

Participatory mapping as a tool for social change: A tale of community development efforts in
Northeast Kansas and Western Guatemala

by

Emmanuel Akinlolu Jeje

M.B.A., Management College of Southern Africa, 2021
M.S., University of South Africa, 2021

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

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Leadership Communication

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Abstract

Compared to urban areas, small and rural communities generally face challenges such as poverty lower educational, lack of infrastructure and services and limited connectivity, (Hunsaker & Kantayya, 2010; Organization for Economic Co-operation and Development, 2016). Post and Ruelle (2021) note that challenges of rural areas highlight the need for deeper engagement between universities and communities through community-engaged scholarship (CES). Cinderby (2010) describe participatory mapping as crucial for fostering collaboration and engagement among diverse community members and stakeholders. However, it is difficult to achieve collaborative action in small and rural areas due to prevailing challenges in these areas (White & Boyle, 2021).

If small and rural communities continue to underutilize collaborative actions that CES and participatory mapping potentially bring, these rural areas are more likely to miss out on the social change and transformative benefits of collaborative relationships and such areas will fall behind in terms of community development. The purpose of this qualitative multiple case study was to explore how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes in small and rural communities. To address this purpose, this study examined the experiences of 13 local residents in two small and rural communities—Ogden, Kansas in the United States and Panajachel, Sololá in Guatemala. The research gap addressed is a general paucity of literature exploring how to use participatory mapping in rural CES projects (McCall & Dunn, 2011). Most studies on CES are conducted in non-rural contexts where resources, infrastructure, and digital literacy are higher (Sutin & Bethea, 2015). There is a general lack of studies exploring how participatory mapping

and CES can be integrated to contribute to positive social change and community development in small and rural communities.

The qualitative research approach was guided by an interpretivist perspective, and I conducted this exploratory multiple case inquiry through the lenses of the social change, innovation, and technology and social change leadership framework. The study participants were purposively selected from local citizens, business proprietors, civic leaders and community organizations representatives who had previously participated in the participatory mapping process facilitated in Ogden and Panajachel preceding this study. I conducted semi-structured interviews with four participants in Ogden and seven participants in Panajachel. Two rounds of one focus group discussion were conducted in Ogden, Kansas and it consisted of six participants and two rounds of focus groups comprising seven participants were conducted in Panajachel. The qualitative data was analyzed using thematic analysis, chiefly the inductive approach.

The major findings of the study illustrated that in the small and rural communities of Ogden, Kansas and Panajachel, Guatemala, there are historically low levels of collaboration among community members and leadership challenges (lack of clear purpose, vision and passion, lack of knowledge and skills, lack of effective communication) and lack of resources pose as challenges to collaboration and any efforts designed to bring social change. The findings demonstrate understanding the purpose of collaboration, effective communication, motivated community members, community advocates, and inclusivity are critical pre-conditions that should prevail for successful collaboration and participatory mapping process. The findings showed that the participatory mapping processes contributed to capacity building at both community level (community awareness and knowledge acquisition) and individual levels (empowerment, decision-making, knowledge and experience acquisition). Based on the findings

the recommendations provided include ((a) institutionalize participatory mapping in community mapping process, (b) advocacy and mobilization, (c) develop community structures to act as center of collaboration and engagement, (d) intentionally involve people that are disengaged in community development.

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Approved by:

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Dedication

This dissertation is dedicated to the cherished memory of my parents, Pa Michael Abiodun Jeje and Ma Julianah Bolanle Jeje, whose relentless efforts set all of us on the right path of intellectual curiosity. Your love, guidance, and leadership footprints have always remained with me.

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Chapter 1 - Introduction

Community development is a process that entails organization, facilitation, and action, which allows people to establish ways to create the community they want to live in (Mtika & Kistler, 2017). It is a process that provides vision, planning, direction, and coordinated action toward desired goals associated with the promotion of efforts aimed at improving the conditions in which local resources operate. As a result, community developers harness local economic, human, and physical resources to secure daily requirements and respond to changing needs and conditions (Noor, 2017).

The last two decades of the Western and non-Western world have witnessed increasing interest in the participatory mapping approaches, applied in a variety of fields of research and practice (Brown et al., 2020). This interest represents a novel strategy for community development that seeks to involve local stakeholders in the participatory mapping and decision making of their community. Cinderby (2010) described this participatory framework as particularly crucial for fostering engagement among diverse community members, including those that are typically marginalized or 'hard-to-reach' groups.

One avenue for approaching community development grounded in local participation is through community engaged scholarship (CES) that leverages participatory mapping. It is essential to state that not all participatory mapping initiatives are driven or led by higher institutions. Participatory mapping has been defined as the creation of maps by local communities, often with the involvement of supporting organizations including governments, non-governmental organizations, universities, and other actors engaged in the development and land-related planning (Corbett, 2009).

In this dissertation, I specifically situated participatory mapping activities and CES within higher education institutions and while there are diverse array of CES activities that combine academic research, teaching and service with meaningful community engagement. This research is focused on the opportunity to contribute to community development. It is important to note that not all CES activities are focused on community development efforts, yet CES does offer a powerful mechanism for scholars to bridge theory and practice to enhance grassroots movements to advance positive change.

However, when CES efforts in a community are uncoordinated, it poses a barrier to participation and collaboration by community partners (Watson-Thompson, 2015). In addition, Watson-Thompson (2015) argues that it is critical to ensure conditions that promote the coordination of resources, internal and external information sharing, and systematic examination of university-based efforts to better understand collective contributions and engagement in communities. Participatory mapping has become a vibrant area of practice and a well-used research method, and it is increasingly seen as an area of study in its own right (Cochrane & Corbett, 2018). Throughout the world there has been a rapid increase in participatory mapping initiatives in the past 25 years (Brown & Kyattä, 2014; Cochrane et al., 2014). Forrester and Cinderby (2011) argue that participatory mapping that is carried out with members of a community—and that can be used to represent the views of some or all of the members of that community. Participatory mapping can influence the internal dynamics of a community, contribute to building community cohesion, help members engage in decision-making, and ultimately contribute to improving local communities and their members (International Fund for Agricultural Development [IFAD], 2009).

The major focus of participatory mapping is to integrate the experiential knowledge of local communities and individuals and empower local communities by enabling their participation in decision-making through the use of maps, and geographic information and technologies (Kar et al., 2016).

This dissertation focused on participatory mapping efforts conducted in two small and rural communities to understand how local residents made sense of their experiences, provide reflections and what potential they saw for the process to contribute to development efforts.

Problem Statement

The purpose of this qualitative multiple case study was to explore how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes in small and rural communities. Despite the growth of CES and participatory mapping in the last decades, socio-economic challenges still persist in small and rural communities¹.

Many interventions do not take into account the priorities, lived experiences, and spatial realities of the very people they are intended to assist, even while development projects are present in underprivileged and marginalized communities. What is lacking is a bottom-up, inclusive method of gathering spatial data and making decisions that prioritizes community participation and knowledge. Post and Ruelle (2021) contend that the socio-economic challenges and the global climate crisis are highlighting the need for deeper engagement between universities and communities to co-generate knowledge and action strategies relevant to the

¹ While the U.S. Census Bureau and the Guatemalan National Institute of Statistics each have broad definitions of rural and urban communities, I chose the term *small and rural* for this dissertation to recognize the unique characteristics of the two communities I engaged with for this study.

intersectional challenges of communities. Jacquez et al. (2016) argue that CES is dynamic and grounded in four elements: (a) community-driven priorities, (b) shared equitable decision-making, (c) co-creation of knowledge, and (d) social and cultural change.

The estimates of the total U.S. population living in non-metropolitan (small and rural) counties vary from 46.2 million to 59 million people and this represents 14% to 19% of the U.S. population (Coughlin et al., 2020). Although estimates of how many people live in Guatemala's rural areas vary, 42% of the country's population lives in rural settlements, making up a sizeable fraction of the total population (World Bank, 2023).

Compared to urban areas, small and rural communities face higher poverty rates, lower educational attainment, lack of transportation, a higher proportion of elderly individuals, lack of access to health services, limited connectivity, large distances between settlements, and high per capita costs of services (Hunsaker & Kantayya, 2010; Organization for Economic Co-operation and Development, 2016; Ricketts, 2000). Rural areas are also characterized by poor quality infrastructure – such as lack of transport, poor internet, unstable electricity, and insufficient and poor quality public services (International Labour Organization, 2016). The distinctive characteristics of rural areas make them more vulnerable to natural/environmental, economic, social, and political risks and shocks in many ways (Allieu, 2019). While the insights, patterns and challenges identified in rural communities such as the poor quality infrastructure, lack of transport, limited connectivity are not unique, but these are commonly experienced across many small communities. As such, the findings offer transferable relevance to other small communities.

The general problem is that most small and rural community settings are characterized by lack of infrastructure, roads, communication channels, poverty, and unemployment. Rural

development involves efforts that are economic and social in nature intended to encourage concepts of retention, growth, and expansion in areas outside cities, including improving quality of life for rural residents through such activity (Atkinson, 2017). Cavaye (2001) propose that rural development should not only focus on delivery of services, discrete initiatives, dissemination, and provision of resources to meet perceived needs. Instead, he emphasizes the processes of engagement and partnerships that helps local communities build relationships with key individuals inside and outside their communities. These processes help communities to act on existing motivation, build enthusiasm and confidence, challenge community attitudes and perceptions, support informal leaders in communities, rethink apparent needs and redefine community assets, and gain access to appropriate information and resources.

Physical planning is generally centralized in urban areas or major towns, leaving populations in outlying places like rural areas underrepresented in participatory planning (Okello et al., 2009). Collaboration partnerships that involve purposive relationships that go beyond cooperation and aimed at creating or discovering solutions to solve problems have the potential to tackle the growing range of complex challenges that characterize rural communities (Dabson & McFarland, 2021).

The specific problem is that collaboration action is difficult to accomplish in the small community of Ogden in northeast Kansas, however this challenge is not unique to Ogden. Similar patterns have been observed in Panajachel in western Guatemala, it seems that these communities appear to have limited historical foundation of collaboration. Collaboration issues in Ogden, reflect a larger public health and community engagement challenges and as highlighted by Dziadkowiec et al. (2015) who describe how the configuration of local networks

can either facilitate or obstruct collective initiatives aimed at economic development and this in turn makes collaboration efforts in rural areas face structural constraints in available resources.

Similarly, collaboration challenges are evident in Panajachel, in a variety of socioeconomic and environmental aspects, one of the major problems is the intricacies of stakeholders' interaction across various parties, furthermore, participatory initiatives intended to involve local voices frequently encounter institutional impediments. As Jaskoski (2022) points out in the "event initiation challenge," communities must rally support for participatory process that might not adequately address their needs (p.90).

It is difficult to achieve collaborative action in small and rural areas due to challenges related to distance and a general lack of infrastructure and resources (White & Boyle, 2021). Ansari (2005) identified value system of communities, costs of being involved, community background, history, habits and traditions as some of the challenges confronting formation of collaborative partnerships in disadvantaged communities. Collaborative partnerships in small and rural areas have the potential to enable communities to leverage on stakeholders' core competencies and resources (Taute, 2021). Collaboration allows pooling expertise, funds, and staff time and partners in rural communities can identify common interests, overcome familiar challenges, and develop comprehensive strategies for success (National Association of County and City Health Officials, 2013). Collaborative partnerships are important for problem solving (Ansari, 2005).

In Ogden, participants described several community issues that are also evident in Panajachel, such as social and economic conditions, poverty, social inequality (Field notes, February 5, 2024). These are issues with a multifaceted web of social and economic challenges that inhibit the well-being of communities. However, a lack of local involvement hinders efforts

to address these interconnected issues effectively. Therefore, if small communities continue to experience or underutilize collaborative actions, they will continue to miss out on the social change and transformative benefits of collaborative relationships and such areas will lag behind in terms of community development. The issue regarding low uptake of collaborative action within the small and rural development arena requires innovative community collaborative partnerships. One such innovative collaborative partnership is participatory mapping processes.

Research Purpose and Questions

The purpose of this qualitative multiple case study was to explore how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes small and rural communities.

To address this purpose, this study examined the experiences of 13 local residents in two small communities—Ogden, Kansas in the United States and Panajachel, Sololá in Guatemala—with participatory mapping processes they had participated in. Data was analyzed through the lenses of social change, innovation, and transformation and the social change leadership framework to generate a description of collaborative partnerships in small and rural communities. Specifically, this study sought to address the following research questions:

1. What influencing factors of social change did participants identify through the participatory mapping process?
2. What leadership drivers did participants foster through the participatory mapping activities?
3. In what ways did the participatory mapping process enable strategic action to leverage collective power?

Theoretical Framework

A theoretical framework is the foundation from which all knowledge is constructed for a research study, and it serves as the structure and support for the rationale for the study, as well as its problem statement, purpose, significance, and research questions. The theoretical framework also provides a grounding base for the literature review and, most importantly, for the data collection and analysis methods (Grant & Osanloo, 2014). Theoretical frameworks are a systematically developed and intertwined set of concepts and foundations stemming from one or more theories with the intent of supporting a study (Salawu et al., 2023). The interrelated theories that guide this research were (a) social change leadership framework and (b) social change, innovation, and transformation. These frameworks are introduced here and discussed in further detail in Chapter 3.

Social Change Leadership Framework

I draw on social change leadership that is characterized by its emphasis on collective processes rather than individual authority (Ford et al., 2021). This understanding of leadership recognizes the importance of group dynamics and the shared capacity of members within organizations to drive social change. Unlike traditional leadership models that often focus on individual leaders, social change leadership is rooted in a commitment to social justice and an understanding of power dynamics that influence societal inequities (Ospina & Foldy, 2005).

With the key constitutive elements of SCLF identified by Ospina et al. (2012) as leadership drivers, a world view grounded in humanism; strategic action and collective power; and toward systemic change. These elements will be discussed in greater detail in the methodology section.

Resource provision ensures that a community has adequate resources, and transformative organizing includes resource provision and fundamentally changing the community and larger structures to ensure the rights and liberties of communities and a more equitable distribution of resources and power (Hale, 2014). Organizing is one of the activities Ospina and Foldy (2005) describe for advancing social change. With this view, leadership, which is collaborative in nature, becomes a critical vehicle for positive social change.

Social Change, Innovation, and Transformation

Social change, social innovation and social transformation are all unique and distinct in literature, in this study I use the term social change as an umbrella term to encompass these interrelated concepts which will be discussed in detail in Chapter 3. Lewin (n.d) described social change as a wide range of ideas about how societal changes occur and the factors that contribute to it.

Social change theories often focus on the processes through which societal norms, values, structures, and institutions evolve over time. Rabie (2023) posits that social transformation is a self-driven societal process that changes people's conditions and ways of living.

Methodological Framework

Guided by an interpretivist paradigm, the research was undertaken using a qualitative multiple case study methodology. The central principle of interpretivism is the belief that individuals construct knowledge based on their interpretations and experiences and interpretivism emphasizes the importance of subjective meanings and perspectives in understanding social phenomena as well as recognition of subjectivity in research (William, 2024). Qualitative research aims to work within the context of human experiences and the ways in which meaning is made out of those experiences (Bhattacharya, 2017).

This qualitative study explored the experiences of the small communities of Ogden, northeast Kansas and Panajachel, Sololá in Guatemala with participatory mapping. The research therefore adopted an interpretivist perspective, acknowledging that the experience of community members with participatory mapping is subjective and shaped by individual perceptions, beliefs, and social contexts of the community members from whom data was collected. The study involved conducting semi-structured interviews and focus groups with community members to gain an understanding of their lived experiences and meanings they attributed to participatory mapping. I interpreted and constructed knowledge based on the participants' perspectives, reflections and narratives. In other words, the Ogden and Panajachel community's reflections with participatory mapping were also used to generate a description of collaborative relationships between institutions of higher education and small communities.

With qualitative research, Bhattacharya (2017) contends that "the goal is to simply understand and explore in an in-depth manner and not to generalize" (p. 18). In this study I was interested in exploring and obtaining an in-depth understanding of the individual reflections and collective experiences of the participants in Ogden and Panajachel with participatory mapping. I observed that there is a paucity of collaborative action within these communities and there is paucity of research with respect to collaborative partnerships in that document experiences of small communities with participatory mapping. I utilized a qualitative approach to this study because it aligns with the core principles of collaboration, contextual understanding, and a focus on lived experiences. Qualitative research methods are particularly valuable for exploring the complex social dynamics and nuanced perspectives that drive initiatives, offering rich, in-depth insights that quantitative methods often cannot capture.

Kiely and Hartman (2011) highlight the unique value of qualitative research in expanding knowledge about program outcomes for both institutional and community partners. They emphasize that a qualitative approach to inquiry “provides researchers with a useful methodology to directly engage with study participants and their environment through interviews and observation in the field” (p. 295). This direct engagement fosters a deeper understanding of the lived experiences of participants, ensuring that the research remains grounded in the realities of those involved while fostering co-creation of knowledge and actionable outcomes. This approach informs the methodological framework of the study, particularly in engaging community residents about the practice of community organizing through participatory mapping. This fosters a collaborative environment and allows residents to serve as co-researchers, ensuring that their perspectives are central to the research process.

As a way to provide rich, context-specific data, the study was an exploratory case study, specifically an exploratory comparative case study of the small communities of Ogden and Panajachel therefore, a multiple case study was done. Engagement strategies established and evaluated in one geographical context can frequently be modified and implemented in another location, fostering a circle of learning. Joosten et al. (2015) illustrate that structured community involvement programs enhance comprehension of community objectives and hence guiding subsequent research and action plans. The primary focus of the research was to conduct this research in two diverse locations which facilitated a broader understanding of varied perspectives, reflections and experiences. Thereby, allowing for the comparison of different contexts and the identification of transferable solutions and best practices while contextualizing it to the specific site.

Hussein (2023) posits that case study research has been gaining popularity due to its valuable capacity to provide rich, context-specific data as well as understanding of difficult circumstances. Yin (2009) views a case study as an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. Merriam (1998) notes that a case study is an inquiry that uses a variety of data gathering procedures to obtain in-depth information on an event, activity, community, or individual.

The case study research design utilized in this study was exploratory case study. The major types of case study research design are exploratory, explanatory, and descriptive (Hancock & Algozzine, 2011; Yin, 2003). Hussein (2023) argues that for research with unclear outcomes, an exploratory case study may be preferred. Being of an exploratory nature, the case study findings provide a deep scope of proposition through concentrated data (Campbell, 2015). The specific criterion which was followed for participants to take part in the study is that the participants should have participated in the participatory mapping facilitated in Ogden and Panajachel. PGIS often uses purposive sampling to ensure that key stakeholders are included in the mapping process as PGIS mapping is often done in groups with the resulting maps reflecting a collective, rather than individual outcome (Brown & Kyatta, 2014). The participants selected were most likely to provide appropriate and useful information.

The data collection methods utilized in this study to collect data on the reflections and experiences of the community members with participatory mapping were individual semi-structured interviews and focus groups. In focus groups the participants are invited to talk about their views, attitudes and beliefs in relation to a particular subject, concept or idea and data type that can be obtained in this way include opinions, assertions about beliefs, expressions of

agreement or disagreement with other participants (Canals, 2017). Two rounds of focus group discussion were conducted in Ogden, Kansas and it consisted of six participants, of which three were female and three were males, whereas two rounds of focus groups comprising seven participants were conducted in Panajachel, Guatemala.

The semi-structured interviews and focus group discussions were recorded and transcribed verbatim. The qualitative data were analyzed through the utilization of thematic analysis, chiefly the inductive approach. Thematic analysis is a method to analyze qualitative data and involves the identification and reporting of patterns in a data set, which are then interpreted for their inherent meaning (Braun & Clarke, 2006; Liebenberg et al., 2020; Naeem et al., 2023). Bhattacharya (2017) states that “the process of inductive analysis assumes that the researcher is not starting the data analysis with any kind of pre-established testable hypothesis about the data’ (p.150).

In terms of standards of quality, the guiding framework for qualitative quality is based on Tracy's (2010) “eight ‘big-tent’ criteria for excellent qualitative research” published in *Qualitative Inquiry*. The dimensions of this model based on the assertions of Tracy and Hinrichs (2017) are the worthiness of its topic, rich rigor in data collection and analysis, sincerity on the part of the researcher, credibility of the resulting claims, the significance of its contribution to existing literature, the resonance of its findings, and its ethical execution.

Operationalization of Terms

Collaboration refers to a reciprocal partnership between academic institutions and community organizations, aimed at addressing societal needs through co-created knowledge and shared resources. This collaborative approach is characterized by mutual respect, shared goals,

and a commitment to social accountability, which ensures that both academic rigor and community relevance are prioritized in the research process (Beaulieu et al., 2018).

Collective power is defined by Marchant et al. (2024) as “the joint strength of a diverse group (organizations, communities, and individuals most affected by the issue) working for a shared goal of transformational social change, who has been able to realize the full knowledge, abilities, and actions of all people in the group” (p.3).

Community engagement is defined broadly by Driscoll (2008) as “the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity” (p.39).

Decision-making is the process whereby an individual, group or organization reaches conclusions or decisions from a number of alternatives about what future actions to pursue given a set of objectives and limits on available resources, and the process often involves issue-framing, intelligence-gathering, coming to conclusions, and learning from experience (Eisenfuhr, 2011; Schoemaker & Russo, 2014).

Socio-Economic Status is a measure of family’s economic and social position in relation to others, based on various variables responsible for social and economic development (Gaur, 2013). A composite index of variables such as education, health, poverty, income, and consumption is generally used to measure socio-economic status (Baker, 2014).

Participatory mapping is a map-making process that attempts to make visible the association between land and local communities by using the commonly understood and recognized language of map-making (IFAD, 2009). Participatory mapping utilizes a range of tools such as sketch mapping, transect mapping, and participatory three-dimensional modeling,

as well as geographic information technologies, including global positioning systems (GPS), aerial photos and remote-sensed images (from satellites), GIS, and the geospatial web (Johnson, 2017). The term participatory mapping covers a range of terminology and acronyms including public participation GIS (PPGIS), participatory GIS (PGIS), volunteered geographic information systems (VGI), and participatory three-dimensional modeling (P3DM) and each of these terms have different origins (Brown & Kytta, 2018).

Participatory Geographic Information System (PGIS) emerged from participatory approaches in rural areas of the global south and emphasizes empowerment and can be traced to the merger of Participatory Learning and Action methods with geographic information technologies in the global south (Rambaldi et al., 2006) while ***Geographic Information System (GIS)*** is used for acquisition, storage, management, processing, analysis, and visualization of geodata or geoinformation (Bauer, 2021). A GIS, also called geographical information system or geospatial information system, is a software tool for capturing, storing, analyzing, and managing data and associated attributes, which are spatially referenced to the Earth.

Rural Communities describe by the U.S. Census Bureau typically classifies rural areas as those with populations less than 2,500, although this definition can vary based on context and specific research needs (Jennings & Piquero, 2008). In the State of Kansas, small and rural are defined as areas located outside Census designated Urban Areas with a population greater than or equal to 2,500. In Guatemala, rural areas are areas characterized by low population density, agricultural land, traditional villages, significant indigenous Mayan population, low productivity, poverty, limited access to economic income and high climate vulnerability (IFAD, 2017).

Significance of Study

This study is significant as it has implications for practice. This is particularly important considering that practitioners of CES do not always utilize or incorporate participatory mapping processes. Incorporating participatory mapping in a CES project as was the case with this study indicates some degree of novelty which provides a better understanding of CES and participatory mapping in small and rural communities.

This study also provided a nuanced understanding of the context-specific challenges to the participatory mapping process, the benefits of participatory mapping and the key learnings and or key success factors for participatory mapping in small and rural communities. The implication is that prior to deploying CES that incorporates participatory mapping processes, practitioners should also devote their efforts as well and resources toward having a deep understanding of the communities they want to engage with in order to match the context-specific factors to the community engagement mechanism.

In this study, the participatory mapping process was also found to build capacity at a community and individual level as well as highlighting the factors necessary for the success of participatory mapping. The implication for practice is that practitioners in the community development arena should consider incorporating participatory mapping process a key toolkit of their community-based development efforts and community engagements. Researchers, academics and policy makers could benefit from the findings as they could gain deeper understanding of the small and rural communities' needs, challenges and contextual-specific influences leading to more impactful research and professional practice as well as community-driven development.

This study will contribute to and move the field of participatory mapping and CES forward in terms of practical and policy implications regarding community development and rural development. Beaulieu et al. (2018) state, “Engaged scholarship is characterized by two key ideals: social justice and citizenship” (p. 5). These values are essential to understanding why community involvement is crucial. For scholars, the process of their work has shifted from merely observing, interpreting, explaining, criticizing, and suggesting behaviors for the society under study. The research questions guided this study, underscoring a commitment to participatory mapping and CES and highlighting the practical implications that will be identified throughout this research.

The implications of my findings will also enhance, deepen, and broaden the current understanding of the benefits of involving local communities in small and rural development programs as their livelihoods can potentially be advanced, which would, in turn, accelerate development. Community participation is essential for concrete development in small and rural communities. Chrislip et al. (2023) note that the convergence of characteristics such as inclusion, authentic processes, constructive discourse, and credible information can help make community-driven change work.

This study is significant in terms of the gap the study is set to address. There is a general paucity of literature exploring how to use participatory mapping in rural CES projects (McCall & Dunn, 2011). Much of the existing research on CES is conducted in urban or suburban areas where resources, infrastructure, and digital literacy are higher (Sutin & Bethea, 2015). There is a general lack of studies that have explored how participatory mapping and CES can effectively be integrated and contribute to positive social change and community development in small and rural communities.

Although GIS has been widely used for urban planning, environmental management, and public health, its application in rural CES remains underdeveloped. GIS has significant potential to support small and rural communities in decision-making, but there is insufficient literature on how to tailor GIS tools and techniques to the specific needs of small and rural populations in a community-engaged framework (Sieber, 2006). The intersection of participatory mapping, CES, and GIS seem to offer opportunities for empowering small communities to collaboratively engage in decision-making processes, diagnose and address local challenges, and advocate for themselves. However, significant gaps remain in the literature, particularly regarding accessibility, power dynamics, and the sustainability of participatory mapping in small communities. Addressing these gaps provides more knowledge on how to strengthen the collaborative potential of participatory mapping, making them more relevant and impactful in small and rural communities and community development.

Chapter Summary

This chapter provided an overview of the qualitative multiple case study designed to explore the factors that contribute to how participatory mapping influences the community development efforts aimed at social change. The roles of participatory mapping in small and rural community development were briefly discussed in this chapter. The introductory chapter included a discussion of the background of the study, problem statement, research purpose and questions, theoretical framework, and methodological framework. In addition, the operationalization of terms, and significance of the study formed part of the discussion. In the next chapter, I present a review of literature relevant to this study.

Following this introduction, I presented this dissertation in six chapters. Chapter 2 provides the literature review. Chapter 3 provides an overview of the case study which is the

fundamental methodology used in this dissertation. Chapter 4 provides an overview of the participatory mapping activities in Ogden and Panajachel. Chapter 5 presents the findings. Chapter 6 contains the general conclusion of the research.

Chapter 2 - Literature Review

To strengthen the role of researchers in providing a practical collaborative lens on societal challenges, Calhoun (2008) argued that members of marginalized communities and community activists often have more knowledge of the impacts of a public issue than academic researchers. As a result, the community must be engaged, Meyer (2014) suggests that rural communities have the inherent capacity to achieve their full potential through active participation by the people of the communities. In small and rural communities, where community voices and informal knowledge are overlooked by traditional top-down approaches, participatory mapping has the potential to serve as catalyst that creates an avenue for inclusive approaches to community development.

This literature review explores the complexities of asset-based community development, community-engaged scholarship, and participatory mapping, of which are approaches that are fundamental concepts to the characteristics of community development.

In this chapter, I present relevant literature on the factors that affect community-engagement and participatory mapping in the context of community engagement in small and rural community development.

Asset-Based Community Development

This study examines how participatory mapping, a method for visualizing community assets which encourage collaboration, might work together to facilitate more effective tools for community development. Development can be understood both as a process and as an outcome (Nel, 2020). In community development initiatives and projects community members do not operate in a vacuum; but are usually engaged with networks and stakeholders in the mobilizing and implementation of the projects (Nel, 2020). Asset based community development (ABCD) is

a place-based framework pioneered and given prominence in 1995 by John McKnight and Jody Kretzmann, founders of the ABCD Institute at Northwestern University in the United States (Sirolli, 2018). McKnight (2017) argued that ABCD builds on the gifts (e.g., skills, experiences, knowledge, passions) of local community members, the power of local associations, and the supportive functions of local institutions to build more sustainable communities for the future. The asset-based approach is a set of values and principles and a way of thinking about the world, and it values the capacity, skills, knowledge, connections and potential in a community (Sirolli, 2018). The approach of ABCD is to enhance and support community capacity to make their assets visible and to support and enhance the connection between those assets (McKnight, 2017).

Qiaoyu et al. (2024) assert that ABCD is a development method based on the internal resources and capabilities of the community and focuses on promoting the development of the community and improving the quality of life of community residents by mobilizing and integrating these assets. Nel (2020) argues that for community initiatives or projects to become sustainable, communities should always work in collaboration with various stakeholders, both within and outside the community. ABCD emerged as a critique of deficit-based approaches (Sirolli, 2018). A deficit-based approach focuses on the problems, needs and shortcomings, this design of services aimed at filling the gaps and fixing problems, and as a result this approach unintentionally makes the communities feel disempowered, dependent and become passive recipients of services rather than active agents in their own lives (Sirolli, 2018). Landry and Peters (2018) argue that the needs and problem-based approaches often rely on externally designed projects and agendas, and which may undermine local initiatives. As a result, these initiatives usually lack sustainability.

In contrast, ABCD draws on appreciative inquiry, which focuses on positivity and group success to inspire action, communities recognizing and mobilizing their assets and strengths leading themselves to a better future (Cooperrider & Srivastva, 1987; Maclure, 2023). Sirolli (2018) posit that community residents should be recognized as co-producers and citizens, rather than being viewed as clients or consumers. When community members are involved in what they care about, they are more likely to act responsibly with commitment to success and support their creation and this power gives the community a sense of ownership to engage and participate in their own process.

While some might argue that appreciative inquiry and asset-based approaches are often criticized for overlooking the harmful experiences of the community, this most times is due to the misconception that the focus is solely on positivity. This study adopts these frameworks with a more nuanced clarification and understanding. Instead of ignoring the challenges, ABCD and appreciative inquiry create the avenue to recognize community struggles while focusing on resilience and the inherent capacity that exist. Appreciative inquiry initiates the recognition of strength within the community and not to ignore the challenging reality, but to serve as a basis for collective approach while ABCD acknowledges fundamental inequalities and its goals is to reclaim power by prioritizing community input.

Nel (2020) emphasizes the importance of community members and partners to be clear about the types of engagements they wish to create. These engagements and partnerships should be characterized by community members driving their own development by using their own assets, and then leverage activities, resources and investments from outside the community to support locally defined development while retaining control over the process.

Furthermore, Nel (2020) argues that the ABCD process involves using inside resources that the community members themselves build internally before supplementing them with outside resources. Through ABCD, communities can discover and utilize their own resources (e.g., human resources, social capital, material assets, cultural heritage) and the mobilization and integration of such resources can promote participation and cooperation of community residents, stimulate community innovation and creativity, and promote the development process of the community (Qiaoyu, et al., 2008).

Unlike problem-focused or needs-based approaches, the focus of ABCD approach is on strengths, capabilities and assets, stimulating community-level organizing and action, and the role of different stakeholders as responsive co-investors and co-creators in community-level action (Nel, 2020). By using existing assets, strengths, and capacities of communities (e.g., social, natural, cultural, financial, physical, human) as the starting point, the ABCD approach emphasizes citizens' contributions to development (Homan, 2011; Landry & Peters, 2018). The ABCD approach places particular emphasis on social assets, which refer to the networks, connectedness, and relationships of trust and reciprocity (Nel, 2020). McKnight and Russell (2018) posit that the assets that enable visioning and productivity are (a) contributions of residents (e.g., gifts, skills, passions, and knowledge of residents) to the collective wellbeing of their community); (b) associations (e.g., clubs, groups, and networks of unpaid citizens) that create the vision and implement actions required to achieve that vision; (c) local institutions (e.g., for profit, non-profit/non-governmental, or governmental organizations); (d) local places (built and natural environment); (e) exchange, and (f) stories (i.e., local culture).

Nel (2020) identify six main principles of ABCD: (a) change must come from within the community; (b) any engagement should focus on recognizing what already exists in a

community in terms of its assets; (c) the development goals should be ground-level and community-led; (d) an appreciative inquiry approach is required to understand, from the community perspective, which previous success stories can be built on; (e) change should be relationship-driven, rooted in local cultural traditions; and (f) the development process should be participatory and collaborative to ensure community ownership of decision making. Cunningham and Mathie (2002) argue that ABCD as an approach to community-based development is grounded in the principles of (a) appreciating and mobilizing individual and community talents, skills and assets (b) community-driven development rather than development driven by external agencies.

ABCD strongly emphasizes social capital, mobilization of local associations, community vision development, and collective action (Maclure, 2023). This aligns closely with community-led development and community capacity building and this lays the foundation for the following sections. This study builds upon existing literature on the factors that contribute to building the capacity of communities to address their own challenges and drive development. In the context of the study, the role of participatory mapping is that communities can identify and mobilize existing and, in some cases, unrecognized assets and through this approach can lead to community led development. This part of the literature review supports the research questions.

Community-Led Development

The imperative to promote accountable and inclusive societies and institutions and achieve sustainable development has increasingly resulted in the adoption of community-led approaches such as community-led development (Loha, 2023). Community-led development is a unique approach to tackling local problems and building upon local strengths (Torjman & Makhoul, 2012). Community-led development initiatives are driven by the principle that people

who live and work in a community are the best equipped to identify their needs, determine their priorities, and design solutions that work for them (Limaki, 2024). Community-led development initiatives prioritize community participation, democratic decision-making, and social justice, offering a promising alternative to top-down approaches to urban development (Limaki, 2024).

Torjman & Makhoul (2012) emphasized that community-led development is guided by core principles that emphasize citizen participation in community led-development, local ownership, empowerment, inclusivity and sustainability. This approach involves recognizing that all communities and their members have strengths, skills and resources on which to build on to drive meaningful development.

Limaki (2024) posits that in general community-led development initiatives demonstrate effective community organizing, cooperation with local institutions, and a focus on building community leaders and capacity are characterized by a number of practices. The practices outline includes (a) linking communities with other groups to share knowledge (b) resource mobilization (c) focusing on local need (d) participatory budgeting (e) participatory design.

Community-led development, particularly in small and rural areas, is a matter of hope and of participatory processes toward collective goals and toward increased community leadership capacity over time (Reid, 2002). Reid and Flora (2002) identify community capacity building and empowerment as integral parts of sustainable community-led development.

Community Capacity Building

ABCD as a foundational approach to community capacity building, as it emphasizes leveraging existing ability and skills within a community empowerment and development from within. Sail and Abu-Samah (2010) identify that the main principle of community capacity building emphasizes strengthening existing abilities of community members, and a minimal

indication of capacity building is that community members have shown some interest to participate in an ongoing activity with reason such as to achieve what they want or to solve certain problems. Simmons et al. (2011) argue that while community capacity building has emerged as an important element in effective community development practice, literature highlights many interpretations of the concept and as such the context in which capacity is built is important and possibly contributes to the array of definitions.

Building the capacity of communities to deal with their own problems and development has become an important aspect of the developmental arena, and community capacity building basically entails local solutions to local problems' which enable communities to deal with problems, ultimately without relying on external resources (Atkinson & Willis, 2006).

The approach to community capacity building is intended to be an empowering experience for communities (Laverack, 2022). Community capacity building involves encouraging the development of more active communities, the pooling of skills and resources as well as the identification of key local problems that many want to see addressed through common action (Atkinson & Willis, 2006). Furthermore, Atkinson and Willis (2006) note that community capacity building can be employed to build capacities such levels of trust, connectedness, resilience ability to join in common crisis, civic engagement, local and political participation, local networks, pride of place and self-worth, role of community leaders and use of community facilities.

Community Engaged Scholarship

Higher education institutions worldwide are increasingly facing societal expectations to produce research that is impactful and responsive to the problems facing their wider communities (Segosebe & Braxton, 2020). Following the publication of Ernest Boyer's (1991)

seminal work, *Scholarship Reconsidered*, the role of institutions of higher education in addressing community issues has garnered increasing attention (Gelmon, 2012). Community engaged scholarship (CES) describes the relationship between an institution of higher education and a community as they work together to solve issues of shared interest and concern (Blanchard & Furco, 2021). CES involves research and creative activities, teaching, and service undertaken by faculty members and students in collaboration with community members with the focus of addressing community needs.

Participatory mapping aligns with CES as the two prioritize collaboration, knowledge creation and involvement of community members in addressing local needs. CES has gained prominence worldwide, cultivating significant collaborations between academic institutions and communities. CES focuses on the collaborative generation of knowledge, where academics and community members together address local challenges. This approach enhances the relevance and impact of academic work by aligning it with real-world community needs and fostering meaningful partnerships. The principles of CES are grounded in mutual respect, reciprocity, and the prioritization of community needs (Gelmon et al., 2013). These principles guide the development of partnerships that are not merely transactional but transformative, aiming for social action and justice through collaborative efforts between scholars and community members (Levac et al., 2022).

The significance of CES principles in addressing global issues is gaining widespread recognition. However, critics argue that CES often falls short in delivering sustainable solutions to social challenges (Ball & Lai, 2006; Hicks, 2009). This shortfall may stem from an imbalance in power dynamics, as community partners are frequently not granted an equal role in shaping and implementing CES projects (Korzun et al., 2014). Addressing these disparities requires a

deeper commitment to fostering equitable partnerships, ensuring that all stakeholders contribute meaningfully to the co-creation of knowledge and solutions.

Gordon da Cruz (2018) contends that CES encompasses mutually beneficial partnerships between universities and communities that seek to collaboratively develop and apply knowledge to address consequential public issues in our democracy. The Commission on Community-Engaged Scholarship in the Health Professions (2005) asserted that CES refers to scholarship that involves a faculty member in a mutually beneficial partnership with the community. Additionally, CES can be transdisciplinary and often integrates some combination of multiple forms of scholarship of engagement such as scholarship of integration which speaks to avoidance of pedantry and encourages moving from multidisciplinary to interdisciplinary and transdisciplinary approaches. The scholarship of sharing knowledge recognizes the move from transferring model to transactional model of communication. For example, service learning can integrate the scholarship of teaching, application, and engagement, and community-based participatory research can integrate the scholarship of discovery, integration, application, and engagement (Commission on Community-Engaged Scholarship in the Health Professions, 2005).

Engaged scholarship gained popularity following Boyer's (1996) plea for scholars to "connect the rich resources of the university to our most pressing social, civic, and ethical problems, to our children, to our schools, to our teachers and to our cities" (p. 32). Particularly in North America, Boyer's (1996) plea sparked a movement of scholarly efforts to engage with the most disenfranchised communities beyond university campuses (Barinaga & Parker, 2013).

The practice of CES is recommended as it involves knowledge production that addresses real-world issues through community-academic partnerships (da Cruz, 2018; Watson-Thompson, 2015). As a form of a partnership, CES includes any community-engaged approach to teaching,

learning, and research that focuses on a mutually beneficial exchange of knowledge and human and material resources for the purpose of positive social change (Beckman & Hay, 2003; Israel, 1998; Melaville et al., 2006). Korzun et al. (2014) argue that CES aims to identify and address a challenge or need in the community using practices such as community-engaged learning, community-based research, environmental education and service learning, or place-based learning. They emphasize that the integration of conventional educational and scholarly practices with grassroots social change activism at the community level enables CES to foster meaningful, sustainable, and long-term social change (Korzun et al., 2014).

Janke and Clayton (2012) contend that CES involves collaboration between faculty, community partners, and often students to identify appropriate areas of inquiry, design studies and/or creative activities, implement activities that contribute to shared learning and capacity building, and/or engage in other activities that bridge higher education and community contexts. Janke and Clayton (2012) reiterate that CES uses the information gathered, the actions taken, and the relationships established to bring about positive change within the community and the higher education institution. Saltmarsh et al. (2021) note that research products resulting from CES may be published in academic venues like peer-reviewed journals and university press books and CES also produces publicly relevant results in the form of reports, exhibits, multimedia presentations, policy briefs. Similarly, Jordan (2012) notes that CES often results in applied products such as videos, policy briefs, curricula and toolkits.

A fundamental component of CES is its congruence with the needs and aspirations of the participating communities. Corbie-Smith et al. (2018) highlight an increasing acknowledgment of the significance of involving communities as collaborators in research, observable in both developed and developing countries. This partnership paradigm transcends academic outreach; it

represents genuine cooperation in which community insights inform the study program and results (Georgakopoulos & Hawkins, 2013). Hamilton (2019) reiterates the importance of ongoing interaction between academic and civic cultures to attain meaningful outcomes in community participation. There are various definitions and models of CES outlined in the literature (Table 2.1).

Table 2.1. Different Conceptualizations of Community Engaged Scholarship

Authors	Description	Conceptualizations
Saltmarsh et al. (2009)	Emphasizes mutual benefit and shared authority in knowledge production between academic institutions and communities.	Reciprocal Partnerships
Boyer (1996)	Recognizes CES as a collaborative process of generating knowledge that integrates academic and community-based expertise.	Knowledge Co-Production
Colby et al. (2003)	Explores how civic activities such as community service can be scholarly when tied to academic inquiry and reflection.	Civic Engagement as Scholarship
Gordon da Cruz (2018)	Views CES as a means to address social inequities and foster social change through research and teaching.	Transformative Practice
Israel et al. (1998)	Encompasses teaching, research, and service as interconnected and integral to the university's mission in addressing issues	Integrative Approach

Paynter (2016) highlights that successful CES initiatives addressing substantiated community problems require strong collaboration between community and university actors.

Key factors include clear goals and responsibilities, engaging affected populations,

understanding each party's strengths and weaknesses, effective communication for accountability, dedicated resources and funding, trust-based relationships, and aligning identified problems with practical solutions. CES is shaped by dynamic power relationships among individuals, institutions, and communities (Post & Ruelle, 2021). Well-documented barriers to equitable CES partnerships include unequal sharing of resources, forcing community practice into short-term academic calendars, and prioritizing university benefits over community impact (Loh et al., 2021).

There are a number of factors that can affect the expansion of CES in higher education, including institutional culture, curriculum structure, tenure and promotion processes, professional value of scholarship, resources, and funding (Lewis et al., 2015). Additionally, Lewis et al. (2015) emphasize that addressing logistical barriers to initiating CES can be achieved through strategic professional development opportunities. For instance, implementing a faculty mentorship program that pairs experienced CES practitioners with faculty interested in this form of scholarship could provide essential guidance and reduce the initial challenges of getting started. Furthermore, the barrier of accessing community connections and opportunities could be alleviated by increasing faculty awareness of existing university-led community service-learning programs. These programs often maintain robust networks with local organizations and can serve as a bridge, facilitating faculty engagement with the community and enhancing the reach and impact of their scholarship.

The Commission on Community-Engaged Scholarship in the Health Professions (2005) reports that CES as a process often requires a significant amount of time to develop trusting community relationships before results are generated and impacts are fully demonstrated. In an exploratory study at an undergraduate-focused university in the Commonwealth of Virginia,

Lewis et al. (2015) found that the major barriers that make participation in CES challenging were teaching load for those who currently conduct CES and those who do not, logistics of getting started in CES, and access to community connections and opportunities. The value of CES is widely acknowledged and frequently advocated for in the United States and internationally. However, the decline in funding and the competition over fewer funding opportunities have pushed many institutions to return to a narrower model of excellence built on traditional ideas about academia's function and role (Saltmarsh & Wooding, 2016).

Watson-Thompson (2014) outlined four factors, or enabling conditions, that can assist with addressing potential barriers to CES: (a) examining the community and university conditions that may promote or impede CES; (b) developing, adopting, and implementing CES principles and models; (c) demonstrating institutional commitment for community engagement at multiple levels of the university; and (d) ensuring clear mechanisms for documenting, measuring, and evaluating the collective contribution of university partners in facilitating engaged scholarship for community impact (Watson-Thompson, 2014).

Conceptualizations of Community Engagement in Higher Education

Community engagement in higher education is a shift beyond the traditional roles of instruction and research, and there are variations in the way community engagement is understood and implemented by universities across different countries (Bernado et al., 2012). For example, Winter et al. (2008) noted that community engagement in higher education in the Australian context manifests through nine dimensions of teaching and learning, curriculum design, policies, research, external relations, social and cultural engagement, partnerships with school and educational providers, economic engagement, and organization and participation of students. Table 2.2 illustrates the different forms of engagement in higher education.

Table 2.2. Forms of Engagement in Higher Education

Co-authorship	Collaboration in grants	Practice-based research
Participatory action research	Service learning	Research projects
Citizen science	Science shops	Tenure & promotion
Knowledge co-production	Upstream engagement	Co-learning partnerships
Institutionalized community-based research-practice partnerships	Community-based participatory research	

In addition to the variety of forms it may take, Lazarus et al. (2008) argues that there are differences in terms used to define community engagement across different countries and universities. In the United States, community engagement is mainly referred to as *engaged scholarship* and *service learning* (Sandmann, 2008); in the United Kingdom, it is called *civic engagement* (Goddard & Vallance, 2011); and it is referred to as *solidaridad* (solidarity) in Latin America (Rabin, 2014; Tapia, 2014). In South Africa, terms like *volunteerism*, *service learning*, and *engaged scholarship* are commonly used (Johnson, 2020). The commonality of all these forms of community engagement is that the university extends itself beyond its internal community to its external non-university communities for various purposes and in a variety of different ways (Johnson, 2020).

CES has been utilized in higher education for a long time now. Within the U.S. context, its origins are mainly traced to the land grant movements of the 1860s, the practice of settlement houses in the late 19th and early 20th centuries, and New Deal programs focusing on immigrant education and civil rights organizing (Avila-Linn et al., 2012; da Cruz, 2017). Higher education has transitioned over the years to a more engaged model in which community and university co-create solutions (Fitzgerald et al., 2012). Bernado et al. (2012) suggest that much of the literature regarding community engagement is developed in the United States, United Kingdom, Canada,

and Australia. Within these countries, institutional networks have been established among universities actively pursuing community engagement as an area of scholarship (Bernardo et al., 2012). In Canada, for example, CES and community-academic partnerships are gaining momentum in higher education institutions, and federal research funding agencies have moved aggressively toward increasing support for community-engaged research and knowledge mobilization efforts (Wenger et al., 2012).

Regarding community engagement in Latin America, Munck (2023) states that “the current horizon of university extension and civic engagement in Latin America shows a great deal of vitality and varieties” (p. 44). Tapia (2012) notes that throughout the 20th century, the development of diverse institutional forms of social commitment became an identifying feature of higher education in Latin America. This was expressed in a variety of ways, not least through ‘service learning’ (also known as ‘solidarity service learning’ in the region), different forms of community-engaged research (e.g., participatory action research), and various outreach and access programs in the community.

In addition to research, Suffla et al. (2012) suggest that creative activities in community engagement can begin with allowing community members to explore an issue they identify as relevant, use reflection and dialogue to raise personal and collective critical consciousness about the root causes of that issue, and then follow up by working towards taking collective action to solve the problem. Creative methods can be used as tools of community engagement; there is potential for community ownership and long-term sustainable change. Yoshihama and Tolman (2015) highlight the use of theatre and storytelling as effective tools to promote community involvement and collaboration.

Barriers to Community-Engaged Scholarship

CES thrives through more beneficial collaborations across campuses and local, regional, national, and international communities. Nonetheless, substantial barriers that obstruct the complete actualization of CES's potential remain, such as the discord between institutional compensation systems and the principles of community engagement, lack of resources and recognition (Bell & Lewis, 2022). Traditional tenure and promotion frameworks frequently emphasize measures like publications and grant funding, thereby neglecting the collaborative, time-consuming, and relational aspects of CES (O'Meara, 2008). This establishes a systemic disincentive for professors to participate in substantive community collaborations, thereby constraining the breadth and efficacy of CES (O'Meara, 2008).

Maistry (2023) argues that community engagement should serve as the bridge between universities, local communities, and the broader society. However, this purpose of contributing to the public good is not without its challenges. According to Johnson (2020), “community engagement professionals experience numerous barriers even though community engagement is the third mission of the university alongside first, teaching and learning, and second, research” (p. 87). Furthermore, many colleges lack consistent policies or infrastructures for properly supporting CES. Engaged scholarship takes place at multiple levels within institutions of higher learning (Bell & Lewis, 2022; Nunez, 2014), and institutional fragmentation leads to uneven procedures, insufficient resource allocation, and difficulty sustaining long-term programs (Saltmarsh et al., 2009). Without centralized support mechanisms or specialized programs, faculty and community partners frequently encounter logistical and structural challenges that hamper their capacity to interact effectively.

In the African context, institutions of higher learning have a developmental and transformative role to play, given the triple challenges of inequality, poverty, and unemployment. As such, universities cannot remain aloof from the socio-economic conditions afflicting the majority of people in their contexts (Maistry, 2023). However, Manafo et al. (2018) argue that, despite the growth of CES, there is still a lack of comprehensive evidence on details regarding the role, scope, and specific strategies for successful community engagement throughout the entire research cycle. Upon conducting a qualitative study between 2016 and 2019 with universities and other stakeholders in South Africa, Johnson (2020) identified the main barriers to community engagement in higher education as: (a) absence of institutional policies that value and recognize community engagement; (b) lack of funding; (c) the lack of an understanding of community engagement; (d) not everyone being convinced of the need for community engagement; (e) pressure and workload on staff and community engagement viewed as a ‘luxury’; (f) lack of commitment to community engagement leading to inconsistent implementation or non-implementation; (g) unequal power relations between communities and universities; and (h) exploitation of non-university communities.

There is a paucity of literature that provides an understanding of the main barriers to community engagement from the perspectives of community members. Additionally, there is a significant shortage of studies that explore community members' perspectives on engagement. The absence of community-driven insights—particularly addressing the barriers they face while participating in CES—limits scholars' ability to develop programs that are truly responsive to community needs and goals (Freeman et al., 2020). Addressing this gap is critical for creating equitable partnerships and ensuring that CES efforts are rooted in the lived experiences of the communities they seek to serve. This study will attempt to fill that dearth of literature by

exploring the perspectives of the community, providing insights into their unique perspectives on engagement.

Geographic Information Systems

Geographic Information Systems (GIS) play an important role in this study because it enables participatory mapping and advance community-led conversation. Through visualization, the community members were able express and analyze their own assets, needs and spatial relationships. In the context of this study, GIS is more than simply an analytical tool but a means of empowering the communities by making the local knowledge visible and usable.

GIS is a system of computer software, hardware and data, personnel that make it possible to enter, manipulate, analyze, and present data, and the information that is tied to a location on the earth's surface (Ali, 2020). Therefore, GIS consists of software, hardware, data, and personnel that make it possible to enter, manipulate, analyze, and display geographically referenced information. There is a general paucity of literature on participatory approaches to GIS in rural communities in the United States, though scholarship suggests it has the potential to play a significant role in rural community development. According to Widodo (2021), “Geographic Information System (GIS) is one of the [information communication technologies] developments that can support development, including development at the rural level” (p. 415). Mishra et al. (2017) report that GIS can be utilized to strengthen rural areas such as:

- analysis of the physical environment by using GIS sensors for gathering information about the climatic conditions (temperature, humidity, moisture);
- indicates to rural farming communities the correct time to begin irrigation, cultivation and so on to maximize production;
- gathering information of the infrastructure of rural areas;

- gathering the pictures of rural place and then, maps them to 3D images to facilitate planning.

The origins of GIS extend back hundreds, even thousands, of years within the disciplines of cartography and mapping. Historically, early maps were crucial tools for exploration, strategic planning, and decision-making (History of GIS, n.d.). When the field of GIS was first developed in the 1950s and 60s, it was referred to as spatial data handling, reflecting the field's origin as a technical pursuit using computers to manage, display, and analyze spatial data (Pizer, 2024). GIS holds significant potential for aiding decision-makers in enhancing service delivery within rural development, offering valuable insights into spatial dynamics (Poi et al., 2018). GIS can play an important role and building on this, participatory approaches such as participatory mapping serve as a bridge between technology and lived experience, fostering deeper engagement in the community development process.

Participatory Approaches to GIS in Communities

According to Maman et al. (2009), the integration of community development with geo-spatial technologies has come to be known as Participatory GIS (PGIS). King (2013) argues that the recognition that local participation is a critical goal of development has contributed to the popularity of a set of techniques designed to increase local participation and knowledge in planning processes. PGIS is an example of a technique for empowering people, ensuring the sharing of local knowledge and participation in a variety of planning initiatives (Cinderby, 1999; King, 2013). It can be observed that PGIS is based on using geo-spatial or map-based information management tools (e.g., Sketch maps, Satellite Imagery, GPS) to combine spatial knowledge of a community. Most of the literature on PGIS stems from developing countries where PGIS is applied together with participatory rural appraisal.

In a case study to assess effectiveness of a PGIS approach in a developing country, McCall and Minang (2005) found that the participatory mapping processes contributed positively to good governance by improving dialogue, legitimizing and using local knowledge, generating some redistribution of resource access and control rights, and enabling local community groups by means of new skills training in geospatial analysis. Panek and Vlok (2013) posit that community members can be empowered with relative ease to take control and ownership of the mapping of their community through a PGIS approach. Panek (2014) argues that the process of co-creating a map with a community has an empowering effect as members of the community have the opportunity to think spatially about their environment and creating the data triggers feelings of belonging to the community and ownership of the process. The impact of participatory mapping initiatives can be positive or negative, and the outcomes are influenced by enabling or disabling factors (e.g., political and decision-making environments, the role of external intermediaries in the mapping process, the complexity of relationships that develop and evolve among the involved stakeholders) (IFAD, 2009).

In the last decade and a half, community-based and participatory mapping projects have expanded rapidly with many variants and applications not only in natural resource management but also in many other domains (Chambers, 2006). Community-based and participatory mapping have taken a new direction whereby the technologies previously utilized by power holders and decision makers started to be used by a wider body of map makers to create alternative maps (Cochrane et al., 2014). Participatory mapping is well-established as a tool of development intervention (Di Gessa, 2008).

Brown and Kyttä (2018) note that the proliferation of participatory mapping applications has co-evolved with: (a) advances in GIS technology that provides for the capture, storage,

analysis, and management of spatial or geographic data; (b) increased demands from under-represented social groups that want greater influence in decisions that affect their lives and livelihoods; and (c) recognition that the use and integration of non-expert, place-based knowledge and experience can help address complex community problems. Panek (2016) argues that participatory mapping, in general, can also allow citizens to “climb up Arnstein’s ladder of citizen participation,” meaning that the community can be directly involved in decision-making processes and knowledge production (p. 301).

Participatory mapping falls within a broader framework of participatory research methods and investigators using a participatory research approach engage community members in the collection and generation of information, using methods that place the locus control over data generation with the participants themselves (Maman et al., 2009). Participatory mapping is a tool that has been extensively used to integrate local and Indigenous knowledge with scientific and practitioner knowledge in the context of spatial planning (Chambers, 2006; Olson et al., 2016; Robinson et al., 2006).

Community-based and participatory mapping has the potential to transform power and therefore has been advocated as a means to foster inclusive, democratic empowerment (Lydon, 2002). Sieber (2006) argues that participatory mapping has great potential to foster social change. Participatory mapping allows community members to have greater access to information, express their needs, priorities, and goals, and influence policy and management decisions (Wright et al., 2009). The utilization of PGIS as a tool for community engagement engenders transparency, greater participation, inclusion, empowerment, and ownership of the local spatial information and meaningful stake in the decision-making processes (Weiner et al., 2001).

Theories of change attempt to explain why and how change occurs and are therefore relevant to participatory mapping because, often, mapping projects are done to seek a specific change in individual or community action (Cochrane et al., 2014). Understanding how and why such changes can take place is important in planning the activities and outcomes.

The term PGIS emphasizes empowerment and can be traced to the merger of Participatory Learning and Action methods with geographic information technologies in the Global South (Rambaldi et al., 2006). PGIS emerged in the mid-1990s as a practice to rectify the marginalization of communities by local, central government, and large corporations through increased use of GIS (Haklay & Francis, 2018).

PGIS practice mainly involves community empowerment through demand-driven, user-friendly and integrated applications of geoinformation and geographic information technologies (GIT) with maps and map products acting as main instruments (Rambaldi et al., 2004). PGIS relies and builds on high levels of stakeholders' participation in the processes of spatial learning, decision making, and action. PGIS aims to represent local knowledge by applying geotechnologies and collaborative mapping techniques (de Carvalho et al., 2022).

Weyer et al. (2019) report that, with participatory mapping, it is critical to understand the past and present context of the site and the power dynamics at play to develop trust and manage expectations among research participants. Ownership of the map and the information that it represents affect the postprocess of participatory mapping as in some cases, the ownership can restrict accessibility and availability of the information and map, which is an outcome that can be purposeful or unintentional (Cochrane & Corbett, 2018).

In some cases, communities end up with no access to information and maps due to ownership by consultants, researchers, or non-governmental organizations (McCall & Minang,

2005). Other key factors that contribute to variation in participatory mapping outcomes relate to motivation, organizational capacity, and leadership (Corbett & Cochrane, 2017). The less visible factors include issues related to trust in the process, which relates to the person, people, or organization managing the initiative as well as the histories between the various actors, the ways in which people interact, the ways in which their contributions are expressed and responded to, and the sociocultural or political incentives that influence actor motivations (Cochrane & Corbett, 2018). Weyer et al., (2019) assert the history, social environment, political-economic reality or complexities in each context affect the participatory mapping process.

The impact of participatory mapping initiatives can be positive or negative as participatory mapping is influenced by several interacting factors (IFAD, 2009). These factors include the presence of enabling or disabling political and decision-making environments, role of external intermediaries in the mapping process, and the complexity of the relationship that develop and evolve among the stakeholders involved (IFAD, 2009).

Various challenges can emerge with participatory mapping, including disparate literacy levels, language barriers, logistics of using this approach in remote areas with poor infrastructure, and accessibility of maps co-produced with communities (Weyer et al., 2019). Community members' decision to participate in community developments initiatives is mainly constrained cultural and political context rather than hardware and software (Craig et al., 2002). Jankowski and Nyerges (2003) argue that the success of a participatory approach requires both a good understanding of cultural and political context and more efficient, effective, and equitable information and communication tools. Socioeconomic problems such as a lack of adequate civic education, illiteracy, and poverty, which culminate in indifference, impede community engagement in development processes (Hussein, 2003).

Role of Participatory Mapping

Cochrane and Corbett (2018) contend that participatory and community mapping has emerged as a key tool for identifying and communicating development needs and has been further recognized as a means to support social change. Participatory and inclusive processes are necessary for effective and fair decision-making (Kwon & Pedregal, 2023). Participatory processes often build capacity for communities assembling local knowledge and enhancing political consciousness and mobilization (Corbett et al., 2016). PGIS provides a unique opportunity to engage with communities on issues that affect them by combining scientific and local knowledge within a common spatial framework (Bullen & Miles, 2024). The benefits of collaborative partnerships include community empowerment, vulnerability assessment, increased knowledge, and improved communication between key stakeholders (Bullen & Miles, 2024).

Empowerment is an essential byproduct of community mapping (Kwon & Pedregal, 2023). Elwood (2009) views empowerment as a social or procedural change in which communities or citizens gain greater control over resources and legitimacy in decision making. Parker (2006) describes empowerment as building capacities or human capital for collective action in which communities acquire skills, knowledge, or politicized consciousness that informs or inspires collective action. These definitions can connect three activities commonly discussed in the community mapping literature to concretized conception of empowerment: (a) the ability to self-define and represent place; (b) the acquisition of control over natural or other resources; and (c) the mobilization of collective action (Elwood, 2009).

The ability to self-represent a community through mapping process can strengthen community identity and the represented identity often reflects and reinforces knowledge and perception of the local place (Kwon & Pedregal, 2023). Participatory mapping can produce two

related forms of empowerment: the capacity for collective action and procedural social change (Kwon & Pedregal, 2023). The empowerment outcomes range from material such as maps, to the discursive, such as expanded participation, social inclusion and capacity, equity and redistribution, and increased democracy (Parker, 2006). Community maps provide a medium for community interaction, consciousness raising, and conceivably action (Kwon & Pedregal, 2023). Empowerment is often referred to as both an outcome and a process (Kwon & Pedregal, 2023). The themes of inclusion and transparency are implicit in the practice of community mapping (Corbett et al., 2016; Parker, 2006).

Participatory mapping tends to integrate broader societal goals such as community development, sustainable development, and environmental preservation (Elwood, 2009; Lopez, 2020). Mapmaking can be integrated into development activities and processes, with the understanding that they will serve as a pathway to transformational change (Cochrane & Corbett, 2018). Maps produced through participatory mapping initiatives have been utilized as a communication tool for occupational and health issues (Diga, 2017), disease exposure (Keith & Brophy, 2004), climate change issues (Piccolella, 2013), zoning decisions (Zhang et al., 2013), and land use planning (Zolkafli, 2017). Cochrane and Corbett (2018) argue that these examples demonstrate the potential of participatory mapping to contribute to social justice issues and positive societal change.

Kwon and Pedregal (2023) contend that participatory mapping provides a unique approach for engaging the public in decision making to allow participants to combine complex spatial information and local knowledge and analyze alternatives through which individuals and groups are empowered. PGIS allows the participation of ordinary citizens in decisions about, and the implications of, social and economic change (Carver, 2001). Participatory mapping can

contribute to building maps in which local indigenous information and knowledge are represented beyond the conventional and hegemonic representation. Therefore, community mapping aims to contribute to the processes of uncovering forgotten issues and hidden power structures as a necessary condition for social change otherwise invisible in the dominant discourses (Corbett et al., 2016; Parker, 2006). PGIS enables researchers to tie data relating to the thoughts, feelings, perceptions, and experiences of participants to locations on a map, giving greater insight into the information that is gathered, as well as dramatically increasing the analytical potential of the dataset (Huck, 2023).

Role of Leadership in PGIS

Leadership is essential in guaranteeing responsible practices and the overall effectiveness of a participatory mapping process (Hämäläinen et al., 2020). The leadership function assumes seeing the big picture and setting the right goals, transparent, ethical and bias-aware modelling, resource planning and addressing challenges related to the changing participatory mapping conditions as well as to sensitivity to social dynamics and stakeholder engagement (Hämäläinen et al., 2020).

Leading such a coordination and negotiation process can be viewed as a distinct role, which requires a particular set of skills, responsibilities and tasks, and the facilitation process requires facilitative leadership (Schwarz, 1994). A facilitative leader focuses almost entirely on getting the right people to the table, or at least getting their ideas represented in some meaningful way; the leader as convener gets the process going, and then steps back and lets the group assume the responsibility for finding the right solution (Van Maasakkers et al., 2014). A facilitative leader can play a variety of roles and view his or her key tasks as including the analysis of current decision-making structures and policies relevant to an issue, identification of

all relevant stakeholders and providing leadership in the implementation of the participatory approach (Van Maasakkers et al., 2014).

Leaders can adopt a supportive, democratic leadership style, known as participative leadership (Wang et al., 2022). Alcorn (2000) notes that with participatory mapping, it is important that decisions are made by community members and other stakeholders through consensus by the leaders. Participative leadership exists in organizations of any size, of any type and at any stage, where openness and empowerment of others in the decision-making process are core characteristics that distinguish it from other leadership styles (Huang et al., 2021).

Participative leadership refers to a leader's behaviors, such as actively listening to members' ideas and opinions, and reflecting on their suggestions when they make decisions (Arnold et al., 2000). The positive outcomes of participative leadership include affective commitment and knowledge sharing (Hendryadi & Purwanto, 2019; Srivastava et al., 2006), voice motivational behaviors and empowerment (Kruja et al., 2016). Participative leadership is characterized by listening to stakeholders' ideas and opinions and helping them to realize that their suggestions are valued (Ahn & Bessiere, 2022).

The contributing factors to the success of participatory mapping include having clear objectives, contextualization (i.e., understanding the socio-cultural, political, and economic spheres), familiarity with the process, community representativeness, realistic expectations of community change, funding, having processes to deal with disagreements, having champions to promote the initiative, transparency, communication, level of inclusivity, and actualization of empowerment (Cochrane et al., 2014).

Cochrane and Corbett (2018) posit that the common factors that contribute to the impact of participatory mapping initiatives include participation, empowerment, and ownership. Other

key factors affecting outcomes relate to motivation, organizational capacity, and leadership (Corbett & Cochrane, 2017). Additionally, factors such as trust in the process, leadership, histories and past connections between the various actors, how people interact, how people's contributions are expressed and responded to, and the sociocultural or political incentives that influence actor motivations affect the outcomes of participatory mapping (Cochrane & Corbett, 2018).

Successful implementation of participatory decision-making requires the knowledge of people who are involved in the decision-making process, their values and expectations (Jankowski & Nyerges, 2003). Implementation requires data and information about the problem or issue at hand – both scientific and non-scientific – representing individual experiences and the collective wisdom of participants, an understanding of socio-political influence on power and control, and data processing and communication tools (Jankowski & Nyerges, 2023).

Cochrane et al. (2014) emphasize that for participatory mapping to be successful, there should be a feedback mechanism and quality of data collected. IFAD (2009) notes that it is critical to adopt best practices to suit individual participatory mapping initiatives to increase the likelihood of success and contribution to positive development outcomes for local communities. Best practice in participatory mapping includes developing an environment of good governance, developing working relationships between stakeholders through inclusion in decision-making, focusing on the ethical behavior of all stakeholders, community assuming control over decision-making and management for all stages on the process, transparency, trust, respect and clearly defined roles for stakeholders (IFAD, 2009).

Although GIS has been widely used for urban planning, environmental management, and public health, its application in small and rural CES remains underdeveloped. GIS has significant

potential to support small/rural communities in decision-making, but there is insufficient literature on how to tailor GIS tools and techniques to the specific needs of rural populations in a community-engaged framework (Sieber, 2006). The intersection of CES and participatory mapping holds promise for empowering small and rural communities to engage in decision-making processes, address local challenges, and advocate for themselves. However, significant gaps remain in literature, particularly concerning accessibility, power dynamics, and the sustainability of participatory mapping tools in small and rural areas. Filling these gaps would strengthen the collaborative potential of CES, participatory mapping and GIS, making them more relevant and impactful in small/rural settings. Additionally, there is little literature exploring how to use participatory mapping in small and rural projects and how to ensure that small/rural communities maintain ownership over their data and the decision-making process (McCall & Dunn, 2011). Much of the existing research on CES is conducted in urban or suburban areas where resources, infrastructure, and digital literacy are higher.

The major insights discerned from the literature are that there has been a rapid growth in participatory mapping in recent years. The existing literature also suggests that there are potential impacts of participatory mapping and participatory mapping is influenced by several interacting factors. The other insight relates to the role of leadership in participatory mapping.

Growth of Participatory Mapping in Recent Years

Participatory mapping has been growing through developmental domains and social change. Participatory mapping has expanded rapidly in recent years and is emerging as a key tool for identifying, communicating development needs and a mechanism to support social change (Chambers, 2006; Cochrane & Corbett, 2018; Cochrane et al., 2014). Development can be understood both as a process and as an outcome, and communities should always work in

collaboration with various stakeholders, both within and outside the community for initiatives or projects to become sustainable (Nel, 2020).

Potential Impact of Participatory Mapping

The potential impact of participatory mapping has been extensively noted in both recent and earlier literature. For example, recent studies show that the potential impact of participatory mapping in capacity building is intended to be an empowering experience for communities, increased knowledge and improved communication between stakeholders, (Bullen & Miles, 2024; Laverack, 2022) effective and fair decision-making, (Kwon & Pedregal, 2023) representation of local knowledge and consciousness, (de Carvalho et al., 2022), and provision of a unique opportunity to engage with communities on issues that affect them by combining scientific and local knowledge within a common spatial framework (Bullen & Miles, 2024). Kwon and Pedregal (2023) argue that the ability to self-represent a community through the participatory mapping process can strengthen community identity and the represented identity often reflects and reinforces knowledge and perception of local places. Participatory mapping tends to integrate broader societal goals such as community development, sustainable development, and environmental preservation (Lopez, 2020).

The potential impact of participatory mapping has been documented in other past studies. For example, Corbett et al. (2016) argues that participatory mapping process often builds capacity for communities assembling local knowledge and enhancing political mobilization.

Participatory mapping has the potential to foster social change, to transform power and foster inclusive, democratic empowerment (Cochrane & Corbett, 2018; Lydon, 2002; Sieber, 2006). Wright et al. (2009) argues that participatory mapping enables community members to

have greater access to information, express their needs, priorities, and goals, and influence policy and decisions.

The literature review informed the relevant key concepts related to the topic of study as well as the relevant previous studies conducted in this area of study, that is, the state of knowledge, including theoretical considerations in those studies. Therefore, in terms of the choice of theoretical frameworks, the social change, innovation, transformation framework, and the social change leadership framework were chosen as they were deemed appropriate based on reviewed literature; in addition, they provide the basis for interpretation of findings and to provide a better understanding of the topic under study. Social change leadership is characterized by its emphasis on collective processes rather than individual authority and this understanding of leadership recognizes the importance of group dynamics and the shared capacity of members to drive social change (Ford et al., 2021). Ospina and Foldy (2005) posit that the social change leadership is rooted in a commitment to social justice and an understanding of power dynamics that influence societal inequities.

Chapter Summary

This chapter provided a review of literature on several aspects relevant to this study. Participatory mapping provides a unique opportunity to engage with communities on issues that affect them by combining scientific and local knowledge within a common spatial framework (Bullen & Miles, 2024). There is little literature exploring how to use participatory GIS in small and rural projects and how to ensure that rural communities maintain ownership over their data and the decision-making process (McCall & Dunn, 2011). The intersection of participatory mapping, CES in small and rural areas towards community development, holds great potential

for empowering communities to engage in decision-making processes, address local challenges, and advocate for social change.

Chapter 3 - Methodology

The purpose of this qualitative multiple case study was to explore how local dynamics, individual reflections, and collective experience shape engagement in social change through participatory mapping processes in Ogden, Kansas in the United States and Panajachel, Sololá in Guatemala.

Research Purpose and Questions

The purpose of this multiple case study was to explore how local dynamics, individual reflections, and collective experience shape engagement in social change through participatory mapping processes in Ogden, Kansas in the United States and Panajachel, Sololá in Guatemala. To achieve this purpose, I facilitated multiple participatory mapping activities in Ogden and Panajachel with local residents and then invited participants from those activities to participate in this research. A total of 18 participants (11 from Panajachel and seven from Odgen) completed this study, and I examined their perceptions and reflections through the lens of my theoretical framework, which leveraged Ospina and Foldy's (2005) social change leadership framework and my conceptualization of social change, innovation, and transformation. The following research questions guided my approach to this study:

1. What influencing factors of social change did participants identify through the participatory mapping process?
2. What leadership drivers did participants foster through the participatory mapping activities?
3. In what ways did the participatory mapping process enable strategic action to leverage collective power?

Methodological Framework

The methodological framework described in this section outlines the overarching approach to the study as well as including the rationale for why this approach was considered appropriate for the study, its general purpose as well as the uses of the approach. Additionally, it informs why a qualitative approach was chosen, research design, data collection and analyses, as well as ethical considerations and measure for research quality.

Qualitative Research and Interpretivism

This qualitative multiple case study explored the experiences of residents from two small communities, Ogden and Panajachel, with participatory mapping. For this study, I employed a qualitative paradigm and adopted an interpretivist perspective, acknowledging that community members' reflections on their experiences with participatory mapping are subjective and shaped by their individual perceptions, beliefs, and social contexts. Turin et al. (2024) states that “research paradigm is a framework that guides how research is conducted, based on assumptions about reality (ontology), knowledge (epistemology) and methodology” (p.1). Turin et al. (2024) emphasize that research paradigms influence how researchers understand knowledge and how it can be acquired. As such, research paradigms provide a framework for the research process, guiding data collection, analysis, and interpretation.

Patton (2002) argue that the qualitative research paradigm is an in-depth and detailed inquiry of a selected issue. Common forms of qualitative research include narrative research, phenomenological research, grounded theory, ethnography, content analysis, and case studies (Creswell, 2014; Taherdoost, 2021; Williams, 2007). Other qualitative research designs that exist include collaborative research and action research (Tesch, 1990) and participatory action research (Kemmis & Wilkinson, 2000). Overall, researchers adopting a qualitative paradigm

seek to gain deep, contextualized insights and understand the experiences by collecting information pertaining to their experiences, perceptions and report them, thereby making the goal to simply understand and not generalize findings.

Pulla and Carter (2018) assert that interpretivism is a research paradigm that is associated with qualitative research and the interpretivist view invites the researcher to investigate meaning behind the understanding of human behavior, interactions and society. Bhattacharya (2017) states that “interpretivism came out of the need to have a way to understand the social world that is not limited to the tenets of positivism” (p.59). Turin et al. (2024) note that researchers operating within the interpretivist paradigm seek to understand the complex and multiple perspectives of individuals or groups mainly by qualitative methods.

Interpretivism is a broad term that can be split into frameworks, including symbolic interactionism, phenomenology, and hermeneutics (Bhattacharya, 2017). Symbolic interactionism explains how interactions with tangible and intangible symbols create meaning in people’s lived experiences and involves understanding social reality as experienced by participants while they make meaning of their interactions with the world (Bhattacharya, 2017). The tenets and assumptions of social interactionism suggest that humans act toward things based on meanings these things have for them, and meanings of such things are derived from social interactions with others (Bhattacharya, 2017). Interpretivism values the context in which social interactions occur, emphasizing the need to consider the cultural, historical, and social factors that influence individuals' interpretations and beliefs (William, 2024).

The ontological position of interpretivism is relativism, and the epistemology is subjectivism (Scotland, 2012). According to interpretivists, there are multiple realities that are socially constructed by individuals through their experiences and interactions with others

(Schwandt, 1998). Guba and Lincoln (1994) states that “relativism is the view that reality is subjective and differs from person to person” (p. 110). Pulla and Carter (2018) assert that interpretivist paradigm is subjective and socially constructed by individuals based on their experiences and social interactions. In terms of epistemology, interpretivism focuses on understanding how individuals experience and interpret real-world phenomena and make sense of their reality (Pulla & Carter, 2018; Schwandt, 1998).

Methodologies used by social interactionists include case studies, interview studies, phenomenology, hermeneutics, ethnography, performative approaches, autoethnography, arts-based approaches (Bhattacharya, 2017; Scotland, 2012). Interpretivism often employs qualitative data collection methods such as interviews, observations, and focus groups to capture in-depth data on subjective experiences and meanings (William, 2024).

Case Study Research

Yin (2003) recommends that a case study design should be deliberated when: (a) the study seeks to answer *how* and *why* questions; (b) the contextual conditions are pertinent to the phenomenon which is being studied; and (c) the behavior of those in the study cannot be manipulated. Hussein (2023) posits that case study research has been gaining popularity due to its valuable capacity to provide rich, context-specific data as well as understanding of difficult circumstances. Case study research serves as the overarching process that brings together various components of the study in a logical and comprehensible way (Carter, 2019).

Rashid et al. (2019) argue that qualitative case study methodology enables researchers to conduct an in-depth exploration of intricate phenomena within some specific context. A qualitative case study is characterized by the researcher spending substantial time: (a) on-site, (b) personally in contact with activities and operations of the case, reflecting, and (c) revising

meanings of what is going on (Irvine & Gaffikin, 2006; Stake, 2010). Exploratory studies can use the case study method as a research strategy (Marshall & Rossman, 2006). Regardless of the unit of analysis, qualitative case study aims to provide an in-depth, detailed holistic description (Patton, 2002).

A key component of case study research is the clearly defined case to be examined. The case can be an individual, organization, or entity (Campbell, 2015); an event, activity, or community (Merriam, 1998), or a role, small group, or geographic area (Miles et al., 2014). Regardless of its nature, the case is bounded by time and space (Campbell, 2015). Case study research involves intensive analysis of the case. The researcher is the primary instrument in case study methods; therefore, researcher bias should be recognized and minimized as much as possible (Campbell, 2015).

Hussein (2023) notes that “there are numerous interpretations of case studies in the literature” (p. 31). Bhattacharya (2017) contends that a case study involves in-depth contextual study of a person, people, issue, and place, within a predetermined scope of the study. Yin (2009) views a case study as an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clear. Baxter and Jack (2008) argue that a qualitative case study is an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources thereby ensuring that the issue is not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomenon to be revealed and understood.

Case study research can involve a wide variety of data collection methods, including observations, interviews, surveys, documents, archival records, and researcher intuition

(Campbell, 2015; Chopard & Przbylski, 2021; Dillman et al., 2021; Hussein, 2023). Utilizing case study methodology allowed for this research to be focused within the confines of space and time as well as allowing the collection of different kinds of data through interviews and focus groups, resulting in in-depth and context-specific data. Hussein (2023) suggests that once the researcher has determined that a qualitative case study is the best way to address the research question and understand the phenomenon under examination, the next step should be to select the specific style of case study. Types of case study methodologies are generally categorized by purpose and scale.

Case study approaches can be categorized into three types based on their purpose: explanatory, exploratory, and descriptive (Hancock & Algozzine, 2011; Yin, 2003). Hussein (2023) argues that for research with unclear outcomes, an exploratory case study may be preferred. The explanatory case study design would be useful when seeking to answer a question that sought to explain the presumed causal links in real-life interventions that are too complex for the survey or experimental strategies (Baxter & Jack, 2008). Yin (2003) suggests utilizing an explanatory case study when seeking to explain a phenomenon that cannot be investigated by surveys or experimental investigations. Hussein (2023) argues that for research with unclear outcomes, an exploratory case study may be preferred. With a descriptive case study, the investigator describes the relationship between the phenomenon and its real-life situation (Yin, 2014). Ryan et al. (1992) identified two additional purpose-based types of case study research: illustrative and experimental. Illustrative case studies attempt to illustrate new and possibly innovative practices developed by a particular society or organization, whereas experimental case studies examine the difficulties involved in implementing new proposals and evaluate the benefits which can be derived (Ryan et al., 1992).

This study utilized the exploratory design. The purpose of this qualitative multiple case study was to explore how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping. CES projects do not normally incorporate participatory mapping therefore in this regard this study presents an opportunity to understand in an in-depth manner an area rarely studied and there is paucity of information of participatory mapping processes being implemented within the domain of a CES.

The descriptive design was not selected for this study because the purpose of the study was not to depict the participatory mapping within its context in a detailed manner, rather it was to explore participatory mapping within the domain of CES, therefore providing a less explored context. The explanatory design was not chosen for this study because such a design is more suitable if the purpose is to understand specific relationships within the studied context. The purpose of this study was not to explain any causal links and pathways as a result of participatory mapping.

Case study research can also be classified into two types based on scale and scope: single-case studies and multiple-case studies (Stake, 1995; Yin, 2003). Case studies can be conducted on a single site or multiple sites (Chowdhury & Shil, 2021). The choice of designing single or multiple sites depends on the research question (Yin, 2003). This suggests that compared to a single case study whose focus is on one case, the multiple case study allows for the exploration of multiple and unique of a phenomenon. Because this study was conducted in two distinct contexts, a multiple case study design was employed.

Multiple Case Study

A multiple-case study approach is used for a cross-site comparison (Hussain & Hoque, 2002). Baxter and Jack (2008) mention that a multiple or collective case study will allow the

researcher to analyze *within* each setting and *across* settings. In a multiple-case study, researchers examine several cases to understand the similarities and differences between the cases (Baxter & Jack, 2008). Yin (2003) describes how multiple case study can be used to either predict similar results (a literal replication) or contrasting results but for predictable reasons (a theoretical replication). A multiple-case study should be conducted when the purpose of the study is to compare the similarities and differences across selected examples (Baxter & Jack, 2008; Yin, 2003).

Chopard and Przbylski (2021) argue that a multiple case study approach can be used to conduct a comparative investigation designed to discover and document similarities and differences between two or more cases or program implementations. Multiple case study research allows researchers to contrast between individual cases, represent a diversity of qualities and extremes to create depth, and understand a broad phenomenon without losing the individuality of the single case studies (Baxter & Jack, 2008; Thomas, 2011). On the other hand, Yin (2009) suggested that a single case study is appropriate when it represents the critical case in testing a well-formulated theory. This also suggests that the multiple-case study offers the opportunity to delve deeper into the complexities and richness of the phenomenon through capturing the various dimensions and perspectives. A multiple case study also allows more evidence to be available to support the findings.

Overall, findings from a multiple-case study are considered robust and reliable, but it can also be extremely time consuming and expensive to conduct (Baxter & Jack, 2008). Exploratory multiple-case study methodology was considered appropriate because this study contained more than one case, and the context was different for each of the cases. The multiple-case study design of this research allowed for a greater understanding of similarities and differences in

participants' experiences and reflections with participatory mapping in Ogden and Panajachel. Detailed descriptions of each case are provided in Chapter 4.

Theoretical Framework

This section presents the constellation of interrelated constructs that provided the analytical lens through which I viewed the research problem and designed the study. It outlines the roots and fundamentals of the theories and concepts used in this study, presenting the key tenets and assumptions of each theory that guide this study. The theoretical framework served as the structure and support for the study, including its problem statement, purpose, significance, and research questions, while also providing a grounding base for the literature review and data collection and analysis methods (Grant & Osanloo, 2014). Salawu et al. (2023) assert that a theoretical framework is a systematically developed and intertwined set of concepts and foundations drawing from one or more theories with the intent of supporting a study.

The overarching goal and the primary purpose of this research was to explore and analyze how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes. The underpinning theoretical framework guiding this study integrated insights from Ospina and Foldy's (2005) social change leadership framework and my conceptualization of social change, innovation, and transformation.

Understanding how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes in small and rural communities by being guided by the social change leadership framework and the social change, innovation, and transformation conceptualization and by adopting an exploratory multiple case study will provide valuable insights on CES and participatory mapping processes.

There is interconnectedness between the study's theoretical framework, the conceptual framework and the exploratory multiple case study used in this study. The social change leadership framework and social change, innovation, and transformation framework assisted in the selection of the exploratory multiple case study as the most appropriate research design to answer the research questions, explore the concepts and relationships identified in the two frameworks. The two frameworks also provided a basis for interpreting the collected qualitative data as well as helping in identification of themes in a systematic and meaningful manner. The social change leadership framework and social change, innovation, and transformation framework are discussed in detail below.

Social Change Leadership Framework

Organizing is one of the activities Ospina and Foldy (2005) describe for advancing social change. With this view, leadership, which is collaborative in nature, becomes a critical vehicle for positive social change. Bolden and Kirk (2011) note that social change leadership that encourages collaborative action has the potential to facilitate a process of social construction that helps redefine community values and purpose. Hardcastle et al. (2012) posit that community organizing provides opportunities for community members to come together to find solutions to problems that affect their communities.

Social change leadership is characterized by its emphasis on collective processes rather than individual authority (Ford et al., 2021). This understanding of leadership recognizes the importance of group dynamics and the shared capacity of members within organizations to drive social change. Unlike traditional leadership models that often focus on individual leaders, social change leadership is rooted in a commitment to social justice and an understanding of power dynamics that influence societal inequities (Ospina & Foldy, 2005).

The framework (See Table 3.1) proposed by Ospina et al. (2012) is grounded in the assumptions and values that provide meaning to work and interaction, enabling both leaders and followers within these organizations to collaboratively develop a shared vision of potential outcomes. This vision subsequently informs the practices and organizational activities aimed at fostering collective capacity. This capacity is utilized as power to influence key external decision-makers with the authority to address issues impacting the organizations' constituents.

Table 3.1. The Social Change Leadership Framework (Ospina et al., 2012)



Ospina et al. (2012) posit that the Social Change Leadership Framework provides an attempt to describe how social change organizations along with communities and through their collective leadership can affect change and modify the status quo. Social change organizations

such as small, grassroots, nonprofit organizations that serve the disadvantaged, including addressing systemic problems in a way that will increase the power of marginalized groups, communities or interests (Chetkovich & Kunreuther, 2006).

Ospina and Foldy (2005) state that:

The framework poses that the consistent use of a set of leadership drivers, anchored in a set of assumptions and core values of social justice, helps members of these organizations engage in practices and activities that build collective power, which is then leveraged to produce long term outcomes for social change. (p.1)

The framework's main constitutive elements are a worldview (a set of leadership drivers which are anchored in assumptions and core values of social justice) and strategic action (leadership practices and primary social change activities). These are outlined below.

Leadership Drivers

The work of social change leadership is driven by images of both the present and the future, and individuals identify a current, pressing systemic inequity and name it as a problem, envision a world without that inequity, create a picture of a just and fair future and these depictions motivate action (Ospina & Foldy, 2005; Ospina et al., 2012).

Systemic inequities are strongly rooted in existing power relations that influence resource distribution (Ospina & Foldy, 2005). Ospina and Foldy (2005) argue that in most cases one of the first tasks of social change leadership is to draw attention to this inequity and name it as a problem. At the core of social change organizations is a motivation to redress identified systemic inequities and or injustice by confronting immediate problems, identifying underlying causes, and availing resources. Systemic inequities trigger action when a group agrees they have a problem to be redressed for a community (Ospina & Foldy, 2005; Ospina et al., 2012).

The decision to redress inequities drives the work toward creating new visions for the future (Ospina et al., 2012). Visions of the future link immediate action with the ultimate goal of eliminating the systemic inequity that drives the work (Ospina & Foldy, 2005). Variations of the visions for the future for social change groups are inclusion, transformation and preservation (Ospina & Foldy, 2005). When the underlying theory of change is transformation, systemic change means replacing the current system with another one and this view sees “the system” as the source of the identified problem (Ospina et al., 2012). When the underlying theory of change is inclusion, systemic change means altering the current system so that its benefits reach everyone equally (Ospina & Foldy, 2005). When the underlying theory of change is preservation, systemic change means stopping the destruction of traditional cultures. Preservation generally accompanies an inclusive or transformational view of change (Ospina et al., 2012). These visions of present and future are the most immediate motivators of action, and they are rooted in even more fundamental assumptions and values that also motivate action (Ospina et al., 2012).

Adopting a Worldview of Grounded Humanism

A set of leadership drivers, assumptions, and values of social justice that ground the work of social change organizations produce a coherent and encompassing worldview termed grounded humanism (Ospina & Foldy, 2005; Ospina et al., 2012). The leadership drivers, working assumptions and beliefs, and the values of social justice constitute the worldview called grounded humanism and this worldview becomes a moral compass to ground and guide the leadership work in social change organizations, and it helps to establish parameters about appropriate strategic action to build collective power (Ospina et al., 2012).

Underlying, shared assumptions about the nature of people, social change, knowledge, the self, and power motivate the work participants in the social change organization do to seek

social change (Ospina et al., 2012). Ospina and Foldy (2005) argue that these core assumptions both influence and are reflected in the language, routines, practices, tools, and strategies used in the organization. Ospina et al. (2012) argue that social inequities are rooted in power imbalances and change requires amassing power in some form and leveraging it to influence external actors with the capacity to support transformation. Social change leaders believe that knowledge is a powerful and key resource to make decisions and that it is critical to give primacy to local knowledge (Ospina et al., 2012). Leaders also underscore the humanity of individuals and promote faith in the potential contribution of anyone who is involved in the work (Ospina et al., 2012).

Anchoring the implicit leadership drivers and working assumptions of social change leadership is a shared set of explicit core values that inspire, awaken, fuel and direct the passion of those engaged in the work. The core values are inclusion, social solidarity, transparency and accountability, democracy, and equity (Ospina et al., 2012).

Strategic Action and Collective Power

Social Change Organizations engage in a variety of integrated practices and activities geared toward strategic action and their action is strategic because it is outcome-oriented and attends to the challenges and opportunities in the environment (Ospina et al., 2012). Strategic action is also built on the recognition that power is central to making change, and a key goal is to build and leverage the power necessary to achieve long-term outcomes and strategic action is also expressive, not just instrumental; it is infused with a set of beliefs that demand expression in the work of building community and creating a better world (Ospina et al., 2012). In this regard, the strategic action to build collective power is described below in terms of the three main elements of Leadership Practices, Core Activities, and Collective Power.

Ospina et al. (2012) identify *reframing discourse*, *bridging differences* and *unleashing human energies* as three distinct leadership practices that make up the day-to-day work of organizations. These three help social change organizations build collective power by helping to frame and reframe their issues, building meaningful connections with others, and creating environments that allow people to flourish and be prepared to take action.

Reframing Discourse - Leaders in social change organizations realize they cannot advance their mission by relying on the same language, images, or cognitive models that disempower and alienate their communities (Teske & Tetreault, 2000). Social change organizations work to disrupt established frames, while forming new ones congruent with their vision for the future.

Reframing discourse can be viewed as leadership work that articulates practices to challenge and dispel existing cognitive models that create or reinforce injustices (Bartunek & Moch, 1987). Because reframing discourse is not as simple as presenting counterfactuals, it is adaptive leadership work (Heifetz et al., 2009). Re-framing practices rely on understanding dominant frames and their permeability, and crafting new repertoires, language, and narratives, and living them through action. It requires using frames that are recognizable, so that they resonate with people, while rejecting dimensions of them that reinforce the status quo and dehumanize experience.

Social change organizations may use reframing to interrupt the ways a community sees itself, or others see a community (Ospina et al., 2012). Social change organizations also reframe relational dynamics by enacting explicit procedures for meetings and decision-making to ensure equitable relations and voice (Ospina et al., 2012).

Bridging difference entails practices that create the conditions to bring diverse actors together and facilitate their joint work while maintaining and appreciating their differences (Ansell & Gash, 2008; O’Leary et al., 2006; Ospina & Foldy, 2010). Some practices operate at the intraorganizational level, building connections across diverse affiliates or potential supporters in one organization, while others are interorganizational, creating alliances among organizations (Ospina et al., 2012).

Ospina and Foldy (2010) emphasize that bridging work develops interdependencies within which collective action becomes obvious and collective achievements natural. Ospina et al. (2012) posit that creating and weaving relationships among people from different worldviews builds community and ends the isolation and fragmentation that many individuals experience due to poverty and marginalization. Bridging work entails building connections without suppressing difference or ignoring its value, as well as cultivating difference that does not turn into disunity (Ospina et al., 2012). A key leadership goal is not to reify a community as monolithic, but to find ways to draw unity from diversity (Saz-Carranza & Ospina, 2011). Ensuring unity in diversity requires leadership work across organizations to address leadership challenges of the network as a whole, something that in itself demands a different mindset (Saz-Carranza & Ospina, 2011).

Unleashing Human Energies - Ospina et al. (2012) argue that practices to unleash human energies stem from the assumption that knowledge is power and the fundamental source of power comes from within the community, despite its perceived scarcity. Unleashing practices create conditions for transformational learning, which allow every member of the group to reclaim their full humanity and, in the process, recognize their inherent power to direct their lives (Ospina et al., 2012). Practices that produce these three types of leadership work (reframing discourse, bridging difference, and unleashing human energies) help these organizations

accomplish their mission (Ospina et al., 2012). It is critical to ensure the conditions that make it possible to engage in the core activities that are strategically undertaken to reach the organization's social change goals (Chetkovich & Kunreuther, 2006).

The four core activities of engagement identified in the framework are organizing, public policy advocacy, community building and service provision (Ospina et al., 2012). Ospina et al. (2012) state that "community building is developing social capital and collective efficacy to act on behalf of a group with a common identity" (p. 276). Ospina et al. (2012) argue that an organization's choice of activities and the strategies deployed reflect what they believe is the most effective and most legitimate way to leverage power, given their visions, values, assumptions, and the pressing demands and challenges they face. Chetkovich and Kunreuther (2006) posit that the core activities are modes of engagement that reflect the group's overall approach to achieving change and are manifested in specific influence strategies. The combination of activities and leadership practices builds power by creating collective capacity and this capacity is then leveraged to bring about long-term changes in policy, social structures, and thinking (Ospina et al., 2012). Ospina et al. (2012) argue that their framework suggests that the role of power in social change leadership is different, in that it is a collective capacity to influence forces that are external to the organization.

Achieving individual, organizational and interorganizational capacity, even without gaining concrete social changes builds confidence, strengthens commitment, and cultivates hope. As an intermediate outcome, creating collective capacity could be depicted as the construction of a lived social space that is full of leadership (Raelin, 2005). Activities build power by creating community capacity (Ospina & Foldy, 2005). Community capacity is power that can be leveraged as a means toward achieving long-term outcomes (Ospina & Foldy, 2005).

Towards Systemic Change

Ospina et al. (2012) identified the following categories of change that social change organizations efforts are meant to produce:

Changed policies are manifested in changes in some kind of rule, law, or regulation at the local, state, federal, or even global level.

Changed structures are represented in longer term, more systemic change, and could refer to changes in particular systems, altered governance structures, or changes in patterns of relations.

Changed thinking is about a transformation in the language and mental models that sustain existing structures of power and is reflected in changes in the collective imagination, or interruptions in harmful myths, mental models, or actions about the way things are and what people believe is possible.

Ospina et al. (2012) find three bundles of relational practices that represent leadership work constructed collectively, and this work is driven by a worldview grounded in social justice values and anchored in collective meaning-making around a vision that brings a different future into the present in response to an identified social problem affecting the community.

In this study, the social change leadership framework provided important framing to make sense of participants' perceptions of their learning and the potential impact of the participatory mapping activities.

Social Change, Innovation, and Transformation

While each term is nuanced in literature, I use social change as an umbrella term to encompass theories of social change, social innovation, and social transformation (SCIT).

Social Change

The definitions of social change have varied throughout history (White et al., 2024). Ginsberg (1958) posits that changes in social structure, for example, size of society or the balance of its parts or the type of organization, for example size of the family/domestic unit, the breaking up of the domanian economy, growth of a system of justice, changes in attitudes or beliefs in how they sustain institutions constitute social change. Weichold and Barber (2008) view social change in terms of transformations in various spheres of human life, for example many countries have undergone tremendous changes over recent decades with implications including economic restructuring, changes in societal value systems, media spread, technology, and changes in educational systems or population composition. Schäfers (2018) considers social change as the changes in the fundamental institutions, value orientations, and behavioral patterns of a society's social structure within a given time. More recently, social change has been described as the transformations of a society in terms of values systems, social organization, and practices (Wagoner & Power, 2023; White et al., 2024).

Social Innovation

Social innovation consists of development and implementation of new ideas, approaches, or solutions to address societal problems and needs more effectively than existing methods with the aims of creating positive social change such as improving quality of life, justice and equity, and fostering sustainable development (Nicholls et al., 2015; Phills Jr. et al., 2008). Portales (2019) argues that the concept of social innovation consists of elements such as satisfaction of a need, innovation of the solution, change of social structures and relationships and increase of society's capacity to act. The Young Foundation (2012) views social innovation as new solutions (products, services, models, markets, processes) that, simultaneously, satisfy a social need (more

effectively than existing solutions), create new or better capabilities and relationships, and make better use of assets and resources.

Social Transformation

Social transformation is about significant often large-scale changes regarding the way a society is organized, including its social structures, institutions, relationships, and cultural norms and this fundamental reshape of how people live or and interact can be driven by technological advancements, political upheavals, economic restructuring, and shifts in cultural values (Hajare, 2020; Jacobs, 2013; Rabie, 2013). Haas et al. (2020) argue that social transformation entails long-term societal shifts on a deep structural level and alludes to more-profound processes of structural change that lead to a society that is fundamentally different to its predecessor, the magnitude differs from the small social changes which people experience on a day-to-day basis.

Social change and community development are interlinked (Lewin, n.d). Scholars (e.g., Arthur, 2021; Mutekwe, 2012) argue that various factors such as technological determination, discovery, conflict in society, knowledge, trust, value, cultural contact, diffusion, and social movements make social change inevitable in human life and communities. Social change is a change in social interaction that can manifest itself in changes in norms, cultural values, cultural products, and some symbols, modifications in the structure or social system or social subsystem, including its function and process over several periods and changes in social relations over time (Mutekwe, 2012; Sembiring, 2018).

Several theories can be applied to social change, encompassing a wide range of ideas about how societal change occurs and what factors contribute to it (Lewin, n.d). Social change theories often focus on the processes through which societal norms, values, structures, and institutions evolve over time. Each theory hones in on specific components of social change,

including perspectives on power relations, economic systems, political structures, and cultural beliefs (Lewin,n.d). Table 3.2 illustrates the conceptualization of social change, innovation, and transformation underpinning this study. Drawing from various theories and conceptions of social change, this conceptualization emphasizes three key elements across theories: factors contributing to social change, types of social change, and impact of social change.

Table 3.2. Conceptual Framework for Social Change

Factors Contributing to Social Change	Types of Social Change	Impact of Social Change
Social-cultural factors (discovery, invention, diffusion, social movements, perceptions, attitudes of people	Rapid change	Impact on the individual or group level
Technological factors (modern technology invention)	Slow change	Impact on the societal level
Economic factors (industrialization and historical materialism)	Symmetrical change	Positive impact
Political factors (governance, political leadership)	Unsymmetrical change	Negative impact
Geographic factors		
Biological factors		

Factors Contributing to Social Change

Social change in society can be instituted through several contributing factors which can act independently or in combination (Wahab et al., 2021). The main contributing factors to social change include demographic shifts, biological factors, technology, political factors, cultural factors, economic factors, environmental and geographical factors, diffusion and contact with other societies, social movements, leadership and ideological factors (Akujobi & Jackson, 2017; Bislimi, 2024; Greenfield, 2009; Mumtaj & Sushila, 2014; Servaes, 2011; Wahab et al., 2021).

Types of Social Change

Arthur (2021) argue that social change is not uniform, it varies from society to society and even in the same society. In some places, the change can be rapid whereas in others it may be slow, and the rate of change in societies can be uniform (symmetrical) or different (asymmetrical) change due to influences such as urbanization and globalization (Junaedi et al., 2023). Similarly, Akujobi and Jackson (2017) posit that social change can be rapid (revolutionary) or slow (evolutionary). Measuring social change is something that has occupied social theorists for a long time, at least as far back as the 1920s (Kavanagh et al., 2021).

Impact of Social Change

The influence of change in one area or aspect of society can have an impact on other related areas (e.g., changes in religious beliefs can cause change in the economy, family, etc.) (Akujobi & Jackson, 2017). Social change can have negative or positive impacts on fundamental institutions, value orientations, and behavioral patterns of a society's social structure within a given time (Schäfers, 2018). For example, social change due to infrastructure, a productive and healthy workforce, roads, and access to information and knowledge, technology can positively help countries to leapfrog forward (Sachs, 2015; Wooldridge, 2010). Mobile technology can leverage social impact in the financial sector by providing remote banking services for rural low-income communities and information for farmers about fair market prices (Martin & Abbot, 2011).

Social change is a change in social interaction that can manifest itself in changes in norms, cultural values, cultural products, and some symbols, modifications in the structure or social system or social subsystem, including its function and process over several periods and changes in social relations over time (Mutekwe, 2012; Sembiring, 2018). Vagos (1992) proposes that social change must be conceptualized as the process of planned or unplanned qualitative or

quantitative alterations in social phenomena, which can be depicted on a six-part continuum, composed of interrelated analytic components namely identity, level, duration, direction, magnitude and rate of change.

The theories of social change encompass a wide range of ideas about how societal change occurs and what factors contribute to it (Lewin, n.d). Social change theories often focus on the processes through which societal norms, values, structures, and institutions evolve over time. Rabie (2023) posits that social transformation is a self-driven societal process that changes people's conditions and ways of living. Theories of social change include evolutionary theory, cyclical theory, economic (Mandan) theory of social change, conflict theory, and technological theory (Sahu, n.d).

William Ogburn's (1964a) theory of social change asserts that technology is the basic cause of social change (Sembiring, 2018). Ogburn (1964) identified technology as the primary engine of progress and development of social structure and cultural values (Mutekwe, 2012). Ogburn's (1964) theory of technology and social change asserts that technology is the basic cause of social change as well as the organizing force for social life because when technology changes its effects can be profound (Mutekwe, 2012). Ogburn (1964a) identified technology as the fundamental driver of social change, which he argues comes through the three processes of invention, discovery and diffusion. Ogburn (1964b) defined invention as a combination of existing elements and materials to form new ones (Henslin, 1998; Vago, 1992). Ogburn's (1964) second process of social change is discovery, a new way of seeing reality (Vago, 1992) and the reality is already present, but people now see it for the first time. Ogburn's (1964) third process of social change is diffusion, the spread of invention or discovery from one area to another and contact between cultures is the source of diffusion (Henslin, 1998).

Ogburn (1964) viewed diffusion as the major process of social change and argues that it can have far reaching effects on human relationships. Diffusion also includes the spread of ideas. Further to the three processes of social change, Ogburn (1964) also coined the term cultural lag to refer to how some elements of culture adapt to an invention or discovery more rapidly than others.

Adjustment is the process by which the non-technical aspects of a culture respond to invention and any retardation of this adjustment process causes cultural lag (Ogburn, 1964). Zheng (2022) argues that transformative social change requires a complex mix of objective and subjective factors. These factors include externally given circumstances and internally determined influences. Externally given circumstances include limited material resources and moments of crisis, whereas internally determined influences include individual psychologies and general levels of political consciousness (Zheng, 2022). Sasvari (2012) argues that from a technological perspective, communities now live in an information society wherein information and telecommunication technologies play a constantly expanding role in all fields of social existence, resulting in profound changes in social structures, processes, politics, economy, culture, and everyday life. The concept of social change reflects three key elements across theories: influencing factors of social change, type of social change, and impact of social change.

Community participation fosters a profound sense of belonging, identity, and attachment among its residents, nurturing a shared commitment to common norms. It cultivates a readiness to accept responsibility not only for oneself but also for the collective well-being of others. Through active engagement, participants are empowered to voice concerns, highlight positive aspects, and advocate for improvements within their community. This collaborative process not

only strengthens social bonds but also instills a readiness to share knowledge, resources, and experiences, fostering meaningful interactions and driving positive change for the future.

According to Ospina and Foldy (2005), grounded humanism serves as the organizing principle, emphasizing an appreciation for the humanity of all individuals and a belief in their capacity to contribute to the creation of a more humane society. This perspective views systemic social change as grounded in the present reality, rather than as an abstract future ideal. It involves directly addressing immediate problems, identifying their root causes, mobilizing resources to tackle these underlying issues, and thereby generating tangible and lasting outcomes for those affected by inequality. Grounded humanism underscores the importance of practical action and tangible results in advancing social justice and fostering meaningful transformation within communities.

From the perspective of technological innovation, we now live in an information-driven society, where information and technology play an ever-expanding role in shaping social existence. These forces disrupt traditional social structures and processes, leading to profound shifts in politics, economy, culture, and daily community life (Sasvari, 2012). While technology makes people's lives easier, on the other hand it also causes some issues in our society, such as a decline in ordinary community social interactions (Jugseniya, 2023). Rapid technological changes in the US in the last century laid the basis for engaged citizenship and served to assimilate rural communities into an increasingly mechanized and urbanized economy, by inculcating political and social values (Bruce, 2002).

Social transformation is about a fundamental change in society, which can be contrasted with social change viewed as gradual or incremental changes over a period of time (Khondler & Schuerkens, 2014). In the mid 1990s, Western societies transitioned into knowledge age, a

period where scientific and technological knowledge increasingly became the most valuable individual and national assets (Rabie, 2023).

Research Design

Building from the methodological and theoretical framework described above, this section provides an overview of the specific design of this multiple case study. My approach to this study was grounded in the experience and reflections of participants with the participatory mapping process that was facilitated in their home community. The design, process, and findings from the participatory mapping activities are presented in Chapter 4.

Participants

Participants in this study consisted of a diverse array of community members from various demographics and stakeholder groups within the Ogden and Panajachel communities. These participants included local citizens, business proprietors, civic leaders, and representatives from community organizations. Participation in the participatory mapping activities described in Chapter 4 was the criteria for inclusion in the research, ensuring the inclusion of perspectives from participants with direct experience and knowledge, thereby representing the socio-economic, cultural, and environmental dynamics of the community.

Participant Selection

In most cases, researchers are not able to collect data from the entire target population due to time and resource limitations. Therefore, sampling should be done (Bhardway, 2019). A sample is a subset of a population (Hanlon & Larget, 2011), and sampling is the method through which a sample is selected from the population (Etikan & Babatope, 2019). The two broad divisions of sampling techniques are probability sampling and non-probability sampling (Elfil & Negida, 2017; Shorten & Moorley, 2014). A variety of non-probability sampling techniques can

be employed in qualitative study for the purposes of selecting participants (Ishak & Bakar, 2014). In this study purposive sampling was utilized to select participants and this was done in collaboration with the local community organizations both in Ogden and Panajachel, thereby ensuring representation of both the long-term and short-term residents. This reliance on the community network within the communities, was very useful in terms of referring eligible participants.

Purposive sampling is a method of non-probability sampling based on the knowledge and understanding of a researcher in selecting the needed sample from a population for a study (Etikan & Babatope, 2019). Purposive sampling involves intentionally selecting participants based on specific characteristics or criteria relevant to the research. This method ensures that the sample is representative of key groups or insights within the community, providing a deeper and more focused understanding of the research. In this study, participating in a participatory mapping process I facilitated in February 2025 and March 2025 was the criteria for inclusion.

Ishak and Bakar (2014) argue that purposive, or judgmental, sampling is considered more useful for case study in three situations: (1) when a researcher wants to select unique cases that are especially informative, (2) when a researcher would like to select members of a difficult-to-reach, specialized population, and (3) when a researcher wants to identify particular types of cases for in-depth investigation. It is important to select participants that will be informative; the purpose is to gain a deeper understanding of those particular types of cases (Neuman, 2009), and not to generalize the findings. This purposeful approach prioritizes the inclusion of voices with lived experiences and critical insights into the problem (Bradbury-Huang, 2010). Since a key objective of participatory mapping is to strike a balance between capturing diverse perspectives

and maintaining a manageable group size that encourages effective interaction, participants in this study were similarly representative of the community.

Guest et al. (2006) suggest that data saturation in homogeneous groups can often be achieved with as few as 12 participants. Across the two communities engaged in this study, a total of 13 community residents participated in the research. Participants were representatives of various community roles (e.g., local community members/residents, business proprietors, civic leaders, and representatives from community organizations) in both study sites. Due to the potential for identifiability, I do not detail individual participant's specific role(s) in their home community.

Research Site

This research was conducted in two communities: Ogden, Kansas in the United States and Panajachel, Sololá in Guatemala.

Ogden is a small community in northeast Kansas in the Great Plains region of the United States. According to the 2020 United States census, Ogden has a population of 1,661 individuals comprising 430 families residing in 699 households, which provides a rich context for participatory activities and supports focused exploration of local need and priorities. While Ogden is considered rural within U.S. Census classification, in this study I use the descriptor “small” to characterize Ogden. The interviews for the Ogden community were conducted in accessible and familiar community spaces within the Ogden area to ensure participant comfort and convenience. The locations included the Ogden community library commonly used for town meetings and public gatherings. These sites were chosen to provide a welcoming and private environment conducive to open dialogue and collaborative engagement. The focus was on creating a setting that encourages participants to share their insights and experiences freely,

without the need for an extensive emphasis on the physical characteristics of the town itself, as the research context prioritizes the lived experiences and perspectives of the participants over the geographical specifics.

Panajachel is a town along Lake Atitlán in Sololá, a department in the western highlands of Guatemala. It has a total population of 16,101 people, according to the 2021 Guatemala census. The name "Panajachel" comes from the Kaqchikel Maya language and translates roughly as "place of the white sapote trees." Although Guatemala is commonly referred to as a Spanish-speaking country, it is, by definition, a multilingual and multicultural republic (Milian & Walker, 2019). The location for the individual interviews and the focus group was conducted in a conducive environment that was provided by the host organization in Panajachel.

Data Management

Data management involves handling the volumes of data collected and organizing it into manageable units. For this study, data management encompassed the organization of both hardcopy and electronic documents. The data will be kept for a period of one year after the completion of the research before being permanently deleted.

Interviews and focus groups were audio-recorded and transcribed for analysis. In addition to these transcriptions, I also collected field notes and personal reflections. All electronic data, including interview transcriptions and audio recordings, was securely maintained on a password-protected network drive.

Membership Role

My goal was to co-create and foster opportunities for gaining insight into the community. As Cheney (2008) notes, community-engaged research and the co-creation of knowledge have a “leveling effect on relationships between researchers and what might otherwise be called

participants” (p. 286). In both communities engaged for this study, I was an outsider. I am neither a United States nor a Guatemalan citizen and had little to no experience with the communities prior to this study. However, I was able to leverage existing partnerships through my employment and academics to build the necessary relationships with community residents to engage in this research ethically.

As a graduate research assistant with the Kansas State University Office of Engagement, my institutional affiliation afforded me the opportunity to engage with the Ogden community through the university’s community visit initiative prior to the participatory mapping and research activity involved in this study.

The opportunity to facilitate participatory mapping in Panajachel was made possible through my advisor's prior relationships and work in the region through the Leading Change Institute under the auspices of the Staley School of Leadership Studies at Kansas State University. The funds that were made available covered the expenses related to travel and lodging related during the duration of the study in Guatemala.

While I do not speak Spanish, the presence and assistance of a skilled interpreter made conversation not only possible, but also profoundly meaningful. Despite the inherent difficulties of translation, I chose a purposeful and collaborative stylistic approach to guarantee that the Guatemalan voices and viewpoints were accurately and respectfully conveyed throughout this study.

Data Collection Methods

According to Goyal (2022), “data collection is the process of collecting and measuring information about variables of interest, in a systematic way that enables one to answer stated

research questions, test ideas, and evaluate results” (p. 53). The primary data collection methods utilized in this study were semi-structured interviews and focus group discussions.

Semi-Structured Interviews

Semi-structured interviews are generally organized around a set of predetermined, open-ended questions, and additional questions emerge from dialogue between interviewer and interviewee (DiCicco-Bloom & Crabtree, 2006). This method differs from structured interviews, which are best used when relevant literature is highly developed with an established understanding of the topic and structured questions with relevant and meaningful response categories are utilized (Batmananane & Kfour, 2017). Utilizing semi-structured interviews in qualitative research allows for flexibility and adaptability, while also enabling researchers to acquire in-depth information and evidence from interviewees while considering the focus of the study (Ruslin et al., 2022). With semi-structured interviews, there is a great deal of versatility, and arrangement of questions may be structured to yield considerable and often multi-dimensional streams of data.

In semi-structured interviews the interviewer has more flexibility when it comes to adding questions or asking for clarifications, and participants generally feel more comfortable and relaxed, making the interview more of a conversation than a calculated interrogation of questions and answers (Canals, 2017). Semi-structured interviews are formal and are conducted based on a guide (Taherdoost, 2021). Goyal (2022) argues that with semi-structured interviews there should be several key questions which cover the scope of the areas to be explored as this allows a little more leeway for the researcher to explore the subject matter.

The semi-structured interview protocol (Appendix C) allowed me to ask a core set of questions about participants’ experiences with participatory mapping. The face-to-face semi-

structured interviews enabled probing, clarification, and deep exploration of issues, thereby facilitating the direct collection of rich qualitative data. These also provided opportunities for me to explain and clarify questions to participants.

I facilitated the participatory mapping in Ogden in February of 2025 with a total of seven participants consisting of community local citizens, business proprietors, civic leaders, and representatives from community organizations. Of these seven community members, six participated in this research, and I conducted two rounds of semi-structured interviews with these six participants.

I facilitated the participatory mapping in Panajachel in March of 2025 with 11 local residents, including teachers, staff of local nongovernmental organizations, and Indigenous governance representatives. Of these 11 community members, seven participated in this study, and I conducted two rounds of semi-structured interviews with these participants. The data collection process for Ogden was conducted in English while in Panajachel it was done in Spanish. In Panajachel, a translator was utilized; this was necessary to get their thoughts and responses in the native language of the participants.

The total number of interviews conducted in both Ogden and Panajachel provided for data saturation, which is the point in data collection when no additional issues or insights are identified and data begins to repeat so that further data collection is redundant, signifying that an adequate sample size is reached (Hennink & Kaiser, 2022). These interviews also allowed me to obtain a scope of responses from each group. This estimation of interview participants is based on the observation that saturation mainly occurs with 12 interviews, with broader themes becoming apparent after only six interviews (Guest & Bunce, 2008).

The duration of the conducted semi-structured interviews varied between 15 minutes and 35 minutes. The interviews were audio-recorded on a digital device. Consent to record the interviews was sought from the participants. All interviews were transcribed verbatim and de-identified.

Focus Group Interviews

A focus group is a group interview of approximately six to twelve people who share similar characteristics or common interests. Focus groups are facilitated discussions with a small group that can allow you to see an issue from participants' perspectives and focus groups can help explain how people regard an experience, idea or event and provide more detailed and richer information than a single interview because of the interaction among members of the group and it is useful to consider holding focus groups with "like" groups and holding multiple groups to gather information in order to minimize the danger that some participants may be inhibited about expressing information contrary to the group sentiment (Reisman et al., 2006).

A facilitator/moderator guides the group based on a predetermined set of topics, and discussions typically last between one and two hours (US Department of Health and Human Sciences, 2018). I facilitated the group discussion based on the guide (Appendix D) with questions to guide the participants on talking about certain aspects considered for each subject or sub-topic was developed to enable the facilitation of the focus group discussions. Therefore, this data collection instrument included questions that guided the participants on talking about questions.

There are mixed opinions on the ideal size of the focus groups. Prince and Davies (2001) note that there are different suggestions and references from different authors regarding the number and size of the focus groups. Krueger (2002) argues that a focus group should comprise

a minimum of eight and a maximum of 10 participants. Different researchers noted different ranges in size, for example, from six to 12 participants (Prince & Davies, 2001) and from six to eight participants (Leitao & Vergueiro, 2000). There are no general rules as to the optimal number of focus group discussions (Stewart & Shamdasani, 1990). Four focus groups are sufficient, but consideration of response saturation should be made after the third focus group discussion (Nyamathi & Shuler, 1990). Upon conducting a systematic review of 23 articles that empirically assess saturation in qualitative research, Hennink and Kaiser (2022) found that saturation can be achieved in four to eight focus group discussions. In that regard, four focus group discussions were conducted in this study.

The sample for a focus group has individuals with characteristics of the overall population and can contribute to helping the research gain a greater understanding of the research topic (Gundumogula, 2020). The sample were representatives of diverse community groups, including local community residents, business proprietors, civic leaders, and representatives from community organizations.

Analytic Memos

Analytic memos are brief notes about the thoughts, ideas, and questions that come to the researcher's mind during data gathering, coding, or data analysis. The primary reason for writing analytic memos is to help move the data analysis process to higher levels of abstraction, theoretical coding, theme generation, and model building (Lee et al., 2021). I utilized analytic memos to assist with identifying connections between dissociated parts of interview transcripts. I also utilized analytic memos in this study to reflect and record my thoughts on the data, coding process, coding choices, and data analysis methods. The brief notes will also serve as a record of my decision-making trail (i.e., keeping records of the decisions made in each phase of the study).

As I reflect on the journey of this research, I can't help but try to understand the complexities and the intricacy of my twin intricacies: a researcher and an emerging community-engaged scholar. Having an in-depth knowledge of *intervention – the participatory mapping* and its potential capacity for transformation, I became aware of how my personal viewpoint could influence the research. It was an intention and consciously sought to acknowledge my lived experiences while ensuring that that they didn't influence my data interpretation.

Data Analysis Methods

This research did not seek to test a predetermined hypothesis. Rather, I employed an inductive analytical approach, allowing patterns, themes, and insights to emerge from the data in response to my research questions. Thematic analysis is a method to analyze qualitative data and involves the identification and reporting of patterns in a data set, which are then interpreted for their inherent meaning (Braun & Clarke, 2006; Liebenberg et al., 2020; Naeem et al., 2023). Bhattacharya (2017) states that “the process of inductive analysis assumes that the researcher is not starting the data analysis with any kind of pre-established testable hypothesis about the data” (p.150).

Bhattacharya (2017) argues that inductive analysis is iterative, meaning there is no defined linear format through which analysis occurs as a researcher moves back and forth between various stages and processes. I analyzed the data using thematic analysis, chiefly the inductive approach. First coding: considering the research questions. This process involved multiple data sources that were used such as the individual interview and the focus group interview, which is coding an excerpt based on the participants' words. The next rounds of coding involved thematic analysis coding to find recurring patterns and themes.

The data analysis started by reading the transcripts (raw data) several times to further acquaint with the data, in the process highlighting the words and or phrases that stood out. The coding that I used was In Vivo Coding- theming the data, the process involved going back and forth and re- analyze the data. This was done 3 times, which I refer to as second coding and third coding. Through this approach I was able to make connections with codes and themes. In other words, the In Vivo Coding involved utilizing the exact words or phrases spoken by participants, key words or phrases from the participants' responses, then codes were identified from the key words or phrases, leading to identification of codes and finally themes were discerned.

According to Creswell and Clark (2011), "Coding is the process of grouping evidence and labeling ideas so that they reflect an increasingly broader perspective" (p. 208). With the knowledge that themes do not mystically emerge but through interpretation and constructions of the research (Saldaña, 2021). Throughout this process I tested the approach to make sure it addresses my main research question

Another advantage to the data analysis was the prolonged duration of data collection which was only applicable in Ogden because of the time it took for the completion of the process. I intentionally went back to reconsider the categorization that was described in first and second coding for both study areas.

Data Re-Presentation

The study's findings were re-presented in a narrative report, which combined research narratives with extensive, descriptive descriptions of the participants' reflections. Bhattacharya (2017) coined the word re-presentation to express the idea that it is impossible to genuinely and properly depict another person's true form. I synthesized and presented the findings derived from the data collected through interviews, focus groups with the communities.

Researcher Subjectivity

Qualitative researchers often strive to maintain transparency about the values, beliefs, and assumptions that guide their work, emphasizing how these factors interact with and shape their research process (Bhattacharya, 2017). In this approach, the researcher's subjectivity plays a crucial role in the research process. Researchers' subjectivity is considered valuable throughout the research process, from study design to data analysis and reporting (Egerer & Hellman, 2020).

Researchers engaging in qualitative research must practice informed reflexive consciousness, carefully contextualizing their subjectivity to interpret and represent data with accuracy and integrity (Few et al., 2003). As the researcher conducting this study, I recognize and embrace the influence of my background and experiences, while remaining committed to transparency and flexibility throughout the research process. My professional journey includes community engagement, participatory approaches, community planning, and corporate and operational planning, all of which shape my perspectives and may influence my interpretations. I am mindful of how my personal experiences and potential biases can impact this study, and I aim to remain reflexive, acknowledging these influences as I engage with data.

As a researcher, my personal and professional experiences strongly shaped my approach to this study. My career in rural development began in a rural community, where I observed firsthand the unique challenges and remarkable resilience of underserved populations. Rooted in the values of family, community, and collective well-being—concepts that resonate deeply with the ubuntu philosophy, or "I am because we are"—my worldview has been molded by the spirit of community collaboration. This background has fostered in me a commitment to advancing sustainable community development and amplifying the strengths and assets of small and rural communities.

Currently, as a graduate research assistant with the Office of Engagement at Kansas State University, I have had direct interactions with people across several counties, learning about their perspectives, needs, and visions for their communities. While I am committed to elevating the voices of small and rural communities, I recognize that my support for strengths-based approaches may introduce biases, particularly toward solutions that highlight community assets over problems. To counterbalance this, I will intentionally seek and consider diverse perspectives throughout my research, remaining open to findings that may challenge my assumptions.

The foundation of this study rests on a commitment to collaborative, strengths-based inquiry and valuing the perspectives of the community involved. By openly acknowledging my subjectivities, I aim to build credibility in this research and ensure that my positionality enriches rather than limits the study's depth and scope. This transparency is intended not only to foster trustworthiness but also to reinforce a balanced, nuanced approach to data interpretation and representation.

Standards of Quality

In terms of standards of quality, qualitative research can be assessed on the worthiness of its topic, rich rigor in data collection and analysis, sincerity on the part of the researcher, credibility of the resulting claims, the significance of its contribution to existing literature, the resonance of its findings, and its ethical execution (Tracy & Hinrichs, 2017). For this study, the guiding framework for qualitative quality is based on Tracy's (2010) "Eight 'big-tent' criteria for excellent qualitative research" published in *Qualitative Inquiry*. The dimensions of this model based on the assertions of Tracy and Hinrichs (2017) are presented as follows:

Worthy Topic

A worthy topic is one that is relevant, timely, significant, and compelling, and such a topic may develop importance over time within a specific discipline or be specifically contracted for further study by institutions or agencies (Tracy & Hinrichs, 2017). The growing importance of collaborative efforts and engaging with communities highlights the relevance and significance of this topic. Integrating participatory mapping with community engagement efforts enhances the potential for innovative solutions and meaningful connections with communities.

Rich Rigor

High-quality qualitative research is marked by a rich complexity of abundant descriptions and rich explanations (Tracy & Hinrichs, 2017). In qualitative research, scholars demonstrate rigor through careful attention to detail, methodological thoroughness, precision of evaluation, and the generation of requisite variety regarding data richness and complexity. Demonstration of rigor often occurs in the methodology section of research reports through the description of data collection and analysis. In terms of data collection analysis for Panajachel, I translated the protocol into Spanish and ensured that the questions were easily understood. In contrast, the Ogden study was conducted in English, and no translation was required. Regardless of the language, researchers must carefully document their translation of raw data into notes, the organization of their data, and the analysis process by which they made claims and conclusions. I collected data from multiple sources, including semi-structured interviews and focus groups and thoroughly translated the data input from the participants. The multiple iterations of the data analysis process which involved continuous, evolving and multiple cycles of refinement of codes and themes formed part of the rigor.

Sincerity

Qualitative researchers achieve sincerity through self-reflexivity, vulnerability, honesty, and transparency (Tracy & Hinrichs, 2017). I was transparent and provided an honest reflection of the study. My goal is to present an open account of the methods used, as well as any challenges or biases I may encounter throughout the study. I provided this in my subjectivity statement detailing the process of my data collection and analysis. This commitment to transparency is essential for fostering trust and ensuring the integrity of the research process.

Credibility

Qualitative researchers attain credibility through the use of thick description, crystallization of data, evidence of multivocality (providing opportunities for voice from a range of stakeholders), and engaging in member reflections with participants (Tracy & Hinrichs, 2017). These practices contribute to the dependability and trustworthiness of a researcher, as well as the expression of an empirical reality that is reasonable or plausible or seems true and accurate. The credibility of this study is paramount to me as a researcher. Ensuring that the process and the creation of reports accurately reflect the voices, reflections and experiences of the communities is a top priority. This commitment to authenticity is essential for building trust and fostering meaningful engagement with the communities. The ability to co-facilitate the housing concerns outlined in Chapter 4, which was outside the scope of my study, exemplified how this research offered a platform for the community to articulate their needs, priorities, obstacles, and collaborative solutions.

Resonance

Resonance is about the extent to which a text meaningfully impacts an audience such that a reader can make connections between the themes or findings in the study at hand and

generalize those trends to his or her own life or other areas of research (Tracy & Hinrichs, 2017). The recommendations provided will focus on integrating participatory mapping as a tool to strengthen collaborative efforts. Although this study was situated within the specific contexts of the communities of Ogden and Panajachel, the recommendations provided are likely transferable to educators, community administrators, or anyone looking to improve the fortune and well-being of their communities.

Significant Contribution

The significance of a study is largely judged by whether or not the findings extend, transform, or complicate existing bodies of knowledge, theories, or practices in new, important, and insightful ways (Tracy & Hinrichs, 2017). Having identified the gap in the literature regarding participatory mapping and community engaged research, my goal is to explore this knowledge further, improve existing practices, and empower others in the process.

Ethics

Ethical qualitative research can be categorized in four ways: procedural ethics, situational ethics, relational ethics, and exiting ethics (Tracy & Hinrichs, 2017). The role of the Institutional Review Board (IRB) and its procedural guidelines provides a crucial level of oversight. While the research aims to foster closeness and co-creation of knowledge, the fact that it was conducted in two different contexts both in the Odgen community and the Guatemalan community. Before data collection commenced, I applied and received approval of the research proposal and data collection process from the Institutional Review Board of Kansas State University.

I was dedicated to respecting all collaborators and was intentional about the way I approach both communities and made concerted efforts to avoid any unintended consequences,

ensuring that the research is conducted in a responsible and respectful manner. The following section addressed research ethics.

Research Ethics

A major consideration in research design is the ethical consideration of data collection. It is important for a researcher to adhere to ethical guidelines that seek to avoid putting pressure on or forcing any of the respondents to unwillingly participate in the research. Ethical considerations are required with respect to issues such as research topic relevance and design, recruitment, the collection of data and the portrayal of participants in the subsequent research report (Haines, 2017, p. 221).

A notable phase for this study was the approval of the IRB by the Kansas State University on January 21, 2025, and March 12, 2025 (Appendix A). Given the international scope of this study in Guatemala, ethical considerations included the use of an interpreter to maintain accuracy and integrity of participants. This approach is consistent with ethical concerns as well as regulatory requirements.

Clandinin and Connelly (2000) addressed the issue of power dynamics between the researcher and participants as another crucial ethical consideration. I was mindful of these concerns and did not reveal information shared by participants or disclose their identities during the data-gathering process to anyone else. I ensured that confidentiality was upheld by not disclosing participant information or identities during the study. Names of participants did not appear in the research; pseudonyms and anonymized numerical identifiers were used to protect their privacy. This ensures data remains detached from personal identities, safeguarding participants throughout the research process.

Ethical considerations are required with respect to issues such as research topic relevance and design, recruitment, collection of data, and portrayal of participants in the subsequent research report (Haines, 2017).

Informed Consent

In this study, participants were asked to provide informed consent (Appendix B) after an explanation of the purpose of the research and data collection process was provided. Voluntary participation was therefore sought. Prior to data collection, informed consent was secured from each participant to confirm their voluntary participation and their right to withdraw at any time. Ethical considerations regarding confidentiality were addressed prior to the commencement of the interview procedure.

Mitigating Potential for Harm to Participants

Strict due processes were followed in order to ensure that there was no physical or emotional harm to the participants.

Ensuring Confidentiality and Anonymity

Confidentiality requires establishing honest and reciprocal relationships with participants and researcher and adhering to the ethical principles of nonmaleficence, necessity of participants' privacy and the imperative of obtaining informed consent (Petrova et al., 2014). In this study confidentiality was ensured by securing the trust of the participants by upholding the promises made in the Consent Letter regarding anonymity and informed consent. Ensuring a truthful professional relationship with the participants was upheld by conducting the interviews at times convenient and appropriate to each participant. This resulted in participants feeling comfortable and free to express their experiences and situations. I preserved the anonymity of the

participants by not revealing their names and identity in the data collection, analysis, and reporting of the findings.

Meaningful Coherence

Meaningful coherence refers to the overall consistency, soundness, and rationality of a study (Tracy & Hinrichs, 2017). The literature reviewed in this study established a fitting context for the research questions. The research questions are suitably addressed by appropriate methods that fit the paradigmatic and research alliances. The study data and findings fit with the literature and research questions. The research goals of the intended study were achieved in the analysis, and this included implications that speak to issues, questions, concerns, or controversies identified in the literature review.

Chapter Summary

This chapter discussed the key methodological considerations of the study. In this chapter, I also presented the theoretical framework that guides the study, followed by an overview of the research design. Additionally, I outlined the standards of quality and addressed the ethical considerations with an introduction to my subjectivity as it relates to the research process.

Chapter 4 - Overview of the Participatory Mapping Activities

"To propose accurate actions, you need to know the community deeply, from the perception and opinion of those who live, share and experience it" - *Ives Rocha, in Saija et al. 2017*

This chapter provides an overview of the participatory mapping activities conducted in Ogden, Kansas in the United States and Panajachel, Sololá in Guatemala providing the local context, the participants involved, and the outcomes of the mapping processes. The main purpose of the participatory mapping process was to explore how local dynamics, individual reflections, and collective experience shape engagement in social change through participatory mapping processes.

Participatory Mapping Process

Throughout history, people have used maps to navigate (Perkins, 2007). Additionally, maps can expose and connect power, learning, and knowledge (Lydon, 2003; Parker, 2006; Perkins, 2007). Participatory mapping is based on collaborative decision-making and co-production; thus, it involves bringing different viewpoints, knowledge, and experiences into actions that produce results for participants (Pappalardo, 2017). Maps have existed in various forms throughout history, representing diverse concepts and consistently serving as "symbols and instruments of power" (Cochrane et al., 2014). Historically, maps were employed by authorities and powerholders to assert and sustain dominance by selectively determining what to depict, the manner of representation, and what to exclude. These conventional mapping methodologies exemplify a "top-down, authoritarian, and centralized paradigm" (Cochrane et al., 2014).

Participatory mapping has 6 major purposes (Cochrane et al., 2014): (a) to articulate and communicate spatial knowledge to outsiders, (b) to record and archive local knowledge, (c) to enhance land-use planning and resource management decisions, (d) to advocate for change, (e) to increase capacity within communities, and (f) to address resource-related conflicts. Participatory mapping considers not only the final product but also the process; the way participants collaborate and resolve representational and spatial concerns is just as significant as the map itself. Participatory mapping projects strive to be inclusive, empowering, and transparent (p. 472). As Parker (2006) observed, “Defining and understanding community-mapping projects are problematic, complex, and contingent, but nevertheless important. Community mapping is a growing phenomenon, and evidence suggests that positive outcomes of such projects are possible” (p. 482). This collaborative effort enables community-driven action, and it aids communities in comprehending the difference between where they are now and where they would like to be. Communities can agree on a desired future, acknowledge their current situation, and choose the necessary procedures to reach that goal.

This participatory mapping process was conducted under the umbrella of community engaged scholarship (CES). Community engagement has become one of the core responsibilities of higher education and such engagements characterized by capacity building and mobilization of knowledge and resources can mutually benefit communities and higher education institutions resulting in positive social change (London et al., 2024; Panek & Vlok, 2013). According to Eder et al. (2023), “The number of community-engaged and participatory research projects has greatly increased over the past few decades, contributing to both additions and refinements in methods and to statistics and stories about research studies and their outcomes” (p. 1).

Participants were guided through the mapping exercise and the transect walk, which includes physically walking around previously defined areas within the community. These walks are an effective tool to verify information provided on maps, both directly and through discussions with people met along the way. Transect walks are generally designed for a small group to maximize interaction opportunities and were utilized in both communities involved in this study.

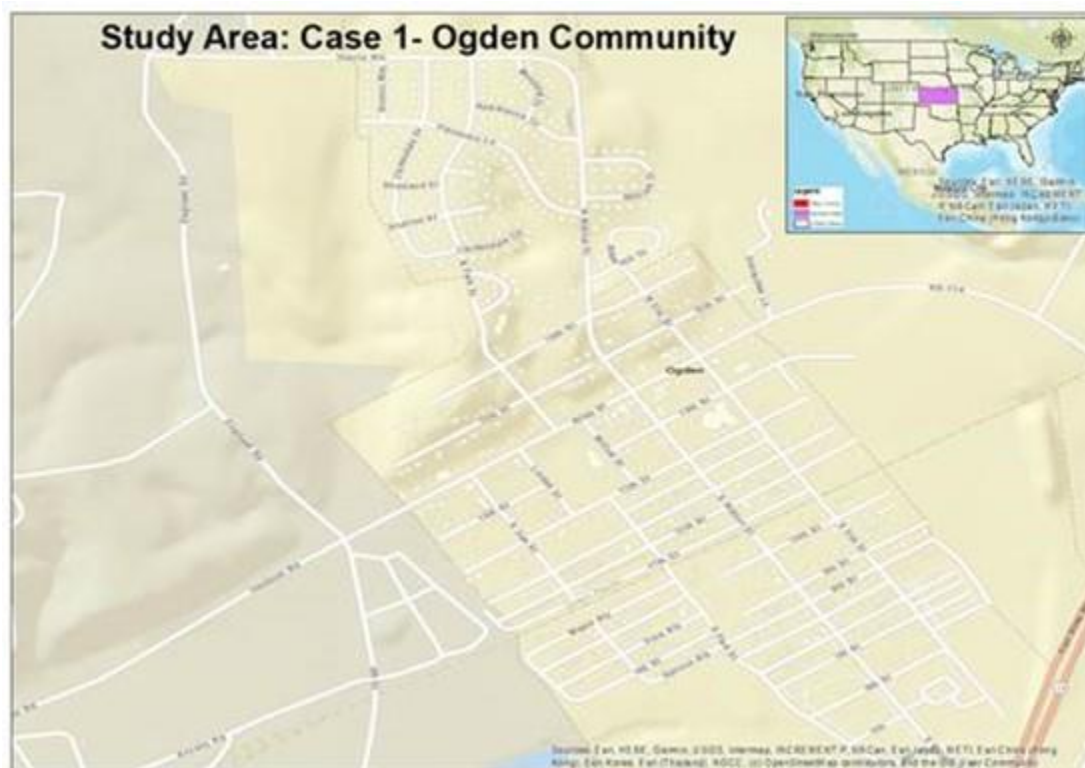
Case 1: Ogden, Kansas, United States

The City of Ogden, Kansas is a small community of 1,661 located adjacent to Fort Riley, a U.S. Army base. Ogden has some unique transportation challenges as the primary access point to the Fort Riley Army Installation (Volz, 2025). Ogden is considered an area of persistent poverty (Areas of Persistent Poverty and Historically Disadvantaged Communities Tool) and according to the US Census the median income for Ogden is \$47,900 which is well below the statewide median of \$68,5500 (Volz, 2025). Ogden is a poor community and has historically faced challenges larger wealthier communities in the region have not had to address and the area also has a high percentage of disabled residents, due to the high number of Army retirees and medically discharged (Volz, 2025). Ogden also ranks high in all transportation insecurity factors and is considered disadvantaged in access and safety and has a history of high disability rates coupled with poverty and limited access to transportation, health services, higher education, and food sources (Volz, 2025).

The community Ogden faces the challenges associated with economic growth: housing affordability, transportation, responsive wage and job growth and spreading the benefits of growth throughout the community (Ogden City Council, n.d.). Improvements to roads, sidewalks, and crosswalks are essential and his directive focuses on making these needed

improvements through collaborative partnerships to enhance public safety (Ogden City Council, n.d.). Maintenance and access to amenities such as outdoors and local trails are critical elements in preserving quality of life for residents (Ogden City Council, n.d.). It is also considered that the image and appearance of Ogden can be enhanced by for example, collaborative efforts to improve the perceptions and leveraging the uniquely diverse social interactions that communities in Ogden experience (Ogden City Council, n.d.).

Figure 4.1. Overview of the Study Area



Mapping Process

The participatory mapping process in Ogden was based on a satellite image with the community boundary divided into four quadrant and printed on wide format paper, and objects in the satellite image were observed and used as reference for the community mapping process. The participants who participated in the workshops were drawn from a wide spectrum of the citizenry of Ogden community. These included community members, local businesses owners, civic

leaders, and representatives of community organizations. Participants were provided with drawing material (i.e., colorful pens, stickers, a map of the area, and a few blank sheets of paper) to divide the community into walkable distance using the prepared aerial photo of the community (Figure 4.2).

Figure 4.2. Tabletop Mapping



The mapping process was conducted within a space of two months. The adverse historic weather conditions posed challenges during the participatory mapping and transect walk activities, yet the community's interest remained undeterred. Participatory mapping methodologies aim to foster bottom-up decision-making processes (Harris & Weiner, 1998). Despite the inclement weather, participants utilized an orthorectified aerial photograph as a base map to pinpoint and map existing public amenities such as parks and community centers. The participatory mapping session occurred on February 5, 2025, amid heavy snowfall, yet the community members' determination to proceed was inspiring. Following the completion of the

transect walk, participants identified and documented the features observed, alongside their interpretations of the aerial photograph as shown in Figure 4.2.

The Ogden Community Center serves as a hub for the local community, providing a range of essential services and facilities. Within its walls, residents can access the Parks and Recreation Department, the Library, and the Meals on Wheels program, offering a variety of resources and activities for community members of all ages. Additionally, the community center serves as a central meeting spot where residents can come together for various events, meetings, and gatherings. With three areas available for private event rentals, the center accommodates a diverse range of activities and occasions, further enhancing its role as a focal point for community engagement and connection.

This process involved the activities to map and label existing amenities such as parks, community centers, and sports grounds. Additionally, the participants were asked to identify non-existent amenities and infrastructures that they deemed essential for future development. During this process, participants were given the opportunity to discuss the interpretation of the aerial photograph and clarify any questions they had about the upcoming transect walk.

Outcome of the Mapping Process

Participatory mapping has taken a distinct approach, emphasizing inclusive and democratic empowerment. As community and participatory mapping have become more widespread during the last three decades, power has shifted to non-specialist community members, allowing them to participate in decisions that may affect their livelihood.

In a study investigating the food needs of Ogden residents, Mabachi and Kimminau (2012) found out that developing trust is crucial to sustaining a partnership particularly when working with underserved communities and if well managed, the benefits of academic and

community partnerships outweigh the challenges and such relationships should be encouraged and supported by communities, academic institutions, local and national government, and funders. The challenges encountered in Ogden suggest the need for sustainable development mechanisms that prioritize collaboration and community participation.

It is noteworthy that during the participatory mapping intervention, great progress was documented using participatory mapping for the housing difficulties confronting the Ogden community. It was discovered and seemed that participatory mapping was, in fact, an approach that could be used in strengthening small communities where housing-related concerns were investigated and the community's support for the initiative was evident. Following the participatory mapping experience, at the policy level, the official at the County office adopted a resolution to integrate participatory mapping into their housing discussion as a tool to be used to address the challenges facing the community.

The conversations were open and enlightening, and I was honored to facilitate the process with the other community members. It was a defining moment when more people came together to participate in the mapping discussion than in previous engagements, which had typically relied on PowerPoint presentations, close to fifty community residents registered for the housing discussion as shown in Figure 4.3. The shift to a participatory mapping approach made collaboration more tangible. The visual nature of the map and the inclusive process fostered a strong sense of community involvement.

Figure 4.3. Ogden Tabletop Mapping Exercise



Case 2: Panajachel, Solola, Guatemala

Panajachel is a lakeside town in Guatemala and provides a gateway to Lake Atitlán. In 2017, the population of Panajachel was estimated to be 10,000 inhabitants (Sánchez-Crispín & Propin-Frejomil, 2017). Situated on the northern shore of the lake, Panajachel offers a mix of tourism, cultural experience, and local life. Panajachel is one of the main tourist destinations and a hub for travelers to the shores of Lake Atitlán, which has various access routes from the capital city. There are various Indigenous areas in Panajachel with distinct cultural traditions.

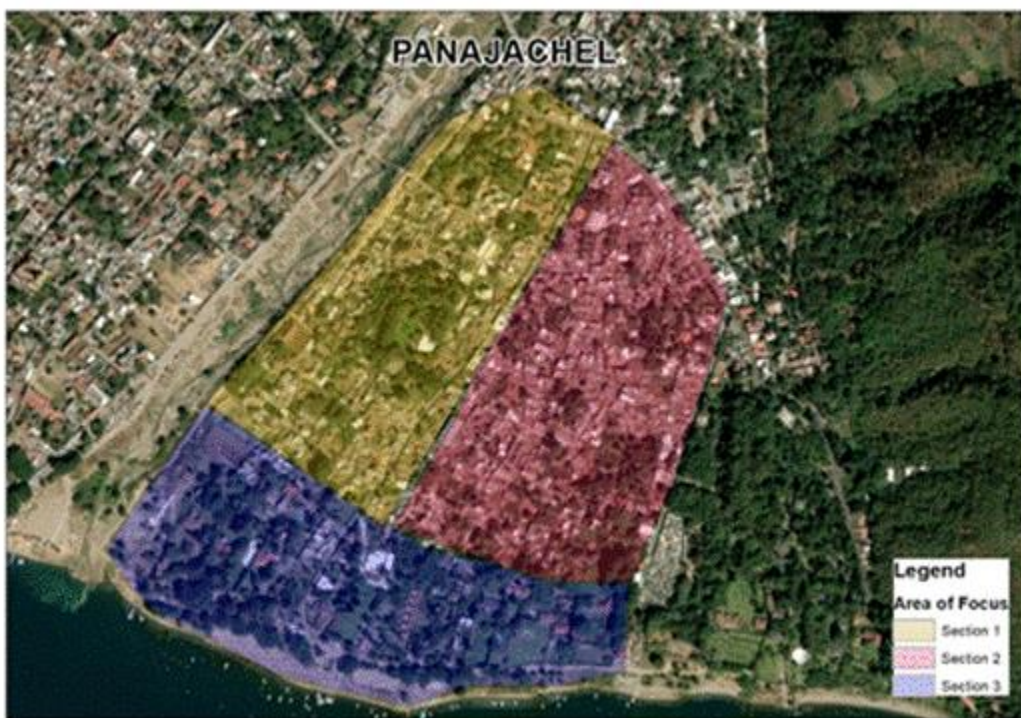
Collaboration in Panajachel, Guatemala faces challenges related to traditional institutions, infrastructure management, and community involvement. For example, Ratner and Gutiérrez (2004) argue that the erosion of traditional Mayan institutions and the influx of external actors and funding can create tensions in managing resources like water and waste.

Weakening of local governance and the need to rebuild relationships of shared responsibility are key challenges. In a study assessing efforts to address the challenges of wastewater pollution that threaten public health and tourism in Panajachel, Ratner and Gutiérrez (2004) noted that reasserting community building and relationships of shared responsibility are

session, information was translated to Spanish to ensure that community residents participating in the process could fully understand the concept of the intervention.

Figure 4.5 is the preliminary map with orthorectified images that divided the study area into three sections. The participatory mapping process was based on a satellite image with the community boundary (area of focus) printed on wide format paper, and objects in the satellite image were observed and used as reference for the community mapping process.

Figure 4.5. Defined Boundaries of Panajachel Area of Focus



Panajachel's participatory mapping process included an interdisciplinary caucus of leadership educators, practitioners, and students, which was brought together as part of the project to enable several interactive activities aimed at guiding systems-level change in Panajachel. The team and participants co-developed a community development agenda based on the needs, interests, resources, and narratives of local residents and leaders.

In a manner akin to Ogden, participants were guided through the mapping exercise and the transect walk, which included the group physically walking around the identified zones within the community. Thereafter the participants were guided collectively on planned routes for the transect walks to ensure that local knowledge and perspectives were fully considered. The participants collaboratively identified the key concerns to be addressed through the mapping activity and outlined the necessary information to be collected.

Figure 4.6. Outcome of the Panajachel Mapping Process



Outcome of the Mapping Process

Some researchers have noted a general lack of community participation as one of the challenges in Panajachel. For example, Speer and Vásquez, (2013) reported that the level of community participation in the planning and evaluation of services in rural communities in Guatemala varies across rural communities and is affected by education levels, poverty, and strength of civil-society organizations.

The participatory mapping in Panajachel resulted in rich dialogue and detailed conversation. The activity marked the beginning of our engagement and initiative to develop a sustainable development agenda. Participants were divided into groups based on thematic areas of focus. While all participants conducted the transect walk and explored keys such areas as leadership, food systems, collaboration, Indigenous perspectives, and trauma-informed care. Although the specific findings from the mapping are not included as formal research data, the participatory experience and the insights it generated are integral to the essence of this research. The participatory mapping initiative also contributed to the development of an article on systems leadership (Benavides et al., in press), which has been completed and submitted as part of the outputs of this process.

Chapter Summary

This chapter looked at the mapping process and the outcomes of the mapping, as well as the activities that took place in both communities. I also discussed the after effect of the participatory mapping as part of this section. While the focus is on the reflection and experience with the community mapping, the process varied between the two communities. This section focused on the participatory mapping process, and further discussion about how the mapping informed this dissertation research was detailed in Chapter 3.

Chapter 5 - Findings

In this chapter, I present the findings of this study, weaving together the voices of participants through their reflections, observations, and documentation of the experiences. The approach to provide a holistic narrative of what emerged during the research in a coherent form. A review of the research purpose and questions begin this chapter, followed by an overview of the themes. These themes are depicted with quotes and contextual interpretations, which reflect the experiences and reflections shared by the participants.

In order to provide a clear picture that helps to explain how the multiple case study is structured and typically communicated, this chapter aims to situate the study within the broader qualitative research to generate knowledge while allowing space for the voices of the participants to be heard. In Chapter 6, I will expand upon this foundation, providing discussions of findings, conclusions and recommendations.

Research Purpose and Questions

The purpose of this qualitative multiple case study was to explore how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes. To address this purpose, this study examined the experiences and reflections of 13 local residents in two small communities—Ogden, Kansas in the United States and Panajachel, Sololá in Guatemala. This research considered the following research questions:

1. What influencing factors of social change did participants identify through the participatory mapping process?
2. What leadership drivers did participants foster through the participatory mapping activities?

3. In what ways did the participatory mapping process enable strategic action to leverage collective power?

Overview of Themes

I identified three themes: (a) navigating participation, (b) catalyzing engagement, and (c) capacity building. Several sub-themes within these elaborate further on collaborative partnerships in small communities. These themes and subthemes are summarized in Table 5.1.

Table 5.1. Summary of Themes and Subthemes

Themes	Subthemes
Navigating participation	Historically Low Levels of Participation and Collaboration Among Community Members Leadership challenges Resources constraint
Catalyzing engagement	Effective leadership and communication Understanding of the purpose of collaboration and participation Motivated community members Community advocates Inclusivity, visibility, different perspectives and community ownership
Building capacity	Community capacity building Individual capacity building

Navigating Participation

The focal point of this theme is centered on the factors that pose challenges to collaboration and/or participation in small communities. Three sub-themes address distinct but interrelated aspects of the broader theme, exploring the history of participation and collaboration in the communities, leadership-related challenges impacting participation, and access to resources that could enable progress. Together, these sub-themes illustrate a cohesive

understanding of the underlying pattern and significance as reflected by participants for this study.

Historically Low Levels of Participation and Collaboration Among Community Members

Ogden participants were of the view that there are inherently low levels of participation among community members thereby posing as a challenge to collaboration. For example, Ogden Participant 2 revealed:

We should be able to find different ways to get people to participate and make sure that it includes as many people, it's inclusive as possible. Some people just don't want to participate and do not care about the hands-on experience.

Getting community members to come together is challenging. Other participants alluded that it is inherently difficult to obtain community buy-in regarding participation in community issues. For example, Ogden Participant 3, noted, "I think the more people you get to buy-into it the better your goal, my challenge is on how you get the buy-in but I think mapping is a good start."

Other participants in Ogden noted that there are generally low levels of participation in community issues among community members due to generational thought processes of helplessness, compounded by high levels of illiteracy, negative persona, and poverty in the community. Historically, community members in Ogden do not generally come together. For example, Ogden Participant 1 conveyed, "One of the biggest kinds of uphill battle we have in Ogden community is overcoming the people thought process, that negative persona, just to let people have a better outlook of Ogden." Similarly, Ogden Participant 4 indicated that, "I will also say starting at the pre-school, because if you don't start at a young age with trying to help with illiteracy, generational poverty and generational thought process of helplessness and till that

is broken, you get the same things over and over again.” Ogden Participant 6 added, “I would like to see more of the community coming together, just more community involvement.”

In Panajachel, some study participants believed that historically there are low levels of participation and/or collaboration among community members. For example, Panajachel Participant 1 responded, “It was very important to get to know the people because for this collaboration, people don’t really collaborate, people don’t participate right, we don’t really participate and kind of understand and get the answers.” Panajachel Participant 1 elaborated, “We haven’t had that collaboration, maybe that sort of means we can sort of this and maybe continue getting that awareness into the community.”

Similarly, other participants in Panajachel pointed to the historic low levels of collaboration in the community as posing challenges to any efforts of collaboration and/or community participation. Panajachel Participant 2 indicated, “We should start with our own, where we live, start with us, start moving our little sector in community and then we can start seeing more changes to the whole community.” Some study participants in Panajachel suggested the inherent challenge of low levels of collaboration and/or participation by indicating that there are low levels of social consciousness among community members. For example, Panajachel Participant 3, noted “There are many people as myself, I believe that they are not conscious, so this participatory mapping process can bring that social consciousness like, ‘What are we not doing well, what are doing right, how can we change?’” Panajachel Participant 3 elaborated that some sections of the community are “closed communities,” as they do not generally interact with others thereby posing as a challenge to collaboration and or participation in community issues.

Panajachel Participant 5 responded, “A lot of people just take a little longer to understand the needs and work towards that.” This was echoed by Panajachel Participant 3, who indicated

“A lot of people are very closed. And this whole process has made me think of how we can approach, how we can start that connection when people are not open.” This suggests that some people are slow in accepting any changes, and this poses a challenge to collaboration and/or participation in community issues.

The historic lack of interest in issues that affect the community was also noted by other study participants. For example, Panajachel Participant 9, indicated “We don’t really participate in community efforts in the *COCODEs*², we don’t go to those meetings, and we don’t get to know the actions that are being taken or that are in place.” In both cases, it recognizes and exemplifies the inherent historical challenges of participation and collaboration. This underscores the importance of intentionally bringing people to work together, even those that are disengaged in community initiatives of collaboration.

Leadership Challenges

Some participants in Ogden indicated that the challenges faced regarding local participation and collaboration were leadership related. For example, Ogden Participant 2, indicated “In my position that is something that we struggle with every day, getting people connected and getting them and participate and I don’t know if that is a generational thing but it seems like it’s harder to get people plug into the community, we definitely struggle and wish we have answers on how to be better at it.” Other participants suggested there was a general lack of key people in the community who can effectively get things done. In other words, participants noted the general lack of people who could champion community collaboration or drive that participation and collaboration. For example, Ogden Participant 5, noted that, “The question is

² A COCODE is a community development council (consejo comunitario de desarrollo), part of a national system in Guatemala to promote citizen participation in local development efforts.

how the members are organized to identify problems. I have to be honest, and this is our weakness, we lack at times being organized, it is an area that we can improve on.” Similarly, Ogden Participant 1 indicated that,

Just like any organization, whether it is a church, or you know anything else, it’s kind of the same 10% of people that seem to do 90% of the work. And that’s kind of the same five or seven or ten people. Unfortunately, when Kim passed away, if we can get a little more involvement with more people, a few more Kims in the community that are really involved, that can exponentially help us and move forward.

The lack of effective leadership has resulted in the unavailability of community organizations that proactively identify and deal with problems. For example, Ogden Participant 1, revealed “if there are certain problem or something need to be done, we have the same five to seven people that will address it and roll their sleeves and get stuff done.”

Despite some efforts to engage with community members, some community leaders still face challenges in trying to get community members to participate in community issues. For example, Ogden Participant 2, noted that, “Yearly we have some planning process going on, I reach out to people that haven’t participated that has not been successful, so I try to bring in marginalized population its difficult and some people haven’t participated in the past.”

Participants alluded to the lack of effective leadership resulting in the non-existence of well-thought-out community strategies that can bring community members together. For example, Ogden Participant 5, responded that, “I think we don’t know what strategies that we need to employ, we have tried a lot and we are not effective, maybe there are strategies we are not doing maybe because we are not aware of them.” The lack of effective leadership resulting in the non-existence of a community purpose was also noted by some participants as posing a

challenge to collaborative efforts in the Ogden community. For example, Ogden Participant 3, responded that, “With events, people can just show up and have conversations and not necessary that they are guided or intended for any particular purpose.” In addition, Ogden Participant 3 argued that “Collaboration takes some work, dedication and time, but we could start to change the culture, you need a vision. Right now, it feels the community has no vision, where we going and how do we get there.”

Participants believed a lack of leaders who were open-minded and could influence people to get together was also contributing to the general low levels of collaboration prevalent in the Ogden community. For example, Ogden Participant 3, highlighted that “I think that having people that are open-minded can get people engaged and figuring out how to get people that are not open- minded considering other option, that is cultural practices that it can affect how we engage with people.”

Participants in Ogden suggested that the challenges in getting people to collaborate were due to lack of leadership skills to get people to collaborate. For example, Ogden Participant 3, reflected that, “This is something that I struggle with, that is leadership skill that can lead to changing minds and including those that disagree and get people that are close minded. Again, far easier said than done.”

Participants in Ogden revealed that self-interest serving organizations have arisen as a result of ineffective leadership. Different interests of different organizations affect collaboration despite that these different organizations have good intentions for the community. For example, Ogden Participant 2, conveyed:

We have to overcome a lot of obstacles, we kind of have a different perspective and a different focus and that’s kind of a challenge of a community. We are all working in our

spheres and having our own needs. I don't think anybody has a plan or a vision for Ogden that is bad – I don't think there is any one of us in this group that doesn't want to see Ogden grow and thrive.

Participants in Panajachel believed the lack of inclusivity denoted the lack of effective leadership in the community. For example, Panajachel Participant 1 mentioned that due to their perceived lack of knowledge, young people feel excluded from community issues. Panajachel Participant 1 pointed that, “There is fear of participating because people would say, Oh, you are young, you don't know anything.”

Participants described the challenges of effective leadership manifests itself in the lack of foresight by some leaders who seem not to fully understand the community's realities leading to some community members not wanting to participate in community issues. Panajachel Participant 4 mentioned that, “Especially with our leaders, specifically the mayor. If only the Mayor as part of our community was able to see the realities and the necessities and see the people, we will be proud and that will bring a lot of change to all the people.”

Participants in Panajachel believed that organizations working in isolation of others (no collaboration/partnerships/co-operation) and depicting self-serving interests signified the lack of effective leadership. For example, Panajachel Participant 5 indicated that, “The community is full wealth of talents, unfortunately they are going individualistic and are not sure how to bring the community together.” The self-serving interests of some organizations were also cited as challenges to collaboration and participation. Panajachel Participant 2, responded that, “The *COCOCDEs* should listen to us but sadly they mostly focus on themselves. As we saw yesterday, the *COCOCDEs* representative was saying, what are going to get in return and that's why things are not being done for the community.” Panajachel Participant 7 indicated that,

“They don’t think collectively, like *COCODEs*, they just think of their own area of interest.”

Panajachel Participant 2 noted that, “Some leaders only benefit themselves and it’s not collective, they don’t think about the, the plight of the Panajachel and the other needs that are in Panajachel, only their area.” Panajachel Participant 7 noted that, “A lot of organizations could help out but there is a lot of selfishness, not many go to the root of the problems. The organizations have the financial means but not the people knowledge. If they work together, we can do so much more but they don’t do that.”

The lack of effective leadership as a challenge to collaboration was also noted by a number of participants, and this manifests itself in different ways. For example, Panajachel Participant 3 responded that,

What is very beneficial is that if we were to get together, all the Councils and the *COCODEs* and the organizations in a space that we can explain what each thing does because there is a lot of fighting between them, and they don’t know exactly what each one does. And as we saw yesterday there was a big debate and fighting between two representatives.

Panajachel Participant 4 noted that, “I just believe that the church, the religious, the organizations could be leaders, or at least take a role like helping this goal. We need to know, like know exactly what it is.” Regarding the lack of effective leadership resulting in organizations not working together, Panajachel Participant 6 responded that, “Like collectively, because they all see it like this my issue, I don’t want to work with this person, I don’t want like that organization.”

According to some study participants in Panajachel, the lack of effective leadership posing as a challenge to collaboration and or participation manifested itself in the lack of

effective communication with community members. For example, Panajachel Participant 5 indicated that “In the community there is always, sense of things, going on, always research going on in the community but no like final resolve or something that can keep the community connected.”

Panajachel Participant 5 noted that, “Analyzing is very important and so is a follow-through. A lot of times we sort of sit with the impact of what we want in the community and then so what? We have to have the follow-up and Action Plan.” This implies that outcomes of community engagements are not normally shared with community and momentum or the appetite for collaboration diminishes as time progresses. Some communities end up losing interest affecting future collaboration and or participation.

Some participants in Panajachel indicated that the behavior of some leaders was unethical, resulting in some community not trusting such leaders. This poses as a challenge to collaboration and/or participation in the small community. For example, Panajachel Participant 5 indicated that, “With COCODEs you need to mobilize and sensitize them, make them aware first, and think differently. Because there is a lot of corruption, we actually need an action plan instead of a corrupt mindset.” Panajachel Participant 7 noted that, “My experience at work, a lot of people that I speak to don’t have that trust.... it’s for the leaders to go and work with the community, that can bring a lot of trust.”

Some participants mentioned that the other challenge is that community members feel no one listens to their perspectives. For example, Panajachel Participant 1 noted “We are not being listened to. Maybe we have an idea, we have a voice, but we are not going to be listened to. It just kills all the momentum.” Additionally, participants in Panajachel believed that some leaders were not culturally sensitive, and they were discriminatory in their practices. For example,

Panajachel Participant 1, responded that, “There is the kind of racism, kind of segregation. In our community there is still a lot of discrimination in our society in a sense. For example, one of the COCODEs leaders disrespected and denigrated a whole Mayan community.” Panajachel Participant 1, noted that, “But there is a big kind of challenge and things that are affected because we still see a lot of this kind of denigration in the Mayan community.”

Panajachel Participant 7 revealed that she “would get discriminated because she speaks Kaqchikel and she didn’t want her children to go through that so she didn’t teach them Kaqchikel.” Panajachel Participant 4 noted that, “We have to keep in mind that these stories come out of that same discrimination that comes in all that misinformation that still happens today.”

In Ogden, it was acknowledged that the dearth of champions who can lead and advocate within the community create a vacuum in terms of leadership. This was also reflected in Panajachel, the absence of effective leadership that will be involved in mobilizing people for shared purposes, thus creating the leadership gap and weak community cohesion. A supportive environment is not just cultural but logical, sustained collaboration requires both structural support and leadership development.

Resource Constraints

It was revealed that financial challenges have been a barrier to community collaboration and participation. This challenge not only reduced public awareness and communication but also diminished community residents from being engaged. Participants in Ogden identified lack of resources as posing a challenge to community participation and or collaboration efforts. For example, Ogden Participant 1 said that. “Money or lack of financial support has always been the number one challenge.” Similarly, Ogden Participant 2 indicated that, “We have to overcome a

lot of obstacles, and we are so close to getting no projects actually funded, I don't think anybody has a plan or a vision for Ogden that is bad." Ogden Participant 2 added that, "I'm very one person to try new things and engage and meet more people, sometimes I don't have resources and sometimes, it's about staffing and time."

Other participants noted the lack of resources resulting in ineffective communication with different segments of the Ogden community. For example, Ogden Participant 3 noted that, it's always a challenge making sure you communicate with all the population, the older generation will not be going to be reached the same way you reach high schoolers. So, communication is always a challenge."

Panajachel participants expressed financial constraints and as Panajachel participant 4 described "we cannot do anything without money, common sense, but this tool is a clear symbol of what we can do." Panajachel Participant 5 highlighted concerns about corruption and self-serving interest among certain community, "A lot of people will say, well, keep that money and support my project." The participant further added "but this reflects a mindset shift that perpetuates corruption. What we really need is a concrete action plan, rather than continuing to give in to that way of thinking."

Catalyzing Engagement

The focal point of the theme focuses on the causative factors that foster collaboration including effective leadership, a shared understanding of the purpose of collaboration and participation, the presence of motivated community members and advocates, as well as the importance of inclusivity, visibility, different perspectives, and community ownership.

Effective Leadership and Communication

Some participants in Ogden believed it is crucial for leaders to be flexible and innovative in their leadership practices if they are to be effective in driving change in their communities. For example, Ogden Participant 3 mentioned, “Some of the leadership practices have probably been seen in terms of the engagement using simple tools such as getting surveys out to community members.” Ogden Participant 2 responded that, “We have been going through the matrix of where we are every year and what I can accomplish and giving feedback from the community about which goals we should be working on.” Clear communication is crucial in driving collaboration and/or participation as well changes in communities, however it is important to consider the target population. For example, Ogden Participant 3 indicated that, “It is important to make sure to communicate with all the population, the older generation will not be going to be reached the same way you reach high schoolers.” Communication could be an enabling factor to community engagement if practiced appropriately by leaders.

Participants in Ogden noted that the type of leadership needed for participatory mapping is facilitative leadership style (leader empowers team members to participate in decision-making and collaborate on tasks, rather than solely directing them, everyone's input is valued and used to attain shared goals). For example, Ogden Participant 3 noted:

Just having somebody to be able to facilitate the conversation around it and once you get or are given prompts on participatory mapping thus get people talking – I think having someone guiding that conversation a little bit brings up different aspect of it and things to consider.

Ogden Participant 1 added “Having someone who can facilitate engagements can really start the conversation and get the thoughts flowing.”

Other study participants in Ogden, Kansas expressed that in addition to having a facilitative leadership style, participatory mapping initiatives need visionary leaders who can enable community members to start asking themselves questions they have thought of before and provide ideas they never thought they were capable of. For example, Ogden Participant 4 noted:

You need a visionary, networked and neutral. Network who knows people and someone who can also cast a vision. Toss out ideas especially in communities with a sense of helplessness – people that all they can see is what they see, and you need someone to be able to toss out things they haven't thought of before and ask questions they haven't thought of before or bring up ideas that help the imagination and not the same old.

The importance of visionary leaders was supported by Ogden Participant 3 who highlighted “We can improve it, it will take some work, some dedication and take time. We could start to kind of change the culture. You have to have vision, where we going and how do we get there.”

For collaboration in the community to be successful, there is a need for leaders to play a critical role in positively influencing the community and leading by example. For example, Ogden Participant 3 explained,

I think we really need the people who are in leadership positions in the community, if we could get some of the city leadership in the town to really see where we can start, that's, why they are called leaders, because leaders tend to attract people to their guidance and if leaders start leading in a certain way then the community will follow and our leaders can start leading by example now.

There is a need for leaders to be flexible in adopting new things. For example, Ogden Participant 2 noted “I'm very one person to try new things and engage and meet more people.” Ogden

Participant 2 indicated that “I think you have to have leaders that are open to ideas and different voices and open to change, you get stagnant if you have leaders that are not willing to change.”

Participants in Panajachel, Guatemala believed that as a strategy to cultivate a culture of collaboration and social change within the community there is a need to provide feedback to communities after an engagement. For example, Panajachel Participant 1, indicated that, “Leaders, should put out something that could be like a report or like a pamphlet of this is what was talked about so that we can see the importance of what was discussed and the action to tackle the issues. And that helps with community connection and could lead to collaboration.”

Some other participants believed there is a need for effective leaders in the community who can positively influence others. For example, Panajachel Participant 2 indicated that “The change has to start with one person and then like bleeds to everyone else.” Participant 6 explained that there is a need for passionate and influential leaders who can positively influence to collaborate with others and participate in community programs. Panajachel Participant 4 explained that “We can ideally start because we need to plant a seed because we have to change ourselves first then that seed grows the roots, and it spreads. We need people that are passionate and can influence more people and teamwork is essential.”

Effective and clear communication is an important factor in driving successful collaboration. For example, Panajachel Participant 6 indicated that “You need to have that trust right, it involves a lot of follow-ups and follow-through and ensuring there is some sort of constant communication and in ensuring that that trust is being build.” While both communities acknowledged the decline in visionary leaders that will aid participation, they emphasized commitment to engagement through communication and collaboration. This aligns with Ospina et al. (2012), who highlights that effective leaders also recognize the humanity of individuals and

promote faith in the potential contribution of anyone who is involved in the work of collective efforts.

Understanding of the Purpose of Collaboration and Participation

Participants in Ogden, Kansas provided varying responses in terms of their understanding of the purpose of the participatory mapping process they experienced. In other words, there were varying degrees of understanding of the purpose of the participatory mapping process. For example, in terms of their own understanding of the purpose of the mapping process, Participant 1 indicated that, “It kind of tells people about the resources that are right there in Ogden and see how they can make the most of them right here.”

Ogden Participant 2 reported that the purpose was about “Trusting in the other group of the community members and talking about one’s working, currently how things currently is being done and then mapping ways things can be different and work how the community wants it to be different and the changes they want to make.” Ogden Participant 3 said the purpose was about “looking at what’s already here in Ogden that could be almost built up and from within rather than try to come from outside and do something new. And so, for me it’s looking at your community and saying, ‘Ok, so these pieces are probable too far away to study on or focus on.’” Participant 4 indicated that the purpose was about “talking about a lot of things in Ogden and put down in the mapping and discussing the different areas and what needs to be looked up.”

The study participants in Panajachel, Guatemala provided responses in terms of their understanding of the purpose of the participatory mapping process they experienced. The degree of understanding of the purpose of participatory mapping varied among participants. In terms of own understanding of the purpose of participatory mapping, Panajachel Participant 1 expressed that, “The purpose was to know more about of about the community, Panajachel, opinions, what

people knew and what they didn't know and their needs as well as knowing more about the community and the locals in that area.”

Panajachel Participant 2 revealed that her understanding of the purpose of the participatory mapping was, “About a useful tool and getting a lot of knowledge and things and got to see and hear and learn through this process.: Panajachel Participant 3 stated that, “The purpose was listening to the community, listening to what people needed, what they were going through and getting the insights on the community of this, of this whole process.”

Panajachel Participant 4 indicated that, “this purpose is to know more and get to know our community.” Panajachel Participant 5 said that “And so then in my mind the purpose of the mapping process was to learn stories, to listen to stories in the community and to understand the needs of the community as well.” Panajachel Participant 6 reflected that, “At the beginning, I felt lost, I had no idea and felt there was no plan. Afterwards I understood the purpose was to understand where the problems are and know how to collaborate in those areas.” Panajachel Participant 7 said that “The purpose was for us and the community to know more about the community and how we can start taking action and get more conscious about the different problems.”

Motivated Community Members

Motivation is one of the pre-conditions that should prevail to enable effective collaboration. In Ogden, the study participants pointed out several reasons that motivated them to participate in the participatory mapping process and or have a keen interest in the social and economic challenges in their community. For example, some participants place their religious beliefs as a motivation factor to participate in any processes they think can be beneficial to their community. They considered that as God's plan, destiny, call to a mission and considering that

growing up they had always wish to help communities in any ways possible to be in a place where they never really intentionally planned to live. For example, Ogden Participant 1 indicated “We work here because it’s really like God’s call because there is a lot of poverty here and I was looking for a corridor of getting involved in the community, like just being in the church and I stumbled upon this space and mission here.” The motivation and or desire to participate in the participatory mapping processes was further accentuated because of the prevailing conditions in the community, for example, the high levels of poverty in the Ogden community and some participants were motivated to help in any way possible to overcome poverty.

The interest or desire to contribute to minimizing poverty or overcoming challenges in the community and demonstrate especially to kids that one’s current circumstances can be changed for the better if better decisions are made motivated the participants as they viewed the participatory mapping as a mechanism which could be utilized to bring people together to have conversations of issues that need to be attended to in their communities. Some participants identified a sense of community belonging as a motivation factor for their participation in the participatory mapping coupled with the trust, they held that participatory mapping could provide an avenue for people coming together to identify issues affecting their communities as well as collaboratively working together to proffer ways of overcoming identified issues. Ogden Participant 1 added “So we particularly have an interest in helping the students and the community, to help them to overcome poverty, we want to help the community and have a sense of community, and we want to embed ourselves in the community.”

Participants in Ogden, Kansas said they were motivated to participate in the participatory mapping process because they feel they have an interest of the Ogden community at heart. For example, Ogden Participant 2 noted “I started working here long before I lived here, so rural

Kansas has my heart. I want to make a difference in the community and make those changes to make our town better and to make it what we want it to be.” Participants indicated they were motivated to participate in the participatory mapping process because they deeply consider Ogden as their hometown and community which they have pride in. Some participants noted that despite not being originally from Ogden, they have had experience in working in the area, so once they decided to permanently settle in Ogden, irrespective of the area being a transient area, they had gathered knowledge and experience on the challenges of the community and felt it was also their responsibility to make the area better and relished the opportunity of participating in the participatory mapping process.

Participants in Ogden, Kansas said they were motivated because they personally care about the community and the experience of working with some of the most vulnerable members of the community, in particular children, made them see impacts of some of the socio-cultural challenges daily. For example, Ogden Participant 3 illustrated “I care about the community, we see the issues firsthand, like some of our kids dealing with addictions in the family or poverty or the crime rates.” In this regard the participants indicated that they regarded the participatory mapping process as an opportunity to start engaging in issues and finding ways to bring some positive socio-cultural changes to the community.

Other participants in Ogden, Kansas said they were motivated to participate because they considered it a fulfilling personal duty and responsibility to be involved in any community initiative or project perceived to bring benefits to the community. For example, Ogden Participant 4 stated that “This is my hometown. It’s my community. This is where I will live for the rest of my life.” The desire to want to help in any way possible motivated some of the participants to participate in the participatory mapping activities that were facilitated in the small

community of Ogden. Some participants indicated that they felt that participating in the participatory mapping activities offered them an opportunity to meet a lot of people from different backgrounds who also felt the need to take responsibility and a sense of purpose for the community situations. Being members of existing community groups also motivated some participants in the small area of Ogden to participate in the participatory mapping process. For example, being part of a Faith-based organization (FBO) motivated some participants as they felt the need to participate in community activities came from the faith that God has a call to them to not only care about themselves but also care for other people around them.

In the community of Panajachel, most study participants indicated they were motivated to participate in the participatory mapping process because of the awareness they had regarding the current challenges and hardships faced by the community. Participants indicated they were motivated to be part of the sections of the community that want to bring positive change to the community. Some participants indicated they were motivated as a result of a sense of community and sense of responsibility. For example, Panajachel Participant 1 indicated that “what motivates me the most are the children that are suffering a lot from lack of love, violence in the houses, negligence and economically and wants to help.” Similarly, Panajachel Participant 5 noted that, “my motivation is because I want to help the children, and I feel the need to take responsibility as a member of this community.”

Participants in Panajachel indicated that a sense of community motivated them to participate in the participatory mapping process. The potential for action to be taken to address the challenges faced by the community motivated some participants in the process. For example, Panajachel Participant 2 indicated that, “what motivates me is the people, all the problems I see. My sense of community, having people being heard, and actual action taking into account.”

Other participants in Panajachel commented that they were motivated to participate because they want to set an example to their children as they believe that there is value in having interest in community issues as participation is a potential mechanism of bringing positive change. The participants said they were motivated to generate interest in the change process. For example, Panajachel Participant 3 indicated “my son because I feel that I want him to be the change agent that I wasn’t. I want him to learn about the culture and history to have this knowledge and be part of the change.”

Participants in Panajachel explained that they were motivated to participate in the participatory mapping process because of the need to gain more knowledge so as to be more aware and conscious so that they can be capacitated to drive change in their community. For example, Panajachel Participant 4 commented that, “So my motivation is to get more knowledge and experience and learn so as to put into practice and start being the influence and bring awareness so as to push for social change.” Panajachel Participant 4 added that, “Bringing that awareness, pushing that social change by myself starting the change with my community and with her family, being the influence, to be that change agent.”

Participants asserted that they were motivated to have a keen interest in the social-economic challenges in the Panajachel community because of their social position as they work with the *Sorutuf* and want to help children in the community. They also indicated their understanding of the cultural and historical backgrounds of the community motivated them to participate in community initiatives. For example, Panajachel Participant 6 indicated that, “what motivates me is my work with *Sorutuf* and the support that they give to people, especially kids. People talk about the loss of their language and traditional dress, and that there is no interest in participating and fixing problems in the community, so this pushes me to want to help.”

Similarly, Panajachel Participant 7 indicated that “what motivates me is I want a better place for the community and more opportunities for these kids. I also want people to see that Guatemala is amazing and have potential, especially Panajachel.”

Some participants in Panajachel indicated they feel connected and motivated to work together with others in the community because they realized there exists an appetite for change in the community. For example, Panajachel Participant 5 explained that “I have seen the feeling of community members wanting a change in the community.”

Community Advocates

Some study participants in Ogden indicated that there is a need for communities to have key individuals or groups of people who have a sense of community and are willing to assist in initiatives designed to improve the situation of the community. For example, Ogden Participant 2, noted that, “there are some key *good to go to people* in the community that if you want to get things going or get things started, you will start with them, and these are key people in the community to talk to make those connections.” Ogden Participant 1 added that, “I completely agree, just like any organization, whether it is a church, or anything else, it’s the same 10% of people that seem to do 90% of the work, the same five or seven or ten people that are really involved and can exponentially help with community collaboration.”

The findings show that some participants mentioned the need for existing groups or experienced groups or a variety of expertise to achieve successful collaboration and or participation. Some participants in Ogden felt that being a member of an existing community group that acted as change champions stimulated them to participate in the participatory mapping process. For example, Ogden Participant 1 said, “I am a fellow member and involved in *Brick* and its mission, in that I am pretty involved in the community.” Some participants pointed out

that community members with experience in community made the collaboration work better and provided a platform to collectively solve problems. For example, Ogden Participant 4 responded that “We have certain community members, and we have a couple of outspoken citizens with some very good ideas and they will give a reason and they help out a lot in the community.”

The study participants in Panajachel mentioned that some groups of talented community members exist in the community. The challenge is that this opportunity is not being effectively utilized in terms of bringing people together to work towards solving some of the existing community challenges. Panajachel Participant 5 commented that “the community is full of people with a wealth of talents. We are missing these opportunities of gaining from the people with talents, and unfortunately people are going individualistic.” The need for expertise in teams was highlighted by Panajachel Participant 6 who noted “I especially liked the variety of the expertise in my team, it kind of make the job a little easier in connecting with others, brings a feel of capacity and people, so the variety of expertise in the group really helped.”

Inclusivity, Visibility, Different Perspectives, and Community Ownership

Participants in Ogden believed the key strategies to collaboration and community engagement include inclusivity, being visible, cultivating a culture of considering different perspectives in decision making and developing community ownership (involvement and responsibility that a community takes in projects or activities within their area, fostering a sense of belonging, control, and accountability. Ogden Participant 1 commented,

We need more people to be involved transparency, to be visible so people can see and know what decision has been made perhaps maybe they could lend their voice and get behind it, having our community more engaged in the decisions that are made.

Ogden Participant 2 noted that, “Being able to find the different ways to get people to participate and make sure that it is including as many people, its inclusive as possible.”

Ogden Participant 2 explained that “we are working on community stuff very open to different populations, I work really hard to try and engage some of this populations, you just have to keep trying and encourage populations that are marginalized.” Community buy-in was also emphasized by Ogden Participant 3 noting that, “I think the more people you get to buy-into it the better your goal.” Ogden Participant 4 highlighted the need for the whole community involvement by saying, “Getting it altogether and getting it fixed and done.”

Ogden Participant 5 noted that:

Cultivating a culture, but something that will take a long time and a lot of work, when it comes to whether its leadership in the community and us as the community members, I would like to see more unity – we don’t have to agree on everything but what are the things that we are on same page on and how do we work together to accomplish those goals.

Ogden Participant 5 added that, “developing community ownership and that kind of structure, community leadership and I don’t think we are going form kind of having a disengaged community. Having a really engaged community overnight, its baby steps.”

Some of the study participants in Ogden emphasized it is critical for leaders to ensure that stakeholders with diverse perspectives are acknowledged in the advancement of the community. They indicated that this can be achieved through ensuring that there is inclusivity through active encouragement of the marginalized. For example, Ogden Participant 2 noted that “we should always be open to engage different population groups, though it’s a challenge. We have to keep trying and encourage marginalized groups that don’t have a stronger voice to participate. ”

The need for inclusivity for successful collaboration and/or participation was highlighted by some study participants in Panajachel. For example, Panajachel Participant 1 indicated that, “something like inclusivity, that’s leads to collaboration.” Some study participants in Panajachel believed one of the critical elements in collaboration and/or community participation was transparency and having some defined roles. For example, Panajachel Participant 1 indicated that, “This process was very transparent and especially very collaborative especially in my group, everyone had something they were doing.” Similarly, in terms of the need for transparency in collaboration, Panajachel Participant 2 alluded that, “I believe that there was a lot of transparency especially with all the stakeholders involved.”

Some of the study participants in Panajachel indicated that it is critical to ensure that stakeholders with diverse perspectives are acknowledged. They believed this can be achieved through inclusive engagement, cultural sensitivity and being aware of the real issues communities face. For example, Panajachel Participant 2 indicated that, “Like having everyone being on board and having taking everyone’s opinion into account.” Panajachel Participant 4 stated that, “We need language, cultural awareness and sensitivity. Other people’s knowledge and skills should be acknowledged, we and civic engagement in those topics that we don’t know about.” In addition, Panajachel Participant 4 noted that, “We could have any methodology coming from other places, but we need it to be in our context. Because the methodology might work somewhere but could not be suitable or work within our context.”

Building Capacity

This main theme emphasizes capacity across two dimensions, with the two sub-themes focusing on community capacity building and individual capacity building, where participants benefited from the knowledge and the experience.

Community Capacity Building

The findings revealed that some of the study participants in Ogden believed that the participatory mapping process provided an opportunity for the community members to identify resources with potential of use, a community benefit which could not have been realized if community members had not participated in the participatory mapping process. The community gained more knowledge about the existing resources in Ogden due to the participatory process they participated in.

Ogden Participant 1 indicated that, “There are a lot of things to do here. Like I think there are several parks that kids could also be at. I think the community can have a huge impact here, I don’t think things are used to their potential.” Ogden Participant 2 indicated that:

Having the larger maps and the City’s map we could pinpoint different areas in town. I have driven in town doing inspections all the time and there is stuff in that you miss just driving and so taking a walk and looking and seeing stuff up close was great”.

Similarly, Ogden Participant 3 noted that, “You have got the school, you have the community center, you have the intersection, you have a lot going on there and you have a lot of space that can be improved. So, I think that was a different perspective for me.”

The collaboration provided community members an opportunity to initiate discussions on community issues. The collaboration provided community members an opportunity to be more aware of the issues in their community. Ogden Participant 3 indicated that, “My eyes get opened to this area. Ogden Participant 3 added that, “So just having these conversations is like a starting point.” Ogden Participant 4 shared that, “Sitting down and mapping out at the different areas in town and then walking through town and seeing things I have never noticed before, never seen before. It’s kind of an eye opener. It brings awareness.” Ogden Participant 4 added that “What

more we can do in the park. We can do certain areas in town that have been stagnant for a long time, if something needs to be done, I would love to see that.”

Participants in Panajachel noted that the collaboration and/or participation in the participatory mapping process provided an opportunity to the community members to know more about community and bring awareness to the community. Panajachel Participant 1 “It was very important for people to start analyzing and start becoming more aware of these things, getting that awareness into the community.” The collaboration and, or participation in the participatory mapping resulted in the co-creation of knowledge with different perspectives being taken into consideration, allowing for communities to have a better understanding of issues that affect them. Panajachel Participant 1 pointed that, “Fully interacted with foreigners and had this co-creation and interaction with locals and even people coming from other parts of Guatemala and having this fully and integrated walk and seeing all different perspectives, all this was very impactful.”

Some study participants conveyed that the collaboration and participation in the participatory mapping process provided a platform for the community members to be heard. Panajachel Participant 2 explained that “It was very useful and collaborative, giving the people a voice, going to them and talking and they would open up, the people felt heard, it was very interesting to listen to the needs, opinions that the people had and all the changes they want to see in their community.” Panajachel Participant 3 indicated that, “Being able to speak to people in doing the interviews and being able to hear all the different views, knowledge and ideas and being able to talk to the people.”

Panajachel Participant 3 further explained that participation in the participatory mapping enabled community members to gain some level of social consciousness and became part of the

wider community. Panajachel Participant 3 highlighted, “For example the map enabled the community members to see their community and be able to look at it themselves. being able to actually interact with neighbors, it brought the social consciousness of being part of the community.”

Participants in Panajachel said the collaboration and or participation led to conversations and dialogue among community members regarding community issues. Panajachel Participant 5 indicated that, “The tools that we used sort of forced community conversations and dialogue within a very intense structure.” Panajachel Participant 5 added that, “I think that this process helped to connect people through their human experience.” Panajachel Participant 6 indicated that, “This tool is useful in that way to shed light on all those community problems and more specifically the ones also that *Sorutuf* can help with.” The collaboration provided an opportunity to learn more about community issues described by Panajachel Participant 1, “We had a lot of sadness to see all the things that are lacking now in terms of my culture, seeing all the things and getting to know more through the people we talked to and it was saddening to see older traditions being lost.”

Individual Capacity Building

The findings revealed that some participants in Ogden, Guatemala indicated participating in the participatory mapping process enabled individual community members to see and view the community issues differently personally benefited from the knowledge and experience of other people. For example, Ogden Participant 1 stated that:

It is just like you see things in a different way. I just don't know the things other people know. People have different perspectives on different things when they have different

knowledge. That way you can take all that to make something much better than just one person with their experience. I really enjoyed that.

In terms of what they personally gained from the experience of participating in the participatory mapping process, some study participants in Ogden, Kansas said they gained the rewards of working in small groups that afforded each member's voice to be heard, and ideas taken into consideration. Ogden Participant 2 explained that "We decided that we would rather have little stations where people can actually interact. In smaller groups, I think it's easier for people to collaborate and are more open to listen in to different ideas from there." Working in small groups allowed meaningful engagement and fruitful exchange of views and or perspectives.

Ogden Participated 2, also noted that participating in the participatory mapping process brought a sense of empowerment and pride in the community as different community voices were heard. Ogden Participant 2, explained that,

People having a conversation about their community, just having community members coming together, that's real empowerment for me too and feeling like their positions are validated, it gives us a sense of pride in the community, it helps immensely when you feel your voice has been heard.

Participants in Ogden, Kansas indicated that the participatory mapping process personally helped them to view community issues in another light than before. Ogden Participant 3 noted that, "You came prepared, and you had some thoughts and perspectives that I didn't have and your thoughts and perspectives helped me look at it kind of differently and see some things."

Participants in Panajachel, Guatemala indicated they gained more in-depth information about their culture from the experience of participating in the participatory mapping process. Panajachel Participant 1 reflected that, "It was a lot of introspection because I wanted to know

about my culture. It was fulfilling for me hearing and knowing all that information from the community, now I can also teach the kids.” Panajachel Participant 2 explained that “The whole process was very beneficial for me. From doing the questions together to the walk with the maps to later on talking to everyone. Everything was insightful.” Panajachel Participant 3 described that, “This whole process made me realize a lot of stuff and that all the changes that should happen in our situation.”

Participants in Panajachel, Guatemala reported that they personally gained from engaging with different people with different perspectives and expertise, in the process widening their knowledge base. Panajachel Participant 4 described that, “This whole experience was impactful because we were able to talk to the people and them having the trust in them to do so, would open up.” Panajachel Participant 4 added that personally she believed she gained in terms of feeling a sense of belonging and inclusiveness. Panajachel Participant 4 indicated that, “I come from a closed background where I do not interact much with people. Interacting with the community gave me the trust and sense of belonging and I felt very included in the whole experience.”

Panajachel Participant 5 said, “Personally the most important aspect was becoming part of the community, listening to the community and walking in the community.” Panajachel Participant 5 added, “Getting out and understanding the community at a different level and that experience allows me to truly get to know the community, seeing how the community really is, seeing the community in a different light due to this experience.” Some of the study participants in Panajachel, Guatemala said the realization of community issues that were not apparent to them before. For example, Panajachel Participant 6 noted that, “I was impacted by the realities of the community, listening to the loss of language, the loss of the traditional dress, the loss of

Kachique. And I am thinking what is happening in the older Council, why can't they help, what are they doing?" Panajachel Participant 7 said:

I felt more empowerment because I was the only one in my group that speak Spanish, so I was definitely the one who was going to be interviewing people and it made me very nervous but after I did, I was able to build my personal confidence.

Comparisons of Main Findings

The findings in the multiple case study of Ogden, Kansas and Panajachel, Guatemala show some similarities and differences. The similarities are summarized in Table 5.2 below.

Table 5.2. Summary of Similarities Across Contexts

Themes	Sub themes	Similarities	
		Ogden	Panajachel
Navigating participation	Historically low levels of participation and collaboration among community members	Low levels of collaboration are compounded by other factors such as low literacy, poverty	Low levels of collaboration are compounded by low literacy, poverty, crime
	Leadership challenges	Lack of clear purpose to bring people together. Festivals that are held do not a clear purpose to bring people together General lack of community leaders who are visionary and networked Lack of effective feedback to the community which is tailored to different demographics Self-interest serving organizations have arisen propelled by poor leadership	Some leaders in some organizations lack the necessary skills and knowledge to influence change Lack of effective feedback to the community (lack of practice of sharing outcomes of initiatives with community) Self-serving interests of some leaders in some organizations who create barriers to participation / collaboration (want to preserve their interests)

Catalyzing engagement	motivated community members	Motivated by desire to minimize community challenges like poverty Motivated to participate in collaboration by a desire to add value to the community on a personal level Motivated by a sense of community and pride in the community, sense of responsibility Motivated by a desire to learn, gain new knowledge and experience new things	Motivated by desire to be part of people who bring social change and bring solutions to community challenges like poverty Motivated by a desire to add value to the community on a personal level Motivated by a sense of community and pride in the community, sense of responsibility Motivated by a desire to learn, gain new knowledge and experience new things
	community advocates	Generally, lack of people who could champion community collaboration	Generally, lack of people who could champion community collaboration
	inclusivity, visibility, different perspectives and community ownership	Recognizing different perspectives and different focus is a challenge in the community	Generally low levels of inclusivity and connectedness
Building Capacity	community capacity building	Participatory mapping provided opportunities for better resources planning and management	Participatory mapping provided community members opportunities to dialogue issues reading community issues
	individual capacity building	Participants indicated they gained knowledge and experience Participants indicated they felt empowered as a result of the participatory mapping process	Participants indicated they gained knowledge and experience Participants indicated they felt empowered as a result of the participatory mapping process

The differences identified with respect to the two communities are summarized in Table 5.3 below.

Table 5.3. Summary of Differences Across Contexts

Themes	Sub themes	Differences	
		Ogden	Panajachel
Navigating participation	historically low levels of participation and collaboration among community members	Mainly due to generational thought process compounded by low levels of literacy, poverty, low standards of living, negative persona, violence and substance abuse in the community. Generally community members do not just collaborate.	Mainly due to low levels of awareness, low levels of social consciousness, closed communities' that generally do not open up to collaboration, Community members generally lack trust in organizations who are supposed to drive social change in the community. Most community generally feel they are not listened to
	leadership challenges	Lack of distinct organizations that should actively assist with collaboration. Lack of clear community structure which can connect community to identify and solve community challenges Same circle of people who are always interested in community issues and try to rally the community (small circle of <i>key good to go people</i> with a sense of community	In-fighting amongst the Councils, <i>Cocodes</i> , and other organizations. Community organizations that are supposed to drive community collaboration and change work in silos Efforts to bring change are mostly driven by leaders who mostly focus on what they will gain in return if they are to bring people together to collaborate. Some leaders in some <i>Cocodes</i> discriminate other cultural groups (lack of inclusivity)
	resources constraint	Lack of resources in organizations that should drive social change	Organizations that are supposed to drive are well resourced; however they do not want share their capabilities as they work in silos.

Catalyzing engagement	motivated community members	Motivated to participate and or collaborate by religious believes.	Motivated by the interest for community to regain their cultural orientation, including traditional dressing and language.
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Chapter Summary

The purpose of Chapter 5 was to provide the findings of this qualitative multiple case study which explored how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes. The emergent themes in this study were: (a) navigating participation, (b) catalyzing engagement, and (c) building capacity. Subthemes were also identified for the main themes. Chapter 6 addresses the discussion of findings, conclusions drawn from this qualitative multi-case study and directions for future research.

Chapter 6 - Conclusion

There is no power for change greater than a community discovering what it cares about—

Margaret J. Wheatley

The previous chapter presented the findings of the study. In this chapter, I present the discussion of findings, conclusions, and recommendations. The purpose of this qualitative multiple case study was to explore how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes.

To address this purpose, this study examined the experiences of 13 local residents in two small communities—Ogden, Kansas in the United States and Panajachel, Sololá in Guatemala—with participatory mapping processes they had participated in. The data was analyzed by utilizing inductive thematic analysis through the lenses of social change, innovation, and transformation and the social change leadership framework to generate a description of collaborative partnerships in small communities. The three themes identified were: (a) navigating participation, (b) catalyzing engagement and, (c) capacity building. Sub-themes were also discerned under each of the themes.

Therefore, in Chapter 6, the main findings of the study were discussed focusing on the themes. Recommendations by the study, contributions of the research findings to knowledge, the resultant description of collaborative partnerships in small communities, limitations of the study, and suggestions for areas for further research are provided in this chapter.

Summary and Discussion of Findings and Conclusion

Navigating Participation

The collaborative nature of the participatory mapping was characterized by diverse stakeholders with different perspectives, experience, skills, and knowledge working together to

achieve a specific purpose. The participants in the mapping process were motivated by an array of reasons such as co-creation, collectivism and different perspectives being taken into consideration with exchange of ideas, sharing of knowledge and different views and perspectives being valued. Furthermore, the findings revealed that the collaborative nature of the participatory mapping occurred within a contextual backdrop of the small communities studied. The findings showed that the collaborative nature of the participatory mapping was described as one that transpired or evolved within a set of inherent and historical community contextual challenges.

Taking into account the views of different stakeholders has been reported to be critical for effective collaboration and achieving better outcomes (Child & Shaw, 2016; Falcione et al., 2019). This therefore implies that considering the different voices of various stakeholders involved in collaboration could result in the harnessing of these diverse views through idea generation, more in-depth analysis of the problems at hand and generation of better solutions. Additionally, these findings seem to suggest that collective action through the conglomeration of different experience, diverse skills and knowledge propelled by a shared purpose plays a major role in collaborative partnerships designed to bring positive change and address complex issues in small communities.

The study found that in Ogden and Panajachel there were inherently low levels of participation among community members thereby posing a challenge to collaboration. Getting community members to come together is challenging. Other participants alluded that it is inherently difficult to obtain community buy-in regarding participation in community issues. The findings noted that there were generally historically low levels of participation in community issues among community members because of generational thought processes of

helplessness compounded by high levels of illiteracy, negative persona, and poverty in the community and low levels of awareness among community members.

The findings indicated that the challenges facing Ogden regarding community participation and collaboration were leadership related. The findings highlighted a general lack of key people in the community who can effectively get things done, as well as a general lack of people who champion community collaboration or drive that participation and collaboration. Furthermore, it was revealed that a general lack of effective leadership has resulted in the unavailability of community organizations that proactively identify and deal with problems.

Findings showed that the general lack of effective leadership resulted in the non-existence of well-thought-out community strategies that can bring community members together. The lack of effective leadership resulting in the non-existence of a community purpose and vision were also identified to posing a challenge to collaborative efforts in the Ogden community. The findings revealed that the general lack of leaders who were open-minded and skilled and could influence people to get together was also contributing to the general low levels of collaboration prevalent in the Ogden community. Self-serving leaders in certain organizations were also identified as posing challenges to collaboration efforts in Ogden.

The general lack of effective leadership in Panajachel, Guatemala was predominantly characterized by lack of inclusivity of young people in community issues, lack of foresight by some leaders who seem not to fully understand the community's realities leading to some community members not wanting to participate in community issues, and organizations working in isolation of others (no collaboration/partnerships/co-operation). Additionally, the findings demonstrated that the ineffective leadership was characterized by self-serving community organizations, general lack of knowledge among some leaders, poor communication with

community members, lack of community action plans, unethical behavior of some leaders, corruption, and some leaders who were not culturally sensitive and were discriminatory in their practices.

The findings revealed that in Ogden, Kansas, the lack of resources such as funds and personnel (staff) in organizations that are supposed to serve communities posed a challenge to community participation and or collaboration efforts. The collaborative nature of participatory mapping in small communities was found to be determined by varying broad-based contextual influences such as history of collaboration in the community, leadership and nature of resources available. These findings are consistent with literature reviewed. For example, Weyer et al. (2019) reported that the past and present context of a community affect the power dynamics at play, trust and expectations among participants of participatory mapping. Corbett and Cochrane (2017) posited that leadership, organizational capacity and resources contribute to variation in participatory mapping outcomes.

Historical, social environment, political-economic context, trust, nature of interaction, and mechanisms in which people's contributions are expressed and responded to affect participatory mapping process (Cochrane & Corbett, 2018; Jankowski & Nyerges, 2003; Weyer et al., 2019). Challenges can also emerge with participatory mapping due to disparate literacy levels, poverty, language barriers, logistics of using this approach in remote areas with poor infrastructure, and accessibility (Craig et al., 2002; Hussein, 2003; Weyer et al., 2019).

As a result of the participants' experience with participatory mapping, this study provides more insights into the nuances of contextual influences on collaboration in small communities. Such contextual influences include generational thought processes of helplessness, low levels of awareness among community members, lack of people who champion community collaboration,

lack of community purpose and vision, self-serving leaders and community organizations, lack of inclusivity of young people, unethical leaders and marginalization.

These findings suggest that contextual factors of small communities play an important role in shaping participation in collaborative partnerships as well as impacting on the success of the collaborative initiatives, in this case participatory mapping. This further suggests that stakeholders seeking collaborative partnerships in small communities should seriously consider obtaining in-depth understanding of the contextual factors of such communities. These findings further suggest the importance of having not only a generic understanding of collaborative partnerships, but a context-specific understanding of it as well. Proper consideration should therefore be given to the historical, cultural, socio-economic and political contexts in which participatory mapping is implemented to ensure its equitable application.

The findings regarding how participants described the collaboration nature of participatory mapping are consistent with the social change, innovation and transformation framework. Drawing from various theories and conceptions of the framework emphasizes three key elements across theories: causative factors of social change, rate of social change, and impact of social change. Viewed through the lens of the causative factors of social change, the study findings revealed these factors chiefly described as the collective action of stakeholders and community members constrained by contextual factors such as the historical challenges of collaboration in the communities, leadership challenges and resource challenges.

Catalyzing Engagement

The findings revealed that the study participants in both Ogden, Kansas and Panajachel, Guatemala highlighted the need for effective leadership and communication as a learning experienced through the participatory mapping. The attributes of effective leaders that

participants indicated included being flexible and innovative in their leadership practices, visionary, ability to positively influence others and drive change in their communities, clear communication in driving collaboration, flexibility, feedback provision, being able to empower others, being open to ideas and different voices and being open are to change as well as being passionate. These findings suggest a more nuanced understanding of the characteristics of leaders with traits that are essential for the success of participatory mapping in small communities, particularly the need for passionate leaders.

These study findings demonstrate that effective leadership contributes positively to a participatory mapping process by fostering collaboration through creating an empowering environment where people feel trusted, empowered, valued, and motivated to work together towards a common purpose. This suggests that by playing a facilitative role, encouraging open communication, trust, and shared decision-making, leaders can inspire the various actors in small communities and drive success and the desired change.

This is in line with the literature reviewed regarding the need for effective leadership in participatory mapping. For example, Corbett and Cochrane (2017) noted that leadership is one of the key factors that contribute to variation in participatory mapping outcomes. In participatory mapping, effective leadership is essential to guarantee overall effectiveness of the process (Hämäläinen et al., 2020). Furthermore, Hämäläinen et al. (2020) posit that effective leaders should be transparent, ethical, sensitive to social dynamics, able to see the big picture, set the right goals, resource plan and address challenges related to the changing participatory mapping conditions.

Additionally, this study found that the need for understanding of the purpose of participatory mapping and or collaboration was one of the critical learning points mentioned by

the study participants. While the findings showed that most of the participants had a clear understanding of the purpose of the participatory mapping, about a third indicated they initially did not understand the purpose of the participatory mapping and were initially confused regarding the intended purpose of the process.

This demonstrates that understanding participatory mapping and collaboration purpose is a critical factor of success in participatory mapping. It illustrates the importance of ensuring that there is a shared understanding of the goal of participatory mapping among all involved in the process because the purpose clarifies the shared objectives, improves communication and enhances problem-solving capabilities within a team, creates a sense of unity, shared responsibility, and leads to better outcomes. This study findings are consistent with reviewed literature. For example, Cochrane et al. (2014) assert that having clear objectives and realistic expectations of community change are contributing factors to the success of participatory mapping.

The findings of the study also revealed that motivation is one of the pre-conditions or factors of success that should prevail to enable effective collaboration. In Ogden, the factors of success included having a keen interest in the social and economic challenges in their community, religious beliefs, call to a mission, desire to overcome poverty and crime in the community, sense of community, desire to contribute to identify ways of overcoming identified issues, the need to embed oneself in the community, wanting to make a difference in the community, and sense of pride in the community. Furthermore, the findings demonstrated having gathered knowledge and having prior experience on the challenges of the community, fulfilling personal duty and responsibility to be involved in any community initiative, sense of purpose for

the community situations, being members of existing community groups also motivated Ogden participants to participate in the participatory mapping process.

In Panajachel, the compendium of factors of success included being aware of the current challenges and hardships faced by the community, wanting to be part of the sections of the community that wants to bring positive change to the community, sense of community, sense of responsibility as a member of this community, the potential for action to be taken to address the challenges faced by the community, want to set a good example to their children as a change agent, the need to gain more knowledge and experience, having a keen interest in the social-economic challenges in the Panajachel community and understanding of the cultural and historical backgrounds of the community.

This provides crucial insights that imply that motivated community members are more likely to actively participate in community initiatives, take ownership of their roles and enthusiastically aim to contribute to the overall success of the initiative. Additionally, these findings demonstrate that motivated community members in small communities are more likely to actively work with others, inspire and positively influence others and foster a sense of teamwork and shared purpose.

Motivation is one of the key factors that contribute to participatory mapping outcomes (Corbett & Cochrane, 2017). However, there is paucity of studies that detail the specific reasons that motivate community members to participate in participatory mapping processes. The findings of this study present a more nuanced understanding of the nature of the reasons that motivate community members in small communities to participate in participatory mapping processes.

In terms of the learnings experienced through the participatory mapping, the existence of key individuals, experienced and, or talented community members or groups of people who have a sense of community and are willing to assist in initiatives designed to improve the situation of the community serves as key success factors for participatory mapping and or collaboration. The study found out that the existence of such groups and community members enable collaboration to work better and provide a platform to collectively solve problems. These findings provide useful insights into the critical role played by community champions in small communities in terms of their ability to provide local-specific knowledge considering their deep understanding of local dynamics and needs which is crucial in bottom-up development efforts. The contributing factors to the success of participatory mapping include having champions that promote the initiative (Cochrane et al., 2014), community residents who are skilled, knowledgeable and passionate and associations or groups or networks (McKnight & Russel, 2018).

Furthermore, the study revealed that in terms of learning experienced during the participatory, the study demonstrated that inclusivity, a culture of considering different perspectives in decision making and developing community ownership (involvement and responsibility, accountability, cultural awareness and sensitivity, transparency, act as key success factors and or enabling of participatory mapping and or collaboration. These demonstrate that inclusivity enables individuals with different backgrounds, experiences, and viewpoints to come together and work towards a shared purpose. Additionally, the findings showed that inclusivity helped to build trust, open communication, sense of belonging and fairness, all of which are essential for participatory mapping in small communities.

The contributing factors to the success of participatory mapping include strong sense of community (Boyd et al., 2008), level of inclusivity, transparency, (Cochrane et al., 2014),

ownership and cultural practices (Cochrane & Corbett, 2018). Other factors that contribute to the impact of participatory mapping initiatives include inclusivity and transparency in decision-making (IFAD, 2009) and, consideration of different voices and views of community residents should lie at the heart of community residents (Torjman & Makhoul, 2012).

The findings regarding the learnings experienced through the participatory mapping regarding how to strengthen their community are consistent with the grounded humanism constitutive element of the social change leadership framework (Ospina et al., 2012). Ospina et al. (2012) posit that at the core of social change organizations are leadership practices that together with organizing activities build collective capacity to leverage power for social change. Ospina et al. (2012) identify the constitutive elements of the social change leadership framework as grounded humanism, strategic action to build collective action, and outcomes.

Building Capacity

The findings revealed that the participatory mapping process provided an opportunity for the community members to identify resources with potential of use, a community benefit which could not have been realized if community members had not participated in the participatory mapping process. The community gained more knowledge about the existing resources in their communities due to the participatory process they participated in. These findings suggest that by its very nature of community engagement and promoting collaboration, participatory mapping provides a better understanding of the community needs and offers an avenue through which robust solutions to specific community challenges can be deliberated upon and action plans designed.

Corbett et al. (2016) noted that participatory process often builds capacity for communities assembling local knowledge and enhancing political consciousness and

mobilization. Kwon and Pedregal (2023) argued that the ability to self-represent a community through mapping process can strengthen community identity and reinforce knowledge and perception of local places. Maps and map-making have built relationships and enhanced connectivity, and such newly formed networks have linked together members of a community that previously would not interact, and their interaction resulted in mutually beneficial exchanges of knowledge and experience (Ghose, 2001). Such interaction can result in the community becoming more engaged (Cochrane et al., 2014).

The findings of this study are consistent with literature reviewed in this study. For example, participatory mapping offers many opportunities to co-construct knowledge with communities (Weyer et al., 2019). The IFAD (2009) asserts that “participatory mapping focuses on providing the skills and expertise for community members to create the maps themselves, to represent the spatial knowledge of community members” (p. 4). Participatory mapping presents unique opportunities to engage with communities on issues affecting them by combining scientific and local knowledge within a common spatial framework (Bullen & Miles, 2024).

In addition to collective capacity building, the findings revealed that participating in the participatory mapping process enabled individual community members to see and view the community issues differently. The findings showed that some of the participants noted that they personally benefited from the knowledge, perspectives and experience of other people as well as gaining more knowledge about their communities. Some participants in Ogden, Kansas and Panajachel, Guatemala noted that personally the participatory mapping process brought a sense of empowerment as their ideas were taken into consideration, pride in the community, sense of belonging, sense of trust and of being included in the whole experience.

Findings revealed that some participants reported that personally they felt empowered as a result of the participatory mapping process. These findings provided by the study participants are in line with the literature reviewed. For example, Kwon and Pedregal (2023) reported that empowerment is an essential outcome of participatory mapping and the forms of empowerment that can manifest are the capacity for collective action and social action. Parker (2006) described empowerment as building capacities or human capital whereby communities acquire skills, knowledge and consciousness that informs or inspires collective action. Community maps provide a medium for community interaction, consciousness raising, and conceivably action (Kwon & Pedregal, 2023) and capacity building (Cochrane et al., 2014).

Empowerment is often considered as both an outcome and a process (Kwon & Pedregal, 2023) and empowerment is often considered an on-going impact of participatory mapping projects, extending beyond the in-process phase (Cochrane et al., 2014). Inclusiveness is implicit in the practice of participatory mapping (Corbett et al., 2016; Parker, 2006). Participatory mapping processes can empower the voiceless (Rambaldi et al., 2006). Cochrane and Corbett (2018) contend that participatory and participatory mapping has emerged as a key tool for identifying and communicating development needs and has been further recognized as a means to support social change. Participatory mapping can produce two related forms of empowerment: social change and the capacity for collective action (Kwon & Pedregal, 2023).

The findings showed that some participants described their experiences with participatory mapping in terms of the individual gains in a granulated personal manner by expressing that the experience was fulfilling and boosted personal confidence. In this regard, this study provides further insights into the potential impact of participatory mapping at an individual level. These findings demonstrate that through participatory mapping individual community members can be

capacitated resulting in a stronger sense of ownership over their communities leading to more community-driven solutions in small communities.

The findings regarding how participants described the potential impact of participatory mapping within their community are consistent with the SCIT framework. As the findings relate to community building capacity and individual building capacity. Viewed through the lens of the element of impact of social change, the study revealed the positive impact of participatory mapping at the community level as well as at the individual levels in terms of capacity building.

Resultant Description of Collaborative Partnerships in Small Communities

The purpose of this qualitative multiple case study was to explore how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes. The small communities studied were Ogden and Panajachel. The communities' perceptions with participatory mapping were in turn utilized to generate a description of collaborative partnerships in small communities.

The description of the collaborative partnerships in small communities is premised on how the participants described the collaborative nature of participatory mapping, potential impact of the participatory mapping and learnings experienced through the participatory mapping. These descriptions are viewed as what components collaborative partnerships in small communities could consist of.

Nature of Collaborative Partnerships

Effective collaboration partnerships hinges on several dimensions. The findings showed that the participants understood that the building blocks of collaborative efforts in participatory mapping are a common purpose, trust, inclusivity and sense of belonging, teamwork and team

sizes in collaboration, mutuality and knowledge as an enabler of collaboration, a conducive environment and continuous dialogue of reflection.

This study showed that a common purpose is a key aspect of successful collaborative partnership as all parties become united by a common objective, making it a driving force for cooperation. Participants in both Ogden and Panajachel described the collaborative nature of the participatory mapping in terms of different people and or stakeholders with diverse perspectives and knowledge coming together with a focus of achieving a specific common purpose.

Trust is a key aspect of a collaborative partnership, and the participants were of the view that there was trust among the different stakeholders involved in the participatory mapping process. In this study, the findings showed that the participants perceived that different people's views and perspectives were taken into consideration and different voices were heard.

Collaborative partnerships in small communities should be based on a belief that parties involved in the collaboration will be honest with each other and communicate with each other and show the commitment that no partner in the partnership is exploiting other parties. Transparent communication fosters trust, which is fundamental for effective collaboration. The collaborative nature of the participatory mapping was described by the participants as one based on teamwork considering that team members with different backgrounds and perspectives contributed to the different activities performed during the participatory mapping process.

Potential Impact of Participatory Mapping

The collaborative partnership in small communities is also described in terms of the potential impacts of collaborative partnerships. The findings showed that participants viewed collaborative partnerships as an opportunity to learn about the issues that needed to be attended. This also creates an avenue to focus on development in their communities, practical experience

of participating, in-depth information about their culture, widening of knowledge base, capacitated to identify and realize some community issues that were not apparent to them prior to the participatory mapping. Furthermore, the findings showed that the study participants viewed the potential impact of participatory mapping as a sense of community, knowledge acquisition and capacity building, collaboration and community cohesion, empowerment and ownership and social change. Collaborative partnerships should have positive impacts on the community.

Learnings Experienced

Collaborative partnerships in small communities can also be described in terms of key success factors for collaboration in communities. The findings revealed that it is important to be able to identify the key success factors for collaborative partnerships. The key success factors identified included key individuals or groups of people who have a sense of community and are willing to assist in initiatives designed to improve the situation of the community. Additionally, the need for visionary, networked facilitative leadership and effective communication, inclusivity, visibility, different perspectives and community ownership, acknowledgement of stakeholders with diverse perspectives and contextualization.

The other key factors to a successful collaborative partnership suggested the inclusion of the need for community-driven collaboration and different perspectives, obtaining buy-in of community members, the need for a *Community Action Plan*. The results suggest the need to acknowledge the critical role played by existing community groups and knowledgeable and talented individuals who enable the collaboration in the community to work better.

Therefore, the resultant description of the collaborative partnership in small communities has its foundations on how the participants describe the collaborative nature of participatory

mapping, potential impact of participatory mapping and learnings experienced through participatory mapping. The following section describes the recommendations.

Implications and Recommendations

Institutionalize Participatory Mapping in Community Planning Processes

These findings revealed that the community members would want to see impactful changes in their community considering the myriads of challenges their communities are facing. For example, both communities have documented low standards of living, low education levels, and high levels of poverty. In Panajachel, it was indicated there were also levels of marginalization based on some community members' cultural practices. In both communities, there was a lack of purpose, vision or goals for the small community.

Based on the findings of this study, community leaders should work in collaboration with community members in small communities to institutionalize participatory mapping in community planning processes by developing a community action plan which incorporates community purpose or vision and objectives, the issues and challenges of the community, the mechanisms through which the challenges of the community could be minimized and a specification of the intended outcomes and impacts. Through this process, the principles of participatory mapping may be embedded in policies, procedures and guidelines for community development. This shift will foster a participatory culture within the community.

Advocacy and Mobilization

The findings showed that community members would like to see changes regarding the levels of community involvement. Historically, there are challenges to get people to work together and feel connected to the community in both communities. Based on these findings, it is recommended that community leaders in collaboration with community members who champion

positive change in communities could gradually build relationships in communities by establishing trust through transparent communication. This will ensure inclusiveness, accessibility and enable understanding through consistent and responsive interaction with community members.

Develop Community Structures to Act as Center of Collaboration and Engagement

The findings revealed that in Ogden, Kansas there is no specific way in which the community members are organized to identify problems or issues affecting the community and historically it is only a small group of community members who are actively involved in community issues. The recommendation is that community members should be encouraged to come together and develop a community structure whose main purpose is to bring community members together to identify challenges affecting them and then formulate feasible mechanisms to deal with those challenges.

Intentionally Involve People Who are Disengaged in Community Development

The findings revealed that the self-serving interests of some leaders are a barrier to collaboration in Panajachel. It was revealed that some community members do not trust some of the organizations that are supposed to bring people together in the community. The lack of trust influences the success of collaborative efforts in the community. The findings revealed that historically there is no willingness to be involved in community initiatives because community members feel they are not being listened to. The recommendation being provided is that communities should be led by ethical and facilitative leaders who put the interests of the community first. The establishment of initiatives for a culturally appropriate and consensus building engagement in fostering meaningful social change.

Implications for Practice

From the experiences with participatory mapping in small communities, this study highlighted a nuanced understanding of the context-specific challenges to participatory mapping, the benefits of participatory mapping and the key learnings and or key success factors for participatory mapping. The implication is that prior to deploying participatory mapping processes in small communities, scholars and others involved in community engagement, participatory approaches to community development practice. Their effort should be directed towards identifying (financial, human, time and resources) and having a deep understanding of the communities they want to engage with in order to match the context-specific factors to the community engagement mechanism.

The literature reviewed in this study indicates that there is potential impact of participatory mapping and CES in non-rural contexts. The findings in this study demonstrates that the study participants in Ogden and Panajachel were of the strong view that the participatory mapping process could be a potential tool for improving sense of community, awareness and bringing to the fore community issues, empowerment, awareness, fostering collaboration, sense of connectedness, social change and strengthening the community in their small and rural communities contexts.

The participatory mapping process was also found to bring benefits at a community and individual level as well as highlighting the factors necessary for the success of participatory mapping. The implication for practice is that scholars and others involved in community development efforts should consider making participatory mapping process a key toolkit (mechanism) of their community-based development efforts and community engagements.

The findings of this study also demonstrated that the small and rural communities are characterized by poverty, low levels of literacy and lack of resources in organizations that are supposed to drive change in these communities. In this regard, in addition to the already existing useful and GIS-adjacent resources, it crucial to lessen the digital divide through developing affordable and language-customizable technology and platforms as well as training focusing on the technology and platforms.

Implications for Theory

My conceptual framework of social change, innovation, and transformation (conceptualized by drawing emphasizing on the elements of social change causative factors, rate of social change and impact of social change) and the Ospina et al. (2012) social change leadership framework explained the phenomenon under investigation in this study. The study findings align with my emergent social change, innovation, and transformation framework and the social change leadership framework (Ospina et al., 2012). Therefore, the theoretical implication is that the frameworks can explain the participatory mapping investigated in this study.

This can benefit scholars interested in community engaged scholarship, community led development, participatory approaches and capacity building through insight provided in this study towards collaboration and co-creation of knowledge for social change.

Implications for Research

The purpose of this qualitative multiple case study was to explore the perceptions of community members regarding the ways in which participatory mapping is a mechanism for strengthening communities. This qualitative case study was conducted in two small communities in Ogden, Kansas and Panajachel, Guatemala. Considering that this study deployed a qualitative

approach which provided an understanding and exploration in an in-depth manner, the findings cannot be generalized to a wider population.

It is suggested that a quantitative study be conducted on the output of the participatory mapping as such a study will yield numerical data which allows for statistical analysis, proximity analysis, understanding of patterns, relationships, trends, and generalization of findings.

From a literature review perspective, this study revealed the importance of adopting best practices in participatory mapping. For example, IFAD (2009) notes that it is critical to adopt best practices to suit individual participatory mapping initiatives to increase the likelihood of success and contribution to positive development outcomes for local communities. IFAD (2009) reports that best practice in participatory mapping includes developing an environment of good governance, developing working relationships between stakeholders through inclusion in decision-making, focusing on the ethical behavior of all stakeholders, community assuming control over decision-making and management for all stages on the process, transparency, trust, respect, and clearly defined roles for stakeholders.

A more integrated study utilizing a mixed method approach including public participation GIS, participatory GIS and collecting volunteered geographic information would most likely provide qualitative and quantitative data that could be triangulated to generate the best practices framework for participatory mapping for communities characterized by historical, socio-economic, cultural and political challenges.

Limitations of the Study

Theofanidis and Fountouki (2018) describe limitations as any potential weaknesses that are usually out of the researcher's control, and are closely associated with the chosen research design, statistical model constraints, funding constraints, or other factors. One limitation to state

was that there was an overrepresentation of individuals who are already highly involved in community activities.

To address this, attempts were put in place to gather input from individuals who initially declined to participate, and this helped to expand the sources of feedback. Additionally, given the sensitivity of topics often addressed in qualitative research, maintaining participant confidentiality and informed consent can be challenging (Liamputtong, 2007).

The limited time available for conducting this study in the community posed challenges in building the deep, trusting relationships that qualitative research often requires. However, I was able to leverage prior community engagements to help bridge this gap and mitigate some of these limitations. Another limitation is the gender representation which consists of women in Panajachel. This limitation may have affected the diversity and comprehensiveness of perspectives represented in the study. However, this research population still represents a good sample for qualitative research (Bhattacharya, 2017). The other limitation relates to language barriers, I conducted the interviews in English and had someone translate the questions to Spanish, the participants would answer in Spanish, the translator would then relay the responses to me in English. In this way, some meanings could have been lost in translation, though this was only the case in Panajachel.

Finally, the lack of generalizability of findings considering that a qualitative approach was utilized in this study. Despite the study using a multi-case exploratory design involving small communities in Ogden, Kansas and Panajachel, Guatemala, the results cannot be generalized to other small communities somewhere. However, the findings of this study may still offer transferable implications for practice, theory, and research.

Chapter Summary

Chapter 6 provided a discussion of findings and conclusions of this qualitative multiple case study which explored how local dynamics, individual reflections and collective experience shape engagement in social change through participatory mapping processes. This chapter also provided a resultant description of collaborative partnerships based on the reflections of participants with the participatory mapping process. The recommendations based on key findings were also provided in this chapter as well as the limitations and implications of the study.

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Appendix A - IRB Approval Letter



TO: Mac Benavides
School of Leadership Studies

Proposal Number: IRB-12590

FROM: Lisa Rubin, Chair
Committee on Research Involving Human Subjects

DATE: 01/21/2025

RE: Proposal Entitled, "Participatory Methods and Tools in Community Engagement."

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written - and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §104(d), category:Exempt Category 2 Subsection ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

Electronically signed by Lisa Rubin on 01/21/2025 9:51 AM ET

Appendix B - Participant Consent Form



Institutional Review Board (IRB) Informed Consent Template Form

comply@k-state.edu | 785-532-3224

PROJECT TITLE:

Participatory Mapping and Community-Engaged Scholarship as Mechanisms for Strengthening Small Communities

**PROJECT APPROVAL
DATE:**

**PROJECT EXPIRATION
DATE:**

**LENGTH OF
STUDY:**

PRINCIPAL INVESTIGATOR:

Mac Benavides, Ph.D.
Assistant Professor, Staley School of Leadership
Kansas State University
mb2008@k-state.edu

CO-INVESTIGATOR(S):

Emmanuel Jeje

CONTACT DETAILS FOR PROBLEMS/QUESTIONS:

Emmanuel Jeje, Ph. D Candidate
Kansas State University
eajeje@ksu.edu

IRB CHAIR CONTACT INFORMATION:

Lisa Rubin, Chair, Committee on Research Involving Human
Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS
66506, (785) 532-3224

PROJECT SPONSOR:

N/A

PURPOSE OF THE RESEARCH:

The purpose is to explore the perceptions of community members regarding the ways in which participatory mapping is a mechanism for strengthening rural communities. The objective of this research is to capture inputs, perceptions, experiences and suggestions from community members who were involved in participatory mapping.

PROCEDURES OR METHODS TO BE USED:

As a participant in this study, you will participate in the following research activities:

- Individual Semi-Structured Interview (40-60 minutes) – You will meet with me individually to share additional thoughts and reflections about your experience with the participatory mapping activity.
- Focus Group Interview (1 hour) – You will join a group of fellow Ogden residents to discuss your experiences with the participatory mapping experience. This discussion will allow you each to collaborative reflect on the process and its impact.

During the individual and focus group interviews, our conversations will be recorded using a recording device to ensure your views are captured authentically and verbatim. There will be two rounds of each of the individual interview and focus group interview. This will enable accurate analysis afterward. Please note that the recording will not include your name or any identifying information, ensuring your confidentiality. All activities will take place in accessible public locations.

RISKS OR DISCOMFORTS ANTICIPATED:

There are no anticipated risks or discomforts anticipated for your participation in this research.

BENEFITS ANTICIPATED:

There are no direct benefits for participating in this research. However, by participating, you will contribute to enhanced community engagement and offer actionable insights that other communities or organizations can leverage to replicate similar initiatives. Additionally, you may find that the insights from this research will ultimately strengthen your ability to support sustainable development initiatives, ensuring long-term positive outcomes for your community.

EXTENT OF CONFIDENTIALITY:

Your identity will remain confidential, and all the information gathered during the study will be securely protected. The audio recordings of the focus group will be securely stored on a password-protected device. No names or other identifying details will be used in discussions or reports based on the data collected. Participation in this study is entirely voluntary. You are free to withdraw or decline participation at any time, even after signing the consent form. If you choose to participate, please review, complete, and sign the accompanying consent form.

The information or biospecimens that will be collected as part of this research could be used for future research studies or distributed to other investigators for future research studies without additional informed consent.

IS COMPENSATION OR MEDICAL TREATMENT AVAILABLE IF INJURY OCCURS? ☐ Yes ☒ No

Terms of participation: I understand this project is research, and that my participation is voluntary. I also understand that if I decide to participate in this study, I may withdraw my consent at any time, and stop participating at any time without explanation, penalty, or loss of benefits, or academic standing to which I may otherwise be entitled.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study under the terms described, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

(Remember that it is a requirement for the P.I. to maintain a signed and dated copy of the same consent form signed and kept by the participant).

PARTICIPANT NAME:

PARTICIPANT SIGNATURE:

DATE:

Appendix C - Semi-Structured Interview Protocol

Data Collection Protocols

Research Question:

- How do participants describe their experience with participatory mapping as a mechanism for strengthening small communities?

Round 1 Semi-Structured Interview (Individual)

Part 1: Introductions & Informed Consent

1. Confirmation of Informed Consent signature, and discussions allowing for questions and clarifications about the project.
2. Remind participants steps taken to ensure confidentiality, and their participation is voluntary, allowing them to withdraw at any time without penalty.

Part 2: Initial Reflections on Experience

1. What were your first thoughts when you heard about the participatory mapping project?
2. Based on your understanding, what was the purpose of the mapping process?
3. What motivates you to have a keen interest in the social / economic challenges in the Ogden area?
(Prompts: *Sense of community belonging / connectedness, Trust in communities, Problem assessment skills, Strongly believe that community members have the ability collectively solve problems, Feels the need to take responsibility for community's situations, Community cohesion, Awareness of current challenges, Social position, Technology (knowledge and availability), Socio-cultural, Socio-economic (education levels, income levels, age, Member of a community network / group).*)

Round 2 Semi-Structured Interview (Individual)

1. What was your experience with the tools and methods used during the mapping process?
2. What, if anything, did you personally gain or learn from this experience?
3. How, if at all, do you think the process helped bring people together or foster collaboration?
4. In what ways did taking part in the mapping process affect your sense of community?
5. What aspects, if any, of the participatory mapping process were most beneficial to you?
6. What was your overall experience with the participatory mapping activity?

Part 2: Debriefing Statement (to be read aloud at the conclusion of the second round focus group interview)

Thank you for agreeing to be part of this study. As the project moves forward, I may periodically be contacting you regarding questions or clarifications related to some of the information you shared with me throughout this project. Overall, I am hoping to represent your words as accurately as possible. I also intend to keep your contributions anonymous and use a pseudonyms to protect your identity in any publications that come from this research. Please know that you may withdraw from the study at any time, without penalty, and you are welcome to contact myself or the individuals listed on your consent form at any time if you have questions or concerns. Thank you for your contributions to this research.

Contacts and Questions

If you have questions or concerns about this study or wish to obtain more information about the purpose and methodology of the study, please contact me: Emmanuel Jeje, Doctoral Candidate, Kansas State University: eajeje@ksu.edu or Dr . Mac Benavides, Assistant Professor, Kansas State University: mb2008@k-state.edu.

IRB CHAIR CONTACT INFORMATION: For the subject should he/she have questions or wish to discuss on any aspect of the research with an official of the university or the IRB. These are: Lisa Rubin, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224; Brad Woods, Associate Vice President for Research Compliance, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.

Appendix D - Focus Group Interview Protocol

Data Collection Protocols

Research Question:

- How do participants describe their experience with participatory mapping as a mechanism for strengthening small communities?

Round 1 Semi-Structured Focus Group

Collective leadership, inclusivity, shared power, and adaptive change

1. How do you explain the changes you want to see in your community and how do you plan to make that happen?
2. What makes you feel connected and motivated to work together with others in your community?
3. What relationships or partnerships in the community help get things done?
4. How are the community members organized to identify problems / issues affecting their community?
5. What aspect of the participatory mapping process support or hinder your ability to work collaboratively?
6. What leadership practices have been most effective in driving change in your community?
7. How would you describe the type of leadership needed for participatory mapping initiatives?

Round 2 Semi-Structured Focus Group

Part 1: Social change

1. What efforts have been made in your community to create positive social / economic change?
2. What challenges, if any, have you encountered regarding these initiatives? How did you address these challenges?
3. What strategies would you employ to cultivate a culture of social change within the community?
4. How do cultural practices affect the way you engage with others in decision-making processes within the community?
5. How do you ensure that stakeholders with diverse perspectives are acknowledged in the advancement of your community?
6. How can leaders influence policy changes to address root causes of social issues?

Part 2: Debriefing Statement (to be read aloud at the conclusion of the second round focus group interview)

Thank you for agreeing to be part of this study. As the project moves forward, I may periodically be contacting you regarding questions or clarifications related to some of the information you shared with me throughout this project. Overall, I am hoping to represent your words as accurately as possible. I also intend to keep your contributions anonymous and use a pseudonyms to protect your identity in any publications that come from this research. Please know that you may withdraw from the study at any time, without penalty, and you are welcome to contact myself or the individuals listed on your consent form at any time if you have questions or concerns. Thank you for your contributions to this research.

Contacts and Questions

If you have questions or concerns about this study or wish to obtain more information about the purpose and methodology of the study, please contact me: Emmanuel Jeje, Doctoral Candidate, Kansas State University: eajeje@ksu.edu or Dr . Mac Benavides, Assistant Professor, Kansas State University: mb2008@k-state.edu.

IRB CHAIR CONTACT INFORMATION: For the subject should he/she have questions or wish to discuss on any aspect of the research with an official of the university or the IRB. These are: Lisa Rubin, Chair, Committee on Research Involving Human Subjects, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224; Brad Woods, Associate Vice President for Research Compliance, 203 Fairchild Hall, Kansas State University, Manhattan, KS 66506, (785) 532-3224.