Neighbourhood Hubs: Engaging Communities for Sustainability

Charlotte Gurr, Adrienne McCurdy, Sarah Rose Robert

School of Engineering
Blekinge Institute of Technology
Karlskrona, Sweden
2012

Thesis submitted for completion of Master of Strategic Leadership towards Sustainability, Blekinge Institute of Technology, Karlskrona, Sweden.

Abstract: Society is facing a great sustainability challenge, where the design of its social systems has made it increasingly difficult for the planet to support humanity. Given the complexity of the sustainability challenge, the planet requires a shift in the way society is organised and a commitment to sustainability from individuals and communities. This thesis explores how neighbourhood hubs can serve as a platform to engage individuals to take an active participatory role in their community. Neighbourhood hubs are defined as: *a fixed physical gathering place which intentionally brings people together to carry out services, activities, programs and events that serve the local community*. This research sought to uncover the dynamic and engaging characteristics of neighbourhood hubs that attract participants as well as the benefits of hubs to the local community in the form of community capitals. By combining the approach of Strategic Sustainable Development with the engaging characteristics of hubs, this thesis provides a planning tool to help hubs work towards their vision and move society towards sustainability. Neighbourhood hubs are found to be an effective and inspiring way for communities to move towards a vibrant and sustainable future.

Keywords: Community Capitals, Community Hub, Engagement, Neighbourhood Hub, Strategic Sustainable Development, Vibrant Communities

Statement of Collaboration

This study has been a collaborative effort between our three team members: Charlotte Gurr, Adrienne McCurdy and Sarah Rose Robert. We came together with the shared intention of enjoying our thesis process and having our time together be a meaningful learning journey to support both our personal aspirations and our research goals. Each member contributed their creativity, ideas, skills, perspectives, passions and quirks which were critical factors in the overall success of the project. In many ways, our thesis team worked as a small hub; practicing the values both naturally and consciously as we worked towards our shared vision of success.

The thesis was truly co-created with a natural workflow. Referred to as the "butterfly hub team" by our advisor, Zaida, our excitement and passion for our topic of neighbourhood hubs brought us in every direction until finally, we settled down and created this thesis. Our thesis process consisted of group check-ins and check-outs; encouragement and support for one another; colourful brainstorming sessions; researching and writing; personal practices such as yoga and meditation; editing and re-writing; cooking and enjoying good food together and working outside in the Karlskrona sunshine whenever possible!

The topic of neighbourhood hubs came from the desire to work with community-based initiatives and learn more about how organisations could empower community members to turn their neighbourhoods into thriving and vibrant places to live. Our personal and professional experience leading up to our thesis filled us with many questions about the relationships between communities, engagement, collaboration and people's connection to place. Now we find ourselves finishing our thesis, inspired to continue our own learning journeys and grateful for the beauty that this experience brought to each of our lives.

Sarah Rose Robert • Adrienne McCurdy • Charlotte Gurr

Acknowledgements

Our deepest gratitude goes out to everyone who contributed to the knowledge held in these pages and for the continuous support we received along the way.

Our hearts are filled with appreciation for the practitioners who shared their valuable time and insights in interviews, surveys and in feedback on our results. We are especially grateful for those who were with us throughout multiple stages of our research and provided their continuous support and encouragement: Thank you to Liz Weaver and Hilary Burrage.

We would like to give special thanks to our thesis advisors: Zaida Barcena and Marco Valente, the program staff at the Blekinge Institute of Technology, and our peers, whose constant guidance and inspiration helped us navigate through the mystery as it unfolded. Thank you to Dr. Karl Henrik-Robèrt for his enthusiasm and guidance.

Perhaps the most important acknowledgment rests in the stories still left untold. For that, we are grateful for the readers of this thesis - who are on journeys to explore how neighbourhood hubs can be places for a million small beginnings. Therein rests the hope that the knowledge in these pages can be of benefit to help guide hubs through the inherent challenges of place making and onto the path to successfully guide communities towards a vibrant and thriving future.

Executive Summary

Introduction

Society is facing a great sustainability challenge, where the design of the socio-economic systems has made it increasingly difficult for the planet to support humanity (UNEP 2011). Given the complexity of the sustainability challenge, the planet requires a shift in the way society is organised and a commitment to sustainability from individuals and communities.

Neighbourhood hubs, referred to as 'hubs' in this paper, are gathering places where community members can build relationships, strengthen their community, and work collectively towards a more sustainable way of living. We have defined neighbourhood hubs as: a fixed physical gathering place which intentionally brings people together to carry out services, activities, programs and events that serve the local community.

This thesis explores how neighbourhood hubs can engage people to take an active role in their community and looks at the benefits to the communities in the form of community capitals. Combining the approach of Strategic Sustainable Development with the engaging characteristics of hubs can be an effective and inspiring way to engage community members to move their community strategically towards sustainability. This paper will answer the following questions:

Research Question 1: What are the characteristics of a neighbourhood hub that engages community members?

Research Question 2: What are the benefits, in the form of the Community Capital Framework, that can be stimulated by hubs?

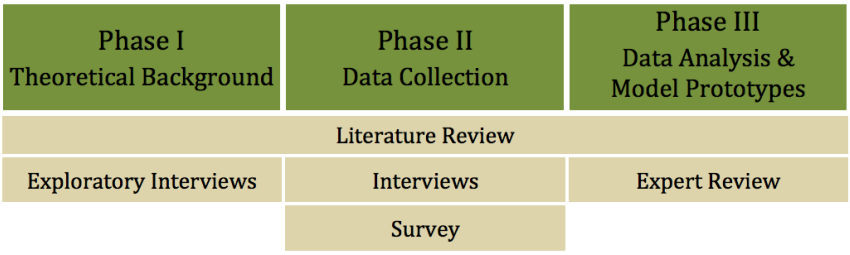
Methodology

Joseph Maxwell's *Interactive Model for Research Design* was used to structure our research. This is a non-linear approach that encourages interaction between the five components of research design: goals, conceptual framework, research questions, methods and validity (2005).

The Framework for Strategic Sustainable Development (FSSD) and the Community Capital Framework were used as the conceptual frameworks.

Strategic Sustainable Development (SSD) concepts such as systems thinking, the Sustainability Principles, and backcasting, created the lens through which all collected data was viewed and analysed. The FSSD's five levels were used to organise the data to provide a deeper understanding of the different levels of information. The Community Capital Framework provided an understanding of the relationships between the hub and the local community (Callaghan and Colton 2007). Our research team assessed the benefits of hubs along seven dimensions; Social, Human, Cultural, Built, Political and Financial Capital.

The three-phase research design shown below, was created in which both research questions were answered simultaneously. In line with the approach suggested by Maxwell (2005), there were multiple iterations throughout the phases as our learning on the subject deepened and a new level clarity was reached.



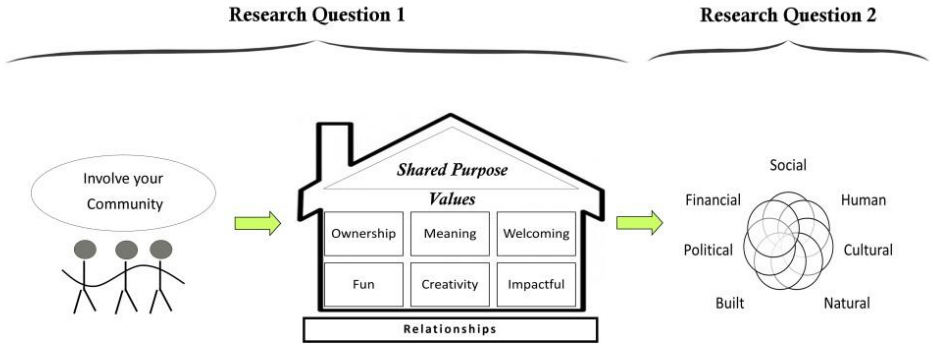
Research Phases

Phase I: The exploratory interviews and literature review conducted during Phase I helped to develop the research questions, determine the conceptual framework, uncover gaps in academic research on this topic, and develop a coding structure.

Phase II: In Phase II, data was collected, transcribed and coded to answer the research questions through interviews, a survey and literature review.

Phase III: The purpose of Phase III was to analyse the data and to prototype and create a model to communicate the results.

Results



Model of Engaging Characteristics and Benefits of Neighbourhood Hubs

RQ1: What are the characteristics of a neighbourhood hub that engages community members?

Involve your Community: 'Involve your Community' entails knowing who the hub's community is and providing opportunities for members of that community to participate in the hub's shared vision and daily activities. This helps the hub to stay relevant to their local context.

Shared Purpose* and *Values: The Shared Purpose gives hubs a clear direction that can inspire and motivate participation. The Values create an engaging hub that: invites Ownership, connects people to Meaning, has a Welcoming atmosphere, is a Fun place to spend time, supports Creativity, and is Impactful. These values are kept general so that they can be adapted to a neighbourhood hub's local context when creating a shared vision.

Relationships: The importance of developing interpersonal relationships was heavily emphasized by experts. It was a concept that was found to transcend each of the five levels of the FSSD and underpins each of the Values, and therefore is seen as fundamental when engaging people in neighbourhood hubs.

RQ2: What are the benefits, in the form of the Community Capital Framework, that can be stimulated by hubs?

Because of the wide scope of hubs considered in this study, the benefits to the community vary greatly depending on the purpose and the projects run

at the hub. Despite the different types of hubs, Social, Human and Cultural Capital were emphasized across all types of hubs.

Social Capital: All experts reported hubs to have an impact on Social Capital, as such, it is considered to be the capital impacted the greatest by hubs. Hubs can build relationships, increase social networks and increase the sense of belonging to the community.

Human Capital: Hubs can build the personal capacities as well as develop the skills of participants and the hub's team. They can also contribute to personal well-being and health.

Cultural Capital: Hubs can provide a space to celebrate local customs, share stories and heritage, as well as increase community members' sense of identity and place-attachment.

Natural, Built, Political and Financial Capital*:* Benefits to these capitals were found to be based on the specific projects run at the hub. For example, hubs have the ability impact Natural Capital through urban agriculture projects; Built Capital by increasing the accessibility of resources within a community; Political Capital by forming strong partnerships with stakeholders; and Financial Capital by spurring the local economy through job creation and increasing the knowledge and the skills of the local workforce.

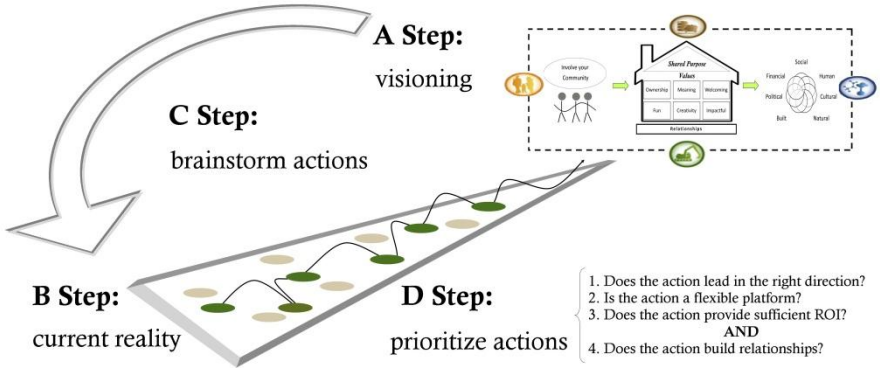
Discussion

The Discussion explores how neighbourhood hubs can help to move society strategically towards sustainability. It explores the link between hubs' impact on the Community Capitals and how they can help to address the sustainability challenge. The *Model of Engaging Characteristics and Benefits of Neighbourhood Hubs* is combined with a Strategic Sustainable Development planning tool, which offers guidance to hubs on how to engage community members to move their communities strategically towards sustainability.

Hubs can be places that promote the creativity, innovation and cross-pollination between social sectors that is needed to find local solutions to today's complex sustainability challenge. They build personal capacities and empower community members to participate and take action in bettering their communities. They can also increase the sense of

responsibility community members feel to their local environment through strengthening community bonds and place-attachment.

It is important to note that the activities in hubs do not necessarily lead communities towards sustainability. A four-step approach, called the ABCD planning process, can be combined with the results of this study to ensure hubs lead to Strategic Sustainable Development (Ny et al. 2006). The A Step facilitates the creation of a shared vision with participants, which includes framing the hubs Shared Purpose, Values and Relationships by the four Sustainability Principles (4SPs). The B Step is an assessment of the hub's current reality. The C Step is about brainstorming creative actions that lead the hub and its community towards their shared vision of success. The D Step helps neighbourhood hubs to prioritise between the brainstormed actions.



ABCD Process Applied to Creating Engaging Neighbourhood Hubs

Conclusion

Hubs are a powerful platform to create change in communities. Using SSD to guide neighbourhood hubs towards sustainability provides an opportunity to harness the capacity of hubs to engage community members so that they feel inspired, engaged and enjoy working towards a shared vision that is framed by the four Sustainability Principles.

Glossary

ABCD Planning Process: A four-step planning process designed to implement the Framework for Strategic Sustainable Development (FSSD).

Backcasting: a planning method, in which future desired conditions are envisioned and steps are defined to attain those conditions based on the current reality.

Built Capital: Physical infrastructure, access to resources, and security.

Capital: a resource capable of producing additional resources (Flora, Flora and Fey 2004; Jacobs 2007).

Community Aspiration: a shared vision expressing where the community wishes to be in the future.

Community Building: enhancing the connections and relationships among people in order to strengthen common values and promote collective goals (Rossiter 2007, 4).

Community members: the people residing in or participating in the local community.

Community: a network of social ties and meaningful relationships connected by geographical territory or common ties or goals which creates belonging, connection and shared responsibility (Piselli 2007; Milio 1996).

Community-based organisation: an organisation committed to working at the local and neighbourhood level (Cairns et al. 2006, 8).

Creative Place: new types of urban spaces where groups of people collaboratively promote and manage a mix of creative initiatives in the field of art and culture, economy and production, social services and urban regeneration (Franquiera 2010, 201).

Creative tension: the 'pull' between the current reality and the desired future (Senge et al. 1994).

Crowd-funding: the act of pooling resources together, usually financial, in order to fund another person or organisation, often done through the internet.

Cultural Capital: the customs, heritage, stories, identity, values, history and attachment to local place.

Engagement: participation, involvement and interaction of individuals in decision-making, activities and leadership.

Engaging: the act of attracting participation, drawing in and encouraging involvement from community members.

Financial Capital: strength of local economy, access to funding, personal and organisational wealth.

Framework for Strategic Sustainable Development (FSSD): a 5-level conceptual framework used in planning and analysing in complex systems with sustainability as the desired outcome (Robèrt 2000).

Human Capital: The skills, abilities and knowledge of individuals. Also personal and community well-being and health.

Human needs: Max-Neef's system of nine interconnected, non-hierarchical needs; subsistence, protection, affection, understanding, participation, leisure, creation, identity, freedom, transcendence (Max-Neef 1991).

Local community: refers to the geographic location and surrounding area where the neighbourhood hub is located.

Natural Capital: ecological stocks and flows; natural beauty; access to natural resources; and reduced waste.

Neighbourhood hub: a fixed physical gathering place which intentionally brings people together to carry out services, activities, programs and events that serve the local community.

Participation: to take part, to share and act together (Tilbury and Wortman 2004, 50).

Place-Attachment: an affective bond between people and place (Altman and Low, 1992).

Political Capital: ability to influence and participate in decision making.

Shared purpose: part of the organisational vision, the reason for being and a reflection of the people in the organisation's idealistic motivations for doing the work (Collins and Porras 1996, 68).

Social Capital: relationships, trust, networks, and a sense of belonging to a community.

Socio-ecological system: the system made up of the biosphere, society, and their complex interactions.

Strategic Sustainable Development (SSD): an approach for conceptualizing and planning for sustainability that is designed to deal with the complexity of the global system (Holmberg and Robèrt 2000). Comprised of the funnel metaphor, systems thinking, a definition of sustainability based on four Sustainability Principles (SPs), backcasting, and a five-level planning framework for sustainability called the Framework for Strategic Sustainable Development (FSSD).

Sustainability Principles: the four basic principles for a sustainable society in the biosphere, underpinned by scientific laws and knowledge (Robèrt, 2000, Ny et al. 2006)

Synergetic satisfiers: refers to certain ways of satisfying a given need that can stimulate and contribute to the satisfaction of other's needs (Max Neef 1991, 36).

Systems thinking: the study of systems and their behaviours and feedbacks (Robèrt et al. 2010).

Tragedy of the Commons: where parties acting independently in self-interest, ultimately deplete a shared resource (Hardin 1968).

Values: part of the organisational vision, what the organisations represents today and what it wants to represent in the future, or timeless guiding principles (Collins and Porras 1996, 66).

Western countries: term used in this study to refer to developed countries in North America, Europe and Oceania, which have a similar western culture.

Table of Contents

Statement of Collaboration ..... **ii**

Acknowledgements ..... **iii**

Executive Summary ..... **iv**

Glossary ..... **ix**

Table of Contents ..... **xii**

List of Figures and Tables ..... **xv**

1 Introduction **2**

1.1 Sustainability Challenge 3

1.2 Strategic Sustainable Development 5

1.2.1 Systems Thinking 6

1.2.2 The Sustainability Principles 6

1.2.3 Backcasting from Sustainability Principles 7

1.2.4 Framework for Strategic Sustainable Development 8

1.3 Neighbourhood Hubs 9

1.4 Neighbourhood Hubs and Sustainability 10

1.4.1 Environmental Sustainability (SP1-SP3) 11

1.4.2 Social Sustainability (SP4) 11

1.5 Participation and Engagement 12

1.6 Purpose and Research Questions 13

1.6.1 Scope and Audience 14

2 Methodology 15

2.1 Research Design 15

2.1.1 Conceptual Framework 16

2.2 Research Phases 17

2.2.1 Phase I: Theoretical Background 18

2.2.2 Phase II: Data Collection 19

2.2.3 Phase III: Data Analysis and Model Prototypes 20

2.3 Validity 22

3 Results 23

3.1 Research Question 1 24

3.1.1 Involve Your Community 24

3.1.2 Hub Culture 25

3.1.3 Barriers 34

3.2 Research Question 2 35

3.2.1 Community Capitals 35

4 Discussion 39

4.1 Community Capitals and Sustainability 39

4.1.1 Strengthening Community through Social Capital 40

4.1.2 Developing Capacities through Human Capital 42

4.1.3 Strengthening Identity and Place-Attachment through Cultural Capital. 43

4.1.4 Further Implications to the Sustainability Challenge 43

4.2 ABCD Process Applied to Engaging Neighbourhood Hubs 45
4.2.1 A Step: Shared Understanding and Vision 47
4.2.2 B Step: Current Reality 48
4.2.3 C Step: Brainstorm Actions 49
4.2.4 D Step: Prioritise Actions 50
4.3 Areas for Future Research 51
4.4 Research Limitations 52
5 Conclusion 54
References 56
Appendix A. Community Capital Indicators 66
Appendix B. List of Experts 67
Appendix C. Coding Template 71
Appendix D. Example Interview Questions by FSSD Level 74
Appendix E. Survey Responses 75
Appendix F. Methods, Tools and Resources 76
Appendix G. Current Reality Assessment Tools for Hubs 77

List of Figures and Tables

Figure 1.1. The Sustainability Challenge Funnel 3

Figure 1.2. Nested System. 6

Figure 1.3. Framework for Strategic Sustainable Development. 8

Figure 2.1. Maxwell's Interactive Model for Research Design. 15

Figure 2.2. Community Capitals. 16

Figure 2.3. Three-Phased Research Design. 17

Figure 2.4 Re-organisation of Information from FSSD into the Model of Engaging Characteristics and Benefits of Neighbourhood Hubs 21

Figure 3.1 Model of Engaging Characteristics and Benefits of Neighbourhood Hubs 23

Figure 3.2 Involve your Community. 24

Figure 3.3. Hub Culture: Shared Purpose, Values and Relationships 25

Figure 3.4. A Foundation of Relationships 33

Figure 3.5. Results of Shared Experiences; Sample Engaging Activities ... 34

Figure 3.6. Community Capital Benefits 35

Figure 4.1. Model of Engaging Characteristics and Benefits of Neighbourhood Hubs 39

Figure 4.2. Hub Impacts on Social Capital 40

Figure 4.3. Hub Impacts on Human Capital 42

Figure 4.4. Hub Impacts on Cultural Capital 43

Figure 4.5. ABCD Process and Engaging Neighbourhood Hubs 46

Figure 4.6. Results of Shared Experiences; Sample Engaging Activities .. 50

Table 1.1. Human Needs..... 11

Table 2.1Total Number of Expert Contributors..... 21

There is no greater power than a community discovering what it cares about.

Ask "What's possible?" not "What's wrong?" Keep asking.

Notice what you care about. Assume that many others share your dreams.

Be brave enough to start a conversation that matters.

Talk to people you know. Talk to people you don't know.

Talk to people you never talk to. Be intrigued by the differences you hear.

Expect to be surprised. Treasure curiosity more than certainty.

Invite in everybody who cares to work on what's possible.

Acknowledge that everyone is an expert in something.

Know that creative solutions come from new connections.

Remember, you don't fear people whose story you know.

Real listening always brings people closer together.

Trust that meaningful conversations change your world.

Rely on human goodness. Stay together.

Margaret Wheatley – 'Turning to one another'

(Wheatley 2009)

1 Introduction

"*…a million small beginnings, a million great little ideas, a million modest innovations and improvements...have transformed the human world."* (Quinn 1997, 200)

Author Daniel Quinn described the industrial revolution as a revolution of a million small beginnings, an 'outpouring of human creativity,' pushing western countries into economic prosperity (1997, 201). Just as the societal shift that occurred for the industrial revolution was characterized by a million small beginnings, there is a growing belief in the power of many small groups of people to create another major societal shift. This will be a movement where many people work together with the aim of redirecting society towards a thriving and sustainable future (Carstedt 2012; Middlemiss 2009).

Neighbourhood hubs can play a significant role in creating an environment for these million small beginnings. *Neighbourhood hubs*, referred to as 'hubs' in this paper, are defined as: a fixed physical gathering place which intentionally brings people together to carry out services, activities, programs and events that serve the local community. Hubs can bring together people from different sectors and backgrounds; as such, they can are prime places for cross-pollination and can act as incubators for the social innovations needed to shift our society onto a new trajectory (Copeland-Carson 2008). They are gathering places where communities can build and strengthen their community and work collectively towards a more sustainable way of living.

By offering a space to build relationships, get involved in local projects, learn together, establish trust, and strengthen community identity, hubs can tap into the collective intelligence of a local community (Dunford and Stilger 2011; Stilger 2012). They can bring together people from a range of backgrounds, ideologies, social groups or cultures, and help local communities discover knowledge, creativity, and solutions to problems that could not be discovered individually (Dunford and Stilger 2011; Stilger 2012). The changes created at the local community level are important because they have the ability to ripple out into the larger system and affect families and households, colleagues and workplaces, classmates and schools, and the mindsets and behaviours of individuals (Spaargaren 2003).

The intention of this paper is to investigate how neighbourhood hubs can engage community members into creating a million small beginnings that can ultimately move communities towards sustainability.

"What you are doing is creating a space, and in this case a physical space, that exists over time that carries in its DNA an invitation for collaboration, participation and action." (Stilger 2012)

1.1 Sustainability Challenge

The current sustainability challenge can be illustrated by the metaphor of a funnel (Figure 1.1) (Robèrt 2000). This mental model is used to explain current socio-ecological challenges, as well as the importance of hubs in moving local communities toward sustainability.

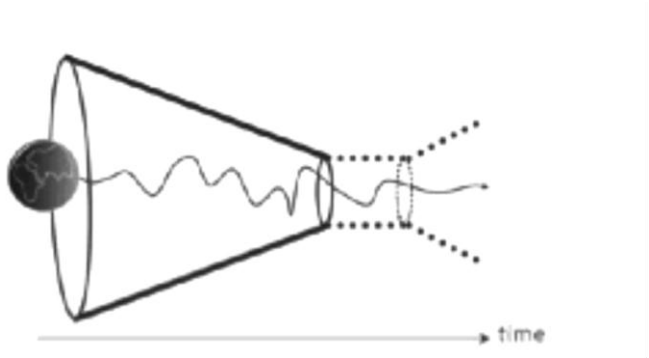


Figure 1.1. The Sustainability Challenge Funnel

The closing walls of the funnel represent the degradation of the socio-ecological system caused by increasing unsustainable activity within society. Achieving a sustainable society requires reorganising society to operate within the limitations of Earth's natural systems (Capra 2002). This section highlights several social issues that underpin the sustainability challenge.

The scientific evidence indicating human's impact on the biosphere is beyond argument; industrial activities have diminished the quality of Earth's air, water and soil beyond healthy levels for life to flourish (IPCC 2007; Steffan et al. 2004). The resources society has come to rely on are disappearing so rapidly it is becoming increasingly difficult for the planet to support humanity (UNEP 2011). As the walls of the funnel narrow, it limits

the solutions available for solving this challenge. As Figure 1.1. illustrates, if society continues on its projected course, it will 'hit the walls of the funnel,' which may cause sudden changes in resource cost and availability, stricter government regulations, and an inability to meet basic human needs[1] (Robèrt 2000).

It is important to consider that human activity and Earth's natural systems form highly complex relationships between one another, where a change in one system influences the whole. This is evidenced by society's vulnerability to environmental changes, such as rising sea levels, changing weather patterns, and species extinction (IPCC 2007, Steffan et al. 2004). These impacts are a result of the way society is designed and the operations of its social structures.

Take for instance the current economic system, which is based on a model of continual growth created by systematically depleting the Earth's resources (Cairn 2004, IPCC 2007, UNEP 2011). Society currently follows a 'take-make-waste' model of consumption, where resources are consumed and discarded faster than the biosphere can replenish them (Cairn 2004). It is therefore important that new economic models present options for maintaining wellbeing while reducing consumption patterns that deplete these resources (Lawn 2010, Trainer 2010).

Rising trends of globalisation and urbanisation mark the increasing mobilisation of the worlds' citizens. With individuals increasingly mobile and neighbourhoods more transient (Putnam 2000), there has been a marked decline in place-based relationships, sense of community, and place attachment in many urban areas (Bridger and Alter 2006). This can result in reduced participation in local community improvement projects, civic engagement, and the sense of individual responsibility for community issues (Bridger and Alter 2006, Gibson-Graham 2003; Middlemiss 2009).

[1] These needs are; subsistence, protection, affection, understanding, participation, leisure, creation, identity, and freedom (Max-Neef 1991). See section 1.4.2 for further details.

The issues illustrated by the sustainability challenge are often viewed in isolation, with attempts to gain understanding by breaking down larger socio-ecological issues into smaller parts. This is called reductionism and does not take into account the complex interplay between systems. Subsequently, value is placed on acquiring highly specialised knowledge and much of society is organised into silos, or drill holes. This trend of specialization, where power is given to experts, disempowers individuals from addressing issues within their own communities and communication on a general level becomes more difficult between sectors (Wheatley and Frieze 2011). When people remove themselves from positions of responsibility it can lead to a *tragedy of the commons*, where parties, acting independently in self-interest, ultimately deplete a shared resource (Hardin 1968). Stakeholders may not see themselves accountable to the management of public resources and may expect that experts or institutions will take responsibility for public resource challenges.

Through incorporating a more holistic perspective and a strategic approach to sustainable development, there is hope to re-organise society to live within the planet's boundaries while meeting people's needs (Robèrt et al. 2002).

1.2 Strategic Sustainable Development

Addressing the complex issues illustrated by the funnel metaphor requires a shift in mind-set to one that takes into account the interconnected nature of our communities' challenges. Capra explains that our social structures need to shift from reductionist into holistic thinking and from acting competitively into acting cooperatively (Capra 1996). Moreover, moving society towards the opening of the funnel requires the knowledge and tools on how to strategically plan for sustainability within complex systems (Robèrt 2000).

Strategic Sustainable Development (SSD) is an approach to conceptualise and plan for sustainability within the complexity of the socio-ecological system (Holmberg and Robèrt 2000). SSD is comprised of the funnel metaphor (Figure 1.1), systems thinking, a scientifically-agreed upon definition of sustainability based on four Sustainability Principles (SPs), backcasting from principles, and a five-level planning framework for sustainability called the Framework for Strategic Sustainable Development. The following section gives an overview of these concepts.

1.2.1 Systems Thinking

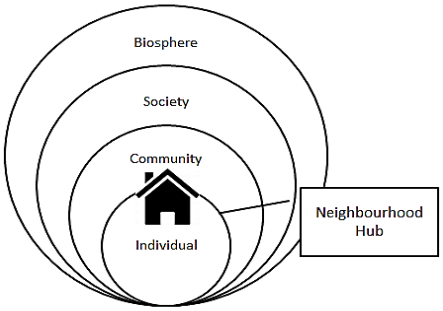


Figure 1.2. Nested System.

Reductionist thinking, which helped to create the sustainability challenge, postulates that we can only understand the whole when we reduce it into smaller and smaller parts. Alternatively, *systems thinking* seeks an understanding of the whole by studying relationships between the entire system, its parts, and their relationships with one another (Capra 1985). As shown in Figure 1.2, systems are nested within larger systems, which increase in complexity as they increase in size (Heft 2006). Individuals live in communities, communities create society, and society is found within the biosphere.

Earth's socio-ecological systems are intrinsically interconnected, meaning that changes in one part of the system impact the whole (Capra 2002, Hjorth and Bagheri 2006; Steffan et al. 2004). In order for systems to stay healthy, they need to learn and re-organise themselves in alignment with the changes that are happening in other systems (Capra 2002; Heft 2006). Viewing the world from a systems perspective helps to see the connections between systems and a way forward.

1.2.2 The Sustainability Principles

Addressing the complex issues of the sustainability challenge requires a scientifically agreed upon understanding of sustainability based on the Earth's environmental capacity and human needs. This paper uses the following definition of sustainability, or Sustainability Principles (SPs):

In a sustainable society, nature is not subject to systematically increasing:

I ...concentrations of substances extracted from the Earth's crust [SP1];

II ...concentrations of substances produced by society [SP2]

III … degradation by physical means [SP3];

and, in society...

IV. ...people are not subject to conditions that systematically undermine their capacity to meet their needs [SP4]

(Ny et al. 2006; Robėrt, 2000)

The SPs describe the minimum conditions society must meet in order to operate in a sustainable way. The first three principles represent the framework for environmental sustainability that society must work within (Ny et al. 2006; Robėrt, 2000). The fourth principle stipulates that society should not prevent people from meeting their needs (Ny et al. 2006; Robėrt, 2000). See section 1.4.2 for more elaboration on human needs as defined by the Manfred Max Neef. In practical terms, the SPs are more helpful when creating a vision of sustainable society than the commonly used Brundtland definition[2], as they provide concrete and operational boundaries to help identify the root causes of unsustainability (Robèrt 2000).

1.2.3 Backcasting from Sustainability Principles

The vision of a sustainable society is a constantly changing ideal that changes in tandem with our understanding of the socio-ecological system (Bagheri and Hjorth 2006). Strategic approaches such as backcasting are recommended to navigate this complexity (Robèrt 2000). *Backcasting* is an alternative approach for planning that focuses on the overall goal, allowing for more creative solutions toward a desired future; whereas, the traditionally approach of forecasting looks at the current trends and projects them into the future (Robèrt 2000).

When backcasting, one starts with a vision, or an idea of what the future could ideally be, and defines the necessary steps to move from the current reality into that ideal future. Here, the SPs are used to frame the vision of success to ensure it moves society toward sustainability. Using a principled definition of sustainability avoids prescribing context-specific solutions and actions. SSD promotes backcasting from principles with the SPs, but also recognizes the value in backcasting from scenarios when dealing with emotionally-charged decisions (Robinson 1990). This is done by envisioning a future to work towards, while simultaneously exposing values, judgements and biases.

[2] Brundtland definition of sustainability "meets the needs of the present without compromising the ability of future generations to meet their own needs." (World Commission on Environment and Development 1987, 24).

1.2.4 Framework for Strategic Sustainable Development

Figure 1.3. Framework for Strategic Sustainable Development.

In order to move towards the opening of the funnel, society needs an understanding of Earth's complex socio-ecological system, a science-based shared understanding of sustainability, and to be strategic in determining what actions to take (Robèrt 2000). The *Framework for Strategic Sustainable Development* (FSSD) was designed to address the complexity of the sustainability challenge by incorporating Strategic Sustainable Development into a generic five-level framework used for planning and analysing, shown in Figure 1.3. The FSSD offers a systems-thinking approach to strategically plan for sustainability (Robèrt 2000).

The Systems level involves the basic behaviour and rules of the system that are relevant to the overall goal. This includes an understanding of the socio-ecological system, the sustainability challenge, and the interconnections between nested systems (Figure 1.2). The Success level refers to the overall goal or vision, in this case, sustainability as defined by the 4 SPs. The Strategic level involves strategic guidelines for decision-making: backcasting and three prioritisation questions.[3] The Actions level refers to the initiatives, programs and actions taken which lead towards the vision, and the Tools level are the tools that are needed for support and implementation of the actions (Robèrt 2000).

[3] The three prioritisation questions include 1) Is it in the right direction toward sustainability and the vision? 2) Is it a flexible platform? And 3) Is there an adequate return on investment? See section 4.2.4 for their applications to neighbourhood hubs.

1.3 Neighbourhood Hubs

Our thesis explores what the characteristics of neighbourhood hubs are that make them engaging places for participants and examines what the benefits of these hubs are to their communities. The intention is to combine this information with the SSD approach to uncover how hubs can be places where people participate in moving their communities toward sustainability. Hubs exist in many forms with a variety of purposes, visions and programs. There is no archetype, as they are a reflection of the local community in which they are situated and serve their community's unique needs. For the purposes of this research our research team has defined a *neighbourhood hub*, or *hub*, as:

A fixed physical gathering place which intentionally brings people together to carry out services, activities, programs and events that serve the local community.

'Neighbourhood hub' is a term that incorporates many related concepts; such as, community hubs, hives, labs, future centres, hackspaces, makerspace, co-working spaces, community-based organisations and creative places. This definition is kept intentionally broad in order to encompass the different purposes, goals and programs that exist at the many hubs that were studied in this paper. Some of the services and programs that fall under the definition of a neighbourhood hub include:

- Sharing and learning skills (Dunford and Stilger 2011; Center for Social Innovation 2012)
- Organizing meetings, events, classes and workshops (Dunford and Stilger 2011; Center for Social Innovation 2012)
- Co-working spaces (Center for Social Innovation 2012; The Hub 2012)
- Creative arts and cultural centres (Franquiera 2011)
- Urban regeneration (Franquiera 2011; Cairns et al. 2006)
- Support for local businesses (Burrage 2012)
- Creation, cross-pollination and innovation (Franquiera 2011)
- Holistic healthcare and well-being (Rossiter 2007)
- Co-locating services (Rossiter 2007)

Community-based organisations and creative places are two examples of hubs that exist in research and in practice that fall within the definition of neighbourhood hubs. A *community-based organisation* is defined as an organisation – such as a social action centre, multi-purpose community centre, and community farm/garden – that is committed to working at the local and neighbourhood level (Cairns et al. 2006, 8). A *creative place* is defined as "new types of urban spaces where groups of people collaboratively promote and manage a mix of creative initiatives in the field of art and culture, economy and production, social services and urban regeneration" (Franquiera 2010, 201).

Neighbourhood Hub Snapshot: *Grote Pyr*, The Netherlands

Grote Pyr can be described as a *creative place* and a cluster of urban creativity and social innovation. Community members turned an old school building into a living and working space. Residents of *Grote Pyr* manage resources and decision-making in a collaborative way. Their innovative style of living allows for cooking and eating together, sharing child care duties, sharing tools and appliances, and thus reducing the need for personal consumption. They also run a number of other activities such as a bicycle shop, organic catering and art displays (Franqueira 2010, 201-204).

Neighbourhood Hub Snapshot: *Santropol Roulant*, Montreal, Canada

Santropol Roulant is a *community-based organisation* that delivers food to residents with limited mobility through its meals-on-wheels programme. They produce local organic food through urban agriculture. The majority of the meals are delivered by volunteers on foot or on bicycles. Along with the bicycle deliveries they also run a bike-coop where people can learn to build and repair bikes. The volunteers travel in pairs, cook together in the kitchen and run local events, all which provides an opportunity to meet new people and build relationships (Santropol Roulant 2012).

1.4 Neighbourhood Hubs and Sustainability

There is limited research showing the relationship between neighbourhood hubs and sustainability (Middlemiss 2009). The following section describes our preliminary research and makes some connections between hubs and sustainability, as defined by the SPs. The connection between hubs and sustainability will be built upon through the research conducted in this study.

1.4.1 Environmental Sustainability (SP1-SP3)

Every hub is unique in its programs and its contributions. This means that each hub has varying impacts. Analysing the environmental impact of hubs (i.e. conducting an SP analysis) needs to be done on a case-by-case basis and is outside of the scope of this research. Examples of the positive environmental impacts hubs can have on their communities can be seen by examining two examples of hubs, *Santropol Roulant* in Montreal, Canada and *Waipa Foundation* in Hawaii, USA.

Santropol Roulant: For their meals-on-wheels food delivery program, Santropol Roulant produces local food that is pesticide and chemical free (Santropol Roulant 2012). This reduces contributions to violations of SP2 by reducing the concentrations of persistent pollutants produced by society.

Waipa Foundation: Waipa's forest restoration project has resulted in the planting of over 2,000 native species of plants and shrubs (Waipa Foundation 2012). This reduces the local area's negative impact on SP3 through reforestation efforts.

1.4.2 Social Sustainability (SP4)

The impact of neighbourhood hubs on SP4 is much more consistent throughout different hubs. SP4 states that, "in a sustainable society people are not subject to conditions that systematically undermine their capacity to meet their needs" (Ny et al. 2006; Robèrt, 2000). Manfred Max-Neef identifies nine interconnected human needs that are consistent throughout all cultures and that explain the fourth Sustainability Principle. They are:

Table 1.1. Human Needs

Subsistence	Understanding	Affection
Protection	Participation	Leisure
Creation	Identity	Freedom

(Max-Neef 1991)

These human needs are addressed by different types of satisfiers. Satisfiers will change between cultures, generations, and personal preferences and will address each of the needs to different extents (Max-Neef 1991, 18).

According to Max-Neef, neighbourhood hubs can be a place for community members to meet their needs through synergetic satisfiers. *Synergic satisfiers* are when an activity results in more than one need being satisfied at a given time (Max-Neef 1991, 36). Max-Neef gives an example of a "democratic community organisation," which satisfies the need for protection, affection, leisure, creation, identity and freedom simultaneously (Max-Neef 1991, 36). The hubs that incorporate collaborative decision-making processes can fall into that category. Hubs can also serve as a platform for synergistic satisfiers, such as educational games. This type of a playful and creative learning experience can satisfy our need for leisure, understanding and creation (Max-Neef 1991, 36).

1.5 Participation and Engagement

Hubs have a diverse range of services, programs and sustainability impacts. Despite the differences between hubs, all hubs require the participation of community members. Whether it is participation in long-term decision-making or simple involvement in daily activities, hubs need the community members' participation to remain relevant and connected to their local community (Tilbury and Wortman 2004, 50). Borrini-Feyerabend refers to people's participation as "nothing less than the basic texture of social life" (1997, 26). *Participation* is defined here as "people who take part, share and act together" in the neighbourhood hub (Tilbury and Wortman 2004, 50)

Participation is particularly important today in addressing the sustainability challenge. Community participation helps to identify local problems and solutions through a plurality of viewpoints, which increases understanding of the complexity of the challenges facing society and promotes civic responsibility and individual behaviour change (Richards et al. 2007). Active participation and involvement leads to empowerment and increased personal agency on the part of the community members (Richards et al. 2007).

Often solutions to crosscutting and complex environmental problems cannot be solved through technology or scientific expertise alone, but require the active cooperation and participation of different stakeholders (Richards et al. 2007, 7). Increased civic participation can improve public trust and increase the effectiveness of new initiatives, and there is growing support across many disciplines for an intentional increase in inviting

participation from citizens throughout different sectors of society (Copeland-Carson 2008; Koehler and Koontz 2007; Norris and McLean 2011).

Our preliminary research indicated that neighbourhood hubs have a special dynamic quality: a unique and distinct value-set, or culture that makes them attractive for participants. As Desbiens Riendeau, from *Santropol Roulant* describes, "it is not only the people, there is something bigger that creates it and attracts people" **(**2012).

1.6 Purpose and Research Questions

There is a growing number of participatory neighbourhood hubs popping up in local communities around Europe and North America (The Hub 2012). Despite their benefits for communities and their unique engaging characteristics, hubs have not been extensively studied in a sustainability context, and even less so from a strategic sustainable development lens (Middlesmiss 2009).

The intention of this paper is to investigate how neighbourhood hubs engage community members and to explore the benefits of hubs in terms of community capitals[4]. Despite the benefits of hubs to their communities, they may not necessarily be moving in the right direction toward sustainability. By combining the SSD approach, outlined in the Introduction, with the engaging qualities of neighbourhood hubs, they can be an effective platform for communities to move strategically towards sustainability.

Research Question 1: What are the characteristics of a neighbourhood hub that engages community members?

Research Question 2: What are the benefits, in the form of the Community Capital Framework, that can be stimulated by hubs?

[4] See section 2.1.1 for more on community capitals and the Community Capital Framework

1.6.1 Scope and Audience

This research looks at hubs in cities, or urban areas, found in western countries, such as North America, Europe and Australia. Urban areas were chosen as a focus because of the global trend towards urbanization. With more than half the world's population living in cities, it is becoming increasingly pressing to find sustainable solutions to urban living (UNFPA 2007). Cities in more economically developed countries represent both a challenge and an opportunity for sustainability.

This research is designed to provide individuals working in hubs – based in urban areas within western countries – with a greater understanding about the engaging characteristics of hubs and their potential benefits to communities. It is intended that the results will help hubs to become more effective in engaging community members, and that this information, coupled with SSD, can help hubs be more effective in moving communities towards sustainability.

There are many other interesting and important aspects of neighbourhood hubs that lay outside the scope of this research. This thesis does not include what types of financial models can support neighbourhood hubs, hubs located in less economically developed areas and how to make the physical structure of the hub more sustainable.

2 Methodology

This section outlines Maxwell's research design that guided our research methodology, the phases of research, and the validity of the research approach.

2.1 Research Design

Joseph Maxwell's *Interactive Model for Research Design* was used to structure our qualitative research. This is a non-linear approach that encourages interaction between the five components of research design: goals, conceptual framework, research questions, methods, and validity (Figure 2.1). This model acknowledges the interconnected nature of qualitative research and accounts for exploratory research, personal experience, and expected results. The data that is collected and analysed is continuously fed through the model, influencing and altering each of the five components (Maxwell 2005). Figure 2.1 is an illustration of the interactive model for research design and shows some of the questions that guided our research through its many iterations.

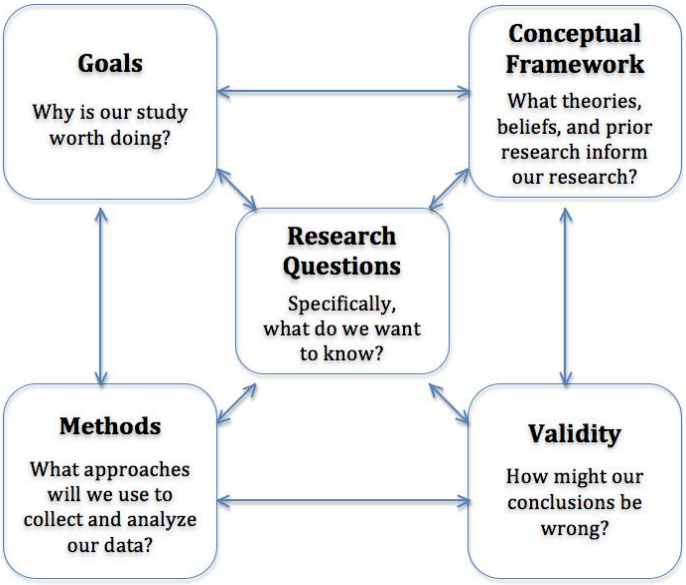


Figure 2.1. Maxwell's Interactive Model for Research Design.

2.1.1 Conceptual Framework

The FSSD and the Community Capital Framework (CCF) were the conceptual frameworks that guided and informed the research.

Framework for Strategic Sustainable Development (FSSD). Strategic Sustainable Development (SSD) concepts such as systems thinking, the Sustainability Principles, and backcasting, (see Introduction 1.2) created the lens through which all collected data was viewed and analysed. The FSSD's five levels (Systems, Success, Strategic, Actions, Tools) were used to organise the data to provide a deeper understanding of the different levels of information and make sense of its complexity, and ultimately provided the clarity necessary to simplify the results into the final model (Figure 3.1), which was designed to offer an overview of the engaging characteristics in hubs and their benefits to communities.

Community Capital Framework (CCF). CCF was used as a framework to understand and classify the benefits of neighbourhood hubs to their local communities. *Community Capitals* are "the stocks and resources upon which all community stakeholders rely on and contribute to" (Callaghan and Colton 2007, 933). It provides a lens to view the strengths and weaknesses within a community as it examines each capital stock separately while also considering the interplay between them (Jacobs 2007). *Capital* can be defined as a "resource that is capable of producing additional resources when it is invested" (Flora, Flora and Fey 2004, 165), and large capital stocks are the foundation for creating a strong and resilient community (Callaghan and Colton 2007; Flora, Flora and Fey 2004; Jacobs 2007).

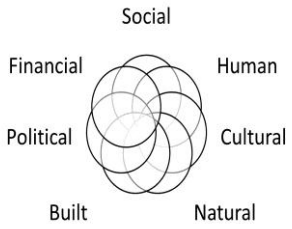


Figure 2.2. Community Capitals.

The Community Capital Framework provided an understanding of the relationships between the hub and the local community within a complex social and environmental context (Callaghan and Colton 2007). For the purposes of the research, we chose to use the seven capitals defined by Flora, Flora, and Fey (2004): Social Capital, Human Capital, Cultural Capital, Natural Capital, Built Capital, Political Capital, and Financial Capital (Figure 2.2). When these capitals are strong and in balance, the

result can be a healthy ecosystem, vibrant regional economics, and social equity and empowerment (Jacobs 2007). The community capitals are overlapping and interdependent, where an increase in one stock may influence others in complex ways (Gutierrez et al. 2005). See Appendix A for a list of indicators used to categorise and code each capital.

The CCF was chosen to examine the benefits of hubs to communities as it is a practical framework to measure impacts on a system. Aligning the CCF with SSD and the Sustainability Principles ensures that hubs that are looking to increase their community's capital stocks do not inadvertently contribute to unsustainability, enabling the community to truly become more vibrant.

2.2 Research Phases

RQ1: What are the characteristics of a neighbourhood hub that engages community members?

RQ2: What are the benefits, in the form of the Community Capital Framework, that can be stimulated by hubs?

A three-phase research design was created where both research questions were answered simultaneously (Figure 2.3). In line with the approach suggested by Maxwell (2005), there were multiple iterations throughout the phases as our learning on the subject deepened and a new level clarity was reached.

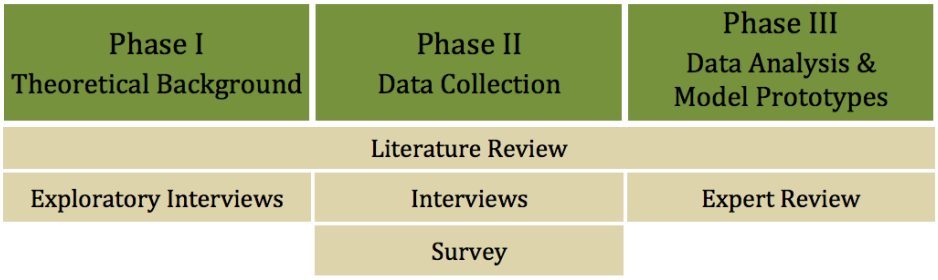


Figure 2.3. Three-Phased Research Design.

2.2.1 Phase I: Theoretical Background

The exploratory interviews and literature review conducted during Phase I helped to develop the research questions, determine the conceptual framework, uncover gaps in academic research on this topic, and develop a coding structure.

Literature Review. The literature review was conducted in all three phases of our research and is explained here. Peer-reviewed journal articles, dissertations, and books were found through online search engines such as *Scopus, GoogleScholar* and the university's *Summons@BTH* online database which includes databases such as *Web of Knowledge* and *ScienceDirect*. Database searches used a combination of search terms, including; strategic sustainable development, sustainability, community, gathering places/spaces, community hub, community capital, creative engagement, and community building. Relevant resources were also received from peers, advisors, and interviewees.

In Phase I, the literature review was conducted with the intent of familiarising our research team with neighbourhood hubs and uncovering gaps in the research. In Phases II and III, the literature review was conducted to support data collected from the interviews and the survey and deepen understanding on concepts that emerged during the interviews.

Exploratory Interviews. Six exploratory interviews were conducted with experts whose backgrounds were in sustainability, community engagement and neighbourhood hubs. These were informal and unstructured interviews that provided insight into the challenges and opportunities of creating engaging neighbourhood hubs. These interviews helped to identify where the personal goals of our research team overlapped with research opportunities that would be of value to people working in hubs. The data was collected by each member of the research team individually noting key themes, questions, and other interesting and relevant information during the interview. Each interview, regardless of Phase, was recorded so that it could be revisited if necessary. A list of experts interviewed in all three phases is shown in Appendix B.

2.2.2 Phase II: Data Collection

In Phase II data was collected to answer the research questions through interviews, a survey and literature review.

Interviews. Ten interviews were conducted with experts. Experts were defined as someone with specific expertise and relevant contributions in at least one of the following areas: neighbourhood hubs; community engagement; and sustainability. Interviews were semi-structured with prepared questions, while allowing for conversational flow (see Appendix D for sample interview questions). Each interview was transcribed to facilitate coding of the data. After each interview was coded, the coding structure was adapted to incorporate concepts that had emerged as important and did not fit into the categories that were developed in the original coding structure. Each interview was then re-coded in a second round using this updated structure. During the first round of coding the interviews were coded separately by two members of our research team and by one member during the second round (see Appendix C for the coding structure). Coded transcripts were then compared and discussed to ensure consistency of results. The results were then placed into a larger matrix in preparation for data analysis.

To find interviewees and relevant hubs, we used online searches in addition to leveraging social/online networks and alumni from the Master's in Strategic Leadership towards Sustainability course.

Survey. The survey contained nine questions and was a combination of open-ended questions and questions where respondents were asked to rate the importance of our preliminary results on a 5-point Likert scale (see Appendix E). The open-ended questions were coded using the same coding structure as the interviews and the rating of the preliminary results was used to inform future iterations of the results.

Surveys were distributed to individuals with experience in neighbourhood hubs. There were 14 respondents who fully completed the survey. Included in these were hub employees, relevant academics, MSLS alumni, and leaders in relevant community engagement and hub sectors. A list of survey respondents is included in Appendix B.

2.2.3 Phase III: Data Analysis and Model Prototypes

The purpose of Phase III was to analyse the data and to prototype and create a model to communicate the results. For analysis the data was mapped out in the structure of the FSSD and the patterns and relationships that emerged were discussed and challenged by members of our research team. The interactive nature of the research design led to numerous iterations of analysis and several designs of the model. The final model that arose from this process is shown in Figure 2.4.

Expert Review. Feedback was received throughout Phase III from peers, advisors and experts on the models created to communicate the results. Seven experts looked at more finalised models and were asked for: first impressions and whether the information and structure was useful; if there were any gaps; and if there were any additions they would like to add. Expert reviewers emphasized the relevance of the results, but those without previous knowledge of SSD found the structure of the five levels in the FSSD (Systems, Success, Strategic, Actions, Tools) difficult to understand. The feedback we received was considered and guided the creation of the final model.

Prototyping the Model. The expert review highlighted the need to present the results in a more digestible model for the reader. Therefore, the results from both research questions were reorganised from the FSSD into the Model of Engaging Characteristics and Benefits of Neighbourhood Hubs. The majority of the information from interviews was gathered in the Systems, Success and Strategic levels (Figure 2.4). The Systems level fed into two aspects of the model. Firstly, results about having a systems perspective and gaining understanding of the system the hub operates within went into Involve Your Community. Secondly, results that identified the benefits the community, went into the Community Capitals. Success mainly informed the engaging characteristics of the hub (Shared Purpose and Values). Relationships, which the hub's Shared Purpose and Values sit upon, were found in every level, but most predominantly in the Strategic level. The Actions and Tools levels did not contribute greatly to the results as they did not directly answer the research questions.

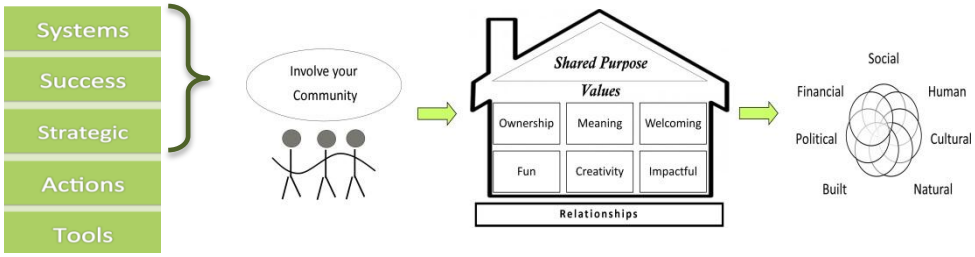


Figure 2.4 Re-organisation of Information from FSSD into the Model of Engaging Characteristics and Benefits of Neighbourhood Hubs

Structuring of the Results Section. The data reported on in the Results section came directly from Phase I exploratory interviews, Phase II interviews, Phase II survey results and Phase III expert reviews. All of the data was viewed through the same conceptual frameworks and coded for the same concepts. Therefore, in the Results section when it refers to the number of experts who mentioned a concept, it is out of a total of 37. To reduce some of the uncertainty regarding relevance of data, emphasis placed on each concept was also recorded during coding.

Table 2.1Total Number of Expert Contributors

Source:	Number of experts:
Phase I interviews	6
Phase II interviews	10
Phase II survey	14
Phase III expert review	7
	Total: 37

Emphasis Rating Scale:

1. Low emphasis: A concept that is briefly spoken to, mentioned once but not elaborated on, or not explicitly emphasised as important.
2. Medium emphasis: A concept that is described with some elaboration, mentioned one or more times, and may be explicitly emphasized as important.
3. High emphasis: A concept that is described with detail, mentioned more than once, or framed in language intended to emphasize its importance.

2.3 Validity

In order to minimize risks to validity in the results, multiple forms of triangulation were implemented in data collection and analysis (Berg 2001; Maxwell 2005). Triangulation was used to refine, broaden and reinforce the conceptual linkages and conclusions made in this paper (Goetz and LeCompte 1984).

Internal structures were put into place to incorporate investigator triangulation. Potential areas for researcher bias where highlighted and mitigated by drawing awareness to our individual and group biases and assumptions, and by using peers and advisors to uncover other potential biases. Additionally, Phase II interviews were each coded by each member of our research team to include diverse perspectives and common understanding of the data collected. After the data was coded, all three researchers gathered to review the data and discuss the results. Each held awareness of their biases and group assumptions were challenged (Berg 2001; Maxwell 2005).

As each research method has inherent biases, data triangulation was used for the hubs' values. We used interviews, surveys, and a literature review to reduce the risk of biases and counter limitations in each specific method (Berg 2001; Maxwell 2005, 94).

Our explanation of the thesis to research participants is one possible way in which reactivity could have influenced the results. For instance, a brief summary of our research project, including purpose and research questions, was shared with participants prior to gathering data. The underlying assumption of the desire to create a more sustainable society may have been implicitly communicated prior to the survey and interviews, and participants' responses may have been influenced by their awareness of our intention and their perceptions of socially desirable answers.

3 Results

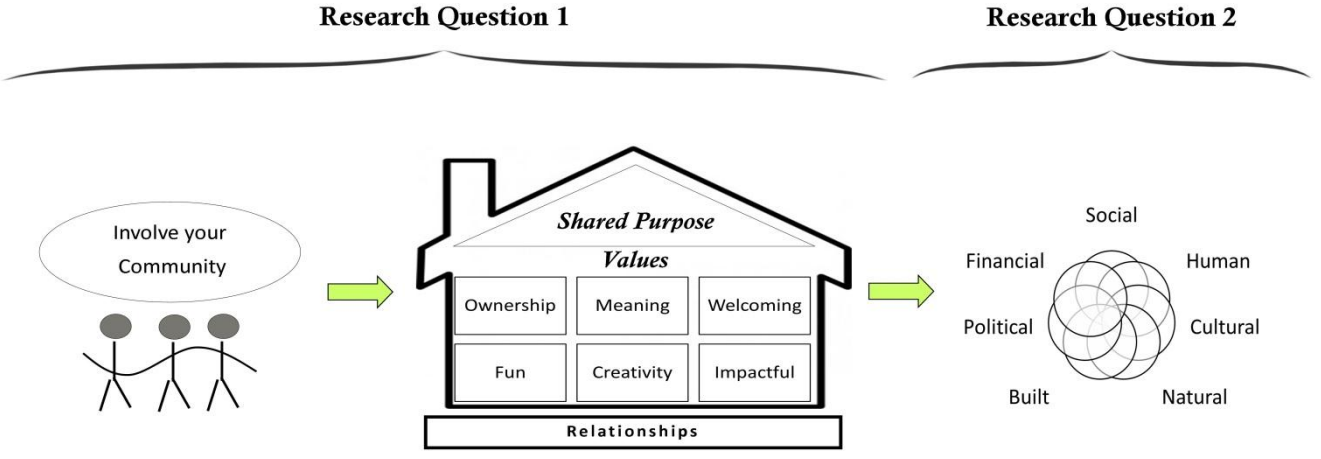


Figure 3.1 Model of Engaging Characteristics and Benefits of Neighbourhood Hubs

The results of both research questions are represented in Figure 3.1. **RQ1:** *What are the characteristics of a neighbourhood hub that engages community members?* 'Involve Your Community' represents how involving community members in the shared vision of hubs and their activities maintains a hub's relevancy. The hub in the middle of the model shows the components of an engaging culture at hubs, which consists of the Shared Purpose and Values based on a foundation of Relationships. **RQ2:** *What are the benefits, in the form of Community Capitals, which can be stimulated by hubs?* The benefits of engaging hubs are shown on the right of the model in the form of Community Capitals.

3.1 Research Question 1

What are the characteristics of a neighbourhood hub that engages community members?

3.1.1 Involve Your Community

*"The most successful projects are the ones with the strongest buy in from the community" (*Gourlay 2012).

Figure 3.2 Involve your Community.

'Involve your Community' entails knowing who the hub's community is and providing opportunities for members of that community to participate in the hub's shared vision and daily activities. Therefore, it is important to identify which members of the community the hubs wishes to engage as well as to consider their needs, motivations and aspirations. This ensures that the hub is relevant to participants by reflecting the community's uniqueness in the hub's culture and values.

Eleven experts highlighted the importance of identifying the hub's stakeholders, which can include: government officials, politicians, NGOs, community groups, industry representatives, investors, businesses, educational institutions and individuals of different cultures, ages and worldviews. Seven experts discussed the importance of including representatives of different stakeholder groups in shared visioning processes, including those with convening power - allowing for the leveraging of assets. Five experts mentioned 'going with the flow' that the community and participants dictate, as it increases the hub's resiliency and relevancy within the community. Furthermore, asking many good questions early in the planning process of the hub or its projects creates a shared understanding between stakeholders. This helps to avoid costly misunderstandings once the projects are under way (Law 2012). Together, this ensures that the hub not only reflects the needs, dreams and ambitions of their community over time, but also that it has the necessary support for its initiatives to succeed.

Four experts spoke about the importance of integrating the hub into the pre-existing system of the community. One method that experts highlighted was to create a presence in the community's natural gathering places through temporary kiosks or by locating hubs in places where the community already comes together. Seven experts discussed the importance of partnering with relevant organisations in the local community. Creating networks between hubs is valuable to ensure that time and energy is spent building off each other's successes. Four experts mentioned the importance of acknowledging the good work that is already being done within the community, and two mentioned learning from others doing similar work. Weaver highlighted the importance of recognising local knowledge in addressing community issues (2012).

3.1.2 Hub Culture

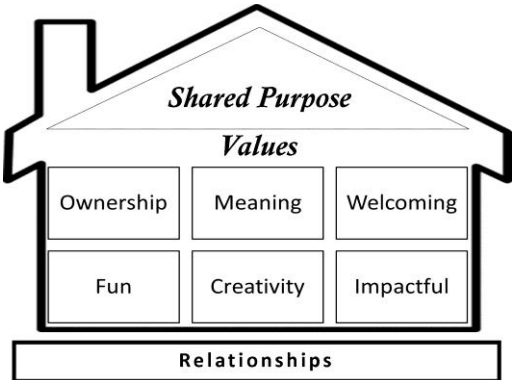


Figure 3.3. Hub Culture: Shared Purpose, Values and Relationships

In the exploratory interviews, our research team uncovered the existence of a unique culture at neighbourhood hubs that attracts community members, which inspired the first research question. When interviewees were asked in Phase II about what was engaging about hubs, eight experts made reference to a special cultural element that draws people in. Desbiens Riendeau described it as "something bigger which is a kind of culture or the energy that goes around here" (2012).

The following section describes the results of the engaging characteristics of a hub, or the hub culture. This consists of a Shared Purpose and Values that: invites Ownership, connects people to Meaning, has a Welcoming atmosphere, is a Fun place to spend time, supports Creativity, and is Impactful, with Relationships as the underpinning foundation to them all. To maintain the richness and the context of the data collected, each

characteristic starts with a quote from our interviewees, followed by a summary of the results for each overarching concept, and then a description of what makes up each concept.

Shared Purpose

"We don't need to know the full answers we just need a clear sense of direction and know what the elegant, minimal next step is" (Stilger 2012).

Experts discussed how having a shared purpose gives hubs a clear direction that can inspire and motivate participation. People whose personal goals are aligned with the hub will be attracted by the purpose and have more motivation to realise the collective goal:

Concept Discussed	Experts who Discussed the Concept
Co-created Purpose: As Weaver explained "… it's about the issue that ultimately brings people together. You have to create those spaces where people can engage with one another around that theme" (2012). The more a hub supports the aspirations of the community the more attractive and natural it becomes for individuals to be involved. Including the community or participants in the purpose and goals of either the projects or the hub itself ensures the hub's relevance to the local area and encourages participation from community members. The purpose requires revision and development to ensure its continued relevance.	Borén; Burrage; Croft; Desbiens Riendeau; Goldsmith; Gouveia; Kealoha; Law; Mekha and Thao; Sklar; Stilger; Weaver

Values

The identified Values of engaging neighbourhood hubs include: Ownership, Meaning, Welcoming, Fun, Creativity and Impactful.

Ownership

"It is about people owning their own destiny" (Mekha and Thao 2012).

Experts emphasized the importance of providing opportunities for participants to feel a sense of ownership in the hub. This invitation to contribute to the hub leads to an increased desire for people to share their dreams, passions, time and other resources because they care about the outcome. This has an additive effect where the more participants contribute, the more they feel their fate is tied to the fate of the community, which leads to increased commitment and a desire for the community to thrive:

Concept Discussed	**Experts who Discussed the Concept**
Of and For the People: The hub should be seen as the community's own place, not merely a place they are invited to attend. They should feel a part of it, as Weaver expressed; "when it is built from a neighbourhood or community level and the community is engaged, it has much more potential for success" (2012). Creating a versatile physical space allows the participants to use the space according to their changing needs.	Desbiens Riendeau; Burrage; Gourlay; Gouveia; Mekha and Thao; Sims; Stilger; Law
Opportunity to Contribute: There must be opportunity for participants to feel as if they are contributing and that their contribution is valued. This can be done by encouraging participants to propose their own projects or take on more responsibility. Stilger mentioned that the hub must "invite people to offer what they know" (2012). Furthermore, experts emphasised the importance of dialogue and conversation, indicating that it is the only way to uncover the needs and desires of community members and participants.	Burrage; Desbiens Riendeau; Gourlay; Gouveia; Law; Mekha and Thao Sklar; Stewart; Stilger; Villch

Meaning

"...if people [don't see the meaning], then a lot of times they are just counting until they are finished, versus [if they] understand that planting a tree is reforesting...bringing back habitat and water shed and helping to create a healthy environment ...its serving a bigger purpose and then they stop counting they just keep planting" (Kealoha 2012).

It emerged from different responses that people come together over meaning. Participants want to feel as if they are doing something that matters - which can be addressing the needs and dreams of individuals, the community, or the larger world. People want to engage when the activities at the hub are meaningful; therefore, hubs need to provide space for people to do something they care about:

Concept Discussed	**Experts who Discussed the Concept**
Connecting People to Something Bigger: This is related to the concept of stewardship and making the world a better place. Sims stated: "I want to see that the problems that I am dealing with are related to the larger whole and can be tackled one step at a time" (2012). Connecting people to their local neighbourhood, their environment, and the greater system is also an important element in encouraging local solutions.	Borén; Burrage; Coleman; Gouveia; Kealoha; Law; Mekha and Thao; Nichols; Sims; Sklar; Stilger; Strünke; Weaver
Community Aspiration: If there is a community aspiration that the hub addresses, then the community will gather around it and want to support it. Weaver used the example of a campaign in Hamilton, Canada that brought people together over "making Hamilton the best place to raise a child" (2012).	Gourlay; Gouveia; Law; Stilger; Weaver
Personal Interest: Participants will get involved based on their personal interests. Engaging hubs might have overall goals that people are working toward, yet each participant might have their own personal motivations; "we have people coming for different reasons" (Desbiens Riendeau 2012).	Burrage; Daniel; Desbiens Riendeau; Gouveia; Law; Mekha and Thao

People's desire to participate can also be related to building a personal capacity, such as learning how to garden, fix a bicycle or lead a team.	

Welcoming

"…every person that comes here is a gift. Everyone feels welcome and is seen as a whole person with many dimensions that, when given space to flourish, feed the organisation's vibrancy, capacity to innovate, and overall effectiveness" (Desbiens Riendeau 2012).

Results indicated that engaging neighbourhood hubs are places in the community where participants from diverse backgrounds feel welcomed. They should avoid creating an exclusive and difficult to join community, and aim to create an atmosphere that is non-threatening, inclusive and welcomes diversity. It is a place for different types of thought, different backgrounds, different ages and different cultures to come together, cross-pollinate, innovate and work collaboratively. Welcoming hubs are:

Concept Discussed	**Experts who Discussed the Concept**
Non-threatening and Inviting: Hubs need to feel like places where people want to spend time; they should be warm, inviting, healthy and alive. When it feels safe, people are willing to share their ideas, dreams and are open to trying new things. According to Stilger, "whenever we can create a space where curiosity, respect and hospitality are present we've started to create the space for magic" (2012). The concept of 'hosting' a space was mentioned, which requires building the personal capacities of the members of the hub. Furthermore, creating a place where people can share not only their joy, but also their problems is incredibly important in creating that community feeling and contributes to co-learning.	Burrage; Gouveia; Kune; Mekha and Thao; Nichols; Sims Stilger; Strünke; Weaver
Accessible: Accessibility refers to the ease and ability of community members to participate at the hub; the	Anonymous; Burrage;

location of the hub and its projects, the cost of participating, or the level of commitment required. Experts described the importance of a hub having activities that community members can participate in easily, such as having actions that are "fast, free and fun" (Gouveia 2012). This refers to having easy to find locations that attract people, with minimal barriers to participating.	Coleman; Desbiens Riendeau; DeWitt; Goldsmith; Gourlay; Gouveia; Kealoha; Law Mekha and Thao; Pilon;
Inclusive: Everyone should feel invited to participate in the hub. Goldsmith described hubs as "beacons for inclusivity" (2012). Achieving the hub's vision can happen more easily when more people are working towards it. The importance of creating dialogue and conversation within the hub was highlighted as the only way to uncover the needs and desires of community members and participants.	Burrage; Desbiens Riendeau; Goldsmith; Gourlay; Gouveia; Kealoha; Mekha and Thao; Pilon
Something for Everybody: Hubs should allow for diverse living styles, worldviews and ideas. The space should be for everyone as it is about ensuring that all kinds of people can give what they want to give. Having ways for 'doers', 'dreamers' and 'thinkers' to contribute means that they can take portions of projects that most suit them.	Desbiens Riendeau; Geiersbach; Gouveia; Law; Strünke

Fun

"If you want engagement, it has to feed people…. It must be meaningful and pleasureful" (Gouveia 2012).

Results revealed that fun, enjoyable and dynamic atmospheres draw people into hubs. Therefore, independent of a hub's specific purpose or service-area, including elements of play, enjoyment and celebration increase the likelihood that people will choose to spend their time in the hub:

Concept Discussed	**Experts who Discussed the Concept**
Play: Play is an important component of creating community. Through play people learn about	Geiersbach; Gouveia; Stilger

themselves and about others. Stilger mentions that play frees the spirit and the more you play the more you will discover (2012).	
Energy and Dynamism: Keeping the hub alive and fun keeps participants involved. It is about keeping away the 'stale air' and making sure the projects are relevant and that the participants have motivation and excitement.	Desbiens Riendeau; Goldsmith; Gouveia; Stilger
Enjoyment: Participants need to enjoy spending time at the hub, whether it is their free time or a place they keep their business. It should add joy to their lives.	Gourlay; Goldsmith; Gouveia; Daniel; Stliger; Villoch
Celebrate: Celebrate and recognize success and progress. Enjoying the project and celebrating the success and small wins along the way keeps morale high and maintains people's enthusiasm, especially when groups are facing challenges.	Croft; Gouveia; Daniel

Creativity

"…it keeps us alive and engaging in creative ways with balance, with movement, with laughter" (Stilger 2012).

Results revealed that creativity offers community members an opportunity to step 'outside of their boxes' by providing a space for participants to explore their imagination, as well as collaborate and cross-pollinate with diverse people. This can lead to a fostering of innovative ideas and new solutions to community challenges as well as building people's personal capacities. Hubs can also provide a safe space for people to explore their creativity through projects as well as music, theatre and art classes. Creativity was described as:

Concept Discussed	**Experts who Discussed the Concept**
Creativity: Creativity was described as the element that breathes life into the hub. It is important for building the capacity and confidence of participants, as "creativity and autonomy reveal people's gifts"	Croft; Geiersbach; Goldsmith Gouveia;

(Gouveia 2012). Ensuring the hub is creative provides the opportunity for collaboration and the cross-pollination of ideas .	Kealoha; Kune; Stilger
Inspiring and Imaginative: A purpose or project that captures the imagination of community members will attract increased participation. One expert summed it up by stating: "Make cool shit: If you're doing something interesting, more people will want to be involved" (Pilon 2012). You can invite community members to participate, but you cannot force interest – the hub creates opportunities for community members to get involved and they will find something that inspires them.	Borén; Gouveia; Kealoha; Nichols; Pilon; Sklar; Stilger

Impactful

"If people felt a sense of community what would happen? They would maybe share meals together; share their time with children and with other adults. Share their vision, share their ideas – for example to make the street nicer that they live in" (Strünke 2012).

Results revealed that hubs need to be seen as positively impacting their communities. Action-oriented activities are engaging because people can see tangible outcomes from their efforts, which increases their sense of accomplishment. Similarly, a "focus on real work" brings the community together by addressing the challenges people in in their everyday life (Senge et al. 1994, 526). Visible changes, such as turning an empty plot into a thriving garden, will attract the attention of other community members. A shift occurs when people see the impacts of their efforts, allowing them to walk out of their old limiting beliefs and walk on to an empowered way of living, feeling capable to meet any challenge they face (Wheatley and Frieze 2011). If community members see the results of the hub, whether it is the joy, the innovation, or the impact on neighbourhood revitalization, they will be more attracted to becoming involved. Impactful can be described as:

Concept Discussed	Experts who Discussed the Concept
Action-Oriented: This is about getting community members involved with action-oriented tasks that do not require too much skill or resources for people to 'pop into'. Providing opportunities for people to take action and participate in hands-on activities results in tangible outcomes that encourage further participation.	Burrage; Goldsmith; Gourlay; Gouveia; Kealoha; Law; Marshall; Pilon; Stilger; Strünke
Visible Impacts: It is motivating for people to see the results of their actions and understand how they are making a contribution. Goals that are realizable are important to maintaining engagement. If the actions build upon one another, the excitement will increase. Furthermore, when community members see the visible impacts of the hub within the community it helps to create a buzz that draws people in.	Burrage; Coleman; Gouveia; Law

Relationships

"[people] have to feel connected to each other before they can connect to projects. If you want to connect them to a project you need to let them hear stories of people who are already connected to the projects" (Stilger 2012).

Figure 3.4. A Foundation of Relationships

Relationships were heavily emphasized throughout our research by experts and the literature review. It is also a concept that transcended each of the five levels of the FSSD and emerged as fundamental in engagement people in neighbourhood hubs. Therefore, relationships were identified as the foundation for engaging hub cultures.

Eight experts stated that building healthy relationships are the fundamental goal of neighbourhood hubs; "what is behind all our programs is relationship building" (Mekha and Thao 2012). Healthy relationships create the values and reciprocity needed for community systems to function (Kealoha 2012). In order for people to engage around an issue you must

build relationship between them. Through building friendships participants know they are not alone. Mekha and Thao stated: “We believe the relationship we have with our partners is real currency for us” (2012).

Our results indicated that relationships are formed and a sense of community is created when people share experiences. Hubs can host activities and programs that “bind participants together and transcend cultural differences” (Stewart 2012). Burrage mentioned the importance of providing opportunities for people with different skills, backgrounds and ages to get involved (2012). When people work alongside others towards a goal it strengthens their relationships and encourages future participation (Burrage 2012). Three experts mentioned the value of having a common space for participants to sit and share food, such as a kitchen or a café/restaurant. Five experts emphasized that certain themes are particularity good at bringing diverse people together, including; food, music and activities centered on children. More examples of actions that resulted from our interviews and survey can be found below, which graphically represents the most frequently mentioned actions as larger than the less frequently mentioned actions Figure 3.5.

“Create magic - slow down, take time, work side-by-side, speak truth, listen, cook together, dance sing together” (Stilger 2012)

Figure 3.5. Results of Shared Experiences; Sample Engaging Activities

3.1.3 Barriers

Numerous barriers to creating engagement were mentioned by experts. Three experts mentioned the issue of having no clear path forward, which

emphasized the importance of the having a shared purpose. Seven experts mentioned lack of resources, most noticeably time and money. Personal attitudes of the hub team, community members and participants were mentioned as a barrier to creating engagement by eight experts, which included issues of ego, apathy, fear, disrespect, and inauthenticity. The focus on programmatic results was mentioned by six experts, emphasizing the difficulty in showing progress and results in areas that cannot easily be measured. Burn-out was mentioned by two experts. And two experts mentioned participants and the hub team not feeling as if their contribution is valued. One expert mentioned that the only barriers are self-imposed.

3.2 Research Question 2

What are the benefits, in the form of Community Capitals, which can be stimulated by hubs?

3.2.1 Community Capitals

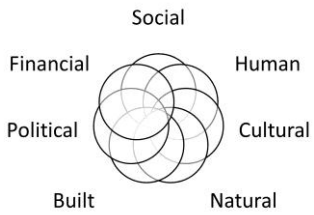


Figure 3.6. Community Capital Benefits

The benefits that neighbourhood hubs have on their communities were organised using seven Community Capitals: Social, Human, Cultural, Natural, Built, Political, and Financial. See Appendix A for the indicators used to code for each capital. Because of the wide scope of hubs considered in this study, the results varied greatly depending on the purpose and the projects run at each hub. Therefore, the data included in these results was either mentioned by at least two experts or was determined by our research team to be relevant to neighbourhood hubs.

Social Capital.

All Phase II experts (10) reported hubs to have an impact on Social Capital, as such, it is considered to be the capital impacted the greatest by hubs. Twelve experts mentioned building relationships between community members as a key benefit for neighbourhood hubs. Mekha and Thao described this as the basis of all their work (2012). Eleven experts highlighted that hubs create social networks between participants. Four

experts mentioned that hubs increase the sense of belonging and sense of community.

Human Capital.

Neighbourhood hubs have a significant impact on Human Capital. Seven experts discussed how hubs build the capacities of both the participants as well as the hub's team. Six experts spoke about the development of skills through applied experience within the hub. Seven experts mentioned the increase in knowledge that occurs within the hub through cross-pollination, knowledge-sharing and experiential learning. Three experts also mentioned the role of hubs in improving the health of community members through poverty reduction and initiatives that increase well-being.

Cultural Capital

Eight experts mentioned that hubs provide opportunities for participants to discuss what is important for them as individuals and as community members. Two experts emphasized how incorporating the community aspirations into the hub and working towards them can increase a participant's pride and recognition of local traditions and heritage. Five experts mentioned how hubs can also contribute to the creation of a shared identity among participants, leading to a stronger sense of community, which ripples out into the local area. Seven experts mentioned that neighbourhood hubs create an increase in people's sense of place attachment.

Natural Capital

Benefits to the Natural Capital of a community are largely based on the specific projects run at the hub. Five experts mentioned how hubs can cause an increase in community members' care for the local environment. Four experts emphasized that hubs have the ability to greatly impact Natural Capital if it is included as part of the hub's purpose. Examples of benefits to Natural Capital mentioned in interviews included: urban agriculture (Desbiens Riendeau 2012), reforestation (Kealoha 2012), and initiatives to reduce carbon dioxide emissions (Burrage 2012). Three experts also mentioned sharing resources as a benefit.

Built Capital

The most frequently mentioned benefit of hubs to Built Capital (by four experts) was that they can increase the accessibility of resources within a community. Depending on the purpose of the hub, there may or may not be an impact on the physical infrastructure of the community. Three experts also mentioned that hubs can be a place that is designed with the community in mind, and not designed solely for market-driven purposes.

Political Capital

Four experts mentioned how hubs can impact Political Capital by forming strong partnerships with stakeholders – such as policy makers, politicians, city officials, businesses and NGOs – who act collaboratively to create policy changes. Both Burrage and Gourlay discussed how participants feel empowered when they see the tangible impacts of their contributions on the neighbourhood, which encourages them to get involvement in further community improvement initiatives and activities (2012).

Financial Capital

According to four experts, hubs can spur the local economy by creating jobs, increasing knowledge and skill of the local workforces, acting as a place for cross-pollination and innovation, and, in many cases, revitalizing urban centres. Three experts mentioned how hubs can also increase local business development and be places that support entrepreneurs. For example, one expert spoke of an online *crowd-funding*[5] model, where community members vote on projects proposed by other community members through financial contributions to help the projects come to life (Gourlay 2012). Hubs could add to the Financial Capital of their community by adopting a similar informal crowd-funding model to raise funds for various initiatives that take place within the hub and the community.

[5] *Crowd-funding* is the act of pooling resources together, usually financial, in order to fund another person or organisation, often done through the internet.

Interplay of the Community Capitals

The following example using the *Hub Bay Area* illustrates how the community capitals can impact each other and how projects at hubs can impact many capitals simultaneously. The *Hub* is an international network of inspiring co-working spaces that help social-entrepreneurs and change makers connect to each other and build solutions for a better world (Hub Bay Area 2012). The 'Hub Bay Area' in San Francisco, USA, is collaborating on a project called *Creative Currency*. This project is looking to develop innovative forms of economic trade that provide alternatives to traditional unsustainable economic models (Nichols 2012; Sinreich 2012). The project will bring together leading developers, community leaders, and local government organisations, such as the Mayor's office and big business including *American Express* (Sinreich 2012). This creates Social Capital by bringing together people from different sectors; government, NGOs, business and community, which provides the opportunity for collaboration, networking, sharing ideas and resources. Political Capital is also increased through the increased access for community members to decision-making parties.

The project simultaneously increases the community's Financial Capital because people are collaborating to create alternative forms of economic exchange that can empower low-income residents (Sinreich 2012). Financial Capital is increased further alongside Built Capital as the program investigates how alternatives such as local currencies and crowd-funding can support the neighbourhood's businesses, community-organisations, and the built environment (Sinreich 2012).

This example was used to illustrate how hubs can produce a spiralling up of each of the capitals, meaning that an increase in one capital can cause increases in others as well (Gutierrez et al. 2005). Communities who work together to solve neighbourhood issues can positively contribute to the building of multiple capitals, ultimately strengthening the underlying fabric of communities.

4 Discussion

This section explores how neighbourhood hubs can help to move society strategically towards sustainability. It will explore the link between hubs' impact on the community capitals and the sustainability challenge. The Model of Engaging Characteristics and Benefits of Neighbourhood Hubs will be combined with a Strategic Sustainable Development planning tool that offers guidance to hubs on how to engage community members to move their communities strategically towards sustainability. Key findings such as other applications and areas for future research are also discussed in this section. Figure 5.1 shows the model for engaging hubs that was revealed in the Results section.

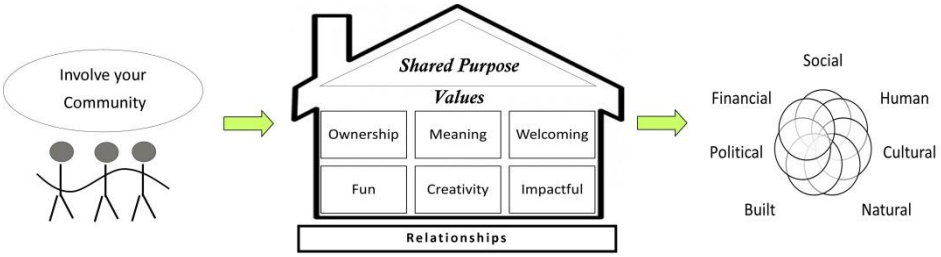


Figure 4.1. Model of Engaging Characteristics and Benefits of Neighbourhood Hubs

4.1 Community Capitals and Sustainability

As stated in the Results section, the impact of a hub is dependent on the specific projects that they run. Despite the varying purposes of the hubs in our scope, all the experts discussed their ability to impact Social, Cultural and Human Capital.

Strengthening communities and their capacities consists of building relationships, networks, attitudes, leadership, skills and an identity. This allows communities to manage change and sustain community-led development towards a community aspiration (Cavaye 1999). This section discusses how hubs can address elements of the sustainability challenge (described in Section 1.1) by strengthening the community capitals in their local areas.

4.1.1 Strengthening Community through Social Capital

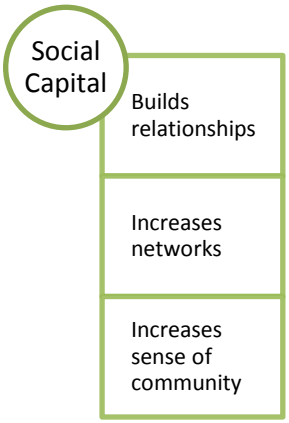


Figure 4.2. Hub Impacts on Social Capital

Hubs create relationships which, in turn, create networks and a sense of community. A *community* is a network of social ties and meaningful relationships connected by geographical territory or common ties or goals, which creates belonging, connection and shared responsibility (Piselli 2007; Milio 1996). Strong local communities lead to the sharing and the exchange of knowledge, goods and services and a robust local economy (Jacbos 2007).

Community building, or "enhancing the connections and relationships among people in order to strengthen common values and promote collective goals," is created at hubs when participants work together to solve community problems (Rossiter 2007, 4). Hubs facilitate both random and intentional interactions and therefore have the ability to connect diverse groups of people and build both strong and weak bonds. Having a space to come together and create social networks can become one of the community's greatest assets because it facilitates the sharing of knowledge and ideas, creates local economies of reciprocity, and increases access to resources (Curtis 2003; Fruechte 2007; Middlemiss 2009). Participation in strong social networks leads to increased pro-activity and leadership, causing community members to take a more active role in community problem-solving (Simpson 2005).

Increasing Social Capital and building a sense of community within the local area serves to multiply existing community assets such as trust, reciprocity and cooperation (Fukuyama 1995; Simpson 2005). Developing authentic relationships increases the social trust between community members and local organisations and institutions (Jacobs 2007). Some studies argue that "relationships based on shared values and emotional ties to others produce more meaningful/sustainable bonds than emotional reaction to community issues alone" (Speer and Hughey 1995, 733). Relationships were found to be a catalyst facilitating local collaboration, and working together effectively to solve problems and achieve community aspirations (Stilger 2012; Weaver 2012). It is therefore important to create

meaningful relationships among community members in conjunction with a shared purpose that they can connect to.

Community empowerment is built on the strength of interpersonal relationships among those working toward a common goal (Manzo and Perkins 2006). It serves to break down decision-making hierarchies and leads to an increased ability for community members to self-organise and increases self-reliance (Tilbury and Wortman 2004, 54). Community empowerment can lead to civic empowerment and self-governance as community members become more interdependent and supportive and less reliant on institutions (Geiersbach 2012). Strong communities are powerful change agents as they may also demand political power and agency, removing the top-down approach to governance and ensuring local knowledge and community aspirations are taken into account. Empowered communities "will put pressure the local government to change" (Kealoha 2012). Social networks and interpersonal relationships play a significant role in determining the success of community development initiatives as they encourage individuals to consider the future well-being of the community (Simpson 2005).

Also, communities with strong Social Capital are likely to have fewer barriers for individuals to meet their fundamental human needs (Park et al. 2008, 11). In relation to Max Neef's human needs, strong communities can help satisfy community members' need for protection, affection, leisure, creation, identity, understanding, participation and freedom.

Building a community where people feel mutual trust, respect and encouragement sets the foundation for collaboration, innovation and joy; "a hub is one way that creates that invitation for people to surface and use that collective wisdom" (Stilger 2012). The age of the single leader and the idea that one person, or group of people, holds the knowledge and expertise to solve problems is no longer helpful as the complex sustainability challenges humanity faces requires many minds working together (Wheatley and Frieze 2011).

4.1.2 Developing Capacities through Human Capital

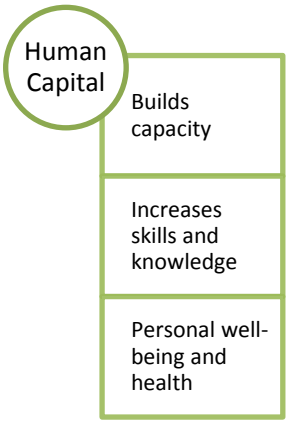


Figure 4.3. Hub Impacts on Human Capital

Individuals make up the society through their thoughts, behaviour and actions. Therefore, building the capacities of groups of individuals can have ripple out effect on societal design. Hubs are "human-centred," aiming to serve the needs of each individual while maintaining a common vision (Nichols 2012). Hubs empower individuals by providing an opportunity for them to take ownership, learn together and develop solutions that address complex community challenges. According to Stilger, hubs provide people an escape from their every-day routines and a chance to involve themselves in something personally meaningful, as well as meaningful for their community (2012). An individual's ability to contribute to their community is tied to their skills, knowledge and health.

Participation and active involvement in an engaging hub can increases peoples' self-confidence and ability to share, learn and lead (Tilbury and Wortman 2004, 54). This can increase civic participation because when people become aware of their ability to affect change, they can also experience an increased sense of responsibility to live sustainably. Building personal capacities and working towards a community aspiration has the potential to greatly impact individual behaviours and practices. This can contribute to the well-being of the community as a whole (Middlemiss 2009; Simpson 2005; Wilkinson 1989). Furthermore, as participants in the hub begin to change their behaviour in positive ways, it impacts their social networks and ripples out into the community. According to Kealoha, focusing on the individual is important to shift the collective reality of the community, because "if it hits your core you will bring it to the community" (2012). In order to address the complexity of the challenges facing society, individuals need to take a leadership role to create more adaptive communities that are able to handle the complex issues and challenges at hand.

4.1.3 Strengthening Identity and Place-Attachment through Cultural Capital.

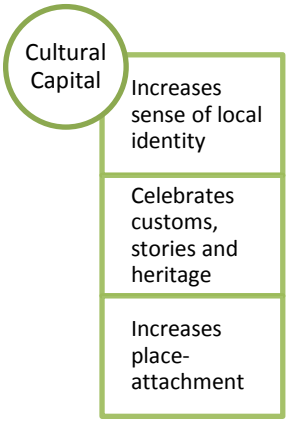


Figure 4.4. Hub Impacts on Cultural Capital

Increasing globalisation and urbanisation impacts communities in urban areas by leading them to be increasingly transient, which can lead to lower rates of civic engagement and fewer locally-based social networks. Hubs create Cultural Capital by increasing enjoyment, understanding and interactions with the local community. This can lead to *place-attachment*, which is "an affective bond between people and place" (Altman and Low, 1992). Place-attachment plays a significant role in motivating community members to work to better their neighbourhood (Brown, Perkins, and Brown 2003; Stedman 2003). It can also contribute to community members' desire to act "collectively to preserve, protect, or improve their community and participate in local planning processes" (Manzo and Perkins 2006, 347).

When people feel connected to each other and when they feel a sense of local identity rooted in a place, they are more driven to better their local areas and care for the environment. This connection can increase a sense of responsibility, as the community becomes a place that is integrated into the individual's own identity. When people actively involve themselves in the hub, they learn about other cultures and meet people from different backgrounds. In this way hubs can showcase local heritages, foods, languages and music. This cultural exchange can help spread the knowledge of local communities and help build a shared community identity. This shared community identity can shift the cultural mind-set to a more collaborative community mind-set needed to address the complexity of the sustainability challenge (Jacobs 2007; Stilger 2012).

4.1.4 Further Implications to the Sustainability Challenge

As described in the Introduction, the sustainability challenge is a result of the man-made changes to the biosphere caused largely by the way society has designed its social systems. An example of how societal design has led

to unsustainability is how society is organised into silos. Problems are solved in isolation and issues are studied through a reductionist lens instead of through a systems, or holistic perspective. Hubs can be places to counter the reductionist approach and promote the collaboration and cross-pollination between social sectors that is needed to find innovative local solutions to today's sustainability challenge (Meroni 2007).

The economy is largely dependent on increasing consumption. As a result, consumption patterns have skyrocketed in the western world, contributing to a myriad of issues, such as the degradation of natural resources and the unprecedented levels of pollutants in the biosphere. Hubs can build the capacity of individuals and their skills and knowledge, which can lead to a strengthened local economy, or one that is less reliant on imported goods and services. A strong local economy is one where the money stays within the community to support local organisations, and can lead to an increase in service based systems- reducing individual consumption and also creating an economy around reciprocity and recognizing and maximizing local talents. As discussed in the sustainability challenge, new economic models are needed to move away from the 'take-make-waste' model of consumption, where resources are consumed and discarded faster than the biosphere can replenish them (Cairn 2004).

In regards to the tragedy of the commons, where individuals and organisations act in self-interest and ultimately deplete a shared resource, the strengthening of relationships and the capacity building of individuals that occurs at hubs can help to mitigate these impacts (Hardin 1968). A body of work on governing the commons suggests that fostering cooperation amongst local communities and between individuals gives people the capacity to govern their shared resources towards collective goals (Dietz, Ostrom and Stern, 2003; van Laerhoven and Berge 2011; Ostrom 2010).

Among the changes society needs to make to deal with these challenges is the strengthening of our local communities and increasing participation by stakeholders. Individuals need to take responsibility and create the communities they wish to live in. The results indicate that hubs can increase a sense of personal responsibility to care for the environment and the people within it. Increasing the sense of responsibility can mobilize society to create a better future, in this case, a future that thrives within the boundaries of the 4SPs.

Increasing capitals builds relationships and bonds, increases the capacity of individuals, and connects people to a local identity. Combining these benefits with a Strategic Sustainable Development approach will help ensure hubs are strengthening the community's fabric in a sustainable way, ensuring strong communities for generations to come.

4.2 ABCD Process Applied to Engaging Neighbourhood Hubs

Hubs address the sustainability challenge by increasing community capitals, yet, it is important to note that the activities in hubs do not necessarily lead communities strategically towards sustainability. As mentioned in the Introduction, the social and environmental challenges are multifaceted. Therefore, an approach that includes Strategic Sustainable Development can assist neighbourhood hubs in addressing the complexity of sustainability. The SSD approach includes a four-step process designed to implement the Framework for Strategic Sustainable Development, called the ABCD planning process, which helps hubs incorporate a broader perspective of sustainability into their strategic goals (Ny et al. 2007).

Combining the results into the ABCD process provides hubs the necessary guidance to help move their communities strategically towards sustainability (see Figure 5.5). Our research team suggests conducting this process in a dynamic workshop that embodies the engaging Values. See Appendix F for a list of methods, tools and resources that can support this process. Involving community members is essential throughout all four steps to ensure that the hub reflects the needs, ambitions and dreams of the local community. It is advised to invite as many people as possible from diverse stakeholder groups, as this creates a wealth of knowledge and experience to draw from.

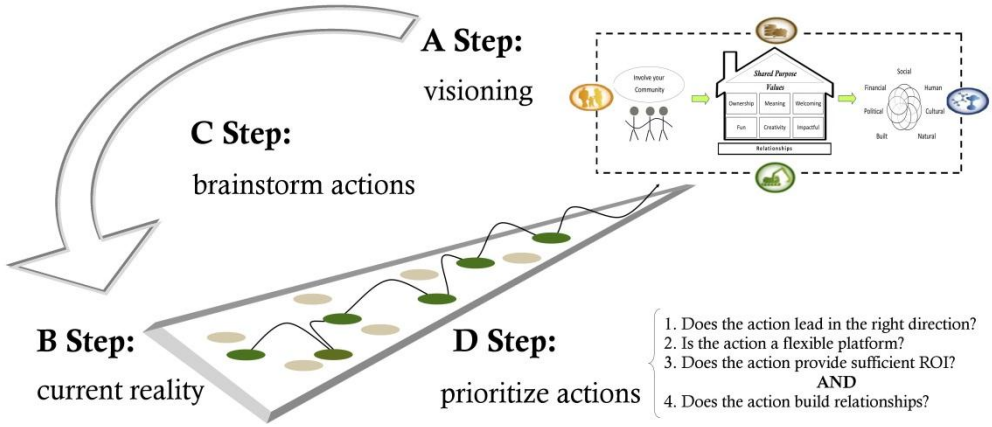


Figure 4.5. ABCD Process and Engaging Neighbourhood Hubs

The process starts with the A Step, which facilitates the creation of a shared vision with members of the hub's community. This includes framing the characteristics of engaging neighbourhood hubs and their benefits by the four Sustainability Principles (4SPs). As outlined in the Introduction, the SPs describe the minimum conditions society must meet in order to operate sustainably:

In a sustainable society, nature is not subject to systematically increasing:

I ...concentrations of substances extracted from the Earth's crust [SP1];
II ...concentrations of substances produced by society [SP2]
III … degradation by physical means [SP3];
and, in society...
IV. ...people are not subject to conditions that systematically undermine their capacity to meet their needs [SP4]
(Ny et al. 2006; Robèrt 2000).

The B Step entails creating an assessment of the hub's current reality through the lens of the 4SPs in addition to understanding the system it operates in. In the C Step, participants keep the shared vision and goals in mind as they brainstorm creative actions that move the hub closer to its goals. Finally, in the D Step, participants filter the brainstormed actions through a set of prioritisation questions that help hubs ensure their actions can lead to their vision of success.

4.2.1 A Step: Shared Understanding and Vision

The first part of the A Step involves creating a shared mental model between all the participants in the ABCD process. This includes understanding the system the hub operates within and the relevant SSD concepts discussed in the Introduction: backcasting from the four Sustainability Principles, systems thinking and the sustainability challenge (Ny et al. 2007). The second part of the A Step involves building a shared vision of the neighbourhood hub and defining its purpose, which are within the boundaries of the 4SPs (Ny et al. 2007). The Sustainability Principles can be viewed as a frame that surrounds the vision of the hub to ensure that future decisions and actions are within the limits set by a scientifically based definition of sustainability.

The A Step is an opportunity for hubs to co-create a vision with the community and to clarify their shared purpose, values and goals. As defined in the Results section, an engaging hub is one which; invites Ownership, connects people to Meaning, has a Welcoming atmosphere, supports Creativity, is a Fun place to spend time, and is Impactful in its community. Each of these six values can be expressed differently according to the local customs. For instance, some communities might feel more comfortable with the concept of enjoyment rather than the word fun. Therefore, it is advised to explore how best to express the value within the local context. Furthermore, these six values can complement any other of the hub's specific values. It is important to note that our research does not prescribe a purpose across all neighbourhood hubs, rather our results suggest that hubs create their own unique purpose that is shared amongst the community the hub wishes to engage.

The Importance of a Shared Vision

As described, inviting community members to participate in a shared visioning process can increase a sense of ownership in the hub and ensure that the vision is relevant for the community. A shared vision also motivates people to feel engaged, empowered and responsible to act in alignment. If the vision of the hub can incorporate a diverse range of participant's ideas, it will support everyone working towards the same goal while still fulfilling their own personal goals (Weaver 2012). According to Robèrt, sharing a common purpose can also be the catalysing force to bring

stakeholders to the table in a comfortable and mutually beneficial relationship (2012).

The gap between the current reality and the shared vision provides the creative tension needed to motivate and inspire participants in the hub to realise their vision. *Creative tension* refers to the 'pull' between the current reality and the desired future, which can help motivate and inspire actions toward that shared vision (Senge et al. 1994). Experts throughout the interviews mentioned the importance of hubs re-visiting their vision on a regular basis to ensure they are guided by the changing needs of community over time.

"It's about the issue that ultimately brings people together. Having a clear understanding of what it is, what you are doing, and how you are moving forward allows people to connect to people. You have to create those spaces where people can engage with one another around a theme where they have a common interest." (Weaver 2012)

4.2.2 B Step: Current Reality

After the group of stakeholders creates a shared vision of success, they then assess the hub's current reality in relation to the shared vision. The B Step involves: assessing the hub's current contributions to sustainability and unsustainability through the lens of the 4SPs (Ny et al. 2007); assessing how the hub presently contributes to reaching their values, shared purpose and goals; and mapping the external factors that impact hub such as stakeholders, and local, national and global trends.

Understanding how the neighbourhood hub presently contributes to sustainability, unsustainability, and their Shared Purpose and Values provides a baseline to see where the hub is performing well and where actions can be taken to move towards their goals. Hubs can analyse the influence of their current programs and services on their communities as well as the material impacts of their daily operations. This assessment can be conducted through the lens of the 4SPs. Senge et al. mention the importance of conducting the current reality assessment with honesty (1994), as it can build a platform of trust and transparency between the hub and its stakeholders. See Appendix G for a tool to record the hub's present contributions to sustainability and unsustainability according to the 4SPs, and to assess the hub's current reality against its shared vision.

Hubs can further explore their current reality through an analysis of the external factors that influence it and its community through a stakeholder map and a PESTEL analysis. Our results indicated that there is value for hubs to identify their stakeholders in the community. Creating a stakeholder map can help identify the relevant community actors and their relationships to the hub. This helps the hub determine what key organisations, associations and community members are important to involve and create partnerships with now and in the future.

Additionally, our research team suggests conducting a PESTEL analysis to learn about the local, national and global trends. The PESTEL analysis involves assessing the current political, economic, social, technological, environmental and legal trends to better understand the external influences acting on the hub (Oxford University Press 2007).

4.2.3 C Step: Brainstorm Actions

The C Step allows hubs to work backwards, or 'backcast,' from the shared vision of success by brainstorming actions that help bridge the gap between the hub's current reality and desired future (Ny et al. 2007). It is helpful to have reminders of the hub's goals on display during the brainstorming session so that actions can be grouped by which goals they help to support. This can be a fun and engaging process where participants are encouraged to brainstorm as many ideas as they can. The aim is to encourage creativity and divergent thinking, where all ideas are welcome and where participants build off of each other's inspiration. One brainstorming approach is to start the session with a 10-minute warm-up on an unrelated topic to get people out of their typical thought patterns.

Our results showed that activities around food, music and children are particularly good actions to bring diverse groups of people together. The research also revealed that it is important to share experiences as a community. Below is a list of some examples from the results of engaging activities to help hubs prompt ideas for the brainstorm.

Figure 4.6. Results of Shared Experiences; Sample Engaging Activities

4.2.4 D Step: Prioritise Actions

The D Step helps hubs prioritise the brainstormed actions to organise them into an action plan to help achieve the goal. SSD provides three Prioritisation Questions (PQs) that act as non-overlapping strategic guidelines to help determine if the action leads toward their vision of success (Robèrt 2000). The SSD prioritisation questions are:

1. Does the action lead in the right direction?

- *Does it bring the hub closer to the shared vision and to sustainability?*

2. Is the action a flexible platform?

- *Will this action avoid blind alleys, i.e. will it serve as a flexible platform for future steps?*

3. Does the action provide a return-on-investment?

- *Does the action provide adequate social and financial return on investment?*

The results identified healthy relationships between all stakeholders as fundamental to engaging community members in hubs. Therefore, our research team created a fourth prioritisation question:

4. Does the action build relationships?

- *Does it strengthen community ties and networks?*
- *Does it bring people together?*

Relationships as fourth Prioritisation Question. As uncovered in the results, the relationships that are formed, nurtured, and maintained in the hub build the foundation of the hub. When people work together it creates a sense of

belonging, a sense of purpose and a sense of community. A sense of community can provide a basis of trust, respect, support and encouragement that is a strong motivator for action. Strengthening interpersonal relationships is important to strive for at the hub because it can increase the accountability of participants and their long-term commitment, as they see the impacts of their actions on other community members. Focusing on creating healthy relationships between all stakeholders is essential for hubs to embody each of the six Values and therefore should act as a guideline when prioritising actions.

> *"What is behind all our programs is relationship building. To me sustainability is defined as healthy relationships and then you have a lot that comes from that: the values and reciprocity needed for systems to function. The more relationships the better."* (Kealoha 2012)

4.3 Areas for Future Research

Our research took a broad perspective on the engaging characteristics of neighbourhood hubs and their benefits to communities. There are still important areas that require elaboration in future research.

How can hubs be financially viable? The need for creative ways to support and finance hubs was uncovered as a key area for future research (Burrage 2012). Traditional methods of financing typically require large initial investments or funding from governments, grants and/or private sponsorships. As a result, these methods produce numerous barriers to creating neighbourhood hubs. Future research on alternative funding models would be beneficial.

What is the business case for hubs? How would the impact and success of a hub be measured? The issue of a lack of good metrics for social benefits were emphasised as a limiting factor for hubs (Burrage 2012; Goldsmith 2012; Kealoha 2012; Stilger 2012; Weaver 2012). This difficult to deduce because of the complex influence hubs have on the community system. There is a substantial time investment required to build strong relationships and have creative and inclusive processes. Goldsmith asked, "How do you prove to people with busy schedules that it is worth their investment to slow down, collaborate and get creative at hubs?"(2012). Uncovering methods to measure the benefits of neighbourhoods would help to build the business case.

What kind of organisational structure would best support hubs? Who would make decisions and what would the protocols be for decision-making? What roles would volunteers have? Would the hub have elected board members? Further research could investigate organisational structures and practices that could support such dynamic places. Hubs need to allow for diverse levels of commitment and participation from community members and accommodate various personal and collective interests.

How could hubs successfully implement Strategic Sustainable Development and the ABCD process? Due to time restraints we were not able to test out this ABCD process designed specially to help hubs move toward sustainability while engaging community members. Future research could implement and prototype this initial process.

4.4 Research Limitations

One potential limitation of the research lies in how the data from different sources was handled. Data from Phase I exploratory interviews, Phase II interviews, and Phase III expert reviews, as well as from the survey, were all coded in the same way. There was no distinction made to capture the variety of experts and how their responses may have differed based on their area of expertise. For instance, experts that were referenced in this study come from the fields of community engagement, sustainability, and neighbourhood hubs, and because the data was treated in the same manner, there was no opportunity for our research team to uncover trends in the data across different sectors. Similarly, the neighbourhood hubs that were studied incorporated a diverse range of service areas, including meeting, workshop and event spaces, co-working spaces, cultural centres, urban regeneration projects, etc. Therefore it is possible that the results are more relevant to some hubs more than others.

Our research findings are limited by our sample size as it consisted of only a single representative from each hub (excluding Mekha and Thao). The data collected represented one person's opinion and therefore, may not have accounted for the complete reality of the hub. To deal with this limitation there was a heavy emphasis placed on literature review and online documents from the hubs we were able to speak with as well as other hubs within the scope.

Finally, there was the potential for the community capitals to create confusion among our audience as well as our expert review, as there exists different definitions for the capitals and different community capital frameworks. Our research team chose to use a seven capital model, which may have caused more generalisations with the data than, for instance, an eleven capital model. Throughout the research process other capitals were uncovered, such as Intellectual, Economic, and Socio-Cultural Capital that have slightly more specialized meanings and indicators. The capitals were not mutually exclusive, and, in some cases data could be coded into two places depending on how the expert phrased their response. Take for example a sense of community, coded under Social Capital, which is very similar to the concept of a sense of identity, coded under in Cultural Capital. In attempts to lessen this limitation, our research team developed a list of indicators to describe what types of information would be included in each capital. This was done by reviewing different works on Community Capital Frameworks by Callaghan and Colton 2007; Flora, Flora and Fey 2004; Gutierrez et al. 2005; Hjorth and Bagheri 2006; Jacobs 2007.

Confusion among the capitals may also come from the differing definitions of each of the capitals throughout different disciplines. To ensure that this was not a risk to validity in the results, experts were asked about the impact of hubs to communities and our research team then coded the responses into the community capitals based the list of predetermined indicators. The capitals, however, may still have caused confusion with the expert review, as the findings were presented in the form of community capitals. There is also the risk that the audience of this thesis may understand the capitals to have different meanings.

5 Conclusion

Today's society is threatened by a great sustainability challenge, where man-made changes to the biosphere are having dramatic impacts in the socio-ecological system. Tackling these challenges requires a new way of thinking and a new approach to how society is organised. Emphasis needs to be placed on systems thinking, which looks at the interdependence of social and environmental systems. The answers to the sustainability challenge we face will not be solved by looking at issues in isolation, but by collaborating across sectors and by seeing our world as interconnected.

The term 'neighbourhood hub' incorporates many related concepts such as community hubs, labs, future centres, makerspaces and co-working spaces to name a few. Hubs can be places that promote the creativity, innovation and cross-pollination between social sectors that is needed to find innovative solutions to today's sustainability challenge.

Neighbourhood hubs act as a platform to bring people together from diverse backgrounds to collaborate on local level initiatives, and as such they rely on participation. Therefore, it is essential that hubs are able actively engage people from their surrounding neighbourhood.

Our first research question looked to gather knowledge and inspiration from existing hubs and community engagement experts. The research explored the special and dynamic characteristics of neighbourhood hubs: their unique and distinct value-set, or culture, and what makes them attractive for participants.

The results showed that when hubs involve the community it helps to engage particpants and stay relevant to their community's needs and connects and motivates participation through a Shared Purpose. The engaging characterictics of hubs were categorised into six Values; invites Ownership, connects people to Meaning, has a Welcoming atmosphere, is a Fun place to spend time, supports Creativity, and is Impactful. Relationships were found to be the foundation to the engaging hub culture – underpinning each of the Values. These Values bring life to the hub when they are fully embodied.

There is little research on how neighbourhood hubs impact communities. Our second research question looked into benefits that neighbourhood hubs have on their communities using the Community Capitals Framework. The benefits to the community vary greatly depending on the purpose and the projects at the hub. Depending on the hub, they have the potential to increase Natural, Built, Political and Financial Capital. Despite the different purposes of hubs Social, Human and Cultural Capital were emphasized across all hubs studied.

Hubs can strengthen social networks, they can build trust, encourage collaboration, and facilitate the sharing of knowledge and ideas. They help build individuals' personal capacities and skills, while increasing a sense of identity and place attachment. Participation in hubs can lead to an increase in a sense of personal responsibility to take care of the environment and the people in it. Increasing individual's sense of responsibility can mobilize them to create a better future.

Even though hubs increase community capitals, which can lead to a number of community benefits, they do not necessarily lead communities in the right direction toward sustainability. Therefore a four-step ABCD planning process was designed especially for hubs to implement a Strategic Sustainable Development approach while creating an engaging culture. Combining the results with the ABCD process provides a tool to ensure hubs strengthen the community's fabric in sustainable ways, ensuring strong communities for generations to come.

We hope that this research will help neighbourhood hubs to be powerful platforms that create a million small beginnings toward sustainable and thriving communities.

References

Altman, Irwin, and Setha Low. 1992. Place attachment. In *Human behavior and environments: Advances in theory and research.* New York: Plenum Press.

American Association in Higher Education. 1995. Interview with Robert Putnam. Bowling Alone: an interview with Robert Putnam about America's declining civic life. *Journal of Democracy* 6, no.1: 65-78.

Anderson, Andrea. The Community Builder's Approach to Theory of Change: A Practical Guide to Theory of Change. *The Aspen Institute Roundtable on Community Change.* New York: New York.

Art of Hosting. 2012. Training in the Art of Hosting and Harvesting Conversations that Matter. Workbook.

Auspos, Patricia, Prudence Brown, Stacey Sutton, and Anne C Kubisch. 2008. Living Cities and Civic Capacity: Leadership, Leverage, and Legitimacy. *The Aspen Institute Roundtable on Community Change*. Washington, D.C.

Berg, Bruce L. 2001. *Qualitative research methods for the Social Sciences*. 4th ed. Needham Heights:Allyn and Bacon.

Borén, Sven. 2012. Interview by authors. Karlskrona, Sweden. April 3.

Borrini-Feyerabend, G. 1997. *Beyond Fences: Seeking social sustainability in conservation.* Ed. D. Buchan. IUCN: UK.

Bridger, Jeffrey C. and Theodore R. Alter. 2006. Place, Community Development, and Social Capital. *Community Development* 37, no.1: 5-18.

Briggs, Robert O. and Bruce A. Reinig.2010. Bounded Ideation Theory. *Journal of Management Information Systems* 27, (Summer):123–144.

Brown, Barbara B., Douglas Perkins and Graham Brown. 2003. Place attachment in a revitalizing neighborhood: Individual and block levels of analysis. *Journal of Environmental Psychology* 23, 259–71.

Brown, Barbara B., Graham Brown, and Douglas Perkins. 2003. Place-Attachment in a revitalizing neighborhood: Individual and block levels of analysis. *Journal of Environmental Psychology* 23, 259-27.

Burrage, Hilary. 2012. Interview by authors. Liverpool, United Kingdom. March 12.

Burrage, Hilary. 2012. Interview by authors. Liverpool, United Kingdom. April 30.

Byggeth, Sophie H., Henrik Ny, Johan Wall, Göran Broman, and Karl-Henrik Robèrt. 2007. Introductory procedure for sustainability-driven design optimization. Paper presented at International Conference on Engineering Design (ICED). Paris. (August): 28-31.

Cairns, B., M. Harris and R. Hutchison. 2006. Servants of the Community or Agents of Government? The Role of Community-Based Organisations and Their Contribution to Public Services Delivery and Civil Renewal. *Institute for Voluntary Action Research.*

Cairns, John Jr. 2004. Sustainability ethics: tales of two cultures. *Ethics in Science and Environmental Politics* 24, (May): 39-43.

Callaghan, Edith and John Colton. 2007. Building Sustainable and Resilient Communities: a balancing of community capital. *Environment Development Sustainability* 1, no.10: 931–942.

Capra, Fritjof. 1985. Criteria of Systems Thinking. *Futures* (October): 475-478.

Capra, Fritjof. 1996. *The web of life: a new scientific understanding of living systems.* 1st ed. New York: Anchor Books.

Capra, Fritjof. 2004. *The hidden connections: a science for sustainable living.* 1st ed. New York: Anchor Books.

Carstedt, Göran. 2012. Class Lecture. Blekinge Institute of Technology. November 8.

Cavaye, D.J. 1999. *The Role of Government in Community Capacity Building*. Brisbane: Department of Primary Industries.

Center for Social Innovation. 2012. Emergence: the story of the Center for Social Innovation. http://s.socialinnovation.ca/files/Emergence_The_Story_of_the_Centre_for_Social_Innovation.pdf (accessed February, 23 2012).

Collins, James C. and Jerry I. Porras. 1996. Building your Company's Vision. *Harvard Business Review* (September/October): 65-77.

Copeland-Carson, Jacqueline and Associates. 2008. Engaging Community for Sustainable Revitalization: Key Trends, Strategies and Recommendation. Nexus Community Partners.

Cross, John C. and Alfonso Hernández Hernández. 2011. Place, Identity, and Deviance: A Community-Based Approach to Understanding the Relationship Between Deviance and Place. *Deviant Behavior* 32, no.6: 503-537.

Curtis, Fred. 2003. Eco-localism and Sustainability. *Ecological Economics* 46, no.1: 83-102.

Davenport, Thomas, Marius Leibold and Sven Voelpel. 2012. *Strategic Management in the Innovation Economy: Strategy Approaches and Tools for Dynamic Innovation Capabilities.* Erlangen:Wiley-VCH.

Desbiens Riendeau, Noémie. 2012. Interview by authors. Montréal, Canada. April 3.

Dietz, Thomas, Elenor Ostrom, and Paul C. Stern. 2003. The Struggle to Govern the Commons. *Science* 302, (December): 1907-1912.

Dunford, Aerin and Bob Stilger. 2011. Alive in Community: designing and hosting transformative gatherings. The Berkana Institute. http://www.berkana.org/pdf/AliveInCommunity.pdf (accessed April 22, 2012).

Edvinsson, Leif. 1997. Developing intellectual capital at Skandia. *Long Range Planning* 30, no.3: 320- 373.

Franqueira, Teresa. 2010. Creative Places for Collaborative Cities: Proposal for the 'Progetto Habitat e Cultura' in Milan. *The Design Journal* 13, no.2: 199-216.

Fruechte, Kari. 2007. Measuring Success in Communities: Understanding the Community Capitals Framework. White Paper, South Dakota State University.

Fukuyama, Francis. 1995. *Trust: The Social Virtues and the Creation of Prosperity*. New York: The Free Press.

Geiersbach, Nicoletta. 2012. Interview by authors. Beetzendorf, Germany. March 9.

Gibson-Graham, J.K. 2003. An Ethics of the Local. *Rethinking Marxism* 15, no.1: 50-74.

Glad, Tatatina. 2012. Email message to authors. Amsterdam, The Netherlands. May 9.

Goetz, J. P. and M. D. LeCompte. 1984. *Ethnography and Qualitative Design in Educational Research.* New York: Academic Press.

Goldsmith, Simon. 2012. Interview by authors. London, UK. April 26.

Gourlay, Chris. 2012. Interview by authors. London, United Kingdom. March 29.

Gouveia, Edgard. 2012. Interview by authors. Järna, Sweden. April 12.

Gutierrez, Lorraine PhD and David P. Moxley PhD, Ann Rosegrant Alvarez PhD and Alice K. Johnson PhD. 2005. The Complexity of Community Empowerment, *Journal of Community Practice* 13, no.2: 1-3.

Hardin, Garrett. 1968. The Tragedy of the Commons. *Science* 162, no.3859: 1243-1248.

Heft, Lisa. 2006. The Mouse and the Earthquake: An Introduction to Systems Theory. *The Systems Thinker* 17, no.8: 2-6.

Hjorth, P. and A. Bagheri. 2006. "Navigating towards sustainable development: A systems dynamics approach." *Futures*, no.38: 74-92.

Holmberg, John and Karl-Henrik Robèrt. 2000. Backcasting from non-overlapping sustainability principles- a framework for strategic planning.

International Journal of Sustainable Development and World Ecology, no. 7: 291-308.

IPCC. 2007. Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.* Eds. Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M.Tignor and H.L. Miller. Cambridge University Press: Cambridge, United Kingdom.

Jacobs, Cheryl. 2007. Measuring Success in Communities: Understanding the Community Capitals Framework. White Paper, South Dakota State University.

Keone Kealoha. 2012. Interview by authors. Kaua'i, United States of America. April 11.

Kirk, J and M.L. Miller. 1986. *Reliability and validity in qualitative research*. London: Sage.

Koehler, B. and T. M. Koontz, 2008. Citizen Participation in Collaborative Watershed Partnerships. *Environmental Management* 41, no.2: 143–154.

Kune, Hank. 2012. Interview by authors. Weesp, The Netherlands. April 27.

Law, Jesse. 2012. Interview by authors. Hilo, USA. March 3.

Lawn, Philip. 2010. Facilitating the transition to a steady-state economy: Some macroeconomic fundamentals. *Ecological Economics* 69, no. 5: 931 – 936.

Maida, Carl. 2012. Interview by authors. Los Angeles, USA. February 10.

Manzo, Lynne and Douglas Perkins. 2006. Finding Common Ground: The Importance of Place Attachment to Community Participation and Planning. *Journal of Planning Literature* 20:335-360.

Marshall, Steve. 2012. Interview by authors. State College, USA. February 14.

Max-Neef, Manfred A. 1991. *Human scale development: conception, application and further reflections*. London: Apex.

Maxwell, Joseph A. 2005. *Qualitative Research Design: an interactive approach.* 2nd ed. Thousand Oaks CA: Sage Publications Inc.

McKenzie-Mohr, Doug. 2000. Promoting Sustainable Behaviour: an introduction to community-based social marketing. *Journal of Social Issues* 56, no.3: 543-554.

Meroni, A. ed. 2007. *Creative Communities: People Inventing Sustainable Ways of Living.* Milan: POLI.

Milio, N. 1996. *Engines of Empowerment*. Ann Arbor: Health Administration Press.

Nichols, Timothy J. 2012. Interview by authors. San Franciso, USA. April 17.

Norris, E. and S. McLean. 2011. The Civic Commons: model for social action. Peterborough: RSA Projects.

Ny, H., J.P. MacDonald, G. Broman, R. Yamamoto and K.H Robèrt. 2006. Sustainability Constraints as System Boundaries; an approach to making life-cycle management strategies. *Journal of Industrial Ecology* 10, no.1: 61-77.

Oldenburg, Raymond and Dennis Brissett. 1983. The Third Place. *Quantitative Sociology,* (autumn): 265-284.

Ostrom, Elinor. 2010. Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change* 20, no. 4: 550 – 557.

Oxford University Press. 2007. PESTEL analysis of the macro-environment. http://www.oup.com/uk/orc/bin/9780199296378/01student/additional/page_12.htm (accessed May 28, 2012).

Park, C., J. Purkis, B. Moore and N. Pegram. 2008. *The Natural Step Guidebook to Integrated Community Sustainability Planning.* The Natural Step International: Stockholm, Sweden.

Putnam, Robert. 2000. *Bowling Alone: the collapse and revival of American community.* New York: Simon & Schuster.

Quinn, Daniel. 1997. *My Ishmael.* New York: Bantam Books.

Richards, Caspian, Kirsty Blackstock and Claudia Carter. 2007. Practical Approaches to Participation. Macaulay Institute: Aberdeen. http://www.macaulay.ac.uk/economics/research/SERPpb1.pdf (accessed May 5, 2012).

Robèrt, K.H. B. Schmidt-Bleek, J. Aloisi de Larderel, G. Basile, J.L. Jansen, R. Kuehr, P. Price Thomas, M. Suzuki, P. Hawken, M. Wackernagel. 2002. Strategic sustainable development-selection, design, and synergies of applied tools. *Journal of Cleaner Production* 10, no.3:197–214.

Robèrt, Karl-Henrik. 2000. Tools and concepts for sustainable development: how do they relate to a framework for sustainable development, and to each other? *Journal of Cleaner Production,* no.8: 243-254.

Robèrt, Karl-Henrik. 2012. Class Lecture. Blekinge Institute of Technology. May 21.

Robinson, J.B. 1990. Futures Under Glass – a recipe for people who hate to predict. *Futures* 22, no. 8: 820-843.

Saegert, Susan. 2008. *Community Building and Civic Capacity*. Aspen Institute Roundtable on Community Change. http://www.aspeninstitute.org/sites/default/files/content/docs/rcc/CommunityBuildingCivicCapacity.pdf (accessed February 15, 2012).

Santropol Roulant. 2012. http://santropolroulant.org/2009/E-home.htm (accessed March 8, 2012).

Satterthwaite, D. 2008. Cities' contribution to global warming: notes on the allocation of greenhouse gas emissions. *Environment and Urbanization* 20, no. 2: 539-549.

Seidel, P. 1998. *Invisible walls: Why We Ignore the Damage We Inflict on the Planet . . . and Ourselves.* Amherst, NY: Prometheus Books.

Senge, Peter and Charlotte Roberts, Richard B. Ross, Bryan Smith and Art Klenier. 1994. *The Fifth Discipline Fieldbook: strategies and tools for building a learning organization.* Nicholas Brealey Publishing: London.

Senge, Peter, Art Kleiner, Charlotte Roberts, Richard B. Ross and Bryan J. Smith. 1994. *The Fifth Discipline Field book*. New York: Doubleday.

Silverman, David. Ed. 1997. *Qualitative Research: theory, method and practice.* London: Sage.

Sklar, Jay. 2012. Interview by authors. Bainbridge Island, USA. February 15.

Spaargaren, G. 2000. Lifestyles, Consumption and the Environment: The Ecological Modernisation of Domestic Consumption. In *Ecological Modernisation around the World: Perspectives and Critical Debates*, eds. A.P.J. Mol and D.A. Sonnenfeld. London: Frank Cass.

Speer, Paul W. and Joseph Hughey. 1995. Community organizing: An ecological route to empowerment and power. *American Journal of Community Psychology* 23, no.5: 729–48.

Stedman, Richard. 2003. Is It Really Just a Social Construction? The Contribution of the Physical Environment to Sense of Place, Society & Natural Resources. *An International Journal* 16, no.8: 671-685.

Steffan, W, A. Sanderson, P.D. Tyson, J. Jäger, P.A. Matson, B. Moore III, F. Oldfield, K. Richardson, H.J. Schellnhuber, B.L. Turner and R.J.

Stilger, Bob. 2012. Interview by authors. Spokane, USA. March 16.

Stokowski, Patricia A. 2002. Languages of place and discourses of power: constructing new senses of place. *Journal of Leisure Research* 34, no.4: 368-382.

Strünke, Christoph. 2012. Interview by authors. Beetzendorf, Germany. March 9.

Thake, S. 2004. Sustainable Futures: Investing in Community-Based Organisations. New Economics Foundation, London.

Thao, Terri and Mekha, Repa. 2012. Interview by authors. Minneapolis, USA. April 11.

The Hub. 2012. What is the Hub? http://www.the-hub.net/about (accessed May 17, 2012).

Tilbury, Daniella and David Wortman. 2004. Engaging People in Sustainability. Commission of Education and Communication. The World Conservation Union: Switzerland.

Trainer, Ted. 2010. De-growth – is not enough. *The International Journal of Inclusive Democracy* 6, no. 4 (Fall): 1-14.

UNEP. 2011. Decoupling natural resource use and environmental impacts from economic growth, A Report of the Working Group on Decoupling to the International Resource Panel. Fischer-Kowalski, M., Swilling, M., von Weizsäcker, E.U., Ren, Y., Moriguchi, Y., Crane, W., Krausmann, F., Eisenmenger, N., Giljum, S., Hennicke, P., Romero Lankao, P., Siriban Manalang, A., Sewerin, S.

UNESCO. 1997. *Environment and Society: Education and public awareness for sustainability.* UNESCO: Paris.

van Laerhoven, Frank, and Erling Berge. 2011. The 20th anniversary of Elinor Ostrom's Governing the Commons. *International Journal of the Commons* 5, no. 1: 1-8.

Waipa Foundation. 2012. http://www.waipafoundation.org/ (accessed May 14, 2012).

Wasson. 2004. *Global Change and the Earth System: A Planet Under Pressure.* Springer-Verlag: New York.

Weaver, Liz. 2012. Email message to authors. Waterloo, Canada. April 20.

Weaver, Liz. 2012. Interview by authors. Waterloo, Canada. March 2.

Weaver, Liz. 2012. Interview by authors. Waterloo, Canada. March 15.

Wheatley, Margaret and Frieze, Deborah. 2010. *Leadership in the Age of Complexity.* The Berkana Institute.

www.berkana.org/berkana_articles/leadership-in-the-age-of-complexity/ (accessed May 3, 2012)

Wheatley, Margaret J. 2009. *Turning to One Another*. San Francisco: Berrett Koehler Publishers, Inc.

Wilkinson, K. 1989. The future of community development. In *Community Development in Perspective.* Ed. J. Christenson & J. Robinson. Ames: Iowa State University Press.

World Commission on Environment and Development. 1987. *Our Common Future.* United Nations. Oxford: Oxford University Press.

Appendix A. Community Capital Indicators

A seven capital framework was chosen for this study. Expert responses were coded into the capitals using the following indicators. The indicators were created after reviewing different works on Community Capital Frameworks (Callaghan and Colton 2007; Flora, Flora and Fey 2004; Gutierrez et al. 2005; Hjorth and Bagheri 2006; Jacobs 2007).

Capital	Indicator
Social Capital	• Community well-being • Sense of communal pride • Trust • Social networks • Sense of belonging • Relationships between people
Human Capital	• Capacity building • Personal and community well-being and health • Skills & knowledge building • Leadership
Cultural Capital	• Celebrate customs, stories and heritage • Diversity • Place-attachment • Sense of identity
Natural Capital	• SP 1,2,3 alignment • Natural beauty and green space • Natural resource availability • Reduced consumption • Decreased waste
Political Capital	• Self-governance • Increase individual and community voice in local government • Civic engagement
Built Capital	• Buildings, infrastructure, roads • Less building neglect • Access to resources • Security • Access to public space and natural capital
Financial Capital	• Strengthening local economy • Increase employment opportunities • Access to funding and local financial support • Personal and organisational wealth/ income

Appendix B. List of Experts

The following appendix shows a list of experts that contributed to this study.

Expert	Description	Location
Phase I - Exploratory Interviews		
Carl Maida	Adjunct Professor at UCLA, Institute of the Environment and Sustainability, specializing in Communities of Practice	Los Angeles, USA
Liz Weaver	Vice President, Tamarack – An Institute for Community Engagement	Waterloo, Canada
Steve Marshall	New Leaf Initiative, community hub, idea incubator and strategic sustainable development consultancy	Pennsylvania, USA
Jay Sklar	Food service development at the neighbourhood hub Common Ground in Kaua'i, Hawai'i	Bainbridge Island, USA
Jesse Law	Founder at Sustainable Island Products	Hilo, USA
John Croft	Co-founder, Gaia Foundation of Western Australia	Perth, Australia
Phase II – Interviews		
Bob Stilger, PhD	Vice President of New Stories, President of The Transformation Institute, and past co-President of The Berkana Institute	Spokane, USA

Chris Gourlay	Founder and CEO at Spacehive, online crowd-funding platform helping communities transform their local public spaces	London, UK
Christoph Strünke	Sieben Linden Ecovillage	Beetzendorf, Germany
Edgard Gouveia Júnior	Visionary of Play The Call - The Global Game, cooperative games and creative community engagement to facilitate social change	Santos, Brazil
Hilary Burrage	Sociologist, consultant, board director, teacher and writer, and author of *Green Hubs as Social Inclusion and Community Engagement*	Liverpool and London, UK
Keone Kealoha	Executive Director at Malama Kaua'i and Board of Directors at Sustainability Association of Hawaii	Kaua'i, USA
Liz Weaver	Vice President, Tamarack – An Institute for Community Engagement	Waterloo, Canada
Nicoletta Geiersbach	Creative engagement and community games at Sieben Linden Ecovillage	Beetzendorf, Germany
Noémie Desbiens Riendeau	Community Life Coordinator Urban Agriculture Program Santropol Roulant	Montréal, Canada
Repa Mekha & Terri Thao	President & CEO and Program Officer at Nexus Community Partners	Minneapolis-St. Paul, USA
Phase III - Expert Review		
Hilary	Sociologist, consultant, board director, teacher and	Liverpool and

Burrage	writer, and author of *Green Hubs as Social Inclusion and Community Engagement*	London, UK
Liz Weaver	Vice President, Tamarack – An Institute for Community Engagement	Waterloo, Canada
Timothy Nichols	Managing Director at Hub San Francisco: innovation lab and business incubator	San Francisco, USA
Simon Goldsmith	Director at Principled Sustainability involved at Hub Kings Cross (member) Hub Islington, Hub Westminster, Hub San Francisco and West Lexham	London, UK
Hank Kune	Founding Partner, Future Center Alliance (an international alliance of centers supporting organisational & societal innovation)	Weesp, The Netherlands
Sven Borén	Founder of Eco Pilots: Sustainability Consultancy. Involved in the development of Cyclops - Centre for Innovation and Sustainability Nyföretagarcentrum (Jobs and Society) Karlskrona Blekinge Business Incubator	Karlskrona, Sweden
Tatiana Glad	Co-initiator at Hub Amsterdam, social entrepreneur, sustainability practitioner and change strategist	Amsterdam, Netherlands

Survey Respondent	**Hub Affiliation**
Berit Coleman	Affinity Lab (co-working hub)
Marcie DeWitt	Coastal Community Services Hub

C. J. Stewart	Non-profits and community gardens
Timothy J. Nichols	Hub San Francisco
Jay Sklar	The Garden at Common Ground Kaua'i
Jon Pilon	Unlab, hackerspace
Ronny Daniel	Hub Tel Aviv
Marten Sims	The HiVE Vancouver and Vancouver Design Nerds City Studios
Pablo Villoch	Hub Santiago, Chile and Open Canvas
Dan Hendry	Kingston Sustainability Centre and Sustainable Kingston
Jovin Hurry	Hub Westminster, Hub King's Cross, Hub Islington, Hub Stockholm
Sven Borén	Cyclops - Centre for Innovation and Sustainability Nyföretagarcentrum (Jobs and Society) Karlskrona Blekinge Business Incubator
Simon Goldsmith	Hub Kings Cross (member) Hub Islington, Hub Westminster, Hub San Francisco. West Lexham,
Anonymous	Coastal Community Services Hub

Appendix C. Coding Template

The following table shows the coding categories and indicators that were used when coding the data including space for emerging concepts.

Coding Concepts/ Categories	Indicators
System	
Community Capitals	• see Appendix A
Know the System	• Systems thinking (understanding your impact on other systems) • Social norms • Potential stakeholders?
Diversity	• Strength in diversity (including biodiversity)
Trust	• Between community members • In local organisations and government
Self-organisation	• Flat leadership • Stay relevant to local community • Adaptability to the local system
Interconnectedness	• Relationships • Networks
Success	
Ownership	• Empowerment • People have the right to take initiative • Inclusive decision making process • Inclusive visioning process • Community gets to voice what they want

Relationships	• Connect people to each other • Personal capacity development • Connecting people to place
Fun	• Energy, Enthusiasm • Dynamic, Creates Buzz • Celebration
Creativity	• Creative working process • Arts; theatre, music, dance, visual art • Inspiration
Meaning	• Relevance to community's needs • Alignment with bigger picture • Working towards something meaningful (personal, community, neighbourhood, society, environmental, global)

Welcoming	• Safe Space, non-threatening
	• Meeting people where they are at
	• Accessibility (if you want to participate, you can – affordable, opening times)
	• Design of space that makes people feel safe
	• Welcome diversity:
	  • Intergenerational
	  • Multiculturalism
	  • Multilingual (Have languages that are representative of the local population)
	  • Social status/income

Shared Purpose	• Common purpose/direction
	• Provide opportunity to
	  • Co-create a shared purpose
	  • Learn about the existing shared purpose
	  • Add to an existing shared purpose

Strategic	
Right Direction	• Right direction toward the values and the hubs vision
Backcasting	• Backwards mapping • Backcasting • Future perspective
Action Oriented	• Focus on doing • Impact oriented

Collaborative	• Provide opportunity for visible neighbourhood revitalization • Provide support for people to develop & realize their own projects • Co-learning Co-creation • Collaborative Services
Flexible Platform	• Can the action be improved upon
ROI	• Personal investment • The project/hubs collective investment • Foster low to high level skills • Relevant green economy skills gained
Actions	
Overcome barriers	• Celebration keeps motivation high • Relationships
Personal Capacity Building	• Staff attitude • Soft skills
Physical set-up	• Design to engage
Protocols	• Welcoming people when they come in the door
Shared experience to bring people together	• Music • Food • Children • Others?
Tools	
Tools	• Visioning tools • SSD tools: ABCD Process • Storytelling • Appreciative Inquiry • Etc.

Appendix D. Example Interview Questions by FSSD Level

Below are sample questions from the semi-structured interviews which addressed each of the five levels of the Framework for Strategic Sustainable Development (FSSD):

System

1. What challenges do you face when trying to engage community members?
2. What are the benefits of hubs to their community?
3. What role do you think hubs play in working towards a sustainable society?
4. Who do you see as a part of your [hub's] community?
5. If every community had a hub such as yours, what collective impact do you see these hubs having on the world?

Success

1. Do you have a shared vision of success? If so, what is it?
2. What motivates participants to get involved and participate?
3. How would you define the culture at your hub?
4. Could you identify factors which you think encourages community members to get involved/ discourages community members to get involved?

Strategic

1. How do you decide what actions to take?
2. How do you engage people to move further towards sustainability?
3. How do you strategically work towards your vision?
4. How do you prioritise actions?

Actions

1. What activities/initiatives/projects do you take to engage people?

Tools

1. What tools would be helpful for a hub looking to engage community members?

Appendix E. Survey Responses

The table below shows the responses from 14 survey respondents to the question: *Think of a time when you were involved in a highly engaging project. How important were the following components?*

	Not Important	Slightly Important	Moderately Important	Important	Very Important
Ownership *(ex. feeling responsible, participatory decision making)*	0.0% (0)	7.1% (1)	14.3% (2)	28.6% (4)	50.0% (7)
Meaning *(ex. meaningful for individuals / communities, connected to bigger picture)*	0.0% (0)	0.0% (0)	7.1% (1)	14.3% (2)	78.6% (11)
Fun *(ex. celebration, enthusiasm)*	0.0% (0)	0.0% (0)	21.4% (3)	28.6% (4)	50.0% (7)
Welcoming *(ex. non-threatening, inviting, diversity)*	0.0% (0)	0.0% (0)	7.1% (1)	50.0% (7)	42.9% (6)
Relationship Building *(ex. connecting people)*	0.0% (0)	0.0% (0)	7.1% (1)	50.0% (7)	42.9% (6)
Collaboration *(ex. co-creating, cross-pollinating)*	0.0% (0)	0.0% (0)	7.1% (1)	35.7% (5)	57.1% (8)
Versatility *(ex. adaptability, flexibility, start simply)*	0.0% (0)	7.1% (1)	28.6% (4)	50.0% (7)	14.3% (2)
Creativity *(ex. inspirational, imaginative)*	0.0% (0)	0.0% (0)	7.1% (1)	28.6% (4)	64.3% (9)
Shared Vision *(ex. common purpose, shared values)*	0.0% (0)	0.0% (0)	0.0% (0)	7.1% (1)	85.7% (12)

Appendix F. Methods, Tools and Resources

Below are example methods, tools and resources to create an engaging neighbourhood hub, as well as ones to support the ABCD planning process.

Methods and Tools

Communication
- Social Media
- Word of mouth
- Newsletters/Emails
- Annual reports

Visioning and Project Planning
- Creative visioning methods
- Theory of Change
- ABCD (ex. The Natural Step Canada, The Weave)

Current Reality
- Stakeholder Analysis
- PESTEL Analysis

Funding Models
- Crowd-funding
- Membership fees

Dialogue-based Methodologies
- Conversations
- Check-ins/ Check- outs
- Gathering in circles
- Appreciative Inquiry
- Storytelling
- Open Space
- World Café
- Pro-Action Café
- Non-Violent Communication
- Knowledge Creation Tools (ex. Zing)

Personal Practices
- Theory U
- Meditation
- Intention setting

Games
- Team-building
- Trust- building

Resources

The Natural Step Canada
Resources to support ABCD process
http://www.thenaturalstep.org/en/canada/toolkits

The Weave: Participatory Process Design Guide
Art of Hosting meets ABCD
www.theweave.info

The Lotus: Authentic Leadership
Building personal capacities
www.thelotus.info

Appendix G. Current Reality Assessment Tools for Hubs

The matrix bellow illustrates a simplified tool to assess a hub's present contributions towards sustainability and unsustainability, broken down into each of the four Sustainability Principles (SPs). Hubs can use this tool by adding information under the (+) sign when the hub makes a positive contribution in the direction of sustainability, and add information under the (-) sign when they contribute towards unsustainability.

	In a sustainable society, nature is not subject to systematically increasing…						**In a sustainable society, people are not subject to…**	
Material and non-material flows in and out of the hub	**SP1** Concentrations of substances extracted from the Earth's crust		**SP2** Concentrations of substances produced by society		**SP3** Degradation by physical means		**SP4** Conditions that systematically undermine people's capacity to meet their needs	
	+	-	+	-	+	-	+	-
What resources go into the hub for operations, programs, and activities?								
What comes out of the hub in the form of waste and by-products?								
What comes out of the hub in the form of products, programs and services?								

Similarly, the following matrix can be used to help neighbourhood hubs identify where they uphold the values identified in the research, and the areas that need to be strengthened. Hubs can use this tool by adding information under the (+) sign when the hub makes a positive contribution towards the value, and add information under the (-) sign for actions that undermine that value. This format can also be used to assess the current reality of the hub against its shared purpose and goals.

	Values of engaging neighbourhood hubs…											
	Ownership Invites ownership		**Meaning** Connects people to meaning		**Welcoming** Has a welcoming atmosphere		**Fun** Fun place to spend time		**Creativity** Supports creativity		**Impactful** Impactful in community	
	+	-	+	-	+	-	+	-	+	-	+	-
Programs, services and activities at hub												

♀