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EXPLORING HOW GRADUATES OF THE NEBRASKA WATER LEADERS ACADEMY INFLUENCE COMMUNITY CAPITALS: TWO CASE STUDIES

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EXPLORING HOW GRADUATES OF THE NEBRASKA WATER LEADERS

ACADEMY INFLUENCE COMMUNITY CAPITALS: TWO CASE STUDIES

by

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EXPLORING HOW GRADUATES OF THE NEBRASKA WATER LEADERS

ACADEMY INFLUENCE COMMUNITY CAPITALS: TWO CASE STUDIES

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University of Nebraska, 2020

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Natural resources are foundational to any community and so leadership regarding those resources is a key factor to consider in order to understand communities. The vitality and strength of a community, however, is not solely dependent upon the natural resources available to it but depends on the collection of assets and individuals within it. This study sought to understand how individual leaders, graduates of the Nebraska Water Leaders Academy, influence each of the seven community capitals outlined by Flora, Flora, and Gasteyer (2016), and how their individual civic capacity, as defined by Sun and Anderson (2012), contribute to community capacity. Twelve graduates of the Academy and eighteen members of their communities were interviewed to comprise two qualitative case studies, one from the graduates' perspective, and one from the community members' perspective. Eight themes emerged from the interviews with graduates and nine themes emerged from interviews with community members. Findings reveal that graduates had the greatest influence on community capitals by bringing others together for a common purpose rather than focusing on individual viewpoints and by utilizing bonding and bridging social capital to equip communities with additional resources. By influencing their community's capitals and acting with community interests in mind, Academy graduates strengthen collective capacity and increase ability to address challenges.

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CHAPTER 1: Introduction

Natural Resource Leadership

Natural resources are essential to life and to modern society. Their management is continually changing as resources are depleted, change form or location, or are contested by multiple parties. In a theoretical base for the Natural Resources Leadership Institute, Mary Addor and her fellow authors explain that conflict over such resources is inevitable and leadership to solve these problems is the solution to a sustainable future (Addor, Cobb, Dukes, Ellerbrock, & Smutko, 2005). Natural resources do not simply vanish or lose their essence on their own. Human development and dependence create the scenarios that Addor et al. refer to which result in these problems. It is therefore up to humans to solve the problems they have created; leadership is a key element in that struggle to achieve sustainable resource use and cooperation.

There are many factors in the evaluation and designation of resource use to be considered sustainable, and even those designations are subjective to the evaluators. In order to manage a natural resource or resource system, individuals need to be knowledgeable of their subject and how it might qualify as sustainable. In a framework to evaluate sustainability, Santiago López-Ridaura, Omar Masera, and Marta Astier (2002) show sustainability within natural resource management to depend on productivity, stability, reliability, resilience, adaptability, equity, and self-reliance. Natural resources and the systems around their use will always contain nuances and unique details, but there must always be an awareness of, and attention to, each of these factors.

The many groups that often mutually depend on natural resources are not uniform in their use or consideration of those resources. In a study on environmental and

conservation perceptions with respect to position, partisanship, and place, Hamilton,

Hartter, Safford, and Stevens (2014) found similar environmental concerns with differing

understandings and perspectives on proposed solutions and management. Their study

shows rural community connections to natural resources and desire to preserve and

protect them but a misunderstanding and miscommunication of steps to be taken to

achieve those goals. This example is not applicable to all cases of natural resource

management conflict but does show that perspective and understanding of context are

essential to resolving issues. Stern and Coleman (2015) argue that trust between

community members and natural resource agencies and leaders is essential to

management decisions and planning. Along with Stern and Coleman (2015), Olive

(2015) shows similar support for environmental conservation despite contention between

groups. Each of these studies contributes to show the need for mutual understanding,

shared perspective, and careful management of natural resources. Natural resource

leadership serves to fill these gaps.

Leadership Development

Leadership development is a commitment by organizations, employers, and

communities aiming to improve the skills and abilities of individuals. A commitment to

individuals can be an investment in them, their organization, their community, or any

combination of each. Natural resource leadership is especially important for communities

to consider as management of natural resources can often be divided and contentious as

they are highly utilized and depended upon.

Leadership can take many forms and can have many approaches. Leadership

theory plays an important role both in understanding the context of individuals and their

management of natural resources, but also in understanding leadership development programs and their approaches. Van Wart (2013) details five theories of leadership ranging from basic management to ethical and critical leadership. Each of these theories plays a role in an individual's understanding of their work and how their actions relate to others beyond the accomplishment of a task. It is important for leaders within natural resources to understand and pay attention to how they work with others. Leadership development trends, however, show an increase in encouraging the use and promotion of transformational leadership (Madsen & O'Mullen, 2014).

Transformational leadership is prominent among leadership theory literature and can play a significant role in an individual's ability to work with others. Van Wart (2013) describes its role as inspiring change, even when the avenue of change may not be clear. This study considers transformational leadership as such, and also being important to an individual's ability and attentiveness to build up the people and community they work with. Natural resource leaders can recognize their ability to guide communities and organizations through transformational leadership and address resource use, disparities, and conflicts. Addor et al. (2005) describe leadership in a natural resource context as a "relationship that occurs between the leader and followers as the will of the group is expressed, as characteristics or capabilities are developed to enable others and their actions and behaviors to bring about change" (p.206). Transformational leadership is specifically applied to this context to consider a collective will for the purpose of change.

Leadership development as a focus on increasing the ability of individuals to create change, is inherently associated with community and a collective group that change is created within or for. The context of natural resources lends them to being a

community asset or contribute to community wellbeing, and therefore natural resource leadership development should consider a community's context and vitality. In their study on rural leadership program effects, Madsen and O'Mullen (2014) align with these factors in their suggestion that rural leadership programs focus on transformational leadership in order to build community leadership that can utilize community resources for their future despite uncertainty. Leadership needs to be able to pertain to a community level and serve a common purpose. Schusler, Decker, and Pfeffer (2003) assert that social learning is necessary for natural resource management through a process of engagement for collective action. Their attention to the interaction within a community and its decision-makers lends to the role of leadership development to create community bonds and skills among individuals to develop and properly use those relationships.

The association between individual leadership development and community cannot be assumed, it must be shown. In a study of a leadership development program's impacts on community through individual development, Apaliyah et al. (2012) qualitatively show that leadership development can follow this connection to produce community improvements through program participant actions contributing to community assets (Apaliyah et al. 2012). The connection they show is through improvements in individual capitals such as human and social capital that lead to program participants contributing to their community (Apaliyah et al. 2012). While not empirically showing assets gained or connections made, this study does highlight the relationship between individual leaders and their contributions to their community. That connection between leadership development and community growth is imperative to

consider with regard to natural resources and the individuals who are responsible for them within a community.

The Community Capitals Framework

The Community Capitals Framework (CCF) as proposed by Flora, Flora, and Gasteyer (2016) provides a basis by which research can describe and understand physical and social assets within a community. The framework proposes seven categories of "capitals" which follow the idea of capitals in that they are an asset but are different than traditional capital in that they are not necessarily monetary. The seven capitals are: social, cultural, political, natural, built, financial, and human (Flora et al., 2016). Each of these capitals are held within a community as collective assets that can combine to promote the community when sufficient or hinder it when insufficient. Emery and Flora (2006) use this framework to describe a process of "spiraling up" where the production or advancement of individual capitals, especially social capital, can be used to instigate production or advancement of other capitals contributing to a collective advancement of the community.

Natural resource leadership development contributes to building multiple capitals, as they are described by Flora et al. (2016), alongside leadership skills, knowledge, and awareness of natural resources in a given context. As individuals grow in their leadership skills and ability to manage and work around natural capital, according to the CCF, they might also be contributing to the betterment of other capitals and the collection of capitals within their community. The context of that community and the leadership development within it, however, are necessary to understand to inform the process and relationships between individuals, leadership development, and the communities in which they belong.

Nebraska Water Leaders Academy

The Nebraska Water Leaders Academy (Academy) serves the state and its communities by aiming to "provide learning opportunities that focus on cooperative approaches to solving Nebraska's water issues" (Waterleadersacademy.org). Through the commitment of individuals, organizations, employers, community, and state entities, the Academy serves to invest in and build up communities across the state - a state with great dependency upon its natural resources. According to the Nebraska Department of Agriculture, 91% of total land area in the state was used for farming and ranching in 2017, subsequently generating over 8 billion dollars in economic activity (2019). With such great dependence on the physical land and the natural capital it provides, the state also has many challenges to manage those resources. In order to provide for these challenges, the Academy aims to develop the knowledge, critical thinking, and leadership skills of its participants, as well as encourage their active involvement in water policy and increase their civic capacity and community engagement (Burbach, 2018). In order to measure the outcomes of these objectives, the Academy is grounded in the full-range leadership theory (Antonakis, Avolio, & Sivasubramaniam, 2003), champions of innovation (Howell, Shea, & Higgins, 2005), civic capacity (Sun & Anderson, 2012), and entrepreneurial leadership (Renko, Tarabishy, Carsrud, & Brannback, 2015). This study seeks to build off of these foundations to understand the Academy graduate relationship to the resources within their communities and leadership on water issues.

Nebraska's natural resource management system is unique in its delegation of power to local levels. Schlager, Heikkila, and Case (2012) document the unique management system within Nebraska and attribute many legal problems stemming from

state obligations tied to district actions. They show that because Nebraska relies on compliance and cooperation between state and local authorities, responding to federal and state lawsuits have impeded proper water management with respect to downstream users (Schlager et al. 2012). The unique system of resource management may be effective for Nebraska, but it has created challenges to cooperation and the need for leadership like Addor et al. (2005) describe in their assessment of natural resource management. With respect to the technical knowledge and abilities of former Academy participants, it is also imperative to understand the role they play in their community's capacity and management of assets.

Purpose Statement

The purpose of this study was to explore how graduates of the Nebraska Water Leaders Academy advance their communities capitals as described by Flora et al. (2016). By using the Community Capitals Framework (CCF), this study describes how individuals might advance community level assets beyond physical or monetary descriptions that would lack attention to sociological factors that can influence community wellbeing. The Academy and its partners invest in their program participants with the aim of solving natural resource problems so this study will use both those individual graduate perspectives as well as those of their community partners and peers. By gaining a qualitative understanding of Academy graduates' relationship to community capitals from both graduate and community perspectives, this study contributes to improving the Academy and the use of CCF to understand community wellbeing and capacity.

Research Questions

- How have graduates of the Nebraska Water Leaders Academy advanced their

   community's capitals? (Built, Financial, Political, Social, Human, Cultural,

   Natural)

   o From the perspective of Academy graduates

   o From the perspective of community members

- How have Nebraska Water Leaders Academy graduates influenced their

   community's capacity to prepare for future water availability challenges?

   o From the perspective of Academy graduates

   o From the perspective of community members

Definition of Terms

   The definitions provided here will be used throughout the study to clarify

meaning and perspective for researchers, participants, and future readers of the study.

Each of the seven community capitals is defined in reference to Flora et al. (2016):

- *Natural capital* "includes the air, water soil, wildlife, vegetation, landscape,

   and weather that surround us and provide both possibilities for and limits to

   community sustainability" (p.15).

- *Cultural capital* "determines a groups worldview, how it sees the world, how

   the seen is connected to the unseen, what is taken for granted, what is valued,

   and what things a group thinks are possible to change" (p.16).

- *Human capital* "is the capabilities and potential of individuals determined by

   the intersection of nature (genetics) and nurture (social interactions and the

environment). Human capital includes education, skills, health, and self-esteem" (p.16).

- *Social capital* "involves mutual trust, reciprocity groups, collective identity, working together, and a sense of a shared future" (p.16).

- *Political capital* "is the ability of a community or group to turn its norms and vales into standards, which are then translated into rules and regulations that determine the distribution of resources" (p.16).

- *Financial capital* "includes savings, income generation, fees, loans and credit, gifts and philanthropy, taxes, and tax exemptions" (p.16).

- *Built capital* "is human-constructed infrastructure" (p.16).

This study also subscribes to the understanding of civic capacity derived from Sun and Anderson (2012) and will therefore adhere to their definition:

- *Civic Capacity* is "the combination of interest and motivation to be engaged in public service and the ability to foster collaborations through the use of one's social connections and through the pragmatic use of processes and structures"

Assumptions, Delimitations, and Limitations

The consideration of the Academy, the use of the CCF and attention to Civic Capacity limit the broad application of the findings of this study. There were also assumptions made that graduates would have influence in their communities, as well as that those influences could be represented by the methods of this study. In order to counter these factors, approaches were used to delimit the research such as considering diverse perspectives and participant insight. The assumptions, limitations, and

delimitations of this study each center around the participant pool of graduates of the Academy.

The assumptions of this study center on the experiences, understandings, and actions of the graduates of the Academy. The first and potentially most important assumption is that graduates have had some form of influence on their community's capitals and capacity to prepare for future water availability problems. This assumption comes from their involvement in the Academy and their positions relative to their communities and the water resources within them. Building on that assumption, this study assumes the researcher and his questions can elicit an understanding of the impact on those variables from both graduates and community members. This study further assumes that by sampling multiple graduates and their communities, a derived understanding can be related to the experiences of graduates of the Academy and their communities. This dynamic also relates to the delimitations and limitations within the study.

The delimitations and limitations of this study also primarily relate to individuals included in the research. Delimitations within this study are produced by focusing on graduates and their contacts within their communities. This creates boundaries by which the study can consider input from community members and individuals associated with the Academy. This delimitation allows the researchers to prevent participation from individuals that might not have a first-hand perspective of Academy graduates and their role in community capitals and capacity. By subscribing to the CCF from Flora et al. (2016) it also limits the way in which assets or capitals are considered and evaluated. Similarly, the role and consideration of community and civic

capacity are specific to Sun and Anderson (2012). The population being studied serves as both a delimitation and limitation in this study as it creates boundaries around graduates of Academy and will then be specific to Nebraskan communities. This provides insight to some communities in the state but creates limits on the application of findings to other states and communities. There are also limitations stemming from those communities and individuals being studied as factors such as natural disasters or personal life events that can influence the results of the study. This limitation can be countered by sampling diverse communities and Academy graduates but is not entirely unavoidable.

CHAPTER 2: Literature Review

Introduction

Natural resources require wise management if they are to be used effectively and sustainably. That management will also have implications to community and collective wellbeing through individuals as leaders. Leadership development more generally is an expanding and booming business in and of itself with over 13 billion dollars spent in the United States in 2012 (O'Leonard & Leow, 2012). In a study on organizational leadership development impacting human and social capital and overall performance, Subramony, Segers, Chadwick, and Shyamsunder (2018) relate much of this spending to stock market reactions and corporate objectives. In the given context of billions of dollars of corporate spending, it is understandable that authors such as Avolio, Avey, and Quisenberry (2010) argue for an economic evaluation or 'return on development investment'. Such an evaluation, however, does not always apply to the expansive field of leadership development or its impacts within individual communities. Natural resource management, in contrast to corporate development, requires a much more focused and subjective approach to understand the community context and factors contributing to the situation and success of leaders. In a study on leadership, social capital, and natural resource management, Warren (2016) builds off of Gutierrez, Hilborn, and Defeo (2011) to show that natural resource leadership has to be specific to community and the relationships and management within it. Evaluating leadership development therefore, especially within the context of communities and natural resources, requires an attention to the social and community factors that influence the individual leaders and the effectiveness of the leadership development they received.

Understanding leaders and their impact on their community requires a detailed approach to understand community development and leadership, and how they might overlap. This literature review will introduce and cover the foundations of community development theory and practice in order to understand how and why a community might be improved. Leadership is a key component of community development and is dependent upon many factors, so this literature review will also consider the theories of leadership within community development. Together, the theories of community development and leadership will contribute to an understanding of how to assess and explore the relationship of Nebraska Water Leaders Academy graduates to their communities.

Community Development

Community development is a broad and growing field with many approaches that can narrow its path. The purpose of community development can also be broad and fragmented, but there is one central component which is the purpose of lifting up a community in need (Kenny, 2016; Kotval, 2005; Sites, 1998). Community development, at least in theory and in research, is centrally focused on creating better conditions for communities that need it or at least addressing community problems and opportunities to improve. Stoutland (1999) clarifies what she considers to be this central component saying "… the ultimate concern is the residents" (p. 167). The objective of community development is to help a group of people. The bounds of that group are not uniform across development research but Stoutland shows that is not the purpose of the theories and literature. What may be disputed, however, is the approach and means used and what is specifically targeted for development.

Theories

       Communities and people within them are unique. It therefore makes sense to allow community development approaches to at least consider the importance of differing perspectives. This, however, is not always guaranteed as approaches may emphasize structure and applicability over nuance and detail. Detriment or success can therefore be elusive as there is often some combination of each approach. In an attempt to recognize and document this dynamic, Kotval (2005) reviews a community development initiative through multiple lenses: the Rational Comprehensive approach, Communicative Planning mode, and Incremental Planning as a subset of Communicative Planning. Rational comprehensive planning as described by Kotval (2005) as well as Murphy and Rogers (2015) is a more direct approach to planning as it relates to community development. The idea within this approach is to structure and plan development so that objectives can be met and progress made. However, as Kotval (2005) and Murphy and Rogers (2015) point out, this approach can be too rigid and prevent the planner or community from adjusting as is necessary for their unique circumstances. This approach has been followed by the Communicative planning model which again is described by Murphy and Rogers (2015) as well as Kotval (2005); they each show this approach to give greater consideration to participants within communities or the plans being carried out. Kotval (2005) refers to Friedman (1973, 1987) saying that this model allows agents facilitating the development to learn from the communities they are working in and translate that knowledge into their work. Murphy and Rogers (2015) describe this as giving emphasis to the process of producing common good. Kotval (2005) considers this approach in more detail through the Incremental planning model to suggest that planners and community development

actors need to blend the attention to process and the cooperation with community into the

overall community development. However, Kotval (2005) ultimately argues that each of

these approaches is unsatisfactory because they assume the involvement and investment

of community members, which is not always guaranteed. The point Kotval (2005) makes

here further gives credit to understanding the unique communities and circumstances of

development. There are many factors that contribute to how a community might engage

or pursue development. Combined, these articles give a glimpse into the complexity of

community development theory, but each maintain the basis of obligation to the

community and its best interests.

Community development is always evolving. In one sense, this is because

community development approaches are continually improving, but it also concerns the

fact that communities themselves are continually changing and requiring new

development approaches. In an attempt to describe and evaluate the system and

framework within community development, Stoutland (1999) details four levels (level

zero to level three) of the community development process: originating in grassroots

organizations, moving to the organizations serving them and their purposes, to local

support including policy makers, and finally to external actors in the process. Unlike the

theories describing the process itself, Stoutland (1999) describes the actors within these

levels as the pivotal components to success. Similar to discrepancies in the process of

community development described above, Stoutland (1999) shows disconnect between

the two lower levels and two upper levels of development. Actors specified within the

community and those that are beyond it do not collaborate to their full potential.

Stoutland (1999) describes this problem to be one of specialization and fragmented

efforts. Campbell (2012) acknowledges a similar problem within planning theory and

community development and how they relate to action. Campbell (2012) argues there is a

disconnect between the theories of what 'is' and what 'ought' to be within community

development which leads to challenging issues prevailing while their solutions remain

unrealized. Wolf-Powers (2014) responds to this dilemma proposing three theories of

action from which community development proceeds: restoration of norms, markets, or

justice. Each of these fields, as Wolf-Powers argues, provides an opportunity for actors to

recognize a problem through a similar or shared perspective, create opportunities for

action through connections, and then finally to act. Community development, therefore,

needs to consider the connections of each group involved as local communities and

organizations are positioned to act and address what they see as needing through the

resources and capabilities of outside actors. Perspective is essential, as are the resources

and responsibilities of individual actors that can be combined for mutual goals. While

these arguments combine for a call to collaboration, they also show the conflict of

knowledge, context, and the roles of actors which further relates to what is being

developed.

While community development relates to providing growth or support for

communities in need, the means to do that are not explicit. In a review and subsequent

argument of two paths to community development, Kretzmann and McKnight (1996)

detail both needs-based and asset-based community development. These two approaches

to community development address the basic frame by which actors work – either

identifying what a community is lacking and providing it or identifying what is has and

building off of it. The authors argue in favor of the asset-based approach in order to focus

on the community's potential rather than its shortcomings. Boyd, Hayes, Wilson, and Bearsley-Smith (2008) further describe this approach as outside actors building relationships and furthering connections within communities to utilize their existing assets and fill in needs. Stiles (1998) acknowledges the value in this approach, but in an example of how community development evolves, shows that these connections are not always sufficient. They take the discussion of a general approach to consider what is being developed within that community. As authors and development actors begin to agree on the approach to consider assets within a community, the unique assets will not provide a clear avenue of action. Stiles (1998) identifies this facet of community development as what is actually being developed or what is most valuable to develop; they argue development through communitarian theory is a social process but needs attention to political capabilities. Emejulu and Scanlon (2016) describe a conflict within the United States between community development through economic and supportive means, or through acknowledgement of the potential political basis resulting in need of community development in the first place. This argument is not relevant to every instance of community development, but it does relate to the foundation of strategy in community development as it relates to material or sociological context. Each of those strategies further relates to the actors distributing them.

Community development is a coproduction of a community and actors from within and potentially outside of it. The roles and responsibilities of those actors are essential to consider in an approach to development. Glaser, Soskin, and Smith (1996) argue for local government to play a key role through the formation of community-based organizations. This idea relates back to the problem identified by Stoutland (1999) in the

disconnect between local groups and larger or external organizations. Glaser et al. (1996)

argue that autonomy of a community within the development process is essential to its

success, and that autonomy depends on the involvement of actors like local government

that will ensure development initiatives are representative and inclusive of the

communities they impact.

Each of these foundations or theories of community development shows that there

is a shared purpose of helping a community in need, but difference in the details of

action. There are always multiple actors within a community who each play a part in its

wellbeing. Understanding those actors, their assets, and their connections and then

building on each of those is crucial. There are many theories for community development

but no one theory has the ability to apply as a blanket across all instances. How these

theories are used depends on the context and perspective of the people involved.

<u>Measuring Community Development</u>

Community development is a complex solution to a multitude of community scale

problems or opportunities. There are many ways to understand the impacts of a

development effort, but any evaluation will first depend on the original intent and

approach. Within development practice and literature, there are many ways development

is encouraged and applied, each with merit in given circumstances. Community

development can be approached and evaluated through economic or social means, the

structure by which it is employed, the empowerment and political impact it brings to a

group of people, and / or the foundation or roots in public or private organizations. Each

of these factors within measurement of given community development efforts are

essential to understand in order to accurately portray the effort and improve or replicate it.

Development itself can refer to many facets of a community. Community development is understood to be improving or helping a certain community of people (Kenny, 2016; Kotval, 2005; Sites, 1998), but the means to do so could be economic, structural, social, or any combination of elements. Constructing a framework to propose and evaluate development, Ribeiro and McMartin (2019) propose their "Smart Community Development Framework" which centers on project planning for sustainability within vulnerable communities. Their framework is laid out in essentially ten steps alongside "change management" and "design for responsible engineering" (Ribeiro & McMartin, 2019, figure 1). While the model incorporates social components and community involvement, it is focused on producing a product for a community and then transferring ownership of that product. This design is applicable to community development that produce such a product but would not apply well to an effort to develop connections and relationships.

Social cohesion and cooperation within a community are essential to its vitality and are therefore each key details in many community development efforts. One way to measure how this component of development is implemented is through social network analysis (Ennis & West, 2012). In a research project aiming to showcase the value of created connections and diversity of those connections, Ennis and West (2012) show how a community group was able to build connections among individuals and create a greater opportunity to collaborate and access social capitals through bonding and bridging connections. This approach clearly demonstrated a change in the community by depicting

new connections made, but it falls short in describing what those connections produced. Ennis and West (2012) acknowledge this flaw in the approach but show that such an evaluation provides a greater overview of potential instead of a direct product. In an application of the Adjusted Interrupted Time-Series Method, Galster, Temkin, Walker, and Sawyer (2004) create an approach where pre and post data from a development initiative can be used to predict the difference in improvement because of the effort compared to what may have resulted if development had not been implemented. Their model requires data and time to predict economic and statistical outcomes which may create a barrier to efforts with less structure or planning than would be required. Depending on the original purpose of development, it may be more valuable for a community to understand the difference between an economic investment made to their community and the relationships it built. Although useful, each of these applications may only provide a glimpse of the impact within a community, where realized impacts may not be quantitatively measurable.

The structure of a community development project varies similarly with the diversity of communities undergoing a development project. Such a structure to implement and then evaluate development can be rigid in assessing products or outcomes or fluid in creating associations with what the community identifies as growth or change. Addressing what they see as historic trends to evaluate community development, Schuchter and Jutte (2014) propose including measuring community health and wellbeing alongside traditional measurements of structures built or the number of individuals in a community served. Their framework attempts to take in the standard measure of impact to improve that measure and therefore improve the effort of community development. In

a series of studies of alleviating poverty through community development in African

communities, Ndaguba and Hanyane (2019) provide a flow chart to demonstrate how to

produce economic community development. While their studies are specific to African

communities, they apply to the general attention of community development and its

structure, which they show to be dependent upon the community itself and its

stakeholders, and then creating connection to the larger economy (Ndaguba & Hanyane,

2019). The structure proposed by these authors is still economically focused and driven,

but with attention to community details and stakeholder input. They argue this connection

was missing in community development resulting in continued poverty. Yet another way

to understand community development is proposed by Neely (2015) creating further

opportunity to understand unique context and results of development efforts. Neely

(2015) proposed complex adaptive systems (CAS) as a way to measure development and

show that many of the CAS concepts coincide with community development and that

attention to the interdependencies, intricacies, and feedback loops provide a greater

understanding of development efforts. This model calls attention to physical

improvements similar to Schuchter and Jutte (2014) but pays closer attention to what

those improvements mean to the community.

Involving local actors and stakeholders within development efforts is almost a

given within community development. The basis for such involvement varies, but many

authors argue in its favor for the purpose of community empowerment. In an explanation

and example of communitarian theory as it relates to community development, Sites

(1998) shows that each field in their study aims to support communities through

relationships and empowerment. Their article depicts some of the obstacles in community

development, particularly when a community is lacking in economic means and structure

to support their own development. Sites (1998) argues for the incorporation of political

power and will to allow the community to maintain its identity as well as ameliorate

some of their social problems. One of the most foundational approaches within the field,

assets-based community development (ABCD), is founded on the idea of community

empowerment (Kretzmann & McKnight 1996). The argument behind the method is that

needs-based approaches devalue communities and their members, but by highlighting the

assets within a community, it can be empowered and build toward its own autonomy and

success. In examples of ABCD, Boyd et al. (2008) show that mental health programs

within a community were effective through appropriate care combined with a "cohesive

community" (p. 190). Their example showed the need for an empowered community and

the result of its success. The success they found came from the community itself and their

ability to produce what worked for them, not a solution forced upon them (Boyd et al.

2008). In a study of indicators for community development, Nguyen, Wells, and Nguyen

(2019) propose a focus on empowering communities and their leadership within

development. They argue this is the most sustainable way to implement community

development so that communities can continue in cycles of improvement after assistance

is no longer present (Nguyen et al. 2019).

Empowerment and autonomy within development are essential to ownership of

progress. In a study combining each of these factors, Capraro (2004) describes the efforts

of a Chicago community development corporation to harness the power of community

organization in combination with community development. The study Capraro presents is

unique in that it documents aspects of community development that can be detrimental to

communities (gentrification) and the struggles that a group may have in the process of advocating for themselves. This study is specific to a Chicago community, but gives credence to the value of community empowerment, through organizing in this case, as well as the political power and stature to act autonomously. This study also leads into a question of the origin of a community development effort as it supports the foundation of community organizing that led local governments to action, rather than the other way around. The distinction between who is instigating community development may not always seem imperative so long as the community is improved, but there are implications to who is involved and in what capacities.

The role of public actors versus the role of private actors and their respective responsibilities is especially important to consider in the United States. The previous example of community development originating in a community nonprofit that encouraged local government to act despite setbacks is insightful into how these actors might cooperate, or how one might have to act with respect to another (Capraro, 2004). A study in Australia looked specifically at the role of local government in community development (Sagers, Carter, Boyd, Cooper, & Sonn, 2003). They considered the dynamic of a national perspective on the role of local government in community development compared to a private organization that might be more focused or produce a greater product due to competition for that service (Sagers, et al. 2003). They show a complex relationship between government actors and private organizations filling community needs and a subsequent disconnect in the measurement and understanding of those needs. Involving local governments and organizations is accepted in most community development (Ndaguba & Hanyane 2019; Neely 2015; Sites 1998) but those

roles need to be defined in order to allow appropriate and effective involvement of all actors. In a study specific to rural American communities, Green, Haines, Dunn and Sullivan (2002) examined local development organizations (LDOs) and their role in economic development compared to local governments. They found that LDOs contribute more to business recruitment, expansion, and retention, although about two-thirds of LDO funding comes from public sources (Green et al. 2002). Such development can be crucial to communities in need and LDOs provide a specific approach to achieve these improvements. The authors acknowledge, however, that because LDOs are not responsible to the public, improvements they make need to have a clear relationship to the community to ensure they provide sustainable benefit to those in the community who need it most. The roles of actors in community development will always vary alongside the variations in communities. When aiming to understand such development efforts, it is therefore essential to consider each perspective.

As with any development program or effort, it is important to understand its objectives and outcomes in order to appropriately evaluate it. The literature in this section shows that there can be many approaches and intents to community development as it relates to a community's needs for economic or social services, each of which is important and will likely play some role in the development and its evaluation. The context and needs of a community will then also translate to the combination of actors as private or public and their ability and responsibility to building efficacy and empowering the communities they promote.

Leadership

      Although intentional and focused on a level greater than any one individual, community development still depends on individuals and their leadership. The field of community development has progressed in its understanding and orientation to leadership within it, often depending on many of the contextual factors that have been described thus far. In order to understand the role of leaders and leadership within community development, there is a need to recognize the progression of its role as a facet as well as an outcome.

      Community development, especially from a state or federal government perspective, often pertains to economic means, specifically housing and business development. Housing and business development have been a focus of development with the understanding that their growth and significance would spur social recognition and community vitality (Vidal & Keating 2004; Yarzebinski 2004). Vidal and Keating (2004) describe problems and challenges they see within community development of this type. Their article primarily considers development products like housing developments and physical products being implemented by community development corporations (CDCs) and a specific challenge they find with this structure: building and sustaining leadership. Vidal and Keating (2004) describe a shift in the field's focus from neighborhood to city or regional collaborations that might broaden a CDCs impact and effectively use limited resources; this shift further creates the need to utilize existing networks and their leaders. Yarzebinski (2004) describes a similar attention to shifting structure from federal and state initiatives that are primarily top-down to connecting with community groups and their leadership. Each of these articles focuses on the leadership of established

organizations and individuals within a community – actors with great value to community development.

As community development has begun to reach beyond the physical and economic type of development described by Vidal and Keating (2004) and Yarzebinski (2004), there has also been a shift in understanding the role of leaders and leadership, as well as giving specific attention to developing leaders. In the same year each of these articles was published, Kirk and Shutte (2004) produced an article depicting the changing role of leadership and some of the conflicts within that change. They consider community leadership development as it relates to community development and capacity building. They show that the role and style of leadership has begun to shift away from hierarchy and management into more team-based and distributed leadership which has created conflict between established structure and changing culture. Kirk and Shutte (2004) further describe the framework of leadership development to require disciplined and intentional dialogue, the creation and fostering of connections between community members, and the collective empowerment of a community. Davies (2008) follows this transition in leadership and uses Burns (1978) definition of transformational leadership to support its importance in rural communities. Davies (2008) finds that both transactional and transformational leadership are important to community development, but that transformational leadership within rural development was more effective in fostering community participation and therefore would have a better long-term impact. They did, however, also acknowledge the continued theme of context dependence in community development showing that the role and style of leadership would depend on the objective of the efforts.

These considerations of leadership within community development have grown to consider local organizations and leadership within their processes, but leadership does not begin and end within organizations. Gonzales (2017) compares leadership development within community organizations to leadership development within communities themselves and argues for the importance of the latter. Gonzales highlights some of the debate that has come out of traditional top-down forms of leadership and community development in questioning who is empowered through each and how that translates to community wellbeing. Furthermore, Gonzales highlights another progression in community development literature, especially as it relates to empowerment and autonomy. These details have been discussed in the previous section (Kretzman and McKnight, 1996; Nguyen et al, 2019; Sites, 1998) coming from a more removed perspective and are now transitioning from empowering communities as a whole to how Gonzales (2017) advocates for community residents. This idea of empowerment within community development has evolved from Kretzman and McKnight (1996) who originally considered it as a way to encourage communities to build off of the assets they already have. Nel (2018) furthers this premise to show that such an approach, when appropriately combined with community involvement, leads to greater leaders in that community. In "Scaling Up Civic Leadership", Easterling (2012) describes this connection between individuals and their communities as essential to producing effective leadership.

Individuals carry out the efforts of community development as leaders both within organizations and as individuals within their communities. This section has shown that leadership, alongside the general study of community development, has continued to

evolve in its role and in its importance. The ultimate goal of development in supporting

and fostering growth in communities that need it is carried out through their

empowerment. Leadership plays a specific role within that dynamic as responsible for

interaction and involvement within the community context. Development needs to

consider leadership as a tool to effectively empower individuals to uplift their own

communities as partners and collaborators. Leadership can then also be developed within

the community to ensure it sustains vitality once development efforts have met their

goals.

Community Capitals Framework

The Community Capitals Framework (CCF) is an approach proposed by Flora et

al. (2016) to understanding the characteristics of assets within a community which can

contribute to and be used for the betterment of that community. This premise is similar to

the approach of ABCD (Kretzman & McKnight, 1996) in that it assumes that all

communities have assets in some form that have been invested in through time, money,

or otherwise that can be utilized for further development (Flora et al. 2016). As has

already been introduced, this framework proposes seven capitals: natural, cultural,

human, social, financial, and built. The framework itself does not provide a specific

avenue to develop a community through a succession of its capitals, but it does provide a

foundation to how a community might understand its potential or its assets beyond a

narrow focus of monetary capital.

The CCF is a unique way to understand the potential of a community. In order to

relate community capitals to community impacts, two studies focused on specific

community capitals that translate to community impacts. The first of these is "Urban–

rural differences in disaster resilience" (Cutter, Ash, & Emrich, 2016). This study

considers community capital as a predictor of rural community disaster resilience and

finds a significant connection. Cutter and colleagues found that religious affiliation and

civic organizations, each considered as factors of social capital, per 10,000 residents is

statistically significant to rural community resilience. They also show that place

attachment, as an aspect of community capital, is significant to resilience through percent

of community residents born in the state. These factors are not the entire focus of the

article but do contribute to show a statistical impact of community capitals for a

community benefit in disaster resilience. The second article that focused on a specific

community capital is "Small business lending and economic well-being in Texas

counties: A test with community reinvestment act data" (Mencken & Tolbert, 2018). This

article looks into the relationship between financial capital and economic well-being

within rural Texas communities and find measures of social and political capital in rural

communities to be positively associated with economic well-being. Each of these articles

shows how the consideration or use of the CCF can describe a community, its assets, or

how they interact. The development of individual capitals which then contribute to the

community as a whole is an important consideration of the framework by Flora et al.

(2016).

  Community assets can be identified individually as economic, physical, or even

sociological, but their relationship to the community itself is not necessarily isolated. In

an attempt to understand the transformation of a rural community, Emery and Flora

(2006) apply the CCF to identify investments in a community through capacity building.

The framework is used in their study to highlight the assets (capitals) of a community and

the connections between one capital and the whole of their collection. Emery and Flora

(2006) argue through this study that social capital, especially bonding and bridging, was

the most influential component of the framework to building community capacity. They

further introduce the idea of "spiraling up" which emphasizes the flow of capitals from

one to another and ultimately building the community referencing the compounding

impacts described by Gutierrez (2005). As they describe it, spiraling up can be achieved

by intentionally building human capital and supporting social capital growth which

allows resources to effectively impact each of the other capitals (Emery & Flora, 2006).

In response to the idea of spiraling capitals, Pigg, Gasteyer, Martin, Keating, and

Apaliyah, (2013) empirically studied the relationships of each of the seven capitals. They

tested the relationships between capitals and challenges the 'spiraling up' idea proposed

by Emery and Flora (2006). They find that capitals can be grouped into two clusters –

human (social, human, and political capitals) and material (financial, built, and natural

capitals) claiming similarity to Gutierrez-Montes, Emery, and Fernandez-Baca (2009) but

leaving cultural capital out of either grouping due to a weak statistical connection to the

material group and conceptual connection to the human group. The results from Pigg et

al. (2013) serve to show the capitals are related and building one may impact another, but

as these authors argue, those impacts could be largely confined to the groupings of the

capitals most similar rather than uninhibited spiraling that 'spiraling up' might suggest. In

order to understand how individuals who had participated in leadership development

education impacted human and social capitals, Apaliyah, Martin, Gasteyer, Keating, and

Pigg (2012) studied the actions of those individuals as they related to the CCF. These

authors argue that community leadership development can create individual leadership

capacity which then translates to an asset of the community. They show that leadership development participants' commitment to and efficacy regarding their communities' capitals were increased by the development program and those outcomes were then realized within the community through events and programs led by those individuals. While not explicit, the production of leadership in community relates to human capital which they show to further impact community and can be seen as a variation to spiraling up within community capitals.

In describing the seven capitals, Flora et al. (2016) provide their definitions as well as ascribe importance to each. The first capital they detail is natural capital which includes the natural resources such as land and water as well as others within a community. In their description, Flora et al. (2016) claim natural capital is the "basis of all other capitals" (p. 15). The importance given to natural capital is through its relationship to life as the resources that people need not only to survive, but also to build communities. With respect to community development and the intent to support those in need, natural capital is often of direct importance. Communities are often dependent upon stocks of natural capital, but they are also limited in their ability to create greater sources of natural capital. Gutierrez-Montes, Emery, and Fernandez-Baca (2009) describe the vulnerability of rural communities that often depend on natural resources because such dependence can lead to depletion. In an attempt to value Earth's total natural capital, Costanza et al. (1997) explain that compared to human wellbeing, natural capital has infinite value. Instead of overall natural capital, these authors show changing natural capital and ecosystem services relates to value for human wellbeing and that it is essential. It is therefore imperative to understand how natural capital is understood,

managed, and built upon within a community. This perspective also exemplifies the importance of the leaders and managers of natural resources. Using the CCF provides a foundation for understanding the assets or stocks of multiple capitals within a community with respect to the integral role of natural capital. Those capitals are built upon and might contribute to the development and wellbeing of a community.

<u>Community Capacity</u>

In addition to understanding the individual and collective capitals within a community, it is also important to understand the capacity of that community and its leaders. Emery, Fernandez, Gutierrez-Montes, and Flora (2007) conducted a study to understand how leadership development influences individual capitals which then produce a greater community capacity. In their article, they first refer to Flora and Flora (2006) for their definition of community capacity as building multiple capitals that collectively contribute to the community level. Emery et al. (2007) continue on to show that the leadership development they studied increased individuals' capacity through creation of knowledge and skills as well as access to networks through political capital. Those increases were only visible by focusing on individual capitals rather than their collection at the community level, but Emery et al. (2007) continue the notion of 'spiraling up' asserting that actions intentional to the community's capacity, rather than selfish actions, resulted in producing assets for multiple capitals. Their research gives credence to understanding leadership development and its impact on community capitals as well as capacity. However, while their definition is closely tied to the CCF, community capacity is not exclusive to their depiction.

The concept of capacity has grown alongside community development with equal importance and often just as much, if not more, ambiguity. In an approach to boiling down the concept of community capacity, Glickman and Servon (1998) create a framework by describing capacity through what they see as its main components: "resource, organizational, programmatic, network, and political" (p. 497). Their framework, however, similar to many earlier community development descriptions, puts great emphasis on physical and economic components. In another attempt to create a framework for community capacity, Chaskin (2001) outlined 11 other studies that defined community capacity, each with greater or lesser emphasis on individuals, connections, values, different processes, and many other facets of the concept. In order to unify the understanding and use of the term, they highlight four common components: existence of resources, networks, leadership, and community participation; each of these factors also closely tied to concepts of community development. They then define four fundamental characteristics of their own concept of community capacity: sense of community, commitment of community members, ability to solve problems, and access to resources (Chaskin, 2001). Through two case studies, they show the communities were each able to produce benefit despite completely different approaches, which lends to the credibility of the underlying characteristics, but once again makes the definition difficult to pin down. The importance highlighted through Chaskin's case studies (2001) is the community itself and their commitment. Fallov (2010) highlights another essential component of community capacity to be inclusion which leads to active involvement in the community, something they describe as contributing to community capacity in one of their case studies. Each of these articles shows community capacity growing alongside community

development and intertwined with many of its foundations and goals, the most basic of which is to support and uplift a community. The distinction of capacity then, as shown by Chaskin (2001), is the ability to solve problems.

The role of developing community capacity, like other forms of community development, is not entirely placed on any one individual or organization. It is tasked to many which results in its compilation and broad impact. While dispersed, it is still imperative to understand the role individuals can have within their community related to its ability to solve problems. In addition to considering community capitals, the role of community capacity will allow a whole picture of development and strengthening within a community. Sun and Anderson (2012) consider the role of individuals in building community capacity through the lens of transformational leadership and integrative public leadership. They see the role of leaders within communities as needing a specific attention to responsibility to the community and the public interest. Sun and Anderson (2012) argue that leaders need to have civic drive, civic connections, and civic pragmatism to combine the two previous qualities into action. They note that their article is specific to leaders within the public sector, but also allude to the role of private organizations through a responsibility to the communities of which they are a part. Through either public or private foundations, the responsibility to community and uplifting others in need is still present. It is therefore important to understand how individual leaders embody and carry out those responsibilities in order to develop their community's capacity to withstand community-level problems.

Conclusion

Community development, capitals as assets, and capacity to face challenges are each integral to the leadership within the field of natural resources. Community development has evolved in its understanding and approach to community needs, but it has continually focused on improving the wellbeing of individuals in need. The context of the community and the problem being addressed are each essential factors to consider that will likely not be identical in any two communities. The CCF builds on the idea of ABCD to highlight the assets of a community and to show how they might interact and how each might build off of the others. This understanding of community assets provides a basis to understand what a community has and how it might be improved. The leaders within communities, either through organizations, local government, or as individual citizens is a definitive and magnified context of the combination of each of these concepts. When placed in the context of natural resources, the role of leaders is directly tied to their management of resources that communities rely on. This research contributes to understanding the relationships between leaders and their community's capitals as well as capacity.

Overarching Study Question

This study sought to understand the role natural resource leaders have in developing their communities. The overarching study question is: How have graduates of the Nebraska Water Leaders Academy advanced their community's capitals (as defined by Flora et al. (2016), and influenced their community's capacity to withstand future water availability challenges, among others (based on Sun and Anderson (2012))?

CHAPTER 3: Methods

Qualitative Foundation

This study employed dual qualitative case studies: one studying impact on community capitals from the Nebraska Water Leaders Academy (Academy) graduates' perspective, and one studying impact on community capitals from the perspective of network contacts of Academy graduates. This research specifically employed qualitative methods in order to understand personal experiences as seen by graduates and their community contacts. Following the qualitative structure outlined by Merriam and Tisdell (2016) as well as Bogdan and Biklen (2007) this study aimed to derive meaning from the personal experiences of participants rather than using compiled numerical data. Following a constructivist paradigm, a qualitative approach allows a greater understanding of the setting and participant perspective which will allow the researcher to understand the context and result as seen by the participants (Baxter and Jack, 2008). This study aimed to work with individuals and their professional networks – social circumstances that will be unique to each case. Creswell and Poth (2018) describe an epistemological characteristic of qualitative research as minimizing the gap between the participant and the research, a strategy necessary for complete understanding in this context. Qualitative research is best suited to understand how individuals have advanced capitals within their community and how they have increased its capacity because it allows a more intimate understanding of the community and the participants in the study.

Qualitative Rationale

Qualitative research was chosen in order to provide an understanding derived from the communities and graduates which are the subjects. This study seeks to employ

the approach of case studies as described by Creswell and Poth (2018) through exploring the experiences of the participants to gain an in-depth understanding. Case studies are used as a means to access the lived experiences and perspectives of members of communities while bounding the research to those connected to the Academy as graduates or community contacts of those graduates. Qualitative methodology applied within case studies was used here as it provided opportunity to explore the naturalistic setting and uncover the unique experiences and circumstances Madsen and O'Mullen (2014) showed to be required with leadership development.

Case studies have specifically been chosen as the method by which to understand community capital from the perspectives of Academy graduates and their contacts. Merriam and Tisdell (2018), Baxter and Jack (2008), and Creswell and Poth (2018) each show that a defining feature of case studies are their boundaries of study. This method was chosen here because it allows clear guidelines to define the parameters of the study as well as an in-depth understanding of each case. In order to create a more wholesome understanding, this research specifically applied multiple case studies, the first being the graduates of Academy and the second being the community contacts of those graduates. Community capitals and capacity are each popular topics of research in their own regards but applying them to multiple graduates of the Academy allowed a greater understanding of how each can be applied to understanding communities and the leaders within them.

This study bounded its case studies by the perspective of graduates as well as their network contacts within their community. In order to study Academy graduates and their role within community capitals and capacity, it was important to understand graduates as well as stakeholders within the community as Black and Earnest (2009) suggest in

relation to studying leadership development programs. To ensure an appropriate and relatable understanding of both community and graduate perspectives, this study applied the same qualitative methods of research to each group being considered as an individual case study. The difference provided a firsthand understanding of the graduate and their role associated to capitals and capacity as well as understandings from community members who each might have different perspectives. Together these facets of the study provided a more complete picture to answer the research questions.

Merriam and Tisdell (2016) define the constructivist approach as having a focus on process of research as well as on the understanding and meaning derived by participants. A constructivist approach was necessary and applied to this study in order to understand the self-perceived role and relationship between graduates and their community as well as the understanding and perceptions of community members to the same relationships. Creswell and Poth (2018) specify a social constructivist approach to allow researchers to see the "complexity of views rather than the narrow meanings" (p. 24). This research focused on community capitals and capacity, but the ways in which those subjects are understood and realized within the community are left to the participants and their experiences.

As a qualitative study, it was important for this research to give the greatest attention to its participants and their viewpoints; however, I also include the instrumental facets of the Community Capitals Framework via Flora et al. (2016) and community capacity via Sun and Anderson (2012) as previously described. Baxter and Jack (2008) specify types of constructivist qualitative case studies including instrumental case studies which seek to further understand situations and established theories which apply to the

given case(s). This study aimed to understand the roles of graduates to each of the seven

community capitals as described by Flora et al. (2016) as well as the capacity to problem

solve by Sun and Anderson (2012). By exploring the experiences and understanding the

perspectives of individuals in relation to these theories, this study took on the

instrumental nature described by Baxter and Jack (2008). This approach allowed a greater

understanding of how community capitals and capacity are influenced by graduates of the

Academy. Figure 1 depicts the research approach of case studies to include constructivist

and instrumental specifications.
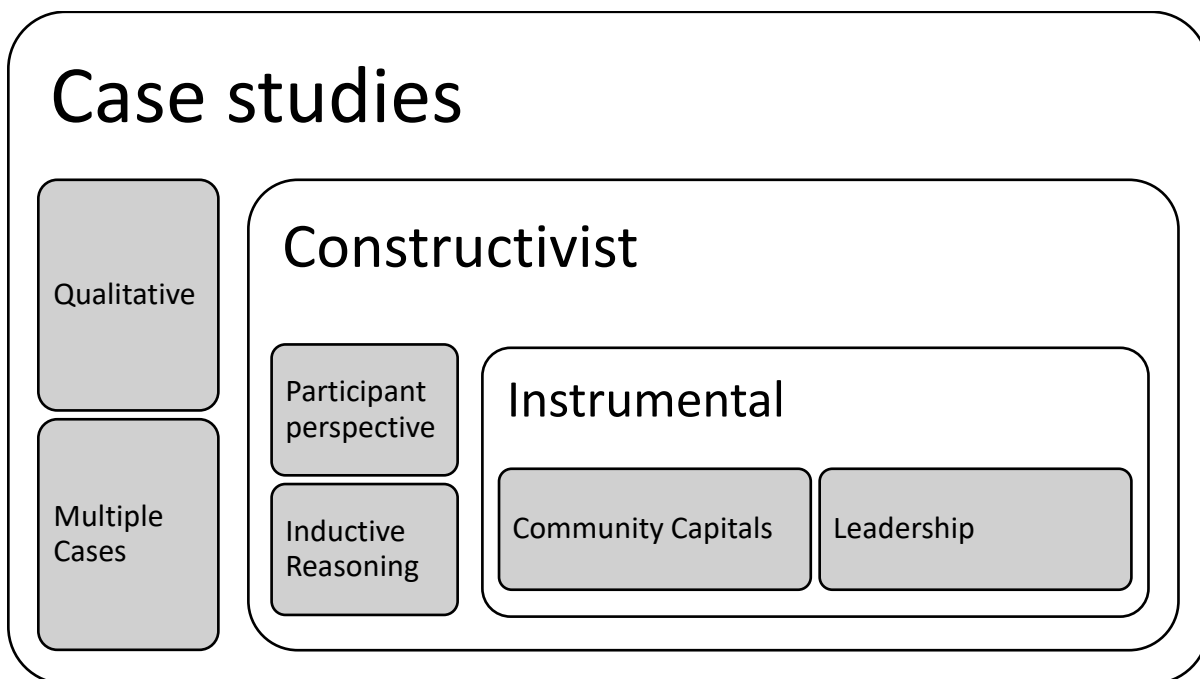
Figure 3.1. Case Studies

Researcher Positioning

In order to construct derived meaning from this qualitative study, it was important

for the researcher to disclose his own perspectives that might influence their

interpretations so that they can be checked to produce more reliable results. The

researcher is an assistant to the Academy and cannot remove the connection to the program but by using multiple validation strategies and disclosing this position, future studies and evaluations of this research can at least understand potential biases. The researcher is also not from the study area and so may have less local knowledge on the culture and communities within Nebraska. This could have produced a more open-minded evaluation, but also may have hindered an understanding of certain details like impacts on local traditions. As a male, the researcher also had to consider the potential gender dynamics of female participants included in the study as gender may influence experience within natural resource management (Davidson & Black, 2010).

Aiming to produce ethical and reliable research, this study needed to consider the researcher's positions in relation to the topic as well as the power that can be associated with research. The greatest ethical consideration of this study was the influence it may have on the individuals and communities being studied. Positive research findings could benefit participants as well as the researcher as a member of the program, but negative results could hinder program and participant stature within their communities. Houghton et al. (2013) recommends prolonged engagement with study participants to increase rapport with the researcher and garner honest data. While this study did not allow for extensive involvement with individuals, the Academy maintains contact and good standing with its graduates which may have been extended to researchers associated with the program. Contact before data gathering interviews also provided some familiarity between the researcher and study participants.

In addition to engagement and observation, this study also needed to consider the role of funding related to the leadership development program, researcher, and potentially

participants. In order to avoid personal or organizational gain, this study did not use real names of the program participants in order to maintain anonymity and reduce threat of bias or personal gain or loss. These strategies were used in combination with member checking to ensure accurate representation and understanding of participant perspective. Institutional Review Board (IRB) approval was completed as a foundational process to counter ethical concerns and provide responsible and reliable research.

Sample Selection

In addition to the parameters of the case studies, participants were further selected through a combination of purposeful and convenience sampling. Creswell and Poth (2018) show that in the context of case studies, purposeful sampling aims to provide the greatest variation of perspectives and experiences. This study aimed to provide variation of experience and perspective by including both graduates and their network contacts within their community. This research also employed convenience sampling in order to conduct a practical study. Participants were alumni of the Academy which required respect to their previous involvement and existing relationship with the Academy. This study was not alone in using this program and its participants for research, so sample selection had to be wary of asking too much of individual participants. It was also important to select participants that are available and within reasonable distance for interviews. Convenience sampling was practical and allowed the study to work with individuals that are available, interested and willing, and had experience in the contexts being studied without prolonging research through time or budgetary constraints.

This research aimed to include both graduates of Academy as well as their community contacts. The Academy, however, only has direct access to its graduates. In

order to be connected with individuals in the community, this study utilized snowball or

chain sampling as described by Creswell and Poth (2018). The initial network contacts,

or first links in the chain, came directly from graduates. From those contacts given by

graduates, individuals were purposefully selected to provide the greatest variation of

perspective on how graduates influence community capitals. This was done in order to

minimize the bias of perspective that community members might share and include as

many perspectives (based on context like relationships or professions). This sampling

technique was also constrained by convenience sampling as not all contacts given

responded to participate in the research. This sampling technique was used until

community contacts identified by participants were clearly repetitive showing a saturated

sample, or until information was gained from additional contacts became clearly

repetitive showing a saturated collection of data.

Study Design

　　　　This study first received permission to proceed from the University of Nebraska

IRB. Once permission was gained, the main researchers contacted select Academy

graduates by using the academy's graduate directory and staff knowledge of participants

and their location and history with Academy research projects (in order to prevent asking

for participation in multiple studies). Each of these graduates was: 1) contacted via email

or phone and introduced to the study (Appendix A) 2) informed of potential voluntary

participation or refusal at any part in the process, and 3) provided with potential risks and

benefits of participation. If graduates agreed to participate the researcher scheduled a

time for an interview (face to face, phone, or video conferencing based on availability).

At the time of the interview the researcher again introduced the study and informed the

participants of voluntary participation or refusal at any time, provided risks and benefits, and provided informed consent forms (Appendix B). If they were willing to participate and once they had completed the form, the interview protocol proceeded (Appendix C). Concluding each graduate interview, the researcher asked for one to three community contacts that might provide additional insight into the role of the Academy graduate in their community. Those contacts were then approached with the same process (see Appendix D for recruitment script and Appendix E for interview protocol). This continued until either of the previously described forms of saturation was reached.

Data collection

These case studies primarily employed in-person interviews as data collection but also used observations to inform context within each case, as encouraged by Creswell and Poth (2018). Each participant was informed of these collection methods through informed consent adhering to IRB guidelines. The interviews with participants provided the bulk of data and information for this research as they gave the greatest representation of participant perspective. In order to take full advantage of the interview process and subsequent data, observations such as relationship to the Academy graduate being studied, position within the community, and other contextual public information were included as data collection methods that provided triangulation and guided data collection.

<u>Interviews</u>

In-person interviews served as the primary method of data collection for this study. Interviews provided familiarity and comfort to researcher and participant alike through a common understanding of the process of research. They allowed the greatest

insight through participant perspective which has been shown to be necessary when studying leadership (Harpham, 2008). Discussion within the interviews was guided, but not rigid to allow participants to convey what they experience as influential or important to the study questions. Interviews were conducted in "naturalistic settings" like their office, chosen by the preference of the participant. Interview and available prodding questions were developed with respect to Flora et al. (2016) for each community capital and Sun and Anderson (2012) for community capacity. Interviews with graduates' network contacts followed the same topics and inquiry to be able to understand graduate and community network perceptions. The interview protocol can be found in Appendix E.

Observations

Observations were collected throughout the research process and served to create context for other forms of data. Observations were recorded in notes on participant professional, personal, and community contexts. This helped my understanding of participants' opportunity for leadership, community capital development and use, as well as helped me to understand their perspective. Each of these observations was recorded with reference to the perspective of the researcher.

Recording and Storing Data

Interviews were recorded on digital recorder and uploaded to a secure personal computer for future transcription and analysis. Observations, notes, and memos were recorded on the same digital recorder as well as on a private notebook and then digital files saved to the same personal computer. Recordings of interviews and observations were uploaded to a password protected personal computer where their access was

restricted to the main researchers. Each digital file was named with a code that allowed the researcher to identify the association between community contacts and the graduate who recommended them. Only the primary researcher had access to information tying codes to the participants they represented. A copy of each digital file was also downloaded to an external hard drive and locked in a desk drawer. The private notebook with observations, notes, and memos was also locked in the desk drawer. Only the primary researcher had access to the contents of the locked drawer. This data will be stored until the study is complete, at which point it will be destroyed.

Data Analysis

This study employed the six steps laid out by Creswell and Guetterman (2019): 1) preparing and organizing data for analysis, 2) initial exploration of data through coding, 3) developing descriptions and themes from codes, 4) representing findings through narratives and visuals, 5) interpreting the meaning by personal reflection on findings and related literature, and 6) validate the accuracy of the findings. This process was iterative so that data and interpretations could be refined. Data analysis began after the third-party transcription service: Temi.com completed its work. Transcripts were then read through to ensure they were accurate to interview recordings and were organized alongside the notes, memos, and additional data such as information from public websites (when applicable) that correlated to the graduate being considered in that interview. Their analysis contributed to the research process and was ongoing until data acquisition was complete. Data was organized based on the Academy graduate in the case so that interviews and observations were used to fill in context on each graduate. Observation data was in the form of notes and memos including the context of their creation -

observations made based on public websites will be distinguished from observations

made on setting or other details in person. That information could then be applied to the

greater study. Researcher positioning as previously described was also applied to

observations when necessary (as in the observation of a community based on outsider

perspective, etc.). This again allowed a thorough understanding and context of the

information, its source, and when in the research process it was acquired. Each of these

details combined to create the picture and description of the interactions and

understandings of graduates and their community's capitals and capacity.

<u>Validation Strategies</u>

As the main instrument of research, my perspectives may have inevitably

impacted this research. In order to provide validity to this research and its products, this

study utilized strategies of triangulation, peer debriefing, member checking, and an audit

trail outlined by Houghton, Casey, Shaw, and Murphy (2013). Multiple forms of data in

the forms of interviews and observations from multiple perspectives were used here to

produce triangulation of potential findings. Van Deth (2003) specifically recommends

multiple forms of data for this purpose in studying social capital in order to avoid simple

understandings that can misrepresent complicated topics.

Peer debriefing as described by Houghton et al. (2013) was used to ensure codes

and themes derived from interview transcripts and observations are reliable, appropriate,

and can be replicated by other researchers. Professors with expertise in leadership and

community capitals were asked to fill the role of an expert. Interview transcripts were

checked with random participants to ensure their meaning and perspectives were

accurately depicted. This research also employed an audit trail to ensure every detail of

the research process was documented and can be understood for critique or replication.

This audit trail included details from the first observation or interview through the final

analysis. A comprehensive audit trail shows the researcher thought process as the

instrument of research in understanding participant input and the context of data. This

trail was embodied in notes and memos of observations and notes of processes in

interview transcript analysis. In addition to each of these strategies, researcher

positioning has been laid out so that it can be considered in reviewing and understanding

the representation and analysis of the data. Figure 2 depicts the validation strategies

employed in this study.
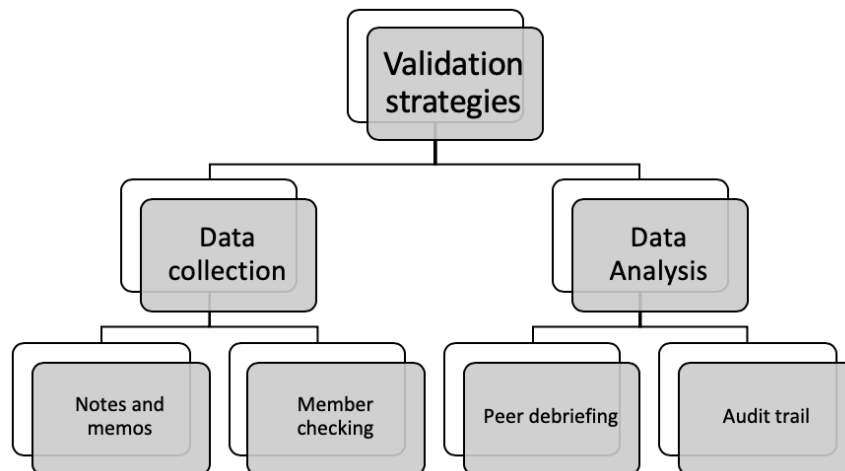
Figure 3.2. Validation Strategies

CHAPTER 4: Findings

Introduction

The findings of this research are a result of thirty interviews, along with observations from each, and additional contextual information from public websites and publications. Observations such as professional positions, relationships between graduates and community members, as well as information from public websites and publications are not shared in order to maintain anonymity, but were used to guide and inform the understanding and coding of interview transcript data. Each interview was recorded, transcribed, reviewed, and then coded with supporting information from observations and contextual information. Twelve graduates of the Nebraska Water Leaders Academy (Academy) and eighteen of their community contacts participated in this research study. Each of these groups forms one of two case studies considered in this research. While not an outright evaluation of Academy or its graduates, the information gathered serves to explore how graduates have influenced the assets of their communities through their own as well as their communities' perspectives. In order to maintain anonymity, demographic data was not collected for study participants.

Qualitative questions were constructed with respect to the Community Capitals Framework (CCF) developed and described by Flora, Flora and Gasteyer (2016) to understand how assets within a community can contribute to and be used for the benefit of that community. Using this approach, the data shows how Academy graduates influence both physical and social assets within their communities as well as gives insight into how the CCF can be used to understand the influence of individuals within a community. Study participants were also asked additional questions based on the

concepts of civic interest, civic connections, and civic pragmatism by Sun and Anderson (2012) in order to understand graduates' civic capacity and subsequent influence on their community's ability to prepare for future water challenges.

Graduate Case Study

A total of twelve Academy graduates participated in this research study. While no identifying information is included, information regarding the professional and location context of individuals is included to understand the communities being influenced. Of the participating graduates, nine focus on water or natural resources through their professional employment or public service; six work in the public sector, three in the private sector, and three in the nonprofit sector; and four of the interviewed graduates live or work in either Omaha or Lincoln while the remaining eight live and work in smaller Nebraskan communities.

Through the combination of graduate data, eighty-two coded categories were created and consolidated into nine themes, one of which was the context and background, not a direct influence of graduates to community capitals. The remaining eight themes are: Business-like Approach, Collaboration, Connecting to Community, Education, Environmental Protection, Leadership, Local Attention, and Networking. Table 4.1 describes each theme and the focus of codes within them. These vary in their aggregated references from as few as forty-six in Business approach to as many as two hundred twelve in Connecting to community. Figure 4.1 shows each theme with size corresponding to the number of aggregated codes within in.

Table 4.1. Graduate Theme Description

Theme	Description
Business-like Approach	Actions in business settings or with business principles such as fiscal responsibility, budgeting, or savings
Collaboration	Focus on working together for mutual benefit through such things as communication, partnerships, and finding Win-Win scenarios
Connecting to Community	Actively participating in community through such things as board service, listening to others, and community events
Education	Educating community members, working with schools and students, encouraging education to peers, coworkers, and others
Environmental Protection	Conserving natural resources through water savings, water quality, balanced use, and flood control
Leadership	Encouraging others, leading by example, finding innovative and creative solutions to problems and building up other leaders
Local Attention	Actions to influence specific groups of people such as local producers, people in need, or contributing resources to specific communities (usually where the graduate lives or works)
Networking	Developing personal and professional contacts with individuals and organizations within and across communities
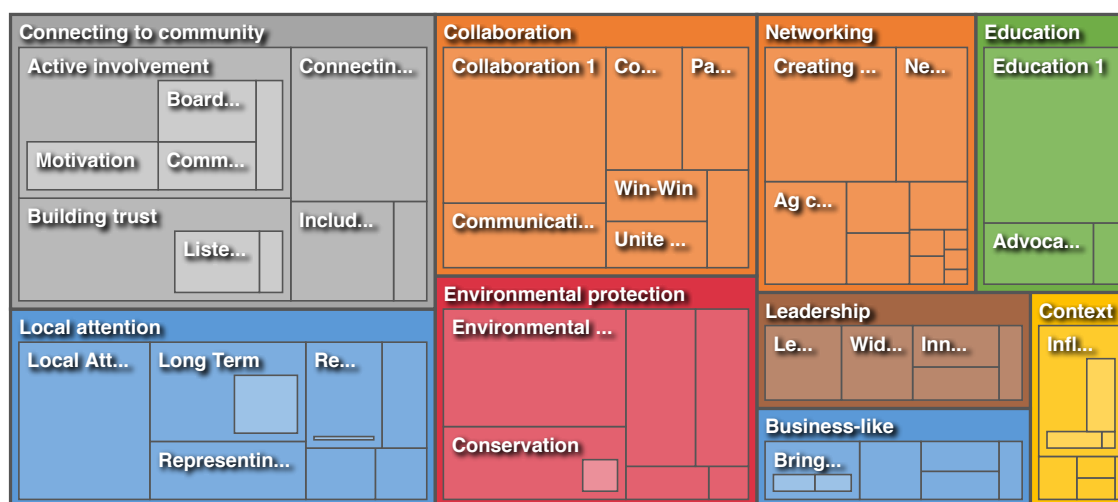
Figure 4.1. Graduate Aggregated Themes

Community Capitals Framework

Graduates were asked about their personal influence on each of the seven community capitals. Those questions were asked naming the capital and then providing three examples taken from Flora et al. (2016) (see Appendix C). After each transcript had been coded, responses from each question pertaining to individual community capitals were grouped and compared as a whole to determine graduates' responses to individual community capitals. Table 4.2 reveals local attention to be most prominent in each built capital and cultural capital influence, business-like codes as most prominent in financial capital influence, education codes as most prominent in human capital influence, environmental protection codes as most prominent in natural capital influence, collaboration codes as most prominent in political capital influence, and connecting to community codes as most prominent in social capital influence. Neither the leadership nor networking themes were most prevalent in responses to any community capital question.

Table 4.2. Graduate Community Capital Themes

	Business-like Approach	Collaboration	Connecting to Community	Education	Environmental Protection	Leadership	Local Attention	Networking
Built Capital influence	1	5	2	4	14	1	15	8
Cultural Capital influence	1	13	17	2	5	5	18	9
Financial Capital influence	15	6	5	6	10	3	10	6
Human Capital influence	0	12	10	19	7	8	8	2
Natural Capital influence	1	17	8	13	33	5	10	14
Political Capital influence	1	23	10	8	10	10	19	8
Social Capital influence	1	22	29	6	11	3	7	9

Civic Capacity

Following questions regarding each of the seven community capitals, graduates were asked about their civic interests, connections, and pragmatism as each related to addressing local challenges. Similar to the community capitals questions, these responses were grouped after having been coded in order to identify the most common themes associated to each question. Table 4.3 shows that local attention was most prominent within civic interests and networking was most prominent within civic connections as well as pragmatism.

Table 4.3. Graduate Civic Capacity Themes

	Business-like Approach	Collaboration	Connecting to Community	Education	Environmental Protection	Leadership	Local Attention	Networking
Civic Connections	0	14	12	5	4	4	3	22
Civic Interest	0	7	9	0	2	1	10	4
Civic Pragmatism	1	9	5	6	4	6	5	13

Barriers

In addition to each of the two sets of questions regarding both the CCF and civic capacity, the theme of graduate barriers was compared to each question asked as seen in Table 4.4. This reveals graduates to have the greatest doubt with their influence on built capital.

Table 4.4. Graduate Barriers to Influence

	Busy life	Civic barrier	Doubt
Built Capital influence	0	0	4
Civic Connections	0	0	0
Civic Interest	2	1	0
Civic Pragmatism	0	0	0
Cultural Capital influence	0	0	0
Financial Capital influence	0	0	1
Human Capital influence	0	0	0
Natural Capital influence	1	0	1
Political Capital influence	0	0	1
Social Capital influence	1	0	0

Community Member Case Study

A total of eighteen community members were included in this study as a result of graduates' recommendations. Of the eighteen participants, twelve had a professional or public service focus in relation to water or natural resources; nine worked in the public sector, eight worked in the private sector, and three in the nonprofit sector; six lived or worked in either Lincoln or Omaha, and the remaining twelve were located outside of those two cities. Of these community contacts, three had a primarily personal relationship with the graduate who recommended them, two had both professional and personal relationships, and thirteen were primarily professional contacts.

Transcripts from community contacts were coded with fifty-five unique codes and consolidated into ten themes, one of which was once again dedicated to context. The remaining nine themes are: Collaboration, Connecting to Community, Education, Environmental Protection, Financial Growth, Flood Control, Leadership, Local Attention, and Networking. Table 4.5 describes each theme and the focus of the codes within them. The fewest codes within any of these themes is in Flood Control with only twelve individual codes (however, Flood Control was not a consolidation of codes, it was left as its own theme), and the greatest number of codes was within Collaboration at one hundred thirty codes followed closely by Local Attention at one hundred twenty-eight. Figure 4.2 depicts the variation of each theme based on the aggregated codes within it (Flood Control is located in the lower right corner but does not contain any sub-codes).

Table 4.5. Community Member Theme Descriptions

Theme	Description
Collaboration	Taking a balanced approach through communicating and listening to others to find and work towards a mutual goal
Connecting to Community	Interacting with community members by relating to and working with others, involve them in decisions and building trust
Education	Educating others in the community through conversations, presentations, displays and contributing their knowledge
Environmental Protection	Conserving and protecting resources such as water, soil, and habitats through advocating, and enacting necessary strategies
Financial Growth	Bringing in and directing money through fundraising and grants, and saving money where necessary and appropriate
Flood Control	Flood mitigation or prevention such as infrastructure and planning
Leadership	Showing commitment to progress and others, and an ability to contribute knowledge and expertise to achieve shared goals
Local Attention	Actively involved with and committed to individuals and groups such as producers, community boards, and organizations
Networking	Connecting to others in and outside of their communities and serving as a resource for others to find connections.
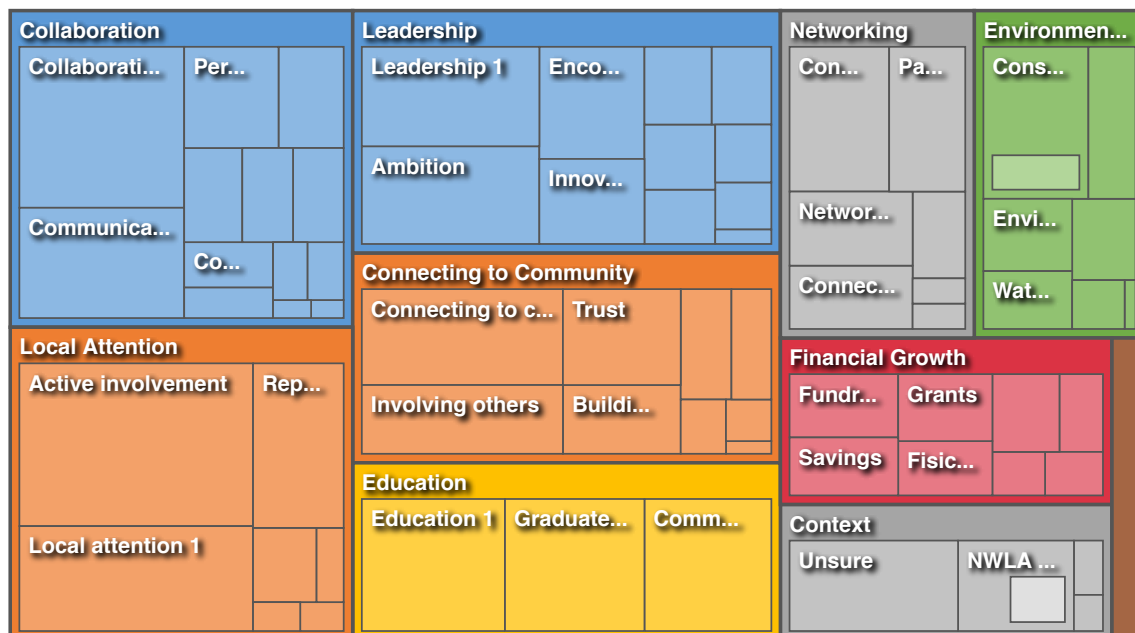
Figure 3.2. Community Aggregated Themes (Flood Control theme in bottom right, brown)

Community Capitals Framework

      Community members were asked the same questions concerning each of the seven community capitals as were Academy graduates; however, instead of answering for themselves, they were asked how they had seen graduates influence each capital. These questions also followed the format of naming the specific capital followed by examples described by Flora, Flora, and Gasteyer (2016) (see Appendix E). Table 4.6 shows that community members considered graduates to have the greatest influence on built capital through Leadership, the greatest influence on cultural capital through both Local Attention and Connecting to Community, the greatest influence on Financial capital through Financial Growth, the greatest influence on human capital through Education, the greatest influence on natural capital through Environmental Protection, the greatest influence on political capital through Collaboration, and the greatest influence on social capital through a combination of Collaboration and Connecting to Community.

Table 4.6. Community Member Community Capital Themes

	Collaboration	Connecting to Community	Education	Environmental Protection	Financial Growth	Flood Control	Leadership	Local Attention	Networking
Built Capital	2	3	0	3	5	10	12	9	4
Cultural Capital	15	17	5	1	1	0	10	17	5
Financial Capital	4	5	3	8	35	1	9	7	3
Human Capital	16	16	32	3	2	0	18	13	4
Natural Capital	12	6	11	19	3	0	15	9	2
Political Capital	21	9	8	6	4	0	14	15	12
Social Capital	25	25	9	1	3	1	7	13	7

Civic Capacity

Following CCF questions, community members were asked about their perception
of graduate civic interest, connections, and pragmatism with regard to community
challenges. Table 4.7 shows community members see graduates express civic interest
most through Local Attention, develop civic connections through Networking, and
combine those two in civic pragmatism through Local Attention.

Table 4.7. Community Member Civic Capacity Themes

	Collaboration	Connecting to Community	Education	Environmental Protection	Financial Growth	Flood control	Leadership	Local Attention	Networking
Civic Connection	9	9	4	3	2	0	9	15	19
Civic Interest	6	8	3	3	0	0	12	16	8
Civic Pragmatism	13	7	6	4	3	0	13	14	13

Limited Perspective

Community members only provided an outside perspective on graduate influence
within the community and therefore expressed a lack of perspective regarding certain
areas of influence. Table 4.8 shows those gaps relating to each capital and civic capacity
question with the greatest proportion pertaining to graduate influence on built capital
having eight of the eighteen community members express they were unsure of graduate
influence on their community's built capital. However, no community members
expressed uncertainty as to graduates' influence on human capital in their community.
The single unsure code within natural capital influence was pertaining to specific
influence: "how [they] influenced it and what [they] did specifically on a day to day. I
can't answer that".

Table 4.8. Community Member Perspective Gaps

	Unsure
Built Capital influence	8
Civic Connection	2
Civic Interest	3
Civic Pragmatism	2
Cultural Capital influence	2
Financial Capital influence	4
Human Capital influence	0
Natural Capital influence	1
Political Capital influence	5
Social Capital influence	3

CHAPTER 5: Discussion

Introduction

Graduates of the Nebraska Water Leaders Academy (Academy) are attentive, active and committed members of their communities. The influence of individuals in communities is compounding and focused both on the water and natural resources as well as the social connections that facilitate community progress and capacity to respond to challenges. As graduates of a leadership academy focused on water, there is an obvious attention and duty to manage the resource within the state as a whole as well as within individual communities across Nebraska. This influence is directly exhibited through influence on environmental protection such as water savings and protecting water quality however, that influence is continually built up through the ability and focus of graduates to connect to their communities, collaborate with individuals and entities at all scales, and their attention to issues and challenges at a local level regardless of their professional orientation to a local scale.

The purpose of this research was to better understand the influence of individuals on a community level, specifically graduates of Academy, to their communities within Nebraska. Community, however broad, is considered in this study through reverse engineering this relationship to show the influence of graduates to be their community. The extent and reach of individuals' actions are through their regularly lived connections and so understanding those interactions gives greater insight into what they mean and what influence is a result of them. This approach to consider the community influence of individuals is used in order to understand how one individual's actions go beyond their personal relationships and interactions to the community level. The consideration of how

graduates themselves see their own influence as well as that of members of their

communities serves to build an understanding of what that community looks like. This is

a unique approach to research how individuals from across the state, in a variety of

professional, personal, and simply geographic contexts can be collectively considered to

show an influence on a community level.

Leadership development creates focus on individuals and their role in working

with others and the implications of their actions beyond themselves and even beyond

their personal interests. Graduates of the Academy show the realization of this purpose in

the way they work in and with their individual communities, however broad or narrow.

Community development is intimately related to leadership as described by Davies

(2008). This research makes a unique connection and addition to the literature that

considers community development by showing that graduates of the Academy are able to

and do bridge multiple levels of community development and influence from a local and

organizational standpoint to a policy and external level shown to be lacking by other

community development efforts (Stoutland, 1999; Glaser, 1996).

The Community Capitals Framework (CCF) by Flora, Flora, and Gasteyer (2016)

is essential to showing the influence of graduates as they are specific to not only natural

resources and water but also the social factors such as relationships, education, and

values, all of which interact. The framework also provides a way to depict how influence

of one capital interacts with multiple capitals. Approaching the influence of Academy

graduates to their communities through the CCF is useful to understand how actions

directed to specific goals such as water conservation can also influence the knowledge

and consideration of whole communities. Facets of communities specific to graduates'

goals and aims are shown to compound and interact in ways that may or may not be intentional. Showing the reach of the actions and focus of an individual to a community scale is complicated, especially in the scope of leadership development that reaches individuals across many professional fields spread out over the entire state of Nebraska. The CCF provides a platform to do so and can be used to incorporate individuals across communities, not just those with professional or personal goals such as conservation, recreation, or economic growth.

A goal of the Academy is to develop leaders who can contribute to many components of their communities. Natural resources and water are one of many foci within Academy curriculum. The academy also aspires to increase the civic capacity and community engagement of its students (Burbach, 2018). Attention to each of the civic interests, connections, and pragmatism was included in this research and has been found to tie closely to the CCF that describes assets within graduates' communities. Graduates focus on connecting to and involving individuals and stakeholders within their communities showing a specific local interest and attention that is followed by an approach to collaborate with differing and like-minded perspectives through professional and personal networks. The approach to understand civic capacity from both graduate first-hand perspective as well as a secondary point of view from community members shows some disconnect in the intrinsic motivation of the graduates being studied but gives emphasis to the results that are recognizable by others.

The two case studies conducted here have significant overlap in the uncovered attention to how graduates of the Academy focus their influence on community. They also give insight into the connection between graduates and members of their community,

what that influence means and how it is seen from different perspectives. These insights will show that graduates influence their communities through direct and indirect attention to material and relational components of community with an overarching theme of attention to working with others.

Nebraska Water Leaders Academy Graduate Communities

In order to understand how graduates have influenced their communities' assets based on the CCF, this study considered how to bound the communities. To understand the breadth of influence and avoid restricting answers, graduates and their contacts were asked to define "community" and their scale of influence. This allowed graduates who work at a district, regional or even state scale to consider how their actions could be included and considered as their influence beyond the people within their neighborhood, town or city. However, community in the sense of a city or town was equally important to consider so graduates were also encouraged to provide attention to their actions at such a scale when it was applicable. This initially provided some ambiguity as to what the community of a graduate might look like; however, it also created insight into the ways in which graduates have influence.

In addition to asking graduates and their contacts to consider community and the scale of influence, it is important to consider the context of graduates and community members. Of the twelve graduates who participated in this study, four were in the two metro areas of the state, Lincoln and Omaha, and the remaining eight graduates were located outside of those cities. When considering their own scale of influence, three graduates referred to a local scale like their hometown, five referred to a regional or county scale, and four referred to influencing a community at the state scale. While each

graduate had influence specific to one of the previous scales of community, they also had varying overlapping scales of influence so that even though they might have focus on issues at the state level and contributed to the state community, they might also contribute to hometown or neighborhood assets. Comparing graduates located in Lincoln or Omaha to those that were not did not show a difference in focus on community scale. This gives interesting insight into how graduates in either a large city or smaller or even rural community focus their influence. Participating and influencing a larger community might seem more daunting and appropriate to a larger scale, but graduates responded to show that their influence was not dictated by their location. In addition to the scale of influence, all but two graduate participants referred to either connections to the state (either through agencies or elected officials) or influence at the state level. This serves to show a clear connection, either through networking or influence, to the state level regardless of origin or focus of influence by graduates. When considering the reverse, only three graduates did not express specific influence directly to their immediate community. This is not to say they do not influence it, but that their focus is likely on a broader scale.

The consideration of community through scale of influence rather than proximity gives unique insight into graduates of Academy. This influence, however, may not be surprising to those graduates or other individuals in the state who work with water. In many of the interviews with graduates, the idea of the "water community" in Nebraska was familiar and applicable to both graduates and the community connections they recommended for participation. When responding to how graduates influence political capital, one community member said, "Probably in the water community. Again, those

relationships that we build kind of help us all communicate and coordinate with each other". They went on to talk about how graduates influence the water community as a whole by building the norms and values of collaboration and communication so that the community was cohesive in how each member or agency was represented to the state and the way they interacted with others was not contradictory to another member of that community. This community member was familiar with the Academy and saw it as an integral piece to building the cohesion of the "water community" and teaching individuals, like the graduates they worked with, how to continue that.

The approach to and attention to the water community within Nebraska was broad; however, many graduates fill a unique roll of being a bridge between that larger community and their own local context. One graduate described their role in having connections to agencies and individuals in the regulation of resources as well as the users who depend on them. This graduate described themselves as having "the unique role of having my foot in both camps [resource regulation and use] … And so, I see what my friends and neighbors in the community, the challenges they have". This graduate describes themselves as having a unique role in connecting members of their community to resource management, and while unique within communities, this role is not unique to graduates of the Academy. Graduates often considered themselves as bringing in their knowledge and connections from the state level to apply it at a local level. This was not always specifically to their neighbors because graduates focused their influence through their profession, but they did each play a significant role as a central node within their networks that helped to bridge different perspectives and roles within the water community.

This study explored community capitals and community capacity to better understand the impact of Academy graduates on their communities. The perspective each graduate had in relation to their communities and their roles within them was essential to consider and understand in order to set the stage. While intended to provide context, this provides a unique insight into what graduates of the Academy consider as their community and what communities they work to influence. The responses show that there is attention to the water community itself within Nebraska as a whole, not just bounded communities like Lincoln. Graduates' influence is not solely located within a certain mile-radius of their work or home, it is related to their professional focus and their role as a connection to others throughout the state.

Community Capitals Influence

The first central question guiding this research was to understand if and how graduates of the Academy influenced each of the seven capitals described by Flora, Flora, and Gasteyer (2016). To the question of if, the answer is yes, graduates do influence their communities' capitals. There are many ways in which they do so, but each capital was influenced in a different way. Figure 5.1 shows the ways in which graduates influenced each of the seven community capitals.

Natural

Environmental Protection
and Conservation

Cultural

Focus on inclusion and involving
others

Human

Educating others and
providing expertise

Social

Building trust through
Connecting to Community
and Collaboration

Political

Contribute own political
capital with focus on
including others

Built

Focus on recreation and
recognized influence
over Flood Control

Financial

Brought in resources and utilized
existing resources responsibly

Figure 5.1. Graduate Influence on Community Capitals

Natural Capital Influence

Natural capital was the most obvious and direct capital or asset for graduates of

the Academy to influence. After going through a leadership development program

specifically focused on a natural resource and while nine out of twelve work with water

regularly, natural capital influence could be assumed. The way in which it was

influenced, however, required insight from graduates and their communities.

The most common theme in each of the case studies conducted when considering

influence of graduates on natural capital was Environmental Protection. This theme was

widespread and ranged from general focus of graduates to specific actions they have

taken to influence natural resources. Many graduates responded to this question by

describing their influence over decision making in their communities and their intent to

work with others regarding natural resource issues. Within the theme of Environmental

Protection, protecting water quality and quantity were a focus of graduates as they

worked with others to implement water monitoring strategies or water-use reductions for both quantity and quality purposes. Conservation was also a prominent focus for graduates within the theme of environmental protection as they acted to protect streams from nutrient runoff, create buffers that would act as filters for water that would inevitably reach streams and rivers, and represent conservation ideals and objectives to others in their communities.

Graduate influence on natural capital was direct through their management and focus on Environmental Protection, especially through actions that protected water quality and were cognizant of water quantity. These actions and influences were easily recognized and highlighted by community members as well as graduates serving to show that Academy graduate leadership is effective and appreciated within the water community in Nebraska, and that graduates who participated in this study were recognized by their community members to have influence over the natural resources they share.

<u>Human Capital</u>

The influence of Academy graduates to their community's human capital was largely dominated by graduates' focus on Education. That focus ranged from educating members of their staff on the best ways to interact with stakeholders or community members they work with or serve, to educating kids on how to grow a garden or why water use is important, and especially to educating community members on their work and the role they might play.

Water is an undeniably contentious resource in the state of Nebraska, and it has been for a long time. Many graduates and community members alluded to the history of

conflict around the resource within Nebraska and between Nebraska and neighboring states, "people will sue each other at the drop of a hat to deal with water issues instead of actually working collaboratively". Working around the historical context of conflict that Schlager et al. (2012) describe is on the mind of graduates in their day to day work. The same graduate continued on to say: "a lot of my time is spent helping this group of people navigate issues to build trust and sort of collaborate" in an effort to overcome the previous distrust and conflict over managing water. Educating people that manage water sources on how to work with others is a role that graduates fill after themselves having received education on the same within the Academy.

Educating those resource managers, however, is only half of the education role graduates fill. In addition to bringing together resource managers, community members emphasized the roll of graduates in educating individuals throughout communities, as either resource managers, users, or simply neighbors. One community member who knew multiple graduates and was familiar with Academy said: "And that's where the water leader Academy grads provide that opportunity. And it's not in normal settings all the time. It's not in structured meetings of water, it's in everyday interactions and conversations". Multiple graduates and community members also highlighted the role that graduates play in educating youth in their communities through such things as science fairs, facility tours, student work projects and more. Educating community members through conversations, interactions, and attention to educating youth are each essential methods graduates use to influence the knowledge skills and self-esteem of members of their communities.

Social Capital Influence

Social capital is defined within the CCF as "mutual trust, reciprocity groups, collective identity, working together, and a sense of a shared future" (Flora, Flora, & Gasteyer, 2016. Pg. 16). While this study considers social capital through such things as trust, collaboration, and sense of a common goal, social capital was well received as a common factor in working with others and in communities. Both case studies had participants show that graduates focused on trust in their communities. In the graduate case study, participants' responses showed that building trust was a central component of their influence through the community. Similar to the context of human capital, contention over water resources requires acute attention to resolving differences of perspective and fears of conflict.

Connecting to Community was the main theme in graduate responses to influencing social capital within their communities. One graduate considered the issue of perceptions of conservation from agriculture communities, "the agriculture community, has probably typically looked at folks involved in conservation and had concerns about working with them or where their motivations lie". Graduates in this study recognized the need to bridge differences caused by perception and show the underlying goal shared by members of their communities in preserving resources. They showed their own influence on social capital by working to Connect to the Communities they lived in and being actively involved through going to board meetings, connecting with and considering stakeholders, showcasing technology and strategies that could save water and chemical fertilizer, and even just participating in conversations in order to find common interests.

Graduates showed an understanding of the need to include members of their

communities and even when agreement could not be reached, there was still purpose in

connecting and establishing trust, "when I've had the opportunity to sit down and just talk

openly and frankly with them [member of the community opposing graduate stance], I

feel like I've been able to establish some trust. Okay. We may still disagree at the end of

that conversation, but I feel as though I had been able to establish some trust". In some

cases, social capital was being built in an area lacking trust because of the contention

over resource regulations and distrust between different organizations or agencies.

Community members considered in this study also recognized the actions of graduates

and their work to collaborate with others and to connect with their communities as key

factors in building social capital. One community member interviewed said: "I think the

trust is a huge, huge, uh, area that [the graduate has] been able to excel at. Um, just, you

know, and again, sitting down with producers and having that background, having them

trust what [they] says is what's going to happen". Trust was an obvious focus and

outcome of graduate influence. This study reveals graduates of Academy to influence

social capital in their communities, especially when it is lacking because of distrust,

through an attention to actively building trust and connecting to and valuing all

stakeholders.

<u>Financial Capital Influence</u>

Financial capital was introduced to study participants as what they probably

thought of when the researcher first mentioned capital, as it pertained to savings, income

generation, or other financial assets within a community (i.e. Financial Growth and

Business-like Approach themes). As an easily identifiable component of a community,

the responses to graduates' influence on it were direct although less consistent from graduate to graduate. Much of the financial capital influence was associated with each individuals' profession and how their role there might relate to the community's financial capital, so the variation in approaches was often tied to that approach.

Graduates' responses revealed a focus on bringing in money through fundraising and an attention of graduates to be responsible to public funding and the sources of money they rely on. Financial capital at a community level can seem harder for an individual to have an influence on because of the scale of a community compared to the actions of an individual but graduates of the Academy showed they bring funds to the table without creating an unnecessary burden on their communities. Saving money and maintaining a "fiscally conservative" approach was common both among graduates and from community members as well. One participant described a graduate as "pragmatic and [they're] able to keep within a budget". Graduates and community members gave perspective into how graduates were good managers of financial funds and contributed to savings. Financial responsibilities, or focus, were not shown to be the primary focus of every graduate considered, but findings were significant to note that each case study had responses of recognition to the ways that graduates bring in and spend money.

There was not an attention to making sure all public funds or financial resources available to graduates were spent minimally, but that progress was being made in both environmental and community areas. This was revealed in such things as maintaining and protecting water sources without causing undue stress to the finances of the community or to specific groups of people like those in agriculture. Responses with this consideration could ultimately relate back to savings to the community, but this study shows that

graduates are able to contribute much more to financial capital through attention to social factors such as communication, trust, and networking that helped to provide funding and work with all actors in communities for the greatest benefit and least burden associated to finances.

Built Capital Influence

Graduates and community members' understanding of graduates' influence on built capital was the least communicated and recognized. Within each case study, responses to built capital had the greatest number of unsure or doubtful responses. This is not necessarily because graduates do not influence infrastructure, parks, or physical structures in their communities, but because those things were on a much broader scale, were difficult to see a direct line to connect graduates and their actions, and often can only be recognized over a longer time period compared to some other capitals.

Of the responses that did affirm an influence on built capital, graduates themselves referred to recreation through the theme Local Attention to such things as trails, streams, and lakes. Seven of the graduates interviewed expressed a direct influence to introduce, rehabilitate, or expand trails in their communities. Their actions to do so varied, but the theme of influence to recreational opportunities was a large component of their approach to built capital in their communities. This was an interesting and important attention by graduates to assets at the community level. Much of the natural resource focus was centered around producers and regulators, each of which are pivotal in any Nebraskan community, but may not engage whole communities. Graduates' attention to recreation and influence on it contributed to groups of people outside of the generally professional focus of the "water community" described earlier. Influence on recreation,

even though not receiving the utmost attention of graduates, is clear evidence of actions that contribute to the community level at a city or town scale and that may go beyond the immediate networks of graduates themselves.

Not surprising when considering the difference in first or second-hand perspective, community member responses considering graduate influence to built capital were of even greater ambiguity than graduates themselves. Eight of the total eighteen community members interviewed could not describe an influence they had seen graduates have on their community's built capital. Four of those eight expressed some confidence or expectation that an influence could be found, they just weren't the ones to provide it. Again, this is understandable considering the scale of the subjects such as infrastructure and parks connecting to individuals. While it is difficult for an individual to have direct influence to infrastructure because of scale, it is also ambiguous because of time. Some Academy alumni had only been graduated a few years, and thus lacked the time to have a significant impact on built capital. One community member noted that a project a graduate was involved in to influence local trails had been going on for "ten or twelve years". They did not have an exact example as to how the graduate had influenced the built capital, but knew the graduate was involved. Built capital in this example as well as through many of the interviews may have been seen as harder to influence or at least influences to it were harder to recognize.

While not always seeing a direct relationship to built capital, many community members did give perspective that graduates influence their communities' built capital through their own Leadership and attention to infrastructure related to Flood Control. One community member directly attributed the influence of a graduate to having saved

parts of their community from flooding damages, "[they] did a lot of work on that and that was really, really beneficial for us because, you know, it prevented flooding in certain areas". Some other community members pointed to creative approaches graduates took to protect infrastructure from flooding or how they played a part in influencing where infrastructure can safely be built to withstand and avoid flooding. Some of this attention and appreciation of influence to built capital relating to floods could be influenced by the record-breaking floods across the Midwest United States, including three rivers in Nebraska in the spring of 2019 (Bagwell & Peters, 2019). This context does not negate the influence graduates had to flood control but might influence the level of recognition given to it.

Although questions regarding built capital garnered many unsure answers, participants in this study did reveal significant influences graduates have within their communities. Graduates themselves showed that they brought an attention to recreation using it to serve communities beyond those involved in water. Members of those communities that were included in this study showed a recognition for graduate work in regard to flood infrastructure and protection. Each of these areas show ways that graduates to influence their community, but also reveal opportunity to further influence them by emphasizing what they have started.

Political Capital Influence

Working together is probably not the first thing that comes to mind when people hear the word political. To avoid that idea as much as possible, the researcher described political capital to all participants in this study as the ability to turn norms and values into practice within a community, rather than what might be seen as Republicans and

Democrats in politics. The most common response within both case studies as to how graduates influenced political capital was to underscore the attention to and effort given by graduates to promote Collaboration and to Network within their communities. Once again, the history of conflict over water and natural resources in Nebraska provides insight to the context of the water community that many graduates described and their influence on it. This finding is particularly interesting as it shows that graduates are focused on working with others for a productive outcome.

Norms of protecting water quality and value in conservation were, of course, part of many of the conversations in this research, but the emphasis each case study gave was to show that graduates influence the process of working with others, including those whom they might not agree with. One community member described an understanding within the water community of the need to address issues together in order to realize a solution, "We have to work across so called aisles if you will, or stakeholder values to accomplish the greater goal.". They continued to talk about graduates of Academy coming to the table with that understanding and focus towards working together and collaborating. Within the focus of collaboration, each case study was again unified in giving specific attention to how graduates communicate and are able to collaborate with others because of that focus.

It is also interesting to note that graduates' focus, in response to how they influence norms and values in their communities, was through collaboration, but also Local Attention. Participating graduates pointed out that they were intentionally engaged with others at all levels of government, "We're also engaged with city councils, county commissions, um, that sort of thing" in addition to working with state senators, one

graduate pointed out. Graduates were also attentive to representing others' interests. Four individuals specifically talked about their efforts to work with elected officials to represent the interests of their communities, not just their employers or personal views. Although it was one of the more abstract social components of community within the CCF, graduate responses showed that building political capital and their influence on it was a consistent goal through their work. It is also important to note that graduates' influences on political capital were an extension of their own ability to influence norms and values, rather than that influence coming from others in the community. One community member said this of a graduate's influence on political capital: "I don't know that [they have] had enough time, I guess to kind of foster that leadership, you know, and individuals and having them move up on to be on boards and that may take a little bit longer to be able to develop that". This is interesting to note because it shows that graduates themselves show an ability to influence norms and values, but that it may take more time for political capital to accumulate within a community.

Collaboration and communication are not particularly surprising intentions of graduates as the Academy aims to "provide learning opportunities that focus on cooperative approaches to solving Nebraska's water issues" (Waterleadersacademy.org). While not surprising, they are still significant to show that graduates do carry that intention away from the Academy and that members within their communities can recognize it. Throughout all of the community member interviews including responses to questions on each community capital and the civic capacity of graduates, collaboration was the most identified way graduates had an influence. This is particularly relevant to show that community members see the potential, and sometimes realized, conflict over

water and other components of their communities but also recognize the work of graduates that counteracts those conflicts and overcomes differences for the purpose of progress.

<u>Cultural Capital Influence</u>

Graduates of the Academy are committed members of their communities and showed their influence to be through a focus to fill their role as such. Each case study revealed graduates to influence the identity, pride, and inclusiveness of their communities through their attention to those communities and their local context as well as the graduates' own role in Connecting to Community and Local Attention to community issues. Building off of the attention to working with others through collaboration, graduates expressed their efforts to build cohesive communities. One graduate did so through communicating as a member of the community in order to connect, saying "and I tried to do that when I'm speaking with even an irate land-owner. You know, I live there too. The rain falls on me just like it does you in that neck of the woods". This graduate was talking about a common theme within that case study which was to show others among the community that they each had purpose for the betterment and responsibility to each other and community as a whole, especially when considering shared resources like water.

While part of their communities, some graduates acknowledged they might not be able to connect to every individual or influence every action but could still work to influence the sum of actions by connecting others and promoting progress, "changing the culture from, uh, basically from the inside out". Graduates also worked to include others whenever possible so that those communities they were building considered multiple

perspectives and they were leading by example to achieve that goal. One graduate felt they did so beyond what was necessary, "I probably over include people all the time", but the intention and purpose of creating a community that is inclusive and representative of its members and stakeholders was a central focus of the culture graduates aimed to build.

Community members expressed similar understanding of the influence of graduates to be engaged and dedicated to their communities. One community member gave an example of the graduate helping with local relief efforts after the 2019 floods "unloading trucks, you know, just pitching in, being part of the community". The graduate this community member referred to wasn't acting in their role within natural resources or networking to achieve a goal, they were just participating with others as a member of a community in need. Many of the examples and insights given by community members did refer to networking or including members of the community in conversations about things that they might have input to such as water policy or water appropriations, but the example of just "being part of the community" shows the sentiment that many community members expressed. Graduates influence on the cultural capital of the community was not just to meet their goals of resource conservation or use, but to provide information, opportunity, and assistance for their community and the people in it.

Civic Capacity

Civic capacity, as described by Sun and Anderson (2012) is "the combination of interest and motivation to be engaged in public service and the ability to foster collaborations through the use of one's social connections and through the pragmatic use of processes and structures" (p. 317). Sun and Anderson's attention to collaborating and

engaging in public service fell in line with many of the themes and answers graduates and community members each gave regarding the CCF (e.g. Collaboration and Networking themes). Three questions regarding civic capacity and graduates' interests, connections, and pragmatism to combine the first two, were included in each interview following questions regarding the CCF. Answers to these questions were often built off of the conversations initiated before the questions were asked and were sometimes elaborated on with additional examples. The continued consideration of many of the community capitals had a significant influence on the role of civic capacity and many participants reiterated previous points or referred to examples already given in the conversation. These connections helped to show that Academy graduates' actions in their communities, either through a professional influence or personal interest, were often seen as connecting to civic motivation, like Sun and Anderson (2012) describe. Figure 5.2 describes the civic interests, connections, and pragmatism of graduates.
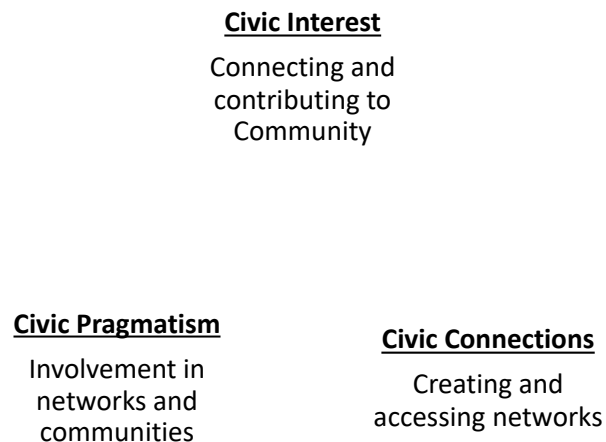
Civic Interest

Connecting and contributing to Community

Civic Pragmatism

Involvement in networks and communities

Civic Connections

Creating and accessing networks

Figure 5.2. Graduate Civic Capacity

Civic Interest

Graduates of the Academy are well connected and involved members of their communities, either through the water community or local boards and associations (Local Attention theme). This study does not seek to argue that this is because of their involvement in the Academy, or that they were involved in the Academy because of their commitment to community. The cause and effect of one factor resulting in the other is not considered here, but the association between each of these is significant as it shows that graduates are invested in their communities and contributing their time and expertise to them.

Within the graduate responses to explain their own civic interest, many graduates expressed a desire to connect to their communities and further develop the cohesion within them. Similar to graduates' connection and influence of cultural capital, this study revealed graduates' motivation to be part of their communities and contribute to them. One graduate expressed this saying "I guess it sounds kind of hokey, but we're all kind of in the same boat". The community they were referring to was spread out over many towns and physical communities, but they saw their capability to influence the collection of those people and they had a motivation to fill a need they saw and felt prepared to tackle. Another graduate expressed their motivation as "Seeing people all meet their best potential, be an individual or a community". In the context of interviews with Academy graduates and about Academy graduates, participants were able to recognize the attention to water resources and the need to protect them now and into the future.

Graduate attention to water and expressed interest in issues and challenges relating to it were often related to their personal motivation but fulfilled or actuated

through their professional life. This was a result of a combination of factors restricting graduates' involvement beyond work such as simply not having enough time, or a demanding home life. While many graduates saw their own interests carried out through professional means, community members included in the study recognized an expressed interest through graduate involvement in the community they shared. This again was not specific to purely civic actions, but community members recognized that graduate's actions, even when they were associated to their jobs, were beyond what might be expected of them. Speaking about a graduate, one community member said, "I think [they] get involved into a lot of other things or not typically, probably within [their] job description". Although it was more difficult for community members to be able to answer to graduates' interests and motivations around community challenges, they were able to recognize effort and involvement that went beyond obligations.

Civic Connections

As has been shown, Connecting to Community, Collaboration, and Networking were prominent themes among the influence of graduates to their communities' capitals. This ability and attention to networking and connecting with others carried through to conversations regarding graduates' civic connections. Similar to the civic interests, many of the graduates and community members included in this study did not create distinction between professional connections and networks outside of those settings. What each case study did reveal, however, was graduates' efforts to create and maintain connections through networking and that community members recognized those networks as significant assets the graduates brought to the table.

In the graduate case study, participants described their civic connections relating to community issues and challenges as simply being involved and active in different circles and networks. Many of the connections that graduates described were generally referring to others in the water community or actors and partners that graduates wanted or needed to connect with in order to achieve some of their professional goals. Graduates described connections within conservation groups, state agencies, local boards, and even individuals and agricultural producers that they pursued in order to establish relationships and facilitate cooperation. While many of those connections were for a purpose, they also served as sources of knowledge and connections. One graduate said, "so you pick up networks and understand how people are doing things". There was a goal of connecting to others and creating networks in order to collaborate, but this quote shows that graduates also understood the benefit of seeing multiple perspectives and gaining knowledge and ideas from others.

Community members obviously had a removed perspective from seeing the connections of graduates, as many of them were representing one of those connections, but they were able to recognize the attention to networking and the value graduates added to their communities through those connections. Many community members referred to graduates' connections within Lincoln to elected officials or state agencies like the Department of Natural Resources that had significant influence over the management of their own community's assets. They recognized connections within and even beyond the state brought value to their communities through experience and new perspective, but also through connections to resources and avenues to advocate for local interests. One community member who was familiar with the Academy described the attention to

connections and networking as one of the most important aspects of the Academy because it gave graduates connections from within but also the confidence and skills to continue to reach out after graduation. Another community member who was unfamiliar with the Academy admired how others reached out to the graduate they knew, and how there was recognition of the skills the graduate brought to the table. Community members were not always intimately involved with the networks of graduates or the process of creating them, but they were able to see the value that graduates brought to their community by networking with others across the state.

Civic Pragmatism

Civic pragmatism was described to participants in this study as combining interests and connections to produce action that addressed community challenges. As the final question, many of the responses and resulting conversations referred to previous examples, and further emphasized already-made points. The emphasis on topics already covered pointed to two things, one being that much of what graduates were focusing on through their interests and connections was a process that couldn't be highlighted by a product or outcome. The other point the emphasis leads to is that the influence of graduates and their interests and connections were never isolated, and that each was being used to address challenges such as nitrate contamination, endangered species, and conflict over shared resources.

Graduates pointed to their own civic pragmatism through their Networking and Collaboration with others in their communities. One graduate explained their insight into bringing their interests and connections together as "making sure that you're sort of walking that walk, in terms of, um, of understanding people's positions of empathizing

with them again and still making good decisions". The answer from this graduate was pointing to the whole discussion previous to this answer and an attention to including others and earning and maintaining trust within the community while still working towards their goal of managing water resources. Community members were often removed from specific examples where they knew a graduate used a specific connection for a specific interest of theirs, but there was a recognition of the willingness and active role graduates played (e.g. Collaboration, Leadership, Local Attention, and Networking themes). Talking about representing the interests of agriculture but also including others to understand and see common values and purpose, one community member said, "and I think he just kind of says, look, if there's an opportunity for me to champion the cause, I'm here for you. Let's, let's get together and talk". The community member here did not have a specific example of what that cause was or who the graduate was talking with, but they had confidence in the graduate's ability and willingness to act in the interests of others in the community. This approach characterized the view of Academy graduates' civic pragmatism as they acted in the interests of others in their community and as a community member themselves.

Connection to Literature

Academy is not explicitly a community development program, but instead seeks to build up leadership of individuals with specific attention to one of Nebraska's most vital natural resources. Their individual leadership then translates into improving and building up communities. In describing natural resource leadership institutes, Addor et al. (2005) conclude that a primary goal of such programs is to translate the knowledge and experience from leadership development to the communities of its participants.

Within natural resource management, leadership is imperative. As discussed throughout this and many other papers, use of resources is often contentious and so addressing those disagreements requires context and collaboration. Warren (2016) and Gutierrez, Hilborn, and Defeo (2011) each call for attention to local leadership and individuals within communities in order to implement successful management. The Academy provides that local attention and this study serves to fill the role of understanding it. By considering individual graduates of the Academy as well as individual members of their communities, this study adheres to the call for attention to local leadership and the need to understand the community outcomes resulting from it.

Community Development

Community development has been shown to have the primary purpose and responsibility of lifting up communities in need (Kenny, 2016. Kotval, 2005. Sites, 1998). Understanding the relationships of individual graduates to their communities' assets serves to uncover how graduates of the Academy contribute to this purpose of community development. This study has shown that graduates have significant influence on the relationships and cohesion of their communities through attention to local issues and opportunities such as protecting water quality or providing recreational opportunities like trails (Local Attention, Environmental Protection). The qualitative approach taken to describe these interactions helps to fill the need to understand the influences of graduates lifting up not only their own, but also other communities around them, and the methods by which they do so. The inclusion and attention to members of the communities with connection to and a perspective of graduates serves to further elucidate this point and validate it by showing the perspective of others who have been uplifted and who have

seen their communities benefit from the leadership and actions of the graduates being studied.

Within both community and leadership development, attention to the perspective of community and local context is necessary to understand influences and outcomes. As has been previously described, this study takes a unique approach to define and understand community in order to not limit the understanding of Academy graduate influences. Harpham (2008) considers the difficulty and importance of defining community within a study of social capital and alludes to defining communities beyond physical boundaries. This study contributes to the literature which aims to research community level assets like social capital by showing how capitals can be measured by allowing participants to describe their community influence. By minimizing the restrictions posed on study participants, this research was able to demonstrate that graduates of the Academy have influence in the water community within Nebraska but also provide connection and representation to their local communities and stakeholders and build local assets and capitals through each of those influences.

When considering the approaches and interactions of community planning as they relate to community development, theories show a need to include and consider individuals within the community and learn from their perspectives (Murphy and Rogers, 2015. Kotval, 2005). The Communicative Planning Model centers on dialogue over knowledge, concerns, and experience that can be used to form community solutions with regard to all members rather than just powerful or outspoken voices (Kotval, 2005). Kotval then moves to consider the Incremental Planning Model within that framework but give emphasis to practical change. They then go on to say that such models are

invalid without consideration of community member involvement and investment and there is a need to create and develop networks. The research and findings of Academy graduates' influence on their communities attends to each of these facets within community development showing that graduates not only influence their communities through Networking and attending to the multiple perspectives within them, but by participating as community members themselves through Local Attention. By considering influence on different material and social assets or capitals within communities, this research also gives credence to the practical and realized influence of graduates to change in their communities. This adds to the literature to validate the understanding of communities and their development by considering leaders within them and their many influences from multiple perspectives.

Within community development, Stoutland (1999) proposes four levels from which development originates and reaches communities: grassroots, organizational, policy makers, and external actors. They show that development varies from local centralized control to actors beyond the community. Stoutland (1999) argues there is disconnect between the two local levels and the two distant levels of development. Glasner (1996) similarly described the need for communities to have local control and autonomy through the role of their local government. Each of those studies shows the need for community development to attend to multiple levels of actors and their combined influence. This study addresses this need and contributes to the literature to show that leadership development of individuals across a broad geographical range with focus on one kind of vital community asset helps to bridge local and organizational development with policy and external actors. Ten of the twelve graduates participating in

this study expressed connections to, or influence at, the state level while nine of the twelve expressed either a Local Attention to community issues or influence to create or maintain pride within that community. The ways in which graduates contributed to and participated in their local contexts varied as did the connections and capital they developed through connections to state agencies or elected officials. Although graduates did not have uniform context, they fill community roles to connect levels of community development. This research contributes to academic literature to show one way that connection can be uncovered and presented alongside leadership and subsequent community development.

Measuring community development is approached many ways within academic literature, as described in Chapter two. Similar to suggested attention to local context and individuals within communities in approaching community development, measuring it also needs to consider factors such as health and wellbeing, empowerment, and ownership (Schuchter & Jutte, 2014. Sites, 1998. Boyd et al, 2008). This study takes each of these into consideration through attention to graduates and community members and the findings further support resulting community development. While much of the influence graduates have on their communities is through Networking and their external connections and resources, their Local Attention makes those connections and resources relevant to their neighbors. For example, Academy graduates showed attention and responsibility to financial capital at a local level by fundraising and bringing in grants as well as influencing where they were distributed and planning for a long-term benefit to their communities. Their actions contribute to lessen financial burdens and future challenges as well as provide communities with greater locus of control over their own

futures. This study shows leadership that can accrue connections and build networks outside of their communities as well as personally connect to their communities and collaborate with them which each contribute to the development of those communities. This study only had the capacity to consider twelve graduates and eighteen community members, but it nods to the potential that leadership development and Academy graduates specifically provide.

The leadership and actions specific to it also play a significant role in impacting communities. The Academy focuses on "transformational leadership, champions of innovation, civic capacity, and entrepreneurial leadership" (Burbach & Reimers-Hild, 2019) as the foundation to leadership that prepares individuals with the skills and knowledge necessary to address both water and community challenges. Davies (2009) considers transformational leadership, as described by Burns (1978), as a necessary approach for individuals to improve their communities' capacity. They argue that transformational leadership was embodied by leaders seeking participation and encouraging and facilitating development efforts and that those actions had a greater impact than transactional leadership. While not solely focusing on leadership, this study shows that graduates of the Academy sought participation as active members of their communities (Local Attention) and networked and collaborated with others to provide opportunities and bring assets into those communities (Networking). From the community member case study, Leadership codes were not the primary influence of graduates to any community capital or civic capacity question, however they were prominently recognized in each human, natural, and political capital as well as civic pragmatism conversations. Community members saw graduates encouraging others to

participate as members of the community either through discussions, service, or other involvement; leading by example in reaching out to others or fostering new relationships despite past disagreements; being innovative and creative in the way they approached problems and challenges such as water use and flood mitigation. Graduates were recognized as leaders filling the role that Davies (2009) talks about considering transformational leadership and empowering residents similar to what Gonzales (2017) and Nel (2018) identify as necessary components to empower communities and provide leadership in context. This study shows that Academy graduates embody those aspects of transformational leadership.

<u>Community Capitals Framework</u>

The Community Capitals Framework "serves as an organizational frame for understanding the diversity and changes in rural communities" (Flora et al., 2016, p. xv). The CCF is itself a unique way to consider assets within a community and build off of the assets-based community development (ABCD) theory by focusing on what a community has rather than what it is lacking (Kretzmann & McKnight, 1997. Boyd et al., 2008) and further specifying those assets to understand their roles and relationships. Rather than understanding the CCF as a predictor to resilience, as Cutter, Ash, & Emrich (2016) did or give specific attention to economic wellbeing associated to the CCF, as Mencken and Tolbert (2018) did, this study considers a qualitative constructivist view rather than statistical data to understand the influence individuals have on their communities through each of the community capitals. The purpose with this study is unique in that it serves not just to understand communities and their wellbeing or development, but to consider how those improvements are made through graduates of the Academy. It also adds to

understanding the community capitals themselves and how they might be communicated and recognized within communities.

The relationship between community capitals and the way they interact to benefit whole communities is essential to consider in order to understand how the actions of an individual might benefit a whole community. Emery and Flora (2006) argue that through bonding and bridging, social capital was most influential to building other capitals within the framework and could instigate "spiraling up" where communities can continually build on their assets. The findings from this study show that graduates' own social capital and connections were impactful and recognized as such. The graduates brought in funds and grants, were able to contribute their knowledge and expertise when applicable and provided connections across the state. This study, however, provides a unique insight into how individuals as leaders within their communities, contributed their own social capital through attending to local issues such as nitrate contamination or groundwater depletion. The connections and social ties of graduates were recognized and valued, but their actions building those ties and applying them to a local context had greater emphasis from their own as well as their community members' perspectives. This study contributes to reiterate the importance of bonding and bridging social capital that Emery and Flora (2006) assert. The focus of graduates and recognition of community members to each theme of Local Attention, Connecting to Community, and Networking shows attention to cohesive bonds that graduates build within their communities and the bridges they develop that create access to external resources. This finding is the result of looking into "how" graduates influence community capitals, not just "if" and contributes another level of insight to understanding and using the CCF.

Pigg et al. (2013) contrast the idea of spiraling up with grouping the capitals into material and social categories arguing their influence on one another is largely confined to those groupings. This study does not refute that, acknowledging that each built and financial capital were much more isolated than other capitals. This is especially applicable when considering graduates direct influence to built capital, much of which was through infrastructure related to water such as wells, dams and other flood control structures, and recreation such as trails. Each of these would have to consider many factors other than graduate influence compared to cultural, political or social capital where individual graduates could bring others together to foster trust and collaboration as norms and build identity around them. The approach to understanding individual influences, however, does show that the material and social capitals did interact. One graduate had influence on built capital by bringing others together who each had greater or more direct influence on flood infrastructure, showing an ability to influence built capital by leveraging social capital. Another graduate influenced local infrastructure with the reverse, by showing commitment with financial resources in order to garner greater investment from outside of the community - using material influence to bolster the value of their social capital. This study adds to the literature considering community capitals' role in the community as seen through actions of individuals as well as contributes to understanding how those capitals might interact. This relates to and adds to the study by Apaliyah et al. (2012) to show that leadership development empowers individuals to influence their communities' capitals, especially through human, social, financial, and political capital.

<u>Community Capacity</u>

This study considers community capacity as it relates to each of the community capitals and the civic capacity of individual graduates of the NWLA contributing to the whole of their communities. With attention to the CCF, Flora and Flora (2006) show community capacity to be the collection of multiple capitals contributing to the whole of the community. This capacity has been shown to be influenced by individuals as graduates of the NWLA provided their knowledge and skills along with connections and commitment to their communities. Graduates of the NWLA had both material and social influences in their communities which contributed to not only the unity within them but also access to resources and autonomy through local management of resources.

While showing influence on individual capitals which collect to the community level, this study also shows that graduates contribute to the four fundamental characteristics of community capacity outlined by Chaskin (2001): sense of community, commitment of community members, ability to solve problems, and access to resources. While there are many examples within the responses from graduates and community members to each of these characteristics, one that example that pertains to all four comes from one graduate's efforts and attention to financial resources in the community and their influence over them. This graduate, as many did, made every effort to utilize the financial resources within the community wisely to minimize strain on the community but achieve necessary water management goals through water leases, sales, or other strategies. They were able to utilize their own connections to bring in additional funds and grants and apply them creatively where they were needed. While for the benefit of the whole community, the goal in this case of water reduction and the methods by which

to achieve it may have had adverse impacts on agricultural stakeholders beyond farmers such as lenders, irrigators, and others.

Stakeholders in these communities were not necessarily opposed to taking action for the community's sake, but they had personal interests in ensuring their own futures. One community member described this graduate's actions to tap into and unite their commitment to the community saying the graduate "handles those conversations pretty well and is able to justify, um, the reasoning behind that and tried to get… the water usage down". The commitment to community may or may not be directly related to the influence of this graduate, what is directly related is the ability to bring those commitments together and embolden them through trust and collaboration. This graduate showed their own influence and ability to solve the problems of groundwater depletion, part of which was their Networking to receive resources through state and federal partners which reduced the financial burden on their community. This study shows that the characteristics outlined by Chaskin (2001) can be tapped into and built up by individual leaders, as well as gives credence inclusion of others and active involvement shown by Fallov (2010) as necessary to build up community capacity.

This study sought to further consider the influence of individuals to their community capacity through their own civic capacity based on concepts by Sun and Anderson (2012). While focusing on civic drive, civic connections, and the combination of those into civic pragmatism, Sun and Anderson note that leaders in communities need to be responsible to the community and to the public interest. By asking graduates as well as community members about each of the three components of civic capacity as they related to community challenges, this study sought to show the individual level of civic

capacity among graduates. Sun and Anderson base their concept of individual civic capacity on the role of transformational leaders garnering and inducing trustworthiness and honesty within their communities, rather than considering the general accumulation of trust at the community level. This study shows graduates of the Academy to embody that role as they seek to connect to their communities and foster collaboration through relationships and trust. The connection to the community level is then exemplified through graduates' own interests and motivations to protect and provide resources and filling roles as trusted leaders to carry out those interests for the betterment of the community. Graduates were recognized by their community members as trusted stewards of financial and natural resources and as being resources for knowledge and connections to others.

One insight this study of Academy graduates contributes to civic capacity is an attention to the specific "civic" and "social" context. As has been discussed, much of the influence graduates exhibited and the recognition of such by community members came from professional positions and through employment. The definitions of civic capacity by Sun and Anderson (2012) refer to individuals in public leadership specifically because of their orientation to the public good and position to contribute to it rather than leadership in private business with potentially selfish motives. While some participants expressed they were unsure of the "civic" or "social" specifications to civic capacity questions, both case studies in this research showed participants answer and refer to civic capacity and social connections without distinction to a public or private origin or professional or personal orientation. Each of these perspectives was included, as the goal was to understand how the capacity of communities might have been influenced and graduates

of the Academy are not limited to one sector of work. The purpose of this research was not to distinguish the origin of graduates' actions or community members' perspective's; however, this does show that considerations of civic capacity are not bound to origins in public leadership. This is an important finding for further consideration of individual civic capacity as it relates to community capacity.

Attention to Academy graduates does not filter public or private actions as they relate to civic capacity, but it does provide attention to issues and challenges in Nebraskan communities that relate to water. Many of the influences and actions of graduates in their communities were specific to water availability either through protecting quality or reducing use and recharging aquifers or related to planning for the future through flood mitigating infrastructure or developing management plans. These influences are significant to consider as they show direct attention to water, but important to identify as they correlate to components of civic capacity previously described. Graduates show success through attention to and involvement in their communities, connections to others and to resources from all levels and actions that build trust – all of which combine to increase their communities' capacity, especially with attention to water.

This study built off of multiple definitions and considerations of community capacity (Emery et al., 2007; Flora & Flora, 2006; Glickman & Servon, 1998; Chaskin, 2001; Fallov, 2010) with specific attention to community capitals (Flora, Flora, & Gasteyer, 2016) and the civic capacity (Sun and Anderson, 2012) of Academy graduates. Through research questions focused on individual community capitals, this study was able to show that graduates influenced individual capitals which then contributed to the

collection of capitals at a community level. Graduates were shown to embody and build off of characteristics of community capacity through their Local Attention to community and ability to address challenges through Collaboration and Networking. Their leadership from many platforms was depicted through building trust and fostering collaboration to achieve community goals.

Implications

Implications to Practice

The ultimate purpose of this research is to better understand how graduates of the Academy, as individuals, influence their communities. This was done by paying specific attention to the CCF and to graduate civic capacity. This research has shown that graduates do influence the capitals described by Flora, Flora, and Gasteyer (2016) and do contribute to their community's capacity through their interests and connections as defined by Sun and Anderson (2012). The greatest benefits that can be realized from this study are specific to the Academy as graduates of it are the primary focus. While the findings do not exactly correlate to other community or leadership development programs, this research does contribute to informing many practices within community development efforts.

Collaboration and communication strategies and facets of leadership are by no means new to the Academy or its graduates. A primary focus of the Academy is to equip people with the skills and knowledge necessary to work together to solve water issues (Waterleadersacademy.org). Community members considered in this study recognized that outcome and its benefit. One community member stated: "I mean I've met quite a few of them [graduates] and I can't really think of anybody that's gone through that

Academy that I know personally that's not able to communicate effectively". This is not a new finding to the Academy, but it does create emphasis on the success and appreciation of others to this focus. Many community members, including the individual quoted above, referred to graduates of the Academy as the next generation of leaders in the realm of water in Nebraska; people that were equipped to break the cycle and history of conflict and selfish management of the resource by understanding others' perspectives and working to include them and reach a productive solution. That emphasis clearly has realized benefit and recognition and should be continued.

Connecting to community, however, is not as direct of a focus within the Academy because it may not have as direct implications to water resources. The theme of Connecting to Community suggests that it is a primary focus of graduates and provides opportunity for the Academy to further develop skills in. Connecting with others is not entirely unique or separate from the aim of collaboration and open-mindedness, but it does reach beyond them. The intent of connecting to community, either through being actively involved, including others, or building trust does not have to be for a goal or purpose other than a foundational connection. This is something that may be an outcome or related to involvement in the Academy but may not be direct. Local Attention is shown as graduates' actions that had specific implications to a precise group of people – often within a town or city. This was also a focus of graduates and recognition of community members. These two themes show there is opportunity for the Academy to create attention to these contexts and bring them into focus as they provide opportunity related to and beyond water.

Further developing and focusing on the connections and intents of individuals going through the Academy would give graduates the tools to strengthen bridging social capital between communities they associate with either at the state, regional, or town level, especially applying those connections to a local level. Opportunities to apply information and practice skills gained in the Academy to a local context would align with the findings of this study in the way that graduates are recognized for influencing their communities. The Academy could develop assignments or orient projects with attention to contexts and opportunities specific to participants and defined community challenges (provided by the Academy or participants themselves) in order to tap into the motivation of graduates shown in this research and connect the levels of development described by Stoutland (1999) and the levels of community shown in this research. This focus would be of even greater benefit to smaller and more remote communities as the graduates within them may hold higher proportions of the bridging social capital to resources outside of the community. If those individuals are more capable of connecting those resources to others in the community, they will contribute to the social, political, and human capitals of others and the strength of those capitals will continue to accumulate at the community level.

Connections to and involvement in community may be the responsibility and personal role of graduates, but the actions involved create foundations to facilitate leadership from as well as opportunities to learn and connect to others. This is a skill that translates from being able to work with others and collaborate but giving specific attention to other aspects of community could further inspire and emphasize the

leadership skills and connections that are shown to be of value to whole communities as well as the individuals who attain them.

Another focus revealed within this research was the definition and consideration of community from both graduates and their contacts within their communities. As has been previously explained, these connections and relationships were broad and ranged in physical proximity and social or professional relationships. It is not imperative for graduates of the Academy, or for the Academy itself to focus on either those proximal or professional relationships but it may benefit to consider how to connect them. This may be another tenet of social capital within the bonding and bridging as described by Emery and Flora (2006), but it is worth consideration as it pertains to whole communities more than individuals and embodies the idea of one person's social capital scaffolding to the community's benefit. Graduates of the Academy described many communities of which they were part, some described multiple. The Academy encourages civic engagement, community involvement and leadership, but there are not distinctions made between the bounds of those communities or relationships so that a graduate's professional community may not translate or even overlap with their personal. This is not to say that graduates should always be networking and building connections, but that there is opportunity to consider how differing communities or groups of people might be connected and graduates of the Academy are well equipped to further build and strengthen those social bridges.

With respect to community development beyond the Academy, there are implications that can be taken from the success and focus of Collaboration and Connecting to Community. Through the CCF as a form of ABCD, this study gives

emphasis to the social and political capitals considered. Individuals and their leadership skills and desires are highlighted by the Academy as well as ABCD to be invaluable assets to communities through their influence on multiple assets beyond their own needs. Within the focus on social capital, each case study gave emphasis to the role of graduates to Connecting to Community through building or facilitating trust. The connections they provided through bonds and bridges were of course assets to the community, but this study shows that leaders influence the social assets within a community by listening to others, unifying messages with others, and especially through a focused attention to build trust where it is lacking. This is another focus on the role of bonding and bridging social capital, showing that while bonds might be connections within a community, they are not necessarily assumed or easy connections. Graduates are shown with specific attention to facilitating trust to develop social connections through Local Attention and Connecting to Community so that they were recognized as trustworthy and could efficiently utilize both bonding and bridging capital to provide assets to their communities. Political capital is also included here because study participants recognized it as a category of assets that was itself influential but also was a culmination of other influences. Each case study showed Collaboration to be the focus of political capital, but they also pointed to representing others in such things as resource use or policy consideration. Social and political capitals were shown in this study to be emphasized not just as stand-alone assets in a community, but as culminations of other assets. Community development efforts can look to this finding and consider ABCD as well as the role of the social and relational assets that the CCF and this study point to as key factors in building connections and skills that amplify and influence whole communities.

Implications to Research

This study is not unique in using the CCF or civic capacity to understand and describe the value of individuals' actions or influences to community benefits, but it is unique in the approach taken. The unique approach taken in this study gives attention to both new and existing opportunities for future research. Much of the difficulties and limitations in this study are a result of the ambiguity and context of the study and the participants in it. Community and relationships are key in this study as they provide the background and setting of influence as well as access to understand influences. Graduate and community member perspectives were approached in an open and constructivist way in order to delimit the understanding of influences graduates had in their communities. This approach reveals many details about the influences considered as well as highlights opportunities and gaps about the perspectives and relationships involved.

Community and its broad or precise definition are understood to be precarious within community development literature (Harpham, 2008). This study reiterates that point with attention to what community means from the individuals being studied in constructivist qualitative case studies. Community is a collection of relationships which can be physical or social, but that definition may vary to individuals themselves and to the context being considered. When considering community capacity, this point becomes even more muddied yet important as physical and social communities that are distinct and overlapping require cohesion in order for the whole to be prepared to overcome challenges. This study shows the need to understand the cohesion, roles and relationships of and within communities in order to prepare and build capacity to overcome issues such as water availability or contamination. Communities are diverse and actors within them

may fill multiple roles. Being able to understand those roles and the way the individuals filling them are connected would create a hugely beneficial understanding and road map to community development. This implication reaches beyond the Academy or Nebraskan communities and has relevance to community development efforts as different communities and social groups within them are considered.

In addition to considering different communities and individuals within them, this study gives significant attention to the CCF and the role of collected assets. The CCF has been studied and used in different community development contexts as understanding disaster resilience (Cutter, Ash, & Emrich, 2016), economic wellbeing (Mencken & Tolbert, 2018), or capacity building (Emery & Flora, 2006) to name a few. This study builds off of those and uses the CCF as a way to understand how individuals influence their community. The consideration of the Academy provides an additional caveat to this study as an independent variable but creates the question of how the context of leadership focus might influence community capitals or how that context might create greater opportunity or influence for an individual. This consideration stems from the ideas laid out by Flora et al. (2016) as they describe the seven community capitals and focus on natural capital as foundational to communities, especially in a rural context. Emery and Flora (2006) pointed to social capital as a focal entry point in communities to build other capitals and develop a cycle of improvement. By focusing on graduates of the Academy, this study inherently gives attention to natural capital through individuals who are trained to work with and manage water resources and gives subsequent attention to social and human capital as those individuals are trained in connecting with one another and others in their fields. This could give credence to the importance of leaders within natural

resources and their potential role beyond managing and focusing on those resources. It could also lead future research to consider the influence of an individual or group of individuals based on their professional training and focus and how that translates to the community level.

An additional measure within a focus on the context of leadership and individual leaders could be to take the attention to public leaders by Sun and Anderson (2012) and further explore how a public origin, relationship, or connection might influence the capacity of a community. This study showed that many Academy graduates had connections to actors and officials at the state level even if they themselves were not in the public sector. In order to better understand the role of individuals and their influence and leadership within a community, future research might consider the context of private or public roles and how they might change the platform and reach of an individual's actions. This research revealed many positive influences of leaders in public roles and the resources they bring to the table like connections or background that give them an advantage in providing for their community. However, this research also showed that individuals can be restrained by their professional positions, both public and private, one of which was a need to appear impartial to political agendas. Such limitations might be different based on public or private origins or could be altogether too nuanced to distinguish. Although, if they were discernable, an understanding of how leaders in different positions might maximize their influence could be broadly impactful to community capacity building and leadership development.

Limitations

The limitations of this study correlate to those that might be expected in qualitative case studies but are added to by the inclusion and consideration of community members. Some of these limitations were outlined in the first chapter of this thesis to be stemming from the primary assumption that graduates do influence assets within their communities. This led to considering the assumption and limitation that stems from the research methods and questions posed during interviews and their ability to elicit accurate and complete answers to the guiding research questions. Another limitation also relates to finding complete and accurate answers to understand how graduates of the Academy influence community assets while this study only included twelve graduates and eighteen community members. Considering each of the above limitations, it is important to recognize this research is specific to the Academy and is not indicative of other natural resource leadership development programs or efforts.

As graduates of a leadership development academy, the individuals included in the graduate case study were assumed to fill some roles of leadership within their communities and assumed to have influence on community capitals through those positions. The results reveal that this approach was justified. Graduate influence was not shown to be direct, or evenly distributed to all seven community capitals, but as the framework suggests, influence on individual capitals was not isolated and had implications to others. This can be considered with the two capitals with the fewest attributed codes: built and financial. These were also some of the most tangible material capitals for graduates to influence. While the emphasis of influence and relationship to other capitals was not the most obvious to these, graduates were shown to influence each

through such things as attention to public funding and promoting recreation and trails as built assets to a community (Local Attention). This finding shows that an assumption of influence was warranted, but also shows the findings are limited by the specific ways in which the influence can be considered. With hesitation, one community member expressed they were unsure about a direct influence the graduate they knew had on built capital in their community. This community member expressed that the graduate they knew contributed to savings in the community which might translate to a greater potential for the community to create or maintain infrastructure, acknowledging that might be too disconnected to apply. The limitation here is not that disconnected answers like these could not be weeded out or taken with context, as this one was, but that the definition for influence varies. The assumption of influence therefore did not limit the findings of this research but gave greater attention to define how graduates influence community capitals rather than understanding the degree of influence.

As with any qualitative research, especially where data primarily comes from conversations, there are limitations based on the questions that are asked, and the way conversations are initiated. The questions that were given during interviews were created with this understanding, aimed to be clear and provided examples to help participants understand and relate to them without guiding their answers. While there were some answers with doubt or lack of clarity, participants were still able to respond to some of the key words and adhere to the purpose of the question. For example, one community member responded to a question regarding a graduate influencing others to embody political capital with an unsure answer that didn't really attend to norms or values and the graduate's influence to them. But then, they went on to note that the graduate has done a

lot to influence the norms of trust and collaboration between conservation and agricultural perspectives in their community. Some conversations around political capital and the other more abstract social assets within a community were characterized by points like this, where a constructivist approach is necessary to comb out meaning and understand participant perspective. This example does show there are limitations to understanding each of the community capitals through the questions used, but it also shows the methods used provide an avenue to overcome at least some of those challenges.

Understanding civic interests, connections, and pragmatism requires a perspective that is close to whomever' s interests and connections are being considered. This requirement did create challenges and limitations when considering community members' perspective of graduates. When asked about a specific graduate's civic interests, one community member expressed they couldn't really speak to the civic interests of the graduate as they had only known them for a few years through a professional capacity. However, when asked about the civic connections of the graduate, this community member described the way this individual was able to connect with them and how they saw the graduate commit to the community they shared, invest time and effort into it and connecting to others in it. The civic questions were limited by the perspective they required and the bounds that the "civic" attention created, but they did not restrict participants from sharing characteristics and actions of graduates they saw to contribute to the community. This does create some limitation on the consideration of the civic actions of graduates as there is not definitive distinction between actions in a professional setting that are or are not a result of interests and motivation. However, this

again leads to focusing attention on graduates' abilities to address local challenges and improve their communities' capacity to address challenges.

This study does not intend to characterize each graduate of the Academy or represent whole communities that they might live in. Instead, it seeks to understand how graduates as a whole influence the assets of communities they live in and considered twelve graduates and eighteen community members to do so. This does limit the findings of the study to the Academy as a specific leadership development academy and its graduates within Nebraskan communities. For reasons already described, this study employed qualitative interviews rather than surveys or questionnaires which limited the number of participants within the study. While the number of participants was limited, there was variation in their location, employment sector, and professional relationship to water in the state of Nebraska (shown in the findings section for each case study). These details give insight that participants included in this study do not heavily favor any one perspective based on their context, minimizing the limitation based on the number of participants.

While variation in the context of participating graduates and community members helps to ameliorate relationship to the Academy as a whole, it does not reach beyond this group. In addition to the limits of applicability to the Academy as a whole, this focus therefore can limit the application of this research to other natural resource leadership or community development efforts. However, this study aimed to employ "thick and rich descriptions" as described by Creswell and Poth (2018) in order to provide contextual understanding and applicability to similar contexts. There are many unique characteristics of natural resource management and leadership within Nebraska that this study has

included, but there are also common factors within the leadership, vulnerability and degradation of natural resources, and contested decisions as described by Addor et al. (2005) that are not unique to Nebraska, nor the Academy. This study may therefore be useful beyond the Academy; relevant to natural resource management and leadership more broadly and the many challenges within them.

A limitation not associated with assuming graduates have an influence is that of the community members considered in this study. While there is variation in the context of those community members (location, employment sector, and professional relationship to water), their individual relationships to the graduate and to the community they share are not explicit. Contextual information and observations were included in the study to understand these relationships, but there is limitation in the perspective of these individuals to represent communities. One community member considered their perspective of a graduate's financial responsibility and their appreciation for it but doubt of others' having the same insight, "… I don't know how many people actually ever ask or ever find out. But, from my situation I can see that [they are] very cognizant of [their] budget…". Connecting with community members was a result of graduate recommendations for individuals that might be able to provide perspective on their influence on community capitals and capacity. While most community members were professional contacts, there is still bias in presenting positive information about someone they know and work with, and there is bias in having an inside perspective to the graduate's work and influence. The goal was to get that perspective in order to produce a complete understanding of graduate influence, but it limits the association of the "community" perspective to individuals who were likely to have insight rather than a

representative sample of communities. This serves the research questions to show the community influence of the graduate, even if not all community members would recognize it.

Conclusion

Natural resource leadership is imperative not only to the sustainable management of resources such as soil and water, but also to the vitality and health of communities. Attention to natural resources and their importance to community is especially relevant in Nebraskan communities because of the resources available and their use with respect to agriculture and other industries. Addor et al. (2005) show that people are the driving factor in resource use and declining availability or quality. People and their communities depend on and benefit from natural resources as they provide primary necessities as well as avenues for economic growth and are responsible for resource use, and therefore responsible for resource protection.

Addor et al. (2005) along with Hamilton, Hartter, Safford, and Stevens (2014), Stern and Coleman (2015), and Olive (2015) understand that management and maintenance of natural resources is inevitably contentious and requires leadership, communication, and trust among other attributes of collaboration. In order to sustain those resources and the communities that depend upon them, leadership must be built and understood. The Academy serves to build and empower leaders and their skills in order to fill the needs within natural resource leadership. This research serves to better understand those leaders and how they impact their communities by considering their influence on each of the seven community capitals outlined by Flora et al. (2016) and their civic capacity as described by Sun and Anderson (2012).

Natural resource management and leadership each serve to build and sustain communities through the physical resources they depend on the relationships that define them. This study considers community development as a crucial foundation to understand the actions and outcomes of graduates of the Academy. The CCF builds off of ABCD to focus on not only the physical resources such as soil or water that exist in a community, but also such social factors as relationships, connections, and skills of the people within the community. This study shows that graduates of the Academy have an ability to work with others through communication skills, consideration of other perspectives or stakeholder needs and positions, and leadership abilities that garner trust and value from others within their communities. These skills and abilities are honed and appreciated through an attention and connection to a broad group of people, with an essential consideration of differing values and needs. Community development is shown to have foundation in the responsibility to lift up people in need (Kenny, 2016; Kotval, 2005; Sites, 1998). This study shows that graduates of the Academy attend to this purpose, directly or indirectly, by investing themselves and their skills, knowledge, connections, and passions so that their communities might achieve progress. Graduates are not simply directing resources or managing their use, they exhibited personal interests in their communities' vitality and worked to positively influence that. Community members in this study contributed to show that the influence of graduates is valued and recognized through their ability and attention to working with others for that purpose.

The CCF is shown here to provide unique insight and essential attention to the multiple assets within a community, with special attention to how individual assets or capitals might be built up to improve their collective value. Graduates of the Academy

included in this study showed that their primary focus to influence each of their

community's capitals was through Connecting to Community and contributing to them

with specific Local Attention to challenges and needs. This study shows that the

leadership skills and attributes described by Addor et al. (2005) and attention to

collaboration were key outcomes of the actions of graduates, but that graduates' intent

and purpose to achieve those outcomes was through being actively involved, including

others, building trust, and committing themselves as members of their communities.

Through these actions, graduates were able to facilitate and utilize both bonding and

bridging social capital to effectively contribute to their communities' needs.

Graduates of the academy were particularly equipped to consider natural capital

and the role of water in their communities, but this study reveals they were also able to

incorporate the consideration of social and political capitals within their communities.

This study shows that the graduates considered showed attention and ability to influence

natural, political and social capitals within their communities, but it also shows that their

influences were not limited to these categories and that graduates did have influence

directly and indirectly to each of the seven capitals. Through those direct and indirect

influences, graduates contributed to building up their communities' capitals leading to a

greater community capacity.

This study has shown many definitions and approaches to community capacity

but has given specific attention to the CCF as a way to show the collective assets of a

community, and civic capacity as the role of an individual leader in building up their

community. Considering Flora and Flora (2006), this study shows graduates do influence

their respective communities' capacities through an ability to build up individual capitals

that contribute to the whole. Of greater focus with regard to community capacity, this study considered civic capacity through the components of civic interest, civic connections, and civic pragmatism from Sun and Anderson (2012). The Academy graduates who participated in this study showed that their civic interests were to connect and contribute to their communities. Their connections ranged from relationships from their experience in the academy, to connecting with neighbors, to knowing who to talk to within state and federal agencies. They brought these together to contribute to their communities in any opportunity they could through Networking or Collaboration.

Community members who participated in this research were able to recognize graduates' interests in their communities through their Active Involvement in local opportunities and while many community members did not necessarily see graduates networking, they were confident that they had connections and were well networked within the community and many community members recognized graduates to be well-connected with others at the state level as well. When community members were asked how they saw graduates' civic interests and connections combined to produce civic pragmatism, many considered the attention of graduates to local issues and their ability to connect and network with others to be the embodiment of civic pragmatism. They were aware of these graduates and their actions because the graduate's civic capacity was realized and visible. It was therefore made apparent that graduates acted as leaders and were recognized as such for their commitment to and involvement in their communities.

Graduates of the Academy serve their communities as leaders in many regards, only one of which is necessarily specific to water and natural resources. Considering the importance given to natural capital by Flora, Flora, and Gateyer (2016) and the call for

leadership within natural resources by Addor et al. (2005), this leadership role is vitally important. Graduates were shown to be personally and professionally committed to water in their communities and across the state and they acted accordingly. Much of their influence was recognized within the water community at the state level and to improving the collaboration and connections necessary for actors across the state to work together, but also to serve as a grounded connection to their communities. In addition to collaboration, graduates were shown to focus on the long-term needs of their communities by aiming to understand the resources within them and protecting water quality and quantity for future generations.

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APPENDICES

APPENDIX A. Graduate Telephone Recruitment Script

Graduate Telephone Recruitment Script

Principle Investigator:

Hello, my name is Dakota Staggs. I am a master's student at the University of Nebraska-Lincoln studying natural resource sciences. If this is a good time to talk, I would like to speak with you about a research study I am involved with, and the potential for your participation in it. Do you have a few minutes?

Recruited Participant:

{Negative response: If recruit responds that it is not a good time, principle investigator will apologize for the inconvenience, ask for a better time to call back and then thank the recruit for their time.}

{Affirmative response: principle investigator will continue with script below.}

Principle Investigator

I will be conducting interviews with graduates of the Nebraska Water Leaders Academy and members of their community to determine how graduates have influenced their community's assets and how they have influenced their community's capacity to prepare for future water challenges. I believe your participation in this research would help me gain a better understanding of this process.

By participating in this study, you will provide valuable insight into how graduates of the Nebraska Water Leaders Academy influence their community's assets and capacity to prepare for future water challenges. This insight could be used to inform the practices and strategies of the Nebraska Water Leaders Academy and other leadership and community development efforts in Nebraska.

I expect the interview to take between 20 and 30 minutes and I am able to meet at a time and place convenient for you. Your participation is completely voluntary, and I assure you that your identity and responses will remain confidential. Is there a day and time that would be convenient for me to interview you?

Recruited Participant:

{Negative response: If recruit responds that they do not want to participate, the principle investigator will thank them for their time and end the call.}

{Affirmative response: principle investigator will continue with script below.}

Principle Investigator:

Thank you very much for agreeing to participate. What day, time, and location would you like to meet for an interview?

Date:

Time:

Location:

If you do not mind, I will send you an email the day before the scheduled interview as a reminder. Until then, feel free to contact me at (602) 769-0033 or dstaggs2018@gmail.com with any questions you have. I look forward to our conversation!

Thanks again!

{end call}

APPENDIX B. Informed Consent Letter

Nebraska
UNIVERSITY OF
Lincoln

Dear Study Participant,

My name is Dakota Staggs. I am the primary researcher for this project seeking to understand how graduates of the Nebraska Water Leaders Academy influence their community's assets, and how they impact their community's ability to prepare for future water challenges.

Your participation in this study will require one interview of up to 30 minutes. This interview can be conducted in your workplace or another area of your choice. I will record the interview using a digital audio recorder for later transcription and analysis.

There are no direct benefits to you as a participant of this study. The study may indirectly benefit you by improving community and leadership development, specifically from the Nebraska Water Leaders Academy. The potential risks and discomforts of this study are of community members reflecting poorly on Nebraska Water Leader Academy graduates. To mitigate these potential risks and discomforts, all information will remain confidential.

The results of this study will be used for a Master's thesis and funding report given to the Rural Futures Institute.

Your responses to this interview will remain confidential through the use of a pseudonym and codes assigned to potentially identifying data. The recordings created in this interview will be secured on a password protected personal computer and will only be seen by the investigators in the course of the study. All recordings and identifiable information will be deleted by the end of the project on May 8, 2020. Your name will not be used in any results of this study.

If you have any questions with this research, you are welcome to contact myself at (602) 769-0033 or dstaggs2018@gmail.com or Dr. Mark Burbach at (402) 472-8210 or mburbach1@unl.edu. You are also welcome to contact the Research Compliance Services Office at the University of Nebraska-Lincoln at (402) 472-6965 or irb@unl.edu.

Your participation in this study is entirely voluntary. You can refuse to participate or choose to discontinue your participation at any time without causing harm to your relationship with the researcher or the University of Nebraska-Lincoln. You will not receive any penalty or loss of benefits for which you are otherwise entitled by refusing to participate or choosing to discontinue at any time. You must be 19 years of age or older to participate.

By signing this form, you are making a voluntary decision to give your consent to participate in this research study and proceed with an audio recorded interview.

Sincerely,

Dakota Staggs

_____   _____   _____

Printed name of Participant   Signature of Research Participant   Date

APPENDIX C. Graduate Interview Protocol

GRADUATE INTERVIEW PROTOCOL

Project Title:

EXPLORING HOW GRADUATES OF THE NEBRASKA WATER LEADERS ACADEMY ADVANCE
COMMUNITY CAPITALS

Time of interview:

Date:

Interviewer:

Interviewee Name:

Title / Position of Interviewee:

Organization:

Interview Script:

Hello,

My name is Dakota Staggs. I am a student at the University of Nebraska Lincoln studying
Natural Resource Sciences and am the principle investigator for this research project. The
purpose of this research is to understand how graduates of the Nebraska Water Leaders
Academy advance their community's assets and influence their community's capacity to
prepare for future challenges.

This purpose of this research is to further understand how graduates of the Academy influence
their respective community's assets and capacity. Most of the questions I have for this
interview relate to community, but I don't want to restrict your answers to <insert local
town/city name>, I intend community to consider the relationships and connections you have
both inside and outside of the physical boundaries of <insert local town/city name>. This
understanding will be used to inform the Academy and other community and leadership
development efforts.

Thank you for your participation today. Your identity and responses in this interview will remain
confidential. I will be using a digital audio recorder to record this interview and will be taking
notes as well.

Before we start, I need you to read, sign, and date this informed consent form. It states you
give me permission to record and transcribe this interview. After reading this form please sign
and date it.

<Pause> Are there any questions you have for me?

You are welcome to discontinue or pause this interview at any time, please let me know if you would like to do so. As we get started, I would also like your verbal consent to record this conversation, please say "yes" if I do.

<Pause for response, continue if "Yes">. Thank you, let's get started:

Interview Questions:

I would like to start this interview asking how you have influenced the assets of your community. These questions have been developed using the community capitals framework described by Flora, Flora, and Gasteyer (2016).

1. How have you influenced the natural capital, such as natural resources, in your community?
   a. Prod if necessary: For example, this could be through soil management practices, water conservation, land management, etc.
2. How have you influenced the human capital, like the knowledge, skills, and self-esteem, of others in your community?
   a. Prod if necessary: For example, this could be by through mentoring or encouraging members of the community.
3. How have you influenced the social capital in your community through things like trust, collaboration, or a sense of a common goal?
   a. Prod if necessary: This could be by introducing members of your community who might benefit from working together or building trust between organizations so that they might work together more effectively.
4. How have you influenced the financial capital like savings, income generation, and other financial assets in your community?
   a. Prod if necessary: For example you might have influenced the community budget in relation to education spending, or encouraged new businesses which generate income.
5. How have you influenced the built capital like infrastructure or other installations like parks that help connect the community?
   a. Prod if necessary: Built capital is physically constructed like a bridge, building, trail, or park that you might have helped create or influenced.
6. How have you influenced the political capital which is the ability to turn norms and values into practice within the community?
   a. Prod if necessary: For example, this could be through encouraging others to voice their opinions to elected officials on an NRD board or city council.
7. How have you influenced the cultural capital, such as identity, pride, or inclusiveness in your community?
   a. Prod if necessary: This could be by promoting community events like the 4th of July or other things that bring the community together.

I would now like to shift my questions to your influence on your community's capacity to prepare for future challenges through civic capacity based on concepts developed by Sun and Anderson (2012).

1. Tell me about your interest in being involved with local issues and opportunities relating to community challenges.
   a. Prod if necessary: What are your interests in local issues and opportunities relating to challenges around water?
2. Tell me about the social connections you have made inside and outside of your community that enable and promote collaboration on local challenges.
   a. Prod if necessary: For example, you might have sought out a leader in a nearby community that has implemented an economic strategy that could be beneficial to your community.
   b. Prod if necessary: How have do those connections enable and promote collaboration on local water challenges?
3. How have you acted on your interests and used your connections to address local challenges?
   a. Prod if necessary: For example, have you used social connections to collaborate on local issues like community education or resource conservation?
   b. Prod if necessary: Have you used your social connections to address local challenges relating to water?

Thank you so much! Those are all the interview questions I have for you. However, I want to include both the graduate and community perspective in this study. After interviewing graduates of the NWLA, I am also hoping to interview their contacts within their communities using the same questions and interview format. If this is something you would be comfortable with, are there three or four individuals in your community who might be able to speak to the topics we covered in this interview that you could suggest for me to interview?

Name:
Contact:

Name:
Contact:

Name:
Contact:

Name:
Contact:

Thank you so much! Interviewing members of your community will be essential to this study.

Closing Comment to participant

Finally, if it is alright with you, I might reach out to you in the next few weeks to check if the transcripts produced from this interview are accurate to your responses. Thank you so much for your time and participation in this project.

Interviewer Field Notes:

Interviewer may make notes during and immediately after the interview to document personal impressions, observations, reactions, and context during the interview.

APPENDIX D. Community Contact Telephone Recruitment Script

Community Contact Telephone Recruitment Script

Principle Investigator:

Hello, my name is Dakota Staggs. I am a master's student at the University of Nebraska-Lincoln studying natural resource sciences. If this is a good time to talk, I would like to speak with you about a research study I am involved with, and the potential for your participation in it. I recently interviewed <insert graduate contact name> and they suggested you as someone who might provide further insight to my study. Do you have a few minutes?

Recruited Participant:

{Negative response: If recruit responds that it is not a good time, principle investigator will apologize for the inconvenience, ask for a better time to call back and then thank the recruit for their time.}

{Affirmative response: principle investigator will continue with script below.}

Principle Investigator

I am conducting interviews with graduates of the Nebraska Water Leaders Academy, such as <insert graduate contact name>, and members of their community to determine how graduates have influenced their community's assets and how they have influenced their community's capacity to prepare for future water challenges. I believe your participation in this research would help me gain a better understanding of this process.

By participating in this study, you will provide valuable insight into how graduates of the Nebraska Water Leaders Academy influence their community's assets and capacity to prepare for future water challenges. This insight could be used to inform the practices and strategies of the Nebraska Water Leaders Academy and other leadership and community development efforts in Nebraska.

I expect the interview to take between 20 and 30 minutes and I am able to meet at a time and place convenient for you. Your participation is completely voluntary, and I assure you that your identity and responses will remain confidential. Is there a day and time that would be convenient for me to interview you?

Recruited Participant:

{Negative response: If recruit responds that they do not want to participate, the principle investigator will thank them for their time and end the call.}

{Affirmative response: principle investigator will continue with script below.}

Principle Investigator:

Thank you very much for agreeing to participate. What day, time, and location would you like to meet for an interview?

Date:

Time:

Location:

If you do not mind, I will send you an email the day before the scheduled interview as a reminder. Until then, feel free to contact me at (602) 769-0033 or dstaggs2018@gmail.com with any questions you have. I look forward to our conversation!

Thanks again!

{end call}

APPENDIX E. Community Member Interview Protocol

COMMUNITY MEMBER INTERVIEW PROTOCOL

Project Title:

EXPLORING HOW GRADUATES OF THE NEBRASKA WATER LEADERS ACADEMY ADVANCE COMMUNITY CAPITALS

Time of interview:

Date:

Interviewer:

Interviewee Name:

Title / Position of Interviewee:

Organization:

Interview Script:

Hello,

My name is Dakota Staggs. I am a student at the University of Nebraska Lincoln studying Natural Resource Sciences and am the principle investigator for this research project. The purpose of this research is to understand how graduates of the Nebraska Water Leaders Academy advance their community's assets and influence their community's capacity to prepare for future challenges.

This purpose of this research is to further understand how graduates of the Academy influence their respective community's assets and capacity. Most of the questions I have for this interview relate to community, but I don't want to restrict your answers to <insert local town/city name>, I intend community to consider the relationships and connections you have both inside and outside of the physical boundaries of <insert local town/city name>. This understanding will be used to inform the Academy and other community and leadership development efforts.

Thank you for your participation today. Your identity and responses in this interview will remain confidential. I will be using a digital audio recorder to record this interview and will be taking notes as well.

Before we start, I need you to read, sign, and date this informed consent form. It states you give me permission to record and transcribe this interview. After reading this form please sign and date it.

<Pause> Are there any questions you have for me?

You are welcome to discontinue or pause this interview at any time, please let me know if you would like to do so. As we get started, I would also like your verbal consent to record this conversation, please say "yes" if I do.

<Pause for response, continue if "Yes">. Thank you, let's get started:

Interview Questions:

I would like to start this interview asking how <insert name of graduate> has influenced the assets of your community. These questions have been developed using the community capitals framework described by Flora, Flora, and Gasteyer (2016).

1. How has <insert name of graduate> influenced the natural capital, such as natural resources, in your community?
   a. Prod if necessary: For example, this could be through soil management practices, water conservation, land management, etc.
2. How has <insert name of graduate> influenced the human capital, like the knowledge, skills, and self-esteem, of members of your community?
   a. Prod if necessary: For example, this could be by through mentoring or encouraging members of the community.
3. How has <insert name of graduate> influenced the social capital in your community through things like trust, collaboration, or a sense of a common goal?
   a. Prod if necessary: This could be by introducing members of your community who might benefit from working together or building trust between organizations so that they might work together more effectively.
4. How has <insert name of graduate> influenced the financial capital like savings, income generation, and other financial assets in your community?
   a. Prod if necessary: For example you might have influenced the community budget in relation to education spending, or encouraged new businesses which generate income.
5. How has <insert name of graduate> influenced the built capital like infrastructure or other installations like parks that help connect the community?
   a. Prod if necessary: Built capital is physically constructed like a bridge, building, trail, or park that <insert name of graduate> might have helped create or influenced.
6. How has <insert name of graduate> influenced the political capital which is the ability to turn norms and values into practice within the community?
   a. Prod if necessary: For example, this could be through encouraging others to voice their opinions to elected officials on an NRD board or city council.
7. How has <insert name of graduate> influenced the cultural capital, such as identity, pride, or inclusiveness in your community?

   a. Prod if necessary: This could be by promoting community events like the 4th of July or other things that bring the community together.

I would now like to shift my questions to <insert name of graduate> influence on your community's capacity to prepare for future challenges through civic capacity based on concepts developed by Sun and Anderson (2012).

1. Tell me about how you have seen <insert name of graduate> show interest in being involved with local issues and opportunities relating to community challenges.
   a. Prod if necessary: What are your interests in local issues and opportunities relating to challenges around water?
2. Tell me about the social connections you know of that <insert name of graduate> has made inside and outside of your community that enable and promote collaboration on local challenges.
   a. Prod if necessary: For example, <insert name of graduate> might have sought out a leader in a nearby community who has implemented an economic strategy that could be beneficial to your community.
   b. Prod if necessary: How have do those connections enable and promote collaboration on local water challenges?
3. How has <insert name of graduate> acted to use their connections to address local challenges?
   a. Prod if necessary: For example, has <insert name of graduate> used their social connections with you or others to collaborate on local issues like community education, resource conservation, or others?
   b. Prod if necessary: Has <insert name of graduate> used their social connections to address local challenges relating to water?

Closing Comment to participant

Finally, if it is alright with you, I might reach out to you in the next few weeks to check if the transcripts produced from this interview are accurate to your responses. Thank you so much for your time and participation in this project.

Interviewer Field Notes:

Interviewer may make notes during and immediately after the interview to document personal impressions, observations, reactions, and context during the interview.

APPENDIX F. IRB Approval Letter

UNIVERSITY **1** OF
Nebraska
Lincoln

Official Approval Letter for IRB project #20000 - New Project Form
December 6, 2019

Dakota Staggs
School of Natural Resources
HARH 244 North UNL NE 685830921

Mark Burbach
School of Natural Resources
HARH 623 south UNL NE 685830996

IRB Number: 20191220000EP
Project ID: 20000
Project Title: Exploring How Graduates of the Nebraska Water Leaders Academy Advance Community Capitals

Dear Dakota:

This letter is to offtially notify you of the certification of exemption of your project for the Protection of Human Subjects. Your proposal is in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects at 45 CFR 46 2018 Requirements and has been classified as exempt. Exempt categories are listed within HRPP Policy #4.001: Exempt Research available at: http://research.unl.edu/researchcompliance/policies-procedures/.

o Date of Final Exemption: 12/06/2019
o Review conducted using exempt category 2(iii) at 45 CFR 46.104
o Funding (Grant congruency, OSP Project/Form ID and Funding Sponsor Award Number, if applicable): Internal, Rural Futures Institute

You are authorized to implement this study as of the Date of Final Approval: 12/06/2019.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:
* Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
* Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
* Any protocol violation or protocol deviation
* An incarceration of a research participant in a protocol that was not approved to include prisoners
* Any knowledge of adverse audits or enforcement actions required by Sponsors
* Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
* Any breach in confidentiality or compromise in data privacy related to the subject or others; or
* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

Any changes to the project, including reduction of procedures, must be submitted and approved prior to implementation. A change request form must be submitted to initiate the review of a modification.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board.

If you have any questions, please contact the IRB offte at 402-472-6965.

Sincerely,

Rachel Wenzl, CIP
for the IRB

Full Accreditation