25: 288-293.

Israel, B., A. J. Schulz, et al. 1998. Review of Community-Based Research: Assessing Partnership Approaches to Improve Public Health. *Annual Review of Public Health* 19(1): 173.

Israel, B. A., J. Krieger, *et al*. 2006. Challenges and Facilitating Factors in Sustaining Community-Based Participatory Research Partnerships: Lessons Learned From the Detroit, New York City and Seattle Urban Research Centers. *Journal of Urban Health-Bulletin of the New York Academy of Medicine* 83(6): 1022-1040.

Jacob, M. 1997. Life in the Triple Helix: The Contract Researcher, the University and the Knowledge Society. *Science Studies* 10(2): 35.

Jacob, M. 2001. Managing the Institutionalisation of Mode 2 Knowledge Production. *Social Studies of Science* 14(2): 83.

Jacob, M. and T. Hellstrom. 2000. *The Future of Knowledge Production in the Academy.* Buckingham: SRHE and Open University Press.

Jacobson, N., G. Butterill, and P. Goering, P. 2003. Development of a Framework for Knowledge Translation: Understanding User Context. *Journal of Health Services Research and Policy* 8(2): 94.

Jasanoff, S. 2003. Technologies of Humility: Citizen Participation in Governing Science. *Minerva* 41: 223-244.

Jasanoff, S. 1996. Beyond Epistemology: Relativism and Engagement in the Politics of Science. Social Studies of Science 26: 393-418.

Kegler, M. C., A. Steckler, *et al*. 1998. Factors That Contribute to Effective Community Health Promotion Coalitions: A Study of 10 Project ASSIST Coalitions in North Carolina. *Health Education Behavior* 25(3): 338-353.

Kerr, D. H. 1981. Knowledge Utilization: Epistemological and Political Assumptions. *Knowledge-Creation Diffusion Utilization* 2(4): 483-501.

King, C. R. & P. S. Hinds. 2003. *Quality of Life: From Nursing and Patient Perspective. Theory, Research, Practice.* Jones and Bartlett Publishers, Inc.

Kingdon, J. 1984. *Agenda, Alternatives and Public Policies*. Toronto: Little Brown & Company.

Kingsley, G., and D. O'Neil. 2004. *Performance Measurement in Public-Private Partnerships: Learning from Praxis, Constructing a Conceptual Model*. American Society for Public Administration 65th National Conference.

Kleinman, D.L. 2003. Impure Cultures: University Biology and the World of Commerce. Madison: The University of Wisconsin Press.

Knorr Cetina, K. 1999. *Epistemic Cultures. How the Sciences Make Knowledge*. Cambridge, MA: Harvard University Press.

Kothari, A., S. Birch, *et al*. 2005. Interaction and Research Utilization in Health Policies and Programs: Does it Work? *Health Policy* 71(1): 117-125.

Krebs, P., B. Holden, A. Williams, M. Basualdo and C. Spence. 2008. A Comprehensive Action Plan Information System: A Tool for Tracking and Mapping Quality of Life Action Implementation and Planning. *Social Indicators Research*. 85 (1):127-144.

Lamb, S., M. Greelick, and D. McCarty. 1998. *Bridging the Gap Between Practice and Research: Forging Partnerships with Community-Based Drug and Alcohol Treatment*. Washington, DC: National Academy Press.

Landry, R. 2007. Determinants of Knowledge Transfer: Evidence from Canadian University Researchers in Natural Sciences and Engineering. The Journal of Technology Transfer 32(6): 561.

Landry, R., N. Amara, *et al*. 2001. Utilization of Social Science Research Knowledge in Canada. *Research Policy* 30(2): 333-349.

Larson, E. L. 2003. Minimizing Disincentives for Collaborative Research. *Nursing Outlook* 51(6): 267-271.

Lasker, R. D., E. S. Weiss, *et al*. 2001. Partnership Synergy: A Practical Framework for Studying and Strengthening the Collaborative Advantage. *Milbank Quarterly* 79(2): 179.

Latour, B. 1998. From the World of Science to the World of Research? *Science* 280 (5361): 208-209.

Leinginger, M. 1985. *Qualitative Research Methods in Nursing*. Orlando: Grune &Stratton, Inc.

Lewis, S. 2003. Defining and Assessing Outcomes in Partnerships. *Community-University Research: Partnerships, Policy & Progress.* CU Expo International Saskatoon, Saskatchewan. University of Saskatchewan.

Lomas, J. 2000. Using Linkage and Exchange to Move Research into Policy at a Canadian Foundation. *Health Affairs* 19(3): 236.

Lomas, J. 2003. Community-University Research: Perspectives from the Funders. *Community-University Research: Partnerships, Policy & Progress*. CU Expo International Saskatoon, Saskatchewan. University of Saskatchewan.

Lubchenco, J. 1997. Entering the Century of the Environment: A New Social Contract for Science. *Science* 279: 491-497.

Lyotard, J. F. 1984. *The Postmodern Condition: A Report on Knowledge.* Manchester: Manchester University Press.

Mackenzie, C. 2004. Policy Entrepreneurship in Australia: A Conceptual Review and Application. *Politics* 39(2): 367.

Mannheim, K. 1936. *Ideology and Utopia: An Introduction to the Sociology of Knowledge*. London: Routledge & Kegan Paul.

Martin, B. R. and H. Etzkowitz. 2000. The Origin and Evolution of the University Species*. Vest*13(3/4).

Mattessich, P. W. 2001. *Collaboration: What Makes it Work?* Minnesota: Amherst H. Wilder Foundation.

McLeroy, K. R. 1994. Community Coalitions for Health Promotion: Summary and Further Reflections. *Health Education Research* 9(1): 1.

Merton, R. K. 1973. *The Sociology of Science*. Chicago: Chicago University Press.

Metcalfe, A. S. (2010). Examining the Trilatral Networks of the Triple Helix: Intermediating Organizations and Academy-Industry-Government Relations. Critical Sociology 36 (4): 503-519.

Miles, M., and A. M. Huberman, 1994. *Qualitative Data Analysis: An Expanded Sourcebook*. Thousand Oaks, CA: Sage.

Mintrom, M. 1996. Advocacy Coalitions, Policy Entrepreneurs, and Policy Change. *Policy Studies Journal* 24(3): 420.

Moustakas, C. 1990. *Heuristic Research: Design, Methodology, and Applications*. Thousand Oaks, CA: Sage.

Muhajarine, N. 2007. Democratizing Research: Climbing Down from the Ivory Tower. *CCSHE/CSSE Joint Plenary Session*. Saskatoon, Saskatchewan.

Nahemow, L., A. Dellert, *et al*. 1999. Collaborative Research Partnerships: The Consortium Ten Years Later. *Educational Gerontology* 25(4): 293-303.

Nicol, J. 2007. *Case Study Research*. Saskatoon, University of Saskatchewan.

Nowotny, H. 2003. Democratising Expertise and Socially Robust Knowledge. Science and Public Policy, 30 (3):151-156.

Nowotny, H., P. Scott and M. Gibbons. 2000. *Re-thinking Science: From Reliable to Socially Robust Knowledge.* Jahrbuch 2000 des Collegium Helveticum: 221-244.

Nowotny, H., P. Scott, and M. Gibbons. 2001. *Re-thinking Science: Knowledge and the Public in the Age of Uncertainty*. Oxford: Blackwell Publishers.

Ozga, J. 2007. Co-Production of Quality in the Applied Education Research Scheme. *Research Papers in Education* 22(2): 169-181.

Pestre, D. 2003. Regimes of Knowledge Production in Society: Towards a More Political and Social Reading. *Minerva* 41(3): 245.

Polanyi, M. 1962. The Republic of Science: Its Political and Economic Theory. *Humanities, Social Science and Law*1(1).

Polanyi, M. 1966. The Tacit Dimension. New York: Doubleday & Company, Inc.

Posavac, E. J., & Carey, R. G. 1997. *Program Evaluation Methods and Case Studies* (5th ed.). Upper Saddle River, NJ: Prentice-Hall Inc.

Ravetz, J. R. 1996. *Scientific Knowledge and its Social Problems*. New Brunswick, N.J: Transaction Publishers.

Readings, B. 1996. *The University in Ruins*. Cambridge, MA: Harvard University Press.

Reback, C. J., A. J. Cohen, *et al*. 2002. Making Collaboration Work: Key Components of Practice Research Partnerships. *Journal of Drug Issues* 32(3): 837-848.

Renaud, M. 2003. Community-University Research: Perspectives from the Funders. *Community-University Research: Partnerships, Policy & Progress*. CU Expo International Saskatoon, Saskatchewan. University of Saskatchewan.

Rich, R. F. 1997. Measuring Knowledge Utilization: Processes and Outcomes. *Knowledge and Policy* 10(3): 11.

Riger, S. 1999. Guest Editor's Introduction: Working Together: Challenges in Collaborative Research on Violence Against Women. *Violence Against Women* 5(10): 1099.

Rip, A., and B.J.R. Van der Meulen. 1996. The Post-Modern Research System. *Science and Public Policy* 23(5): 343-352.

Rip, A. and B.J.R. Meulen van der. 1997. The Post-Modern Research System. *Science and Public Policy* 23 (5).

Roussos, S. T. and S. B. Fawcett. 2000. A Review of Collaborative Partnerships as a Strategy for Improving Community Health. *Annual Review of Public Health* 21(1): 369.

Ryecroft, R.W. and D.E. Kash. 1999. *The Complexity Challenge: Technological Innovation for the 21st Century*. New York: Pinter.

Sanderson, K. 2005. *Partnering to Build Capacity and Connections in the Community.* Community-University Institute for Social Researc*h*. Saskatoon: University of Saskatchewan.

Savan, B. 2004. Community-University Partnerships: Linking Research and Action for Sustainable Community Development. *Community Development Journal* 39(4): 372-384.

Schensul, J. J. 2002. Democratizing Science Through Social Science Research Partnerships. *Bulletin of Science, Technology & Society* 22(3): 190.

Schensul, J. J., J. Robison, *et al*. 2006. Building Interdisciplinary/ Intersectoral Research Partnerships for Community-Based Mental Health Research with Older Minority Adults. *American Journal of Community Psychology* 38(1-2): 79-93.

Schulz, A. J., B. A. Israel, *et al*. 2003. Instrument for Evaluating Dimensions of Group Dynamics within Community-Based Participatory Research Partnerships. *Evaluation and Program Planning* 26(3): 249-262.

Schwandt, T. A. 2001. *Dictionary of Qualitative Inquiry*. Thousand Oaks: Sage Publications.

Scott, P. 2003. The Ethical Implications of the New Research Paradigm. *Science and Engineering Ethics* 9(1): 73-84.

Shapira, P., G. Kingsley, and J. Youtie. 1997. Manufacturing Partnerships: Evaluation in the Context of Government Reform. *Evaluation and Program Planning* 20(1): 103-112.

Shookner, M. 2002. *Quality of Life Research: International and Canadian Perspectives*. Halifax: Atlantic Health Promotion Centre.

Shore, N., K. Wong, *et al*. 2008. Introduction to Special Issue: Advancing the Ethics of Community-Based Participatory Research. *Journal of Empirical Research on Human Research Ethics* 3(2): 1-4.

Siegel, D. S. 2003. Data Requirements for Assessing the Private and Social Returns to Strategic Research Partnerships: Analysis and Recommendations. *Technology Analysis & Strategic Management* 15(2): 207-225.

Silka, L. 1999. Paradoxes of Partnerships: Reflections on University-Community Collaborations. *Research in Politics and Society* 7: 335-59.

Silka, L. 2004. Partnerships Within and Beyond Universities: Opportunities and Challenges. *Public Health Reports* 119 (1).

Silka, L. and P. Renault-Caraginanes. 2006. Community-University Research Partnerships: Devising a Model for Ethical Engagement. *Journal of Higher Education Outreach and Engagemen*t 11(2).

Simpson, D. D. 2002. A Conceptual Framework for Transferring Research to Practice. *Journal of Substance Abuse Treatment* 22(4): 171.

Slatin, C. 2004. Conducting Interdisciplinary Research to Promote Healthy and Safe Employment in Health Care: Promises and Pitfalls. *Public Health Reports* 119(1): 60.

Smith, D. E. 1990. *Practices of Power: A Feminist Sociology of Knowledge*. University of Toronto Press.

Smith, S. R., and M. Lipsky. 1993. *Nonprofits for Hire: The Welfare State in the Age of Contracting*. Cambridge, MA: Harvard University Press.

Souren, A., R. S. Poppen, *et al*. 2007. Knowledge Production and the Science-Policy Relation in Dutch Soil Policy: Results from a Survey on Perceived Roles of Organizations. *Environmental Science & Policy* 10(7-8): 697-708.

Stake, R. 1995. *The Art of Case Research*. Thousand Oaks, CA: Sage Publications.

Stake, R. 2000. *Case Studies*. Thousand Oaks, CA: Sage Publications, Inc.

Starkey, K. and P. Madan. 2001. Bridging the Relevance Gap: Aligning Stakeholders in the Future of Management Research. *British Journal of Management* 12: 3-26.

Steelman, J. R. 1947. *Science and Public Policy*. Washington, DC: US Government Printing Office.

Stehr, N. 1994. *Knowledge Society*. London: Sage.

Stiff man, A. R., R.A. Feldman, D.A. Evans, and J. G. Orme. 1984. Collaborative Research for Social Service Agencies: Boon or Bane? *Administration in Social Work* 8(1): 45-57.

Suarez-Balcazar, Y., G. W. Harper, *et al*. 2005. An Interactive and Contextual Model of Community-University Collaborations for Research and Action. *Health Education & Behavior* 32(1): 84-101.

Thompson, C. J., J. A. McNeill, *et al*. 2001. Using Collaborative Research to Facilitate Student Learning. *Western Journal of Nursing Research* 23(5): 504-516.

Tranfield, D. and K. Starkey. 1998. The Nature, Social Organization and Promotion of Management Research: Towards Policy. *British Journal of Management* 9: 341-353.

Tuunainen, J. 2002. A Critical Comment Based on a Case Study. *Social Studies of Science* 15(2): 36.

Tuunainen, J. 2005. Hybrid Practices? Contributions to the Debate on the Mutation of Science and University. *Higher Education* 50: 275-298.

University of Saskatchewan. 2008*. The Second Integrated Plan: Toward an Engaged University*. Saskatoon: University of Saskatchewan.

University of Saskatchewan. 2008. *Guidelines for Applications for the Establishment of Centers at the University of Saskatchewan*. Saskatoon, Saskatchewan: University of Saskatchewan.

Wagner, C. S. and L. Leydesdorff. 2005. Network Structure, Self-Organization, and the Growth of International Collaboration in Science. *Research Policy* 34 (10).

Weingart, P. 1997. From "Finalization" to "Mode 2": Old Wine in New Bottles? *Social Science Information.* 36 (4): 591.

Weissert, C. S. 1991. Policy Entrepreneurs, Policy Opportunists, and Legislative Effectiveness. *American Politics Research* 19(2): 262.

Wethington, E., R. Breckman, *et al*. 2007. The CITRA Pilot Studies Program: Mentoring Translational Research. *Gerontologist* 47(6): 845-850.

Whitley, R. D. 1984. *The Intellectual and Social Organization of the Sciences*. Oxford: Oxford University Press.

Williams, A., R. Labonte, J. Randall, and N. Muhajarine. 2005. Establishing and Sustaining Community–University Partnerships: A Case Study of Quality of Life Research. *Critical Public Health* 15(3): 291-302.

Williams, A. *et al*. 2008. Knowledge Translation Strategies in a Community–University Partnership: Examining Local Quality of Life (QoL). *Social Indicators Research* 85(1): 111.

Wing, S. 2002. Social Responsibility and Research Ethics in Community-Driven Studies of Industrialized Hog Production. *Environmental Health Perspectives* 110(5): 437-444.

Yin, R. 1993. *Applications of Case Study Research*. Beverly Hills, CA: Sage Publishing.

Yin, R. 2000. *Case Study Evaluations: A Decade of Progress*. Boston: Kluwer Academic Publishers.

Zeldin, S. 1995. Community-University Collaborations for Youth Development – From Theory into Practice. *Journal of Adolescent Research* 10(4): 449-469.

Zierhofer, W. and P. Burger. 2007. Disentangling Transdisciplinarity: An Analysis of Knowledge Integration in Problem-Oriented Research. *Science Studies* 20 (1):51-74.

Ziman, J. 1995. *Post-academic Science: Constructing Knowledge with Networks and Norms*. London: Royal Society Medawar Lecture.

Ziman, J. 1996. Is Science Losing its Objectivity? *Nature* 382(6594): 751.

Ziman, J. 2000. *Real Science: What It Is & What It Means*. Cambridge, NY: Cambridge University Press.

Notes

[1] SSHRC Full Proposal, Community - University Institute for Social Research (CUISR): Building Healthy, Sustainable Communities, 2001
[2] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.
[3] Letter to the Editor, Saskatoon Star Phoenix, March 28, 2006.
[4] SSHRC LOI. A Proposal for the Establishment of a Community-University Institute for Social Research (CUISR), September 10, 1998.
[5] SSHRC Full Proposal, Community - University Institute for Social Research (CUISR): Building Healthy, Sustainable Communities, 2001
[6] SSHRC LOI. "A Proposal for the Establishment of a Community-University Institute for Social Research (CUISR)". September 10, 1998.
[7] QoL Steering Committee, Meeting Minutes, August 25, 2006.
[8] Williams, A., B. Holden, P. Krebs, N. Muhajarine, K. Waygood, J. Randall, C. Spence. 2008. Knowledge Translation Strategies in a Community-University Partnership: Examining Local Quality of Life (QoL). Social Indicator Research. 85:111-125.
[9] Mahajarine. N. Congress Script. May, 28 2007.
[10] Letter to the Editor, Saskatoon Star Phoenix April 3, 2006.
[11] QoL Steering Committee, Meeting Minutes, November 23, 2004.
[12] QoL/ CUISR Advisory Committee, Meeting Minutes, September 12, 2003.
[13] QoL Policy Forum, Advisory Committee, Meeting Minutes, June 13, 2001.
[14] Policy Framework, March 23, 2004.
[15] QoL Steering Committee - Terms of Reference, February, 2006.
[16] Williams, A., B. Holden, P. Krebs, N. Muhajarine, K. Waygood, J. Randall, C. Spence. 2008. Knowledge Translation Strategies in a Community-University Partnership: Examining Local Quality of Life (QoL). Social Indicator Research. 85:111-125
[17] Action Researcher Job Description, 2003.
[18] Williams, A., B. Holden, P. Krebs, N. Muhajarine, K. Waygood, J. Randall, C. Spence. 2008. Knowledge Translation Strategies in a Community-University Partnership: Examining Local Quality of Life (QoL). Social Indicator Research. 85:111-125.
[19] Network recommendations, 2001
[20] An Overview of the Methodological Approach of Action Research. April, 1998.
[21] QoL Policy Forum, Advisory Committee, Meeting Minutes, June 13, 2001.
[22] QoL Research Summary, January, 2002
[23] SSHRC Full Proposal, Community - University Institute for Social Research (CUISR): Building Healthy, Sustainable Communities, 2001.

[25] QOL Research Summary, January, 2002
[26] The Star Phoenix, January, 2001.
[27] CURA Competition Grant Application. Community-University Institute for Social Research: Assessing Partnerships, Policy and Progress. February, 28 2003
[28] Community Forum - Action Audit Process, May, 2005.
[29] Community Action Plan, March 18, 2003.
[30] QoL Advisory Committee, Meeting Minutes, November 15, 2005.
[31] QoL Steering Committee, Working Group, Meeting Minutes, February 6, 2007.
[32] QoL Steering Committee, Working Group, Meeting Minutes, February 6, 2007.
[33] QoL Steering Committee, Working Group, Meeting Minutes, February 6, 2007.
[34] QoL Steering Committee, Meeting Minutes, June 25, 2007.
[35] Mahajarine. N. Congress Script. Democratizing Research: Climbing Down From the Ivory Tower. May, 28 2007.

[36] Community Action Plan - Progress Plan, Overview February 18, 2003.
[37] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.
[38] Community Forum - Evaluation and Feedback, May 2005.
[39] Community Forum - Evaluation and Feedback, May 2005.
[40] Comprehensive Community Action Plan, Final Version, 2004.
[41] Taking Action On Quality of Life – Report, October 27, 2005
[42] QoL Advisory Committee, Meeting Minutes, November 15, 2005.
[43] Policy Framework, March 23, 2004.
[44] QoL Steering Committee, Meeting Minutes, February 22, 2006.
[45] QoL Advisory Committee, Meeting Minutes, February 24, 2005.
[46] Theme 3, Community Forum, The Responsibility for Change, 2005
[47] QoL Steering Committee, Meeting Minutes, January 22, 2007.
[48] http://www.usask.ca/cuisr/about/modules-quality.html#capis
[49] http://www.powershow.com/view/121227-ODczZ/The_Comprehensive_Community_Information_System_CCIS_flash_ppt_presentation
[50] QoL Steering Committee, Meeting Minutes, January 22, 2007.
[51] CURA Competition Grant Application. Community-University Institute for Social Research: Assessing Partnerships, Policy and Progres. February, 28 2003
[52] An Overview of the Methodological Approach of Action Research. April, 1998.
[53] Community Action Plan - Research Overview, 2003.
[54] Documentation of research process, 2003
[55] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.
[56] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.
[57] CAPIS Briefing Paper, 2004
[58] CAPIS Briefing Paper, 2004
[59] See Krebs *et al.* (2008).
[60] Williams, A., B. Holden, P. Krebs, N. Muhajarine, K. Waygood, J. Randall, C. Spence. 2008. Knowledge Translation Strategies in a Community-University Partnership: Examining Local Quality of Life (QoL). Social Indicator Research. 85:111-125.
[61] Mahajarine. N. Congress Script. May, 28 2007.
[62] CUISR Post-Forum Press Release, June 2007.
[63] Community Forum - Action Audit Process, May, 2005.
[64] Network recommendations, 2001
[65] Mahajarine. N. Congress Script. May, 28 2007.
[66] QoL/ CUISR Advisory Committee, Meeting Minutes, September 12, 2003.
[67] QoL/ CUISR Advisory Committee, Meeting Minutes, September 12, 2003.
[68] QoL/ CUISR Advisory Committee, Meeting Minutes, September 12, 2003.
[69] QoL Steering Committee, Working Group, Meeting Minutes, February 6, 2007.
[70] Williams, A., B. Holden, P. Krebs, N. Muhajarine, K. Waygood, J. Randall, C. Spence. 2008. Knowledge Translation Strategies in a Community-University Partnership: Examining Local Quality of Life (QoL). Social Indicator Research. 85:120.
[71] QoL 2nd Iteration Planning Committee, Meeting Minutes, December 17, 2003.
[72] Report Summary for QoL Advisory Board, 2004
[73] CURA Competition Grant Application. Community-University Institute for Social Research: Assessing Partnerships, Policy and Progress. February, 28 2003
[74] QoL/ CUISR Advisory Committee, Meeting Minutes, September 12, 2003.

[75] QoL/ CUISR Advisory Committee, Meeting Minutes, September 12, 2003.
[76] Community Forum - Evaluation and Feedback, May 2005.
[77] Community Forum - Evaluation and Feedback, May 2005.
[78] CAPIS, Initial conversation with Community Groups, Process Design, June, 2004.
[79] CAPIS, Initial conversation with Community Groups, Process Design, June, 2004.
[80] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.
[81] QOL Research Summary, January, 2002
[82] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.
[83] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.
[84] Summary to Advisory Board August, 2003
[85] QoL 2nd Iteration Planning Committee, Meeting Minutes, December 17, 2003.
[86] Report to QOL advisory Board Aug28, 2007
[87] Summary for Allison, 2003
[88] QoL Advisory Committee, Meeting Minutes, March 24, 2005.
[89] QoL Steering Committee, Meeting Minutes, June 29, 2006.
[90] Williams, A., B. Holden, P. Krebs, N. Muhajarine, K. Waygood, J. Randall, C. Spence. 2008. Knowledge Translation Strategies in a Community-University Partnership: Examining Local Quality of Life (QoL). Social Indicator Research. 85:111-125.
[91] CURA Competition Grant Application. Community-University Institute for Social Research: Assessing Partnerships, Policy and Progress. February, 28 2003
[92] Comprehensive Community Action Plan, March 18, 2003.
[93] Comprehensive Community Action Plan, March 18, 2003.
[94] Comprehensive Community Action Plan Outline, March 15, 2004.
[95] An Overview of the Methodological Approach of Action Research. April, 1998.
[96] SSHRC Full Proposal, Community - University Institute for Social Research (CUISR): Building Healthy, Sustainable Communities, 2001
[97] CURA Competition Grant Application. Community-University Institute for Social Research: Assessing Partnerships, Policy and Progress. February, 28 2003
[98] QoL/ CUISR, Advisory Committee, Planning Notes, June 3, 2003.
[99] Community Forum - Evaluation and Feedback, May 2005.
[100] Mahajarine. N. Congress Script. Democratizing Research: Climbing Down From the Ivory Tower. May, 28 2007.
[101] Sanderson, K. 2005. Community-University Institute for Social Research: Partnering to Build Capacity and Connections in the Community. CUISR: University of Saskatchewan.
[102] Mahajarine. N. Congress Script. Democratizing Research: Climbing Down From the Ivory Tower. May, 28 2007.
[103] QoL Advisory Committee, Meeting Minutes, January 27, 2005.
[104] CURA Competition Grant Application. Community-University Institute for Social Research: Assessing Partnerships, Policy and Progress. February, 28 2003
[105] Mahajarine. N. Congress Script. Democratizing Research: Climbing Down From the Ivory Tower. May, 28 2007.
[106] Mahajarine. N. Congress Script. Democratizing Research: Climbing Down From the Ivory Tower. May, 28 2007.
[107] Sanderson, K. 2005. Community-University Institute for Social Research: Partnering to Build Capacity and Connections in the Community. CUISR: University of Saskatchewan.

[108] Sanderson, K. 2005. Community-University Institute for Social Research: Partnering to Build Capacity and Connections in the Community. CUISR: University of Saskatchewan.

[109] QoL Action Advisory Steering Committee, Meeting Minutes, February 27, 2002.

[110] Funding Working Group, Meeting Minutes, March 22, 2006.

[111] Community Forum - Evaluation and Feedback, May 2005.

[112] Key Informant, 2007.

[113] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.

[114] Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.

[115] Sanderson, K. 2005. Community-University Institute for Social Research: Partnering to Build Capacity and Connections in the Community. CUISR: University of Saskatchewan.

[116] Mahajarine. N. Congress Script. Democratizing Research: Climbing Down From the Ivory Tower. May, 28 2007.

[117] Mahajarine. N. Congress Script. Democratizing Research: Climbing Down From the Ivory Tower. May, 28 2007.

Appendix A:

Quality of Life Steering Committee, 2004

Sheri Benson	**Joanne Hritzuk**
Director of Community Services	Board Member Community Development
United Way of Saskatoon	Society of Saskatchewan;
	Saskatchewan Home-Based
	Business Association (Saskatoon Chapter)
Vanessa Charles	**Dwayne Docken**
Co-Chair, Saskatoon Anti-Poverty Coalition	Urban Aboriginal Strategy Coordinator
	Urban Aboriginal Strategy
Jo-Ann Coleman Pidskalny	**Livia Kellett**
Executive Director	Planner, City Planning Branch
Saskatoon Housing Coalition	Community Services Department
	City of Saskatoon
Kathie Cram	**Heather Dunning**
Community Development Consultant	Planner, City Planning Branch
Public Health Services, Saskatoon Health Region	Community Services Department
	City of Saskatoon
Bill Holden	**Kelley Moore**
Senior Planner	Co-ordinator, Regional Intersectoral Committee on Human Services
Planning Research and Information Services Center	
Community Services Department	
City of Saskatoon	
Louise Clarke	**Carolyn Rogers**
Industrial Relations and Organizational Behavior	Saskatoon Anti-Poverty Coalition
University of Saskatchewan	**Len Usisken**

Nazeem Muharjarine	QUINT Development Corp.
Community Health and Epidemiology	**Sue Delanoy**
University of Saskatchewan	Saskatoon Communities for Children
Allison Williams	
Department of Geography	
University of Saskatchewan	

Appendix B:
List of Analyzed Documents

Meeting Minutes:
QoL Advisory Committee, Meeting Minutes, April 28, 2001.
QoL Policy Forum, Advisory Committee, Meeting Minutes, June 13, 2001.
QoL Action Advisory Steering Committee, Meeting Minutes, February 27, 2002.
QoL/ CUISR Action Advisory Committee, Meeting Minutes, February 13, 2003.
QoL/ CUISR, Advisory Committee, Planning Notes, June 3, 2003.
QoL/ CUISR Advisory Committee, Meeting Minutes, September 12, 2003.
QoL 2nd Iteration Planning Committee, Meeting Minutes, December 17, 2003.
QoL/ CUISR Survey Review, Meeting Minutes, January 21, 2004.
QoL Survey Analysis, Meeting of Academic and Community Stakeholders, Meeting Minutes, June 21, 2004.
QoL Steering Committee, Meeting Minutes, Nov 9, 2004.
QoL Steering Committee, Meeting Minutes, November 22, 2004.
QoL Steering Committee, Meeting Minutes, November 23, 2004.
QoL/CUISR Survey Analysis, Meeting Minutes, Nov 23, 2004.
QoL Steering Committee, Meeting Minutes, December 7, 2004.
QoL Steering Committee, Meeting Minutes, December 14, 2004.
QoL Advisory Committee, Meeting Minutes, January 27, 2005.
QoL Advisory Committee, Meeting Minutes, February 10, 2005.
QoL Advisory Committee, Meeting Minutes, February 24, 2005.
QoL Advisory Committee, Meeting Minutes, March 10, 2005.
QoL Advisory Committee, Meeting Minutes, March 24, 2005.
QoL Advisory Committee, Meeting Minutes, April 14, 2005.
QoL Advisory Committee, Meeting Minutes, April 7, 2005.
QoL Advisory Committee, Meeting Minutes, May 10, 2005.
QoL Advisory Committee, Meeting Minutes, June 15, 2005.
QoL Advisory Committee, Meeting Minutes, June 28, 2005.
QoL Advisory Committee, Meeting Minutes, September 7, 2005.
QoL Advisory Committee, Meeting Minutes, October 5, 2005.
QoL Advisory Committee, Meeting Minutes, November 15, 2005.
QoL Advisory Committee, Meeting Minutes, December 5, 2005.
QoL Steering Committee, Meeting Minutes, January 30, 2006.
QoL Steering Committee, Meeting Minutes, April 26, 2006.
QoL Steering Committee, Meeting Minutes, February 22, 2006.
QoL Steering Committee, Meeting Minutes, March 22, 2006.
Funding Working Group, Meeting Minutes, March 22, 2006.
QoL Steering Committee, Meeting Minutes, May 10, 2006.
Quality of Life Module: Research Meeting, June 13, 2006.
QoL Steering Committee, Meeting Minutes, June 29, 2006.
QoL Steering Committee, Meeting Minutes, August 25, 2006.

QoL Steering Committee, Meeting Minutes, September 25, 2006.
QoL Steering Committee, Meeting Minutes, October 27, 2006.
QoL Steering Committee, Meeting Minutes, November 8, 2006.
QoL Steering Committee, Meeting Minutes, November 27, 2006.
QoL Steering Committee, Meeting Minutes, December 18, 2006.
QoL Steering Committee, Meeting Minutes, January 22, 2007.
QoL Steering Committee, Working Group, Meeting Minutes, January 30, 2007.
QoL Steering Committee, Working Group, Meeting Minutes, February 6, 2007.
QoL Steering Committee, Working Group, Meeting Minutes, February 12, 2007.
QoL Steering Committee, Meeting Minutes, February 26, 2007.
QoL, Steering Committee, Meeting Minutes, March 26, 2007.
QoL Steering Committee, Meeting Minutes, April 23rd, 2007.
QoL Steering Committee, Meeting Minutes, May, 2007.
QoL Steering Committee, Meeting Minutes, June 25, 2007.
QoL, Mission and Planning Subgroup Meeting Minutes, July 19, 2007.
QoL, Funding and Sustainability Subgroup, Meeting Minutes, July, 2007.
QoL, Dissemination Subgroup, Meeting Minutes, July 25, 2007.

Funding Documents:

SSHRC LOI. A Proposal for the Establishment of a Community-University Institute for Social Research (CUISR), September 10, 1998.
SSHRC Full Proposal, Community - University Institute for Social Research (CUISR): Building Healthy, Sustainable Communities, 2001
Taxation and Other Funding Issues, 2001
CURA Competition Grant Application. Community-University Institute for Social Research: Assessing Partnerships, Policy and Progress. February, 28 2003

Media:

Press Release, Saskatoon Star Phoenix, June, 2001.
Popularized, City of Saskatoon, 2001.
CUISR Newsletter, Winter, 2003.
CUISR Newsletter, July, 2004.
Press Release, Saskatoon Star Phoenix, April 2005.
Letter to the Editor, Anti-poverty Awareness Campaign, Saskatoon Star Phoenix, January 2006.
Letter to the Editor, Saskatoon Star Phoenix, March 28, 2006.
Letter to the Editor, Saskatoon Star Phoenix April 3, 2006.
Letter to the Editor, Saskatoon Star Phoenix, June 2006.
CUISR Post-Forum Press Release, June 2007.
The Star Phoenix, January, 2001.
The Star Phoenix. November, 2006
State of the city, June, 2007

Communication:
An Overview of the Methodological Approach of Action Research. April, 1998.
QoL Interviews - Suggested Key informants, 2001.
Proposal of QoL CCAP Framework to Steering Committee, February 26, 2001.
Policy Framework, March 23, 2004.
QoL Steering Committee - Contact Information, 2006.
QoL Steering Committee – Definition of Roles in SSHRC project, 2006.
QoL Steering Committee - Terms of Reference, February, 2006.
Letter to the members of the QoL Steering Committee from QoL Advisory Committee, 2006.
QoL Steering Committee - Letter to the Saskatoon Health Region, April 16, 2007.

Community Forums:
Community Forum - Guest List, 2000.
Community Forum - CUISR Concept, 2001.
Community Forum - Action Items, June, 2001.
Community Forum - Descriptions of Event, June, 2004.
CAPIS, Initial conversation with Community Groups, Process Design, June, 2004.
Introduction to CAPIS: Comprehensive Community Action Plan Analysis, June 2004.
Community Forum - QoL Action Forum Questions, June, 2004.
Community Forum - Action Items, June, 2004.
QoL Community Forum notes, June, 2004.
QoL Action Forum Report, August, 2004.
Community Forum - Communications Plan, May, 2005.
Community Forum - Action Audit Process, May, 2005.
Community Forum - Action Items, May, 2005.
Community Forum - Evaluation and Feedback, May 2005.
Write-up, Post Community Forum, June 2005.
Community Forum - Acknowledgments, 2006.
Community Forum - Action Items, 2006.
QoL Strategic Directions, June 4, 2007.
Tracking Quality of Life in Saskatoon: 2001-2004-2007, Final Report, June 4, 2007.

Briefs and Summaries:
Briefing Paper, 2001
Final Report, Community forum, 2001
Network recommendations, 2001
QOL Research Summary, January, 2002
Documentation of research process, 2003
Summary for Allison, 2003
Summary Outcomes CAPIS, 2003

Summary to Advisory Board August, 2003
Report Summary for QoL Advisory Board, 2004
Research-Database-Info, 2004
CAPIS Outcomes, 2004
CAPIS Briefing Paper, 2004
Outcomes Of Mapping, 2004
Analysis of QoL needs, 2004
Directory and Bibliography QoL Agencies, 2004
QoL Advisory Committee, Themes Recap, 2004
QoL Needs, Report to QoL Advisory board, August, 2004
Briefing paper notes, Key Informants Interviews, 2005
Briefing Paper May 9, 2005
Report to Advisory Committee Sept 7, 2005
Taking Action On Quality of Life – Report, October 27, 2005
Theme 1 Community Forum, The Growing Income Gap, 2005
Theme 1B, Community Forum, The Growing Income Gap, 2005
Theme 2, Community Forum, The Problem of Social Inclusion, 2005
Theme 2B, Community Forum, The Problem of Social Inclusion, 2005
Theme 3, Community Forum, The Responsibility for Change, 2005
Theme 3B, Community Forum, The Responsibility for Change, 2005
Report to QOL advisory Board Aug21, 2006
Research Summary 2004, Final Edition - Nov. 20, 2006
Briefing Paper, 2007
Report to QOL advisory Board Aug28, 2007

Action Plans:
Action Researcher Job Description, 2003.
Community Action Plan - Research Overview, 2003.
Community Action Plan Process Plan, Meeting Minutes, February, 2003.
Community Action Plan - Progress Plan, Overview February 18, 2003.
Community Action Plan, March 18, 2003.
Community Action Plan Information System (CAPIS), Briefing Paper, 2004.
Community Action Plan Information System (CAPIS), Summary, 2004.
Community Action Plan Information System (CAPIS), Outcomes, 2004.
Comprehensive Community Action Plan Outline, March 15, 2004.
Comprehensive Community Action Plan, Final Version, 2004.
QoL Directory and Bibliography, 2004.
Community Action Plan Analysis - Methodology, 2005.
Community Action Plan Analysis - Thoughts, 2005.

<u>Academic Publications:</u>
Publications update, July 2004.

Sanderson, K. 2005. Community-University Institute for Social Research: Partnering to Build Capacity and Connections in the Community. CUISR: University of Saskatchewan.

Williams, A., R. LaBonte, J.E. Randall, N. Mahajarine. 2005. Establishing and Sustaining Community-University Partnerships: A Case study of Quality of Life Research. Critical Public Health. Sept. 2005; 15(3): 291-302.

Mahajarine. N. Congress Script. Democratizing Research: Climbing Down From the Ivory Tower. May, 28 2007.

Krebs, P., B. Holden, A. Williams, M. Basualdo, C. Spence. 2008. A Comprehensive Action Plan Information System: A Tool for Tracking and Mapping Quality of Life Action Implementation and Planning. Social Indicator Research. 85: 127-144.

Williams, A., B. Holden, P. Krebs, N. Muhajarine, K. Waygood, J. Randall, C. Spence. 2008. Knowledge Translation Strategies in a Community-University Partnership: Examining Local Quality of Life (QoL). Social Indicator Research. 85:111-125.

Appendix C:
CUISR Environmental Scan of Assets and Sustainability, 2007