

DISSERTATION

WICKED PROBLEMS, COMPLEXITY, AND MID-LEVEL LEADERSHIP IN HIGHER

EDUCATION:

AN ACTION LEARNING RESEARCH PROJECT

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ABSTRACT

WICKED PROBLEMS, COMPLEXITY, AND MIDDLELEVEL LEADERSHIP IN HIGHER EDUCATION: AN ACTION LEARNING RESEARCH PROJECT

Public research universities in the United States face myriad problems, many of which result in inequitable outcomes and experiences for people from marginalized populations. How stakeholders understand, value, and pursue solutions within the complex organizational context of public higher education further complicates problems of inequity and injustice. Challenges of this type can be understood as wicked problems (Rittel & Webber, 1973) and the organizational setting of public higher education a complex adaptive system (Lohmann, 2006; Mandviwalla & Schuff, 2014). A significant gap exists in the scholarship informing how higher education leaders understand and pursue solutions to the wicked problems they face within the complex adaptive systems of public universities. For this research, I used action learning methodology to explore leadership with a small group of midlevel professionals from public universities working to address challenges of inequity and injustice. Through the action learning methodology, the research process catalyzed learning and impact for participants in their local settings. Together, the participants and I generated knowledge on leadership to address wicked problems in public universities and share the research experience through the participants' accounts of practice and our practitioner learning.

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To the original Glenna, Lincoln, Denzil, Felipe, Kristian, and the colleagues you represent in my career, you taught me what it means to lead with others and inspired my research. I have and continue to aspire to a vision of leadership that you each have modeled for me.

To the members of the cutest cohort, thank you for sharing your experiences, perspectives, and knowledge with me. You transformed my worldview as we persisted through this program together. How I understand my positionality and responsibility is forever changed, and I am immensely grateful to each of you.

POSITIONALITY STATEMENT

As a scholar–practitioner, my lived experience informs how I approach, engage with, and make sense of my research and work. My interactions with and interpretations of the world, based in part on my social and professional identities, have and will continue to shape my lived experience. As a White, cisgender, straight, currently nondisabled, middle-class, public-school-educated, married, suburban-raised man, I view the world through multiple and overlapping privileged lenses. I also bring over 8 years of experience as a midlevel professional working on inequity and injustice challenges at a public research university.

Importantly, how I make sense of the world and this research is not a one-way process. Just as I see my experience through these lenses, others view and interact with me based on my identity. I understand my world through dynamic and nonlinear cycles of interaction, interpretation, and meaning making driven by my engagement with others. How the world and I engage with one another and how I make sense of this engagement is complex in the ways that complexity scientists understand the concept. My lived experience and the lenses it creates evolve, intertwine, and I cannot return to my previous positions. For example, I transitioned from higher education into the private sector during this research process. By doing so, I shifted from being a direct peer with my participants to an outsider who used to be an insider. However, after my engagement with my participants ended, I returned to higher education in a midlevel role and was again in a peer-to-peer relationship with my participants. As my professional roles shifted during this research, my relationship with my participants and the research also shifted.

Perhaps most importantly, my experience and lenses are simultaneously unique to me, and because social structures and influences shape our world, they are likely very similar to

others who have shared identities. As such, my experiences and lenses to understand the world are mine and part of a broader social reality. My experience and lenses are singular and collective; they reflect my life journey, my struggles, and my significant social privilege. My lived experience, identities, and larger social forces and structures informed my positionality throughout my research.

As a scholar–practitioner, I attempt to be critical of my positionality by engaging others with diverse experiences in my work and my scholarship. Engagement can range from knowledge gained at a conference or through a podcast to a formal literature review to shared responsibility for a project. My choice to pursue an action research project reflected the limitations of my positionality and my commitment to including alternative worldviews in this research.

The purpose of this positionality statement was to provide a sense of how I entered the research process and writing for my dissertation. Because action research uses the concept of positionality in a specific way, I revisit my positionality in Chapter 3 to address my relationship with my participants and how I engaged them in my research process.

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CHAPTER 1: INTRODUCTION

Recent years have brought immense complex challenges to higher education leaders (HELs). Food insecurity on college campuses has risen and adversely impacted students' academic success and personal well-being (Broton & Goldrick-Rab, 2016; Camelo & Elliott, 2019; Phillips et al., 2018; Raskind et al., 2019). The insufficiency of the financial aid system to support students' pursuits of higher education (Goldrick-Rab, 2016) has resulted in the expansion of food pantries (<https://cufba.org/about-us/>) and emergency aid programs (Kruger et al., 2016) on college campuses. To improve retention and graduation outcomes for students, university leaders have leaned into the use of predictive analytics and early alert systems, which challenge the ethics of privacy and can risk further marginalization for students who have been historically underserved by higher education (Buyarski et al., 2017; Lester et al., 2017; Simons, 2011; Tampke, 2013; Velasco, 2020). Furthermore, as campuses have attempted to recognize and reconcile their history of systemic racism (Wilder, 2013), the political right wing pushed back with threats of civil rights investigations (Barrett & Reed, 2020), executive orders that restricted the content of equity training and education (Flaherty, 2020), and used old laws to maintain a White narrative of state history (Shain, 2021). The murders of Black individuals, including Black trans people, by law enforcement agents have reignited longstanding calls for racial justice and reconciliation. As demands for equity and justice echo from past to present, HELs must move beyond words toward visible action to address longstanding racialized campus issues (Ahmad, 2020; Chase & Suriel, 2020). Moreover, as the COVID-19 global pandemic unfolded, data showed historically marginalized students negatively impacted in ways that will

likely continue to influence inequitable outcomes of college attendance and completion (Gallup, 2020; National Student Clearinghouse Research Center, 2023; Soria et al., 2020).

Although these problems in higher education (HE) may be unique due to recent events, they are not necessarily new. HE scholars have long surfaced how racism, transphobia, colonization, and Whiteness, among other problems, have harmed historically marginalized students and impacted their ability to succeed (Cabrera, 2019; la paperson, 2017; Ladson-Billings & Tate, 1995; Nicolazzo, 2017; Stewart, 2017; Wilder, 2013). The challenge with problems of inequity and injustice, like many of the problems facing HELs, is that they require system-level change as opposed to delimited organizational spaces, they resist solutions by individual leaders, and they require shifts to current operating practices and norms (Ahmad, 2020; Stewart, 2018). Stewart's (2018) call for transformational change to address inequity and injustice leveraged the concept of second-order change (Bartunek & Moch, 1987; Kezar, 2018), which necessitates broad shifts to organizational norms, values, and behaviors. This sort of change is complex and uncertain in large organizations, and as a result, problems of inequity and injustice, along with other challenges, persist in HE despite efforts to address them.

As a scholar-practitioner, I am especially interested in how HELs work to address shared problems with unclear solutions in HE, like those of inequity and injustice. Nearly 5 decades ago, Rittel and Webber (1973) proposed the seminal concept of wicked problems in public policy, planning to frame problems of this nature. According to Rittel and Webber, wicked problems are nearly impossible to define and solve because they reflect the variable knowledge and values of diverse social systems, they resist solutions within existing knowledge and practices, and planners cannot objectively test solutions because it is impossible to recreate the unique conditions in which they exist. Rittel and Webber proposed wicked problems in a binary

contrast to tame problems, which, although complicated, have known solutions, can be solved within existing systems and knowledge structures, can be tested, and have clear stopping functions that objectively demonstrate solutions. Rittel and Webber's presentation of wicked and tame problems created a new lens for scholars and practitioners to explore, understand, and attempt to address social problems. Over 5 decades, the concept has also been expanded on and evolved by scholars and practitioners.

As scholars of public policy and planning have engaged with the concept of wicked problems, the dialogue and understanding have evolved such that scholars now view the relationship between wicked and tame problems as a continuum or spectrum of wickedness rather than a binary (Alford & Head, 2017; Daviter, 2017; Head & Alford, 2015; Newman & Head, 2017; Slaughter & Rhoades, 2004; Veltman et al., 2021). This shift reflects an understanding that different social problems contain various attributes of wicked and tame problems, each with varying degrees of significance, making them more or less wicked. Additionally, some scholars have questioned Rittel and Webber's (1973) proposal that wicked problems cannot be solved. According to Daviter (2017), "If solving wicked problems is beyond reach, research on wicked problems needs to provide a clearer conceptual understanding of alternatives" (p. 572). Although there has not yet been scholarly agreement on the attributes of wickedness (Head, 2019; Newman & Head, 2017), scholars have advanced the concept's utility as a means to understand and attempt to address problems with wicked tendencies. In this dissertation, I embraced the notion that problems of inequity and injustice have varying degrees or attributes of wickedness and use wicked problems, wickedness, and problems with wicked tendencies interchangeably. In Chapter 2, I review the scholarship on the evolution of problems

with wicked tendencies and literature that contributes to how HELs may address them in complex organizations.

Rittel and Webber's (1973) original presentation of wicked and tame problems and the evolution of the scholarship on wickedness provided a means to understand problems more robustly and holistically. Although some scholarship and theorizing on wicked problems in HE exists, the bulk of literature informing HE and leadership in HE has not seriously considered the importance of problem wickedness in university settings. The lack of scholarship exploring how HELs understand the problems they face, and the leadership needed to address those problems, served as a critical motivator for this research. The gap in the literature on problems also necessitated a brief exploration of why leaders need to understand problems.

Problems and Leadership

Seminal work on problem formulation by Lyles and Mitroff (1980) demonstrated identifying and understanding the nature of the problem is critical to problem solving in organizations. Scholars of human-centered design (Norman, 1998), design thinking (Brown & Wyatt, 2010), strategic management (Lyles, 1981), and organizational change (Kezar, 2014) have stressed the importance of problem formulation and identification. Although scholars have positioned problem identification as critical, research has shown leaders do not often have this ability (Mitroff & Silvers, 2010) and this ability is further complicated when the problem in question has wicked attributes (Lyles, 2014).

Higher education scholarship that informs how professionals should address challenges may favor the pursuit of solutions while failing to give adequate attention to problem identification and formulation. In an expansive study of grassroots leadership in HE, Kezar and Lester (2011) focused on bottom-up leadership's role in facilitating change on campus. Although

their work has surfaced many attributes of change agents, it has failed to explore how the nature and attributes of a problem shape the pursuit of solutions.

Similarly, the ACPA & NASPA (2015) joint competencies, which guide the professional development of many HELs, do not include problem formulation or problem frames as a competence. However, the competencies point to many problems and challenges HELs face. A poignant example from the social justice and inclusion competence is the call for professionals to “identify systemic barriers to social justice and inclusion and assess one’s own department’s role in addressing such barriers” (ACPA & NASPA, 2015, p. 31). This example demonstrated the attention paid and motivation to solve problems and simultaneously displays a lack of awareness of problem formation and problem frames in the problem-solving process. In Stewart’s (2018) call for transformational change, he implored HELs to value and listen to historically marginalized populations to create solutions but does not connect these individuals’ knowledge as critical to understanding the underlying problems or the role of problem identification in transformative solutions. This competence gap of problem identification and formulation compels a deeper review of multiple problem frames.

Decades ago, Rittel and Webber (1973) described problems as “discrepancies between the state of affairs as it is and the state of affairs as it ought to be” (p. 165). In this way, problems are more than just pain points in a process or the absence of a program or service; problems are the gaps between espoused values and our practice that we actualize through policies, processes, programs, services, organizational structures, training, and communication materials in HE. When Stewart (2017) problematized the policies of appeasement that dominate HE practices, he spoke directly to the gap in the state of affairs as it is and how it ought to be that Rittel and Webber described. HELs must understand problems accurately, including the need to understand

the attributes of problems and the varying degrees of wickedness. Among the multiple contributing factors to a problem's wickedness is its context (Alford & Head, 2017; Daviter, 2017; Head, 2019). For HELs, the context for problems includes complex HE organizations.

Problem Solving, Leadership, and Complex Organizations

The problems HELs face do not exist in a vacuum. Instead, they occur in complex organizations that impact how leaders understand and attempt to address problems. According to Leonard and Lang (2010), "Leaders in previous generations have had to operate in much less dynamic and fluid environments than they do today" (p. 226). A body of theory and research has emerged that explores new understandings of leadership as it occurs in the context of dynamic networked systems and the behavior of organizational leaders to solve wicked problems in this context (Arena & Uhl-Bien, 2016; Imperial et al., 2016, 2016; Lyles, 2014; Uhl-Bien & Arena, 2017). At the core of this scholarship are three interrelated concepts: first, the importance and role of networks and complex systems as a context for leadership and problem solving (Imperial et al., 2016; Marion & Uhl-Bien, 2001; Palmberg, 2009). Second is the uniqueness of wicked problems that organizations face and how they are distinct from difficult but less complex problems (Heifetz & Laurie, 1997; Imperial et al., 2016; Lyles, 2014; Rittel & Webber, 1973). Finally, an evolved understanding of leadership as a process that emerges from within networks of people and accounts for the role of hierarchical leadership (Arena & Uhl-Bien, 2016; Drath et al., 2008; Dugan, 2017; Heifetz & Laurie, 1997; Imperial et al., 2016; Lyles, 2014; Uhl-Bien et al., 2007).

These three interrelated concepts of problems, context, and leadership are the nexus of the conceptual framework that will support this research project. In Chapter 2, I review the literature on these concepts and establish a conceptual framework based on their

interdependence. As an area of research, I could explore this intersection of concepts with professionals at various levels of positional leadership and different types of institutions. The following sections establish why my research explored the role of HELs in midlevel leadership positions who work at public research universities.

Public Research Universities as First and Third World Universities

Wicked problems and leaders striving to address them are likely to be found in all HEIs. As previously discussed, an organization's context influences problems and leadership; therefore, the type of HEI environment is a critical context to establish. This research project was interested in leadership and problem solving in the context of public research institutions in part because of my 15 years of experience in public HE, but more importantly, because public research universities have a unique combination of structure and scale, competing cultures, multiple purposes, and relationship to social forces such as neoliberalism that collectively contribute to the presence of wicked problems and the leadership needed to solve them.

The Carnegie Classification of Institutions of Higher Education (Indiana University Center for Postsecondary Research, n.d.) emphasizes the unique combinations of structural, purpose, and geographic attributes that shape public institutions as complex settings. The classification system distinguishes institutions based on the degrees they grant, the students they enroll, how selective their enrollment practices are, their size and setting, the volume of research they conduct, and a variety of other attributes. When viewed through this lens, public research institutions stand apart from other institutions based on their size, role in educating undergraduate and graduate students, and the research volume the faculty pursue. Faculty also play distinctive roles in research institutions as researchers and educators, which differs from faculty in settings where research is less of a priority. Although the structural attributes that the

Carnegie system highlights are helpful, they do not address the complexity of human interaction, the conflicting purposes of public HE, and the impact on context for problems and leadership.

Berquist and Pawlak (2008) identified six cultures within modern institutions, which often have conflicting views of the academy's purpose, practice, and operating values. The inherent conflict between members of different cultures who understand the institution's purpose differently and how to go about the organization's work creates an environment rich with potential for wicked problems. Berquist and Pawlak's scholarship on culture also highlights how colleagues who operate from different cultural bases within an institution will come together and partner when they identify a shared interest, even if that interest is to resist the progress of priorities by another culture. The various cultures, their differing values, and the way they work together and resist one another all contribute to the complex organizational context that HELs work within. The various purposes and priorities that public HE pursues shape value discrepancies between different cultures.

The Association of Public and Land-Grant Universities (n.d.-b) recently communicated five value priorities of public institutions, ranging from providing quality, affordable, and financially transformational education for students to conducting research that transforms lives and benefits communities. The multiple values highlight the breadth and distinctions in the purpose of public research universities. The reality that public HE has multiple priorities creates the opportunity for each of Bergquist and Pawlak's (2008) cultures to focus on the purpose that most align with their worldview. Additionally, explicit in these values is an expectation that public research universities produce both a public and a private good. However, research has indicated that university stakeholders often only focus on the public or the private good that public institutions provide (Chan, 2016). The tendency to focus on one or the other reflects a

discrepancy in people's value for public HE and the purpose they believe it holds in society. Value discrepancies like this shape the wickedness of problems that emerge in HE. This particular value discrepancy of public versus private good increases problem wickedness because it is rooted in the greater social force of neoliberalism in the United States.

Scholars have explored the persistent influence of neoliberal forces on public HE and how it has shaped the academic environment and the multiple purposes of universities (Saunders, 2010; Slaughter & Rhoades, 2004). The need for faculty to be both researchers and revenue generators for their intuitions, the demand to graduate more students at lower costs, and the expectation that a degree contributes directly to job placement and lifetime earnings all reflect neoliberal priorities for public HE (Saunders, 2010; Slaughter & Rhoades, 2004). These tensions are embedded in the previously discussed structural attributes and purposes (Indiana University Center for Postsecondary Research, n.d.), operating cultures (Bergquist & Pawlak, 2008), and espoused values of public research universities (Association of Public & Land-Grant Universities, n.d.-b). Neoliberal priorities for HE of efficiency, individual benefit, and the need to graduate students in mass are also understood to contribute to problems of inequity and injustice.

la paperson (2017) depicted public research universities as sites of neoliberal expansion with a core purpose of degree production and perpetuating colonial norms and values that are at odds with the objectives of equity and justice. They directly link neoliberalism and colonization to public research universities' role in shaping American social, economic, and cultural norms. Norms that scholars have problematized for their systemic oppression of minoritized populations (Delgado & Stefancic, 2017; Harris, 1993; Ladson-Billings & Tate, 1995; Yosso, 2005). Scholars and practitioners do not have to look far for modern examples of neoliberal influences

that shape the organizational context of public institutions and views on the purpose of public HE at the expense of equitable outcomes.

Returning to retention and graduation as a wicked problem, collaboratives of public research universities (American Talent Initiative, n.d.; Association of Public & Land-Grant Universities, n.d.-a; University Innovation Alliance, n.d.) have promoted neoliberal strategies toward increased student success and sought to influence the priorities and operating context on individual campuses. Although the intent of these organizations has, in part, been to address the inability of public research universities to ensure equitable outcomes in HE, their reliance on neoliberal strategies based on a neoliberal worldview falls short of the transformational change scholars of equity and justice have advocated for (Ahmad, 2020; Garcia, 2020; Gonzales et al., 2018; Stewart, 2018).

la paperson (2017) offered a framework to understand the current context of public HE as the first world university and proposed that a third world university that seeks to decolonize and resist neoliberal norms and outcomes is possible. The gap between the first and third world university further exemplifies the value and knowledge discrepancies that make problems wicked. The vision of a third world university also offers optimism for what public institutions could be if HELs provided the leadership necessary to address wicked problems shaped by organizational context, cultural differences, and value discrepancies in HE.

This brief exploration of neoliberalism and colonization highlights how social forces influence the perceived purposes and operating context of HE. The gap between our current first world universities and the possibility of third world universities emphasizes the sort of value and purpose discrepancies in wicked problems of inequity and injustice for leaders in HE. The context becomes even more varied when coupled with other elements of public universities, like

internal culture differences. In Chapter 2, I explore how multiple contributing factors, such as these, increase a problem's wickedness. In the next section, I explore the role HELs in the middle of the organizational structure play as problem solvers.

Midlevel Leaders as Problem Solvers

Over the last few decades, the scholarship on leadership, including leadership in HE, has shifted from the attributes and behaviors of executive leaders in positions of power toward leaders in other parts of an organization and on leadership as a process that is shared and context informed (Kezar, 2014; Love & Estanek, 2004; Uhl-Bien et al., 2007; Wheatley, 2006). Research on leadership to address wicked problems could explore leadership at any level, or across multiple levels, of public institutions. However, midlevel leaders hold unique positions and perspectives on leadership that are largely unexplored.

The role of midlevel leadership on campuses is expanding in scope (Hecht & Pina, 2016), and scholars have identified the role to have significant potential to influence collaboration and change within institutions (Young, 2007). Midlevel leaders in HE are recognized to hold a unique position through which they report to or interface with senior leaders and have the responsibility to further institutional mission and vision; they network and collaborate with colleagues in other parts of the institution to advance shared interests while maintaining some degree of responsibility for the success of staff and programs (Branson et al., 2016; Fey & Carpenter, 1996; Pepper & Giles, 2015). These same scholars have recognized midlevel leadership positions exist among faculty and professional staff structures just below the level of a dean, vice president, or vice provost and have recognized they have a critical responsibility to support the interests of executive-level staff. Although some disagreement exists, these scholars have also generally recognized midlevel leaders often supervise staff and are responsible for an

administrative or academic functional area. Research conducted with midlevel leaders unveils an understanding that individuals in these positions operate with high levels of responsibility but minimal authority; as a result, midlevel leaders build a unique set of skills as relational leaders who rely on influence rather than positional power and collaborate with colleagues in other functional areas or academic disciplines to impact their campuses (Branson et al., 2016; Pepper & Giles, 2015). Midlevel leaders' positioning within the institution and the leadership that midlevel leaders need to succeed are aligned with scholarship leadership theory to address wicked problems.

In Chapter 2, I explore theories and research that understand leadership as both a position and process that is shared, context informed, and intended to address wicked problems. Although alignment exists between leadership to address wicked problems and midlevel leaders in HE, little research has directly connected the two to understand and inform how midlevel leaders understand and engage in efforts to solve wicked problems. Because of the uniqueness of the role, the potential to impact institutions, the alignment with leadership theory, and the unexplored connection between midlevel leadership and wicked problems, the midlevel leader role was the position of focus for this research.

Research Purpose

This study worked with a group of midlevel HELs to explore the leadership needed to advance solutions to wicked problems of inequity and injustice in complex public research universities. Participants gathered as an action learning set to explore the problems they faced and make sense of their leadership to address them. By working together and applying new concepts in their settings, each participant had the opportunity to build new competence and efficacy in leadership and problem solving. Through action learning, an action research

methodology, research participants applied new knowledge and understanding to foster solutions to wicked problems in their organizations. My intent with this study was to positively impact the individuals who participated and their problems while also contributing to the scholarship on leadership and problem solving in HE.

Research Questions

This research sought to surface shared knowledge within a small community of HE professionals engaged as leaders to address wicked problems at public research universities through action research strategies. In addition, the research process encouraged leaders to apply new knowledge within their institutional setting. Thus, the research question that guided the pursuit of this action research project was:

- How do a small group of midlevel higher education leaders (HELs) practice leadership to address wicked problems in the complex organizational context of public research universities?

The following subquestions provided additional nuance to the central research question and address the multiple purposes and expected outcomes of action research projects:

- How have the HE professionals adapted their leadership practice based on their engagement with the action learning set?
- How have participants in this action research project impacted wicked problems that include challenges of inequity or injustice on their campuses?

Delimitations

The participatory nature of this research project intentionally delimited the applicability of the research to those involved and their specific campus settings. Midlevel leaders were the population for this study because of the unique positions they lead from within large research

institutions and how their roles support their involvement in addressing wicked problems. Because of this choice, the findings may hold different relevance to the leadership practice of entry- or senior-level professionals. Public institutions were also chosen for their unique organizational structure and espoused commitments to public education and equitable outcomes. As a result, the process and findings may have varied applicability for midlevel HELs who work in community colleges, private research universities, liberal arts colleges, or for-profit institutions.

This project's participatory and action research orientation added an additional limitation that I influenced as the researcher. Through this project, I made intentional choices regarding the concepts and ideas presented to participants. The existing scholarship, my lived experience, and my identities shaped my research question and my choices as I developed and executed the project. Participants were invited to inject their own ideas and lived experiences through the research process. Our collaborative research shaped the boundaries of the concepts we explored.

Given these delimitations and my stance as a participatory researcher, readers are encouraged to engage with the research setting, process, and findings to determine how it transfers, applies, and is helpful for their experience and setting.

Chapter Summary

This chapter provided an overview of the study and a brief introduction to the problems that HELs face and the important relationship between problems, leadership, and context in the problem-solving process. I argued public research universities are a unique context to explore leadership to address wicked problems because of the complex attributes of structure, scale, culture, and purpose. Furthermore, because larger social-economic forces in the United States influence public research universities and the previously mentioned attributes, it further sets

them apart as a unique context within which to conduct research. I also explored the role midlevel managers play in HE institutions, the potential within these roles to impact campuses positively, and the alignment these roles have with emerging scholarship on leadership to address wicked problems. The delimitations described in this chapter add further focus to this research and identify ways it is intentionally limited.

In Chapter 2, I establish the theoretical framework for this research and provide a comprehensive literature review of scholarship on the research topic. Through the literature review, I also develop the conceptual framework that guided the project.

CHAPTER 2: LITERATURE REVIEW

The previous chapter established a gap in the HE research that informs how midlevel professionals understand the leadership needed to address problems with wicked tendencies in complex public HE organizations. This literature review explores interdisciplinary scholarship and establishes a relationship between wicked problems, complex organizations, and leadership as a process and individual practice. In this chapter, I bring the concepts into a relationship with one another by first exploring wicked problems, then the complex context they exist within, and finally, the leadership required to address such problems in complex organizations. As the chapter progresses from one topic to the next, I develop the conceptual framework for this research project. Because problems of inequity and injustice are core to my research question, I also integrate relevant research and theorizing on equity and justice into my analysis of these concepts. I also use this scholarship to critique the existing literature and present opportunities for pursuing equity and justice. The canon of scholarship on this collection of topics is too expansive to interrogate comprehensively in any dissertation's scope. Therefore, to narrow the scope of relevant research, I first establish a theoretical framework that sets the epistemological and ontological context for this research and establishes the boundaries for literature relevant to this review.

Literature Review Methodology

For this literature review, I explored scholarship across disciplines on concepts of wicked problems, complex organizational contexts, and leadership. A conversation with a colleague about my struggle to frame my research interests was a vital catalyst for this literature review. That discussion introduced me to complexity leadership theory (Uhl-Bien & Arena, 2017) and

sparked an exploratory and iterative process to identify and review scholarship on leadership, complex organizations, and adaptive challenges.

This review unfolded as I explored scholarship and engaged in the writing process. Scholarship introduced new ideas and, in some instances, illuminated known concepts in a new light. Specifically, the framework of adaptive and technical challenges, first introduced to me by a participant in a class project, took on greater significance in the light of scholarship on complex organizations. As I engaged with the research, I mined citations and reference lists and expanded my literature base through cited-in and recommended scholarship sections of library search engines. As I narrowed in on relational leadership, wicked problems, complexity theory, and complex adaptive systems, I conducted keyword searches through library databases to identify intersections with scholarship in HE. Searches on these concepts, especially those that included HE, mainly resulted in informal theorizing (Dugan, 2017) and emphasized the need for empirical research to illuminate the theorized relationship between wicked problems, complex systems, and leadership.

My doctoral coursework provided the bulk of the scholarship on equity and justice that I synthesized with other concepts; however, a similar exploratory process of mining in-text sources and conversations with members of my committee and classmates also surfaced relevant literature. My exploratory and iterative process produced a multidisciplinary discussion of the literature regarding the leadership needed to advance solutions to wicked problems in the context of complex HE organizations.

Theoretical Framework

A researcher's philosophical worldview or paradigm creates the foundation for their research design (Creswell, 2003; Merriam & Tisdell, 2016). I took a dialectic rather than a purist

stance on paradigms (Greene, 2007). Three complimentary perspectives provided the ontological and epistemological base, my theoretical framework for pursuing and understanding this research. First, the participatory paradigm (Heron & Reason, 1997) established the critical role of experience in the process of knowing and knowledge development and serves as the primary paradigm of inquiry that supports the methodology and methods of this research. Second, a new science (Marion, 2008; Wheatley, 2006) challenges previously held notions of structure, command and control, and predictable outcomes in organizations. The new science paradigm fundamentally understands organizations as dynamic, relational, and self-organizing systems. Finally, Drath et al. (2008) proposed an ontology of leadership as a process and practice that is relational, complex, and pragmatic. This ontology of leadership was commensurate with the other components of this theoretical framework and focused attention on other leadership theories that share this ontology rather than those that center on individual leaders as the basis for the theory.

In the following sections, I present the components of my theoretical framework and integrate them as I progress through each. The participatory paradigm provided the central epistemology and ontology of this research project. The other components of the framework align with the philosophical positions of the participatory worldview. The framework also served as a filter for this literature review to narrow the vast body of research and theorizing on organizations, leadership, and problem solving.

Participatory Paradigm

Guba and Lincoln (1994) framed four philosophical worldviews and named four research paradigms: positivism, post-positivism, critical theory, and constructivism. Heron and Reason (1997) articulated a fifth worldview, a participatory paradigm, that understands reality and

knowledge development to be rooted in the human experience and interaction with reality. They framed the participatory worldview as one that “allows us as humans persons to know that we are part of the whole rather than separated as mind over and against matter . . . [it] allows us to join with fellow humans in collaborative forms of inquiry” (Heron & Reason, 1997, p. 275). The notion that humans are part of a whole rather than separate from it reflects the subjective-objective ontology of the participatory paradigm. According to Heron and Reason (1997), “Our subjectivity feels the participation of what is there and is illuminated by it. Knowing a world is in this felt relation at the interactive interface between a subject and what is encountered” (p. 279). Heron and Reason also stressed that intersubjectivity exists in human-to-human interactions that further shapes the participatory nature of this ontology. According to these scholars, “knowers can only be knowers when known by other knowers”(Heron & Reason, 1997, p. 279). The mutual recognition that all parties contribute to a lived reality reflects the importance of all parties’ involvement in shaping their understanding of reality. This intersubjective stance informs the practical and scholarly setting I am interested in exploring through this research.

The epistemology of the participatory paradigm is complicated by a subjective-objective and intersubjective ontology of this worldview. Because knowers are mutually engaged in shaping what they know about reality, the epistemology of the participatory paradigm is one of critical subjectivity based on four ways of knowing—experiential knowing, presentational knowing, propositional knowing, and practical knowing (Heron & Reason, 1997). Experiential knowing is gained and demonstrated through direct encounters. Presentational knowing is developed and presented back to the world through language, art, and music. Propositional knowing is shaped and evidenced by concepts, theories, and ideas. Finally, practical knowing is learned and demonstrated through application, skill, and competence (Heron & Reason, 1997).

The critical epistemology of the participatory paradigm reflects the relationship between knowledge and reality and emphasizes the necessity for knowledge to impact reality. Practical and presentational knowledge centers around the role of knowledge in shaping culture, and is demonstrated through action.

To bring the ontology and epistemology of the participatory paradigm to bear on empirical research, Heron and Reason (1997) advocated for radical empiricism whereby “The empirical is based on experience, and it ceases to be empirical when experience is constrained by a restricting definition” (p. 276). The participatory worldview stresses that the purpose of research is to generate general knowledge, including knowledge among those who participate in the process, and to create a relevant and meaningful impact through the research process for those involved (Heron & Reason, 1997; Herr & Anderson, 2015; Wood, 2020). Because the participatory paradigm establishes an interconnectivity between reality and knowledge that is interdependent and continuously shaped, the philosophical ontology and epistemology will remain closely coupled throughout this research project.

Additionally, as the participatory paradigm believes that knowledge is rooted in human experience, it values knowledge developed from other paradigms so long as it does not remove the human experience from the development of knowledge. This belief means the participatory paradigm can be commensurate with other paradigms in so far as research from those other paradigms does not seek to eliminate the human experience as part of that research.

My stance as a practitioner–scholar has been rooted in the participatory paradigm. This paradigm has informed how I understand what constitutes knowledge and the development of knowledge. It also shaped the scholarship I included in this literature review and the process of research I engaged. Research emerging from the participatory paradigm was limited. However,

because the paradigm was commensurate with other paradigms, I integrated scholarship that values participants' subjective experience as knowledge and allowed for multiple realities based on individual perspectives in this review.

The New Science and Complexity Theory

A new science has emerged in physics, biology, and chemistry that challenges previous scientific assumptions of the world and reality as a place of structure, control, and predictability (Wheatley, 2006). Wheatley (2006) argued leaders and scholars should apply the fundamental assumptions of this new science to understand modern organizations as places of networked, unpredictable, chaotic, interdependent, self-organizing systems. The paradigm of this new science as applied to organizations is rooted in the postmodern paradigm and stands in contrast to ways of understanding organizations that reflect positivist and postpositivist thinking (Love & Estanek, 2004; Marion, 2008; Wheatley, 2006).

According to Love and Estanek (2004), colleges and universities developed and continue to operate on a reductionist understanding of organizations, which seeks to divide organizations into manageable systems to control and predict outcomes. Love and Estanek went on to argue that this paradigmatic understanding of an organization is the dominant norm in HE administration, reflected in Bergquist and Pawlak's (2008) managerial culture, which seeks to establish structure, command and control, and predict outcomes in HE organizations. Although Love and Estanek recognized the dominance of the managerial culture and the associated worldview, they identified the emergence of HE norms that resist structure and predictability and encouraged HELs to integrate a new conceptual schema for how they view organizations based on the new science. According to Wheatly (2006), the relationship, interaction, and interdependence between people and organizations as systems create reality in the new science.

The understanding that reality results from human interaction with systems aligns with the participatory paradigm and draws congruence between the two as tools to understand how leaders engage with and understand their organizations. In addition to the alignment of the two paradigms, the new science can inform how HELs understand and engage with organizations.

As they reoriented thought about organizations as self-organizing, interdependent, networked systems, Love and Estanek (2004) challenged HELs to shift how they conceptualized and recognized connectedness. A theoretical tool of the new science that sheds light on connectedness in systems is the concept of complexity and the presence of complex adaptive systems (CASs). According to Marion (2008), “Complexity theory is the study of the dynamic behaviors of complexly interacting, interdependent, and adaptive agents under conditions of internal and external pressure” (p. 3). When applied to organizations, complexity theory explains how the interactions between and interconnectivity of people and systems result in unexpected and irreversible adaptation by the system (Marion, 2008; Uhl-Bien & Arena, 2017).

Discussions of complexity often begin with a distinction between that which is complicated and that which is complex. For example, a house is complicated, whereas a meringue is complex. A house is an amalgamation of steel, stone, tile, wood, carpet, ventilation, electricity, glass, and myriad other components. These components are individually distinguishable and can largely be deconstructed and reconstructed to form almost an identical house. In contrast, a meringue is only a few ingredients—egg whites, sugar, air, and heat—but once combined, they cannot be deconstructed and reconstructed in the way a house can. The whipping of egg whites incorporates air and forever changes the form, preventing any deconstruction and reconstruction of the meringue. Scholars of complexity theory understand organizations to be complex in ways that are like meringue. Individuals interact with one another

in interdependent and dynamic ways and in contexts with their own dynamic attributes. The interaction and interdependence between people and context result in the emergence of unique, unpredictable, and irreversible shifts in organizations and the people that comprise them (Marion, 2008; Uhl-Bien & Arena, 2017).

According to Marion (2008), complexity theory is interested in the patterns of dynamic mechanisms as many independent agents interact with one another. Essentially, this is saying that those who use complexity theory to study organizations seek to understand the mechanisms and dynamics between independent individuals. I do not pursue this research through the methodology of complexity theory to understand patterns in dynamic relationships. Instead, I am interested in complexity theory for its ability to contextualize HE organizations as places of dynamic and interdependent interaction between students, professionals, and faculty. This complexity view of HE organizations is an alternative to structured bureaucratic systems defined by professional and academic silos. Scholars of complexity theory have proposed a CAS is a fundamental unit within an organization. I align with other HE scholars in the belief that CASs are present within HE and are appropriate to understand HE systems (Bento, 2011; Lohmann, 2006; Martin, n.d.). In the conceptual framework, I return to the concept of CASs and its utility to understand the context in which HELs working on problems with wicked tendencies operate.

Discussion on the New Science

The new science and complexity theory serves as a filter through which to focus the organizational and leadership theory to that which is most relevant. Moreover, scholarship and theorizing on organizations and leadership rooted in complexity and the new science serve as roadmaps in the development of this research. In the literature review, I revisit CAS to frame relationships in HE organizations for this research. The literature review also explores leadership

theories based on new science and complexity theory to understand how leadership addresses problems in complex organizations.

Although the new science and complexity theory helped guide the exploration of leadership, a more specific understanding of what leadership is as a phenomenon was necessary for this research. In the next section, I present the direction, alignment, commitment (DAC) ontology of leadership (Drath et al., 2008) and discuss how it aligned with the previous elements of my theoretical framework as participatory and complex. Similar to the participatory paradigm, complexity, and the new science, the DAC ontology limited the leadership theory and research in this review to that which shared a philosophical understanding of leadership as a process and the work of individuals.

The DAC Ontology of Leadership

According to Drath et al. (2008), the dominant ontology of leadership has been a tripod of three core elements: leader, follower(s), and their shared goals. By framing this as an ontology, Drath et al. has situated this tripod as how leadership is understood to exist as a reality in practice and scholarship. Drath et al. argued this understanding of leadership fails to be useful when the relationship and authority between leader and followers become unclear and dispersed. Unclear and dispersed authority reflects the nature of relationships in organizations as understood through the new science and complexity theory, in which relationships are dynamic and interdependent. As Chapter 1 described, leaders cannot address wicked problems through top-down, command and control, problem solving. In contrast to top-down leadership, Drath et al. proposed an alternative ontology, or reality, in which leadership emerges from a collective of individuals as they work together in the context of their organizations and develop three specific shared outcomes—direction, alignment, and commitment.

According to Drath et al. (2008) in the DAC ontology, direction is “a shared sense of understanding of what is aimed at and broad agreement on the value of that aim” (p. 647); alignment is “the organization and coordination of knowledge and work of the collective” (p. 638); and commitment “the willingness of members of a collective to subsume their own interests and benefits within the collective’s interests and benefits” (p. 636). In this ontology, “leadership theory would then seek to explain how people who share work in collectives produce direction, alignment, and commitment” (Drath et al., 2008, p. 636). Leadership as a process that emerges among collectives aligns with how leadership and change are understood to emerge in CASs (Marion, 2008; Uhl-Bien et al., 2007) and how scholars propose that wicked problems are addressed (Head, 2019; Heifetz & Laurie, 1997). Although the DAC ontology diminishes leadership hierarchy and authority in favor of collectives as the source of leadership, it does not deny the existence of hierarchy and authority in organizational leadership processes and context (Drath et al., 2008).

Later in this chapter, I discuss multiple leadership theories aligned with the DAC ontology and account for leadership in a hierarchy. In addition to aligning with various leadership theories, the DAC ontology has philosophical congruence with the ontology of the participatory paradigm as leadership is intersubjective, and the epistemology is based on experience and practical outcomes, as discussed next.

The DAC ontology has a robust, pragmatic focus on the leadership process and the effect or outcome it results in among collectives and individuals. Drath et al. (2008) argued through the lens of pragmatism, one can only conceive of leadership by conceiving the outcomes of leadership in one’s life. Participation in the process of leadership is necessary to understand leadership. This participatory necessity of the DAC ontology aligns with how the participatory

paradigm views individuals develop, evidence, and understand knowledge. Additionally, the DAC ontology establishes that the context in which collectives operate is fundamental in producing leadership outcomes of direction, alignment, and commitment. The recognition context influences leadership in collectives (Drath et al., 2008) demonstrates congruence with complexity concepts and the new science.

The DAC ontology is not a leadership theory; instead, it is a philosophical reorientation to understand leadership as a process between people that results in outcomes of direction, alignment, and commitment within organizations. Although using the term ontology helps rethink the reality of leadership, the theory also leans into some aspects of knowledge generation that can create confusion with philosophical understandings of epistemology. For this research, the DAC ontology of leadership focused attention on leadership theory with philosophical understandings of leadership as a collective process with practical outcomes as opposed to theory built on the dominant tripod of leader–follower shared goals. In the literature review, I explore leadership theory aligned with the DAC ontology for its utility in addressing wicked problems in complex systems. Given the dominance of the tripod ontology in leadership theory, I also explore the theory that does not align with the DAC ontology when it acutely aligns with wicked problems in organizations. My fundamental stance in the participatory paradigm allows me to hold a preference for the DAC ontology and still appreciate the knowledge other paradigms provide.

Summary of Theoretical Framework

This theoretical framework drew together three commensurate philosophical worldviews. The participatory paradigm served as my research’s dominant epistemology and ontology and necessitated that knowledge and the development of knowledge are pursued and demonstrated

through the human experience with reality. Together, the new science and complexity theory provided an additional lens to understand organizations as places of dynamic, interdependent networks of people that influence and who are influenced by systems and structures. Complexity theory, specifically the concept of CASs, established the context that HELs work within to address problems with wicked tendencies as a place of hierarchy and structure in which dynamic and interdependent relationships exist across the structure. Although the study of complexity has its methodologies and methods, I am not pursuing a research project rooted in complexity sciences. Instead, complexity theory informs organizational context and the dynamic nature of leadership. Finally, the DAC ontology of leadership challenges the dominant understanding of leadership and offers an alternative ontology congruent with the other components of this framework and the leadership needed to address wicked problems.

Together the philosophical perspectives of this framework established overlapping lenses to explore my research question. The framework also allowed me to narrow the body of literature reviewed and shed light on my research question through these theoretical lenses. In the following sections, I explore scholarship relevant to my research question. In large part, researchers have not explored the leadership needed to address wicked problems in the complex context of HE systems. As a result, I drew on a multidisciplinary collection of research to inform my research question.

Review of Literature

As previously addressed, research that explores leadership to address problems with wicked tendencies in complex HE organizations is extremely limited. Each conceptual component of the relationship—problems with wicked tendencies, complex HE organizations, and leadership—adds a limiting factor to the existing scholarship. As a result, this literature

review explores each concept individually, first by presenting the concepts and the relevant scholarly discussion and then by exploring how scholars of HE scholars have engaged with the concepts. Because the research from HE on this topic was so limited, I began my exploration of each concept with scholarship that emanated from other fields. As I explored the HE literature that engaged with the topic, I also included research from international settings where these topics have gained additional traction. Through this literature review, I developed a conceptual framework that guided this research project. I conclude each section by visually representing my conceptual framework to emphasize the scholarship explored and the relationship between problems, context, and leadership.

Problems With Wicked Tendencies

The concept of wicked problems, first proposed by Rittel and Webber (1973), drew a distinction, and described differences between problems of society like crime, income inequality, and education, from those that exist in areas of science and engineering. Rittel and Webber described 10 differences between social problems they named wicked and those of science, business, engineering, and other areas they named tame.

In summary, Rittel and Webber (1973) theorized wicked problems resist a clear definition; how they are understood is inextricably linked to how potential solutions are understood. Wicked problems are always unique because of the context they exist in, and elements of the problem are never identical. Wicked problems are often symptoms of other problems and there are no immediate or ultimate tests to determine if the problems are solved. Because of these attributes of wicked problems, leaders should evaluate solutions as good or bad rather than true or false. Moreover, because problems exist in context, there is no way to test a solution before implementation. All attempted solutions will have consequences, some of which

are unknowable, that impact the problem and the context. Implementations of potential solutions create feedback loops that further prevent problems from being tested. Additionally, there is no way to come up with an exhaustive list of potential solutions because how a problem is understood impacts the potential solutions, resulting in infinite possibilities. Finally, because wicked problems are social problems, problem solvers have little room for error. According to Rittel and Webber (1973), “planners are liable for the consequences of the action they generate; the effects can matter a great deal to those people that are touched by those actions” (p. 167). These attributes of wicked problems contrast with the qualities of tame problems.

Tame problems, according to Rittel and Webber (1973), are the opposite of wicked problems. Tame problems are not assumed to be easy to address, but in contrast to wicked problems, they can be understood, defined, and tested to determine if a solution exists. Rittel and Webber also argued tame problems have a definitive list of attributes that eliminate their uniqueness. Moreover, although attempted solutions to wicked problems create new impacts, solutions to tame problems can be implemented without creating ripple effects that change the problem and its context.

Rittel and Webber’s (1973) articulation of wicked problems is a seminal concept in understanding problems in dynamic social systems; however, their work had a greater purpose than distinguishing between problem types. According to Head (2019), “Their 1973 article was primarily directed at critiquing and problematizing the rational planning approaches of their era” (p. 182). The articulation of wicked and tame problems reoriented how scholars and practitioners thought about social problems, similar to Wheatley’s (2006) effort to reorient thought about leadership and organizations through the new science. The two concepts resisted positivist understandings of the world and challenges present in complex and dynamic social systems.

After nearly 5 decades, Rittel and Webber's (1973) concept of wicked and tame problems remains relevant in modern scholarship. Other scholars have introduced similar concepts that inform dialogue on leadership and problem solving. Additionally, scholars have evolved the concept of wicked and tame problems since its introduction. The following section presents complementary concepts to wicked and tame problems, the erosion of the wicked–tame binary, and how modern scholars understand wickedness as a continuum rather than a static, either-or distinction.

Complimentary Problem Frames

Scholars have offered varied descriptions of problems that reflect Rittel and Webber's (1973) wicked–tame problem framework. The following concepts complement the original frame and add to how problems with wicked tendencies or the processes to address them are understood. In the next section, I explore adaptive and technical challenges (Heifetz, 1994) and ordered change (Bartunek & Moch, 1987; Kezar, 2018) for the ways they expand and challenge the original model of wicked and tame problems.

Adaptive and Technical Challenges. Perhaps the most similar articulation of problems is from Heifetz (1994), who framed adaptive challenges in distinction to technical problems. According to Heifetz (1994), adaptive challenges and their solutions are subjectively understood, difficult to define, and “require not only an assessment of reality but also the clarification of values” (p. 31). Whereas technical challenges and their solutions are objectively understood, existing knowledge and value structures provide enough information to understand them. Heifetz argued because we live in a diverse society with varied and conflicting values, we inevitably have varied and conflicting understandings of adaptive challenges and potential solutions. The scholar proposed broad engagement in organizations was necessary to clarify and reshape values

and inform how problems are understood and addressed. Heifetz proposed a form of organizational learning must be engaged to clarify, redefine, and expand knowledge and values. Because technical challenges do not possess value discrepancies, or demand new knowledge, in the ways that adaptive challenges do, they do not require the same organizational learning (Heifetz, 1994). In contrast to the wicked/tame model, technical challenges are understood to exist within adaptive challenges and are critical to identify and address technical challenges (Heifetz, 1994; Heifetz & Laurie, 1997).

The frames of wicked/tame problems and adaptive/technical share strong similarities even though they use unique language (Head & Alford, 2015), and Heifetz's model builds on Rittel and Webber's (1973) earlier work. Each model creates a binary between problems that can be clearly defined and solved with existing knowledge and those where the problem and the solution influence one another so that they can only be subjectively defined and addressed. Heifetz's (1994) work is additive to the wicked/tame model and challenges it in three important ways. First, it added an increased focus on the importance of values within an organization to the process of defining problems. The values of an organization are meaningful to HE because the organizational context is understood to hold different and competing cultures (Bergquist & Pawlak, 2008), and apparent gaps exist between values and reality concerning equity and justice (Stewart, 2018). Second, Heifetz believed that adaptive challenges could and should be solved and offered a specific form of leadership to address adaptive challenges. Later in this chapter, I return to Heifetz's adaptive leadership model to explore how it contributes to the literature on leadership to address problems with wicked tendencies. Third, it challenged the binary in the wicked/tame model and recognized that adaptive and technical challenges can coexist within the

same challenge. In the next section, I explore the organizational change model of ordered change.

First-, Second-, and Third-Order Change. The concept of ordered change emerged from organizational psychology and development and focused on how organizations shift and change rather than on the attributes or differences of problems. Returning to Rittel and Webber's (1973) description of problems as "discrepancies between the state of affairs as it is and the state of affairs as it ought to be" (p. 165), change is the work on problems needed for an organization to achieve "what ought to be." First-order changes can occur without requiring new knowledge or value shifts; they "are incremental modifications that make sense within an established framework or method of operating" (Bartunek & Moch, 1987, p. 484). First-order change that does not require value shifts or new knowledge reflects the change needed to solve tame problems or technical challenges. At least one scholar has argued first-order changes are the most common type of change that HELs experience (Kezar, 2018). However, Kezar (2018) recognized value discrepancies and knowledge gaps can exist within change efforts that appear to be first order; failing to account for them can result in failed change.

Second-order change necessitates new ways of thinking, value shifts, and different operating modes (Bartunek & Moch, 1987; Kezar, 2018). Second-order change reflects the change organizations must undergo to address problems with wicked tendencies. Similar to the adaptive-technical challenge model and in contrast to Rittel and Webber's (1973) wicked-tame problems model, first- and second-order change can co-occur. However, unique to the order-change model, the processes that result in change may be unintentional or forced and may or may not involve the broad participation of members in value clarification and knowledge development (Bartunek & Moch, 1987; Kezar, 2018).

According to Bartunek and Moch (1987), upper management and organizational leadership can take top-down action to shift the values and operating norms that lead to second-order change. Top-down shifts may require members of an organization to accept value shifts and operational changes but not engage them in the process of developing new values and knowledge (Bartunek & Moch, 1987). Because of this, the processes of second-order change may or may not align with processes that address wicked problems. However, third-order change requires a metalevel shift that “aims to help members of an organization develop the capacity to identify and change their own schemata as they see fit” (Bartunek & Moch, 1987, p. 487). Third-order change necessitates the broad engagement of organizational members to identify, define, propose, and pursue change and reflects how members participate in efforts to address problems with wicked tendencies.

Although ordered change focuses on the process and types of organizational change, it is germane to my research for multiple reasons. First, ordered change shares similarities to the wicked/tame model of problems and has a significant presence in the literature on organizational development and leadership theory. Second, the processes of change that lead to what ought to challenge the binary that Rittel and Webber (1973) established between tame and wicked problems. Third, ordered change served as the theoretical foundation of Stewart’s (2018) call for transformational changes toward equity and justice in HE. According to Stewart’s argument, HELs have pursued first-order changes and failed to address the values and beliefs perpetuating inequity and injustice in HE. The need to address value discrepancies and foster new knowledge and operating practices that reflect second- and third-order change aligns with leaders’ challenges to address wicked problems. In the next section, I review the evolution of the scholarship on wicked problems.

Evolution of Problems With Wicked Tendencies

Since the introduction of wicked problems, scholars have explored what it takes to address them and evolved the original concept. A core critique of the original scholarship is the totalizing of a wicked problem or “regarding the problem as intractable masses of complexity, so conflict prone and/or knotty that they defy definition and solution” (Alford & Head, 2017, p. 339). According to Alford and Head (2017), by totalizing a wicked problem, scholars and practitioners must pursue impossibly comprehensive explorations of problems and identify solutions that transform systems. Although Rittel and Webber (1973) proposed wicked problems as impossible to define and solve, other scholars have argued this impossibility is why new theorizing is necessary (Daviter, 2017).

The scholarship has yet to settle on the attributes of wicked problems (Head, 2019). However, scholars have agreed the concept has evolved from a strict binary to an understanding of social problems on a spectrum or continuum of wickedness in which attributes exist to varying degrees (Alford & Head, 2017; Daviter, 2017; Head, 2019; Head & Alford, 2015, 2015; Newman & Head, 2017). Moreover, there is an understanding that wickedness and tameness exist within the same problem. Newman and Head (2017) analyzed the policy growth and public debate on three modern wicked problems: climate change, genetically modified foods, and hydraulic oil fracking. Through the analysis, the scholars conclude that “wickedness is not a separate and distinct category of policy problems, but rather an inherent tendency in all policy problems, the policy problems faced by decision makers are social in nature and therefore possess wicked tendencies” (Newman & Head, 2017, p. 424). Newman and Head also argued wicked and tame problems coexist, drawing the scholarship on wicked problems in line with adaptive challenges and ordered change.

The evolution of wickedness has surfaced five common attributes of wicked problems: (a) the complex nature of the problem environment, (b) the reality that different groups share responsibility for problems, (c) the intractable relationship between defining the problem and the solution, (d) the role of value differentiation among stakeholders, and (e) an agreement that leaders do not solve problems, instead they address, alleviate, or improve them. The following subsection explores three models of wickedness that scholars have offered that evolve the understanding of wicked problems.

Head and Alford (2015) proposed a three-dimensional concept of wickedness that fluctuates in severity across each dimension. They proposed wickedness reflects the presence of complexity, diversity of opinion and values among stakeholders, and uncertainty of solutions as influenced by the previous two dimensions. Head and Alford's new model of wickedness situates wicked problems as part of dynamic and complex systems present in Wheatley's (2006) new science. Head and Alford (2015) also argued the variability of wickedness in problems, when analyzed through these dimensions, makes it "possible to frame partial, provisional courses of action against wicked problems" (p. 712). Daviter (2017) assumed a similar position on the importance of a model of wickedness that allows problem solvers to progress on problems and proposes analytical and administrative wickedness as a lens to view problems. In Daviter's frame, analytical problems involve causal complexity and interdependence between problems complicated by scale, scope, and shared knowledge or values. Administrative problems are shared by multiple sectors or communities, they exist across both vertical and horizontal administrative systems, and must align with other areas of policy and practice (Daviter, 2017). These two frames add additional means by which problem solvers analyze and understand

wicked problems beyond the original binary. However, they fail to create a typology for problems with wicked tendencies that supports a more specific analysis.

Alford and Head (2017) evolved their original three-dimension framework of wickedness and offered a two-level typology of wickedness. The first level of the typology attempts to identify and draw distinctions between problems based on two attributes, (a) how well the problem and solution can be defined, and (b) how complex the stakeholder environment is and how much value/interest discrepancy exists among stakeholders (Alford & Head, 2017). These attributes create a matrix of nine types of problems where tame problems and solutions can be defined, and the environment they exist within is not complex. Whereas wicked problems and solutions are unclear and cannot be defined, and the environment they exist in is complex with high variance in values among stakeholders.

To capture the nuance of wicked problems that are not present in the matrix, Alford and Head (2017) offered a second level to the typology that includes six conditions of wickedness:

1. structural complexity between technical and social aspects of the problem,
2. the knowability of the problem and solution,
3. if and how knowledge is fragmented among stakeholders,
4. knowledge framing distorts understanding,
5. the presence of interest and value differentiation among stakeholders, and
6. the presence of dysfunctional power distributions among stakeholders.

According to Alford and Head, the wickedness of the problem increases as more conditions are present in the problem and organizational context. The typology and conditions of wickedness offered by Alford and Head (2017) provided those involved in addressing problems a means to explore the problem, the context, stakeholders, and power dynamics in wicked problems.

However, they did not test the typology, and it is unclear if the descriptions of problems in the matrix accurately reflect problems in practice.

Discussion of Problems With Wicked Tendencies

Since its introduction, scholars have evolved Rittel and Webber's (1973) original concept of wicked and tame problems. The theorizing has provided insights into the nuance of the wickedness of problems in organizations, eroded the binary and allowed for the coexistence of wicked and tame problems, and sought to bolster the ability to understand research problem wickedness (Alford & Head, 2017; Daviter, 2017; Head, 2019; Head & Alford, 2015; Newman & Head, 2017). These scholars also agreed how people understand wicked problems is intertwined with how they understand potential solutions and that groups must develop new knowledge and beliefs to advance solutions. There is also agreement that wickedness increases or decreases based on the complexity of the problem environment and the level of agreement between stakeholders who share responsibility for the problem. Although not empirically tested, Alford and Head's (2017) two-level typology offers a foundation to explore how wicked problems are understood and exist in practice based on various influencing factors.

Although the theorizing on wickedness is both coalescing and gaining nuance, it is limited in that it does not appear to be informed by the perspectives of those impacted by wicked problems. The scholars offering these theories have largely relied on informal theorizing or case study analysis that employs an academic viewpoint. The advancement of this scholarship by academics who appear to be connected further limits the human perspectives that inform the topic. Even though scholars created the wicked problems model with problems of inequity and injustice in mind, there is no evidence that they developed the theory in partnership with marginalized populations.

Through a participatory lens, this creates a gap where the knowers whom the problems impact are not involved in creating theory or generating solutions. This gap is especially prevalent in U.S. HE where scholars have not used the concept to inform how problems or solutions are understood. Stewart's (2018) critique using ordered change helps make a case for different types of problems and simultaneously demonstrates that solutions rather than problems are the focus of HE scholarship. As I argued in Chapter 1, it is critical to understand problems to advance solutions. Although the research has been limited, the following section reviews the literature on wicked problems and HE in international settings and informal theorizing from U.S.-based HE scholars. This scholarship helped to address the gap and establish an initial foundation for wicked problems in HE.

Wickedness and Higher Education Research

A small body of informal theorizing and empirical research helps demonstrate the utility of the wicked problem framework and HE. Beer and Lawson (2018) conducted a quantitative analysis to identify student attrition and retention as a strategic priority of public HE in Australia. The scholars used wicked problems to frame student attrition and argued institutions failed to achieve improvements because they did not understand the problem as wicked. Although the research made informal connections between attrition and wickedness, it did not explore the wicked attributes of the problem or empirically connect failures to the nature of the problem.

Similarly, Krause (2012) argued through informal theorizing that the quality of Australian public HE is a wicked problem partly because the public-good mission has inherent conflicts of interest and purpose. The scholar identified that quality constitutes research, teaching and learning, and contributions to the public and private sectors. Additionally, Krause (2012) named that quality as an issue becomes more wicked because “a broad range of stakeholder

groups engage in the quality conversation in higher education at various times and for diverse reasons” (Krause, 2012, p. 287). Krause argued because quality in public HE cannot be defined, has multiple causalities, is socially complex, and resists resolution, it is a wicked problem. This description of the problem of quality reflects a continuum understanding of wickedness that Alford and Head (2017) later proposed. In addition to arguments regarding attrition and quality, HE researches have proposed that professional HE programs fail to prepare students to address wicked problems after they graduate and begin work.

Bore and Wright (2009) advocated for the wicked problems model to advance an understanding of the challenges K–12 teachers face in the United Kingdom and the formal training teachers receive in HE. The scholars argued teachers could not address wicked problems because their professional education did not prepare them to address wickedness. Bore and Wright made two additional connections that support the relationship between wicked problems, leadership, and complex organizations, which is my research’s focus. They proposed HE programs prepare teachers to understand the teaching environment as CAS and the importance of developing transdisciplinary perspectives to address wicked problems in complex environments.

Although the theorizing by Beer and Lawson (2018), Krause (2012), and Bore and Wright (2009) made compelling arguments to connect HE and wicked problems, their scholarship failed to provide evidence through empirical research. The following studies advanced the discussion of wickedness in HE through empirical research and support the need for additional exploration of the topic for midlevel HELs.

Camp (2017) used comparative case study methods to explore the process four senior student affairs officers (SSAOs) used to make decisions regarding issues that complicated the retention of Black males, LGBTQ, and students with mental health complications. Camp applied

the wicked problems framework to retention challenges that SSAOs face but did not explore how SSAOs understood the uniqueness of a wicked problem or the attributes and conditions of wickedness. Although this limits the applicability of this study, Camp found SSAOs made decisions in complex environments, engaged multiple stakeholders, and used multiple lenses to explore and understand their problems. Additionally, one SSAO in the study pointed out how their project to help students with mental health needs failed because they did not consider the wickedness of the problem. This realization provides evidence for the coexistence of wicked and tame problems within retention issues. Camp also recognized their findings reflected the positional power and perspectives unique to SSAOs and recommended additional research with HELs at various professional levels. Although the implicit exploration of wickedness limits Camp's study, their findings align with research and theorizing on wicked problems and surface the need for additional investigation with those with different positional power.

Research regarding problems with wicked tendencies has also explored how HE academic programs can better develop students to address wicked problems in practical settings (Veltman et al., 2019, 2021). Although focused on college students, the findings of this research may be transferable to capacity development in other adult learners, such as midlevel leaders in HE. The two research projects by Veltman et al. (2019, 2021) used multiple-case study methodology and explored how higher professional education programs in multiple European countries can prepare college students to address problems with wicked tendencies. The earlier study explored this topic through the additional lens of boundary crossing, whereas the latter focused on transdisciplinary engagement. According to Veltman et al. (2019), "Despite the growing number of interventions in higher professional education for addressing wicked problems the concept itself has hardly been the subject of educational research" (p. 136).

Although each study was conducted in a unique environment and employed different conceptual frameworks to approach the research question, they resulted in similar findings that inform how midlevel leaders may also develop capacity.

The cases in Veltman et al. (2019) were sourced from HE programs across three countries and resulted in eight principles for faculty and program developers to follow to develop programs that promote learning among students to address wicked problems through boundary crossing. Of the eight principles, I argue the following five are transferable to the experience of HELs who work to address wicked problems: (a) the need to understand the wicked tendencies of complexity, uncertainty, and value divergence between stakeholders, (b) framing solutions to problems as open ended both in possibility and the likelihood of a single solution, (c) the problems must be collaborative across boundaries and involve multiple stakeholders, (d) the experience of boundary crossing and the critical role of brokers who help to translate, access information and resources, and facilitate reflection, and (e) the need for someone to monitor and manage the tension created when seeking to address wicked problems so that the tension is constructive rather than destructive to the process (Veltman et al., 2019).

Veltman et al. (2021) conducted the second study at one University of applied sciences in the Netherlands. It resulted in four recommendations for faculty and curriculum developers, which aligned with the principles Veltman et al. identified. The study recommended the need to (a) understand the wicked tendencies of problems students face, (b) create a transdisciplinary problem-solving process, (c) ensure the process and solutions are aligned, integral, and shared across stakeholders, and (d) have faculty monitor and moderate the tension that develops when trying to solve with wicked tendencies so that it can be constructive rather than destructive.

(Veltman et al., 2021). The findings and recommendations of these two studies are strongly aligned.

Through the principles and recommendations, both studies offered findings that reflected how wicked problems are understood and advance strategies to address them through purposeful learning environments. Each study (Veltman et al., 2019, 2021) found it critical for learners to understand the wicked tendencies within a problem and that multiple stakeholders are involved and share responsibility for wicked problems. These findings reflected conditions or attributes of wicked problems that scholars of wickedness have identified. The findings also emphasized that faculty play an essential role in moderating tension to ensure it is constructive rather than destructive to learning and problem-solving efforts. This finding was new to the discussion on wickedness in this review, but it did reflect the theorizing on adaptive leadership to address adaptive challenges (Heifetz & Laurie, 1997). Later in this chapter, I return to adaptive leadership and other leadership theories that inform how to address problems with wicked tendencies.

Returning to Veltman et al.'s (2019, 2021) findings, each study resulted in recommendations that reflected the study's conceptual framework, and both have relevance to my research. Veltman et al. (2019) offered that boundary crossing is needed to address wicked problems and that brokers play an essential role in negotiating across boundaries. Brokering and boundary spanning are identified as meaningful leadership functions to address wicked problems, and I return to the concepts as part of a discussion of leadership theory later in this chapter. Building on their scholarship that called for boundary crossing, Veltman et al. (2021) found a transdisciplinary perspective is necessary to address problems with wicked tendencies "because of their complexity, uncertainty and the involvement of stakeholders with diverging

views” (p. 560). The scholars called for educators to ready students to leverage multiple academic disciplines’ varied values and operating norms when faced with wicked problems. This finding supported Bore and Wright’s (2009) proposal that a transdisciplinary approach is needed to address wickedness in education. Additionally, Veltman et al. (2021) argued transdisciplinary work to address wicked problems must be collaborative, participatory, and based on real-world problems. This additional assertion demonstrated the role that human experience plays in the process of knowledge and competence development to address wicked problems and helps justify participatory strategies to develop this ability.

Summary on Wicked Problems in Higher Education. A limited amount of scholarship has demonstrated how wicked problems and HE are connected. Scholars have argued quality, retention, and student success outcomes are wicked problems and that the HE environment and the shared nature of problems contribute to their wickedness (Beer & Lawson, 2018; Bore & Wright, 2009; Camp, 2017; Krause, 2012). Research and theorizing on wicked problems outside of HE has begun to coalesce around an understanding that wickedness exists on a spectrum and that wicked and tame problems coexist. Alford and Head (2017) offered a two-level typology of wickedness that recognizes the relationship between problem and solution clarity, the influence of varied stakeholders and how they view the problem and solution, and how values, complexity, and power all shape wickedness. Scholars (Veltman et al., 2019, 2021) have also argued HE plays a critical role in developing the ability of graduates to address wicked problems in their professional and community settings. Veltman et al.’s (2019, 2021) research contributed two points to my research. First, it is possible to create learning environments that develop the capacity of learners to understand problem wickedness, work across stakeholders, broker across boundaries, moderate tension, and apply transdisciplinary lenses. Second, learning to address

wicked problems can occur in real-world participatory experiences. The two points supported the pursuit of a participatory research project to explore and develop leadership to address wicked problems among midlevel professions.

The scholarship on wicked problems served as the first component of the conceptual framework of my research. Opposed to the original binary of wicked and tame problems, I embraced a continuum understanding of wickedness in which wicked and tame problems can coexist to varying degrees. Although scholars have not settled on a definition of wickedness, Alford and Head's (2017) typology provided a foundation for exploring the concept. Figure 1 serves as a visual representation of the conceptual framework for this research project and highlights wicked problems as the first component of the conceptual framework. The visual representation draws attention to the interrelated nature of wickedness with the other components of this framework.

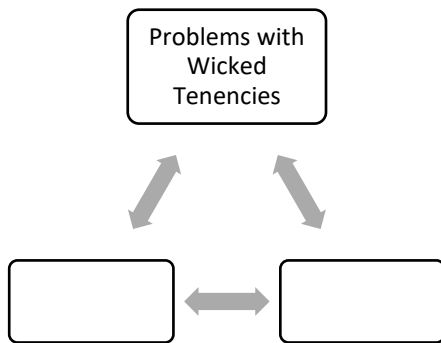


Figure 1. Visualization of conceptual framework, part 1 of 3.

My exploration of wicked problems has surfaced that a relationship exists between complex organizational settings and leadership. Before exploring the literature on leadership to

address wicked problems, it is first necessary to understand organizations as complex adaptive systems and how problems exist in the contexts of public HE.

Organizations as Complex Adaptive Systems

The scholarship on problems with wicked tendencies reviewed in the last section established that problems increase in wickedness as the inability to define them increases, as the complexity of the context they exist within increases, as multiple stakeholders share responsibility for the problem across boundaries, and as stakeholders' values diversify and complicate how problems and solutions are understood and formed. Attributes of wickedness reflect the organizational environment's influence on understanding and addressing wicked problems.

Increasingly, organizational environments, including those in HE, are understood to exhibit both a command and control structure and informal, dynamic interactions that result in unexpected relationships and developments (Love & Estanek, 2004; Mandviwalla & Schuff, 2014; Wheatley, 2006). Mandviwalla and Schuff (2014) spoke to the unique organizational reality of HE; "faculty report to deans, but they are also independent actors who teach, research, and act based on their interests and in relation to their academic discipline and network – the invisible college" (p. 3). Mandiwalla and Schuff named the *invisible college* as the formal and informal structures in HE. HE organizations' informal and formal structures are essential to understanding and addressing wicked problems. In the theoretical framework of this dissertation, I proposed that complex adaptive systems (CASs) provide a model to understand the dynamic and informal relationships in HE organizations. In the following review of literature, I explore how theory of CASs contributes to our understanding of informal structures in HE and do so in a way that also accounts for, or allows for, the simultaneous existence of formal organizing

structures. Like wicked problems, the scholarship on CASs in HE has been limited so I first explored theory and research that emanated from outside of HE and then turned attention to the scholarship focused on the academic environment.

Complex Adaptive Systems

To understand CASs, it is necessary to understand the characteristics of complex dynamics and how those who study complexity approach the scholarship. Marion (2008) described the work of complexity scholars as “the study of the dynamic behaviors of complexly interacting, interdependent, and adaptive agents under conditions of internal and external pressure” (p. 3). According to Marion (2008), scholars are interested in complex dynamics in systems that demonstrate three co-occurring characteristics of interaction, dynamics, and adaptation. First, interaction is understood to occur between individual agents who are interdependent. Second, these systems are dynamic and experience constant shifts with new ideas, relationships, values, and attributes emerging constantly. However, change and emergence may be minimal, and systems maintain a degree of consistency to them. Marion (2008) compared this state of dynamic change to how a seashore is reliably in the same place but looks different year to year based on the influence of the water on the sand and rock. Finally, systems, and the agents within systems, adapt at the individual and system levels in response to internal and external pressure to maintain their existence. These characteristics of complex dynamics (Marion, 2008) lay the foundation for understanding CASs and how CASs are understood to behave in organizations.

According to (Uhl-Bien et al., 2007), CASs in organizations are:

Networks of interacting, interdependent agents who are bonded in cooperative dynamics by a common goal . . . [they] are changeable structures with multiple overlapping

hierarchies, and like the individuals that comprise them, CAS are linked with one another in dynamic, interactive networks. (p. 299)

The individual agent is a fundamental building block within CAS; they are semi-autonomous and make meaning of their environment through interaction with other independent agents and the organization(s) they exist within (Arena & Uhl-Bien, 2016; Dooley, 1997; Marion, 2008; Uhl-Bien et al., 2007). These scholars also identify the relationship between multiple independent agents and the organizational context as one of interdependence where each influences the other in ways that create mutual impact and shape behavior, values, and norms within CASs, as previously described by Marion's (2008) notion of interaction.

CASs in organizations are also understood to adapt and evolve through a process of emergence whereby sudden and unpredictable solutions or changes emerge as a result of need or pressure; the solutions or new understanding which emerge are recognized to be irreversible in that they have a lasting effect on the agents and the organization (Dooley, 1997; Marion, 2008; Uhl-Bien & Arena, 2017). Disruptions in equilibrium within the system, value or worldview disagreements, and organizational challenges or problems are all pressures that force CASs to adjust and respond (Dooley, 1997; Uhl-Bien & Arena, 2017). Individual agents play a vital role in the process of emergence by bonding together to form larger CASs around shared interests, ideas, and preferences; CAS also bond to form networks of CASs, similar to how independent agents bond to form a CAS (Marion, 2008). In addition to the emergence of new solutions and understandings because of stress, emergence can be accelerated by solutions that relieve pressure and reduce stress on the system (Marion, 2008). The process, and results, of emergence are known by scholars to be uncontrollable and unpredictable. According to Dooley (1997) “[it’s] impossible to predict ahead of time what might happen; the quickest way to predict the future of

a CAS is to let it evolve and see what happens” (p. 85). Given the ways that change in CASs is unpredictable and uncontrollable, and the bonding of independent agents, as well as CASs, is recognized to be autonomous and self-organizing, the question then becomes how can CASs exist and be beneficial within hierarchical organizations?

Although Wheatley (2004) did not present the concept of CASs as a model for understanding organizations, they did advocate for the potential of organizations that are adaptive and flexible in response to disequilibrium to generate novel solutions while remaining consistent with who and what they are. However, practices of adaptability and flexibility may not be congruent with strategies for consistency within hierarchical organizations. The need for CASs to be autonomous, self-organizing, and adaptive conflicts with our current organizations because “our structures no matter how flat or circular, do have hierarchy and hierarchical leaders” (Uhl-Bien & Arena, 2017, p. 10). Scholars have offered a model that explains how CASs can exist and contribute to wicked problems within existing organizational structures to address this conflict.

Between 2007 and 2015, Arena and Uhl-Bien (2016) explored how 30 complex organizations addressed adaptive challenges, as described by Heifetz (1994). As previously established, adaptive challenges are synonymous with wicked problems making this study highly informative on the relationship between wicked problems and organizations. Among their research findings is that organizations that can address adaptive challenges facilitate an informal space that links to dominant systems within the hierarchical structure of these organizations (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017). They named the two systems the operational and entrepreneurial systems. The informal space between them is the adaptive space, which plays a critical role in emergence (Arena & Uhl-Bien, 2016). These scholars describe the

operational system as the “formal, bureaucratic organizational structures that push for order, standardization, alignment, and control. They are responsible for productivity, efficiency, and results” (Uhl-Bien & Arena, 2017, p. 11). In contrast, the entrepreneurial systems “occur in the informal structures and systems that push for change, new opportunities, different operating procedures, new products, and services. They are responsible for innovation, learning, and growth” (Uhl-Bien & Arena, 2017, p. 10). Thus, organizations that can address adaptive challenges have an adaptive space that forms in the tension between the entrepreneurial and operational systems.

Adaptive space is not a stand-alone system. Instead, the “contexts and conditions that enable networked interactions to foster the generation and linking up of novel ideas, innovation, and learning in systems” (Uhl-Bien & Arena, 2017, p. 12). The adaptive space, which works between the hierarchical structure of an organization, “open[s] up information flows and engage[s] the dynamics of complexity and network structures to enable [the] emergence of novelty and innovation needed to adapt” (Uhl-Bien & Arena, 2017, p. 12). Additionally, adaptive space requires diverse ideas, ideological differences, experiences, and viewpoints to foster the tension and stress necessary to facilitate emergent ideas, new understandings, and novel solutions (Uhl-Bien & Arena, 2017). Thus, adaptive space is evidence of the existence and influence of CASs within hierarchical and structured organizations.

Finally, Uhl-Bien and Arena (2017) identified the critical process of brokerage that connects the formal systems and the adaptive space within an organization. Brokerage occurs when individuals act as brokers to connect people, information, and resources so that new ideas and emerging solutions take root and expand within an organization. Brokers often play a critical function in getting ideas from the entrepreneurial system adopted and scaled by the

organizational system (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017). The concepts of brokering within CASs reflect brokers' role in boundary crossing needed to solve wicked problems, as Veltman et al. (2019) described. Later in this chapter, I return to the role of brokers within a CAS and explore the unique position of midlevel leaders to broker within and across CASs.

Scholars who study CASs within organizations have recognized them as self-organizing, adaptive networks of individual agents who work together toward shared interests and purposes. In response to pressure and tension, CASs produce novel and unpredictable solutions to problems through a process known as emergence. Research on organizations that can address adaptive challenges, synonymous with wicked problems, shows that CASs and complex dynamics play a crucial role in problem solving (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017). Moreover, the research established that CASs can and do exist within the bureaucratic structure of hierarchical organizations and that brokers play a crucial role in unlocking their potential to address wicked problems. In the next section, I explore how the concept of CASs and complex dynamics have been explored and theorized within HE administration organizations.

Complex Adaptive Systems and Higher Education

Research empirically exploring the presence and influence of CASs in HE has been seemingly nonexistent. However, multiple scholars in the United States and abroad have informally theorized on the presence of CASs in HE administration and the utility the concept offers to understand HE organizations. In the following section, I explored the informal theory and end with an exploration of how CAS aligned with other ways of understanding HE administrative systems.

Wheatley (2006) argued organizations are built on an outdated Newtonian, mechanistic, paradigm that sought to create a rational structure where each piece of an organization had a specific function, and all parts of the organization could be organized and controlled for the desired result. Love and Estanek (2004) applied this argument to HE and student affairs to explain that expertise was brought to bear on increasingly complex challenges by dividing organizations and creating professional silos as specific functional disciplines developed. Bore and Wright (2009) expanded on the influence of silos in academic organizations and argue that academic norms, epistemologies, professional language, and practice in HE organizations all limit the ability of faculty and staff to work across boundaries and leverage transdisciplinary approaches. As part of an American Council of Education Fellowship, Murray (2017) observed over 30 institutions and found senior leaders often failed to address complex problems because they tried to manage challenges through hierarchical structure rather than engaging collaborative networks within their institutions. According to Murray (2017), understanding the organization as a CAS would require leaders to undergo “a shift of control from a central guiding intelligence to the collective possibility of the network” (p. 516). Although existing silos and current leadership behavior may limit interaction, multiple scholars have identified CASs as an appropriate model to understand the interdependence that individual agents have with one another and postulate that CAS could offer creative and unexpected solutions to wicked problems (Bento, 2011; Bore & Wright, 2009; Murray, 2017).

Mandviwalla and Schuff (2014) proposed CAS could develop more interactive and dynamic learning environments from the discipline of HE information technology. The scholars advocated for learning environments that use technology and allow faculty, staff, students, alumni, employers, and campus partners to cocreate the learning experience. Mandviwalla and

Schuff aligned with other scholars who identify administrators and faculty as part of campus CAS, but they are the only scholars in this review to recognize that students play a critical role in campus administrative environments. This identification is a reminder of the multiple stakeholders that influence campuses and contribute to problem solving.

Although students are affiliated with departments and exist within a formal structure, “they are not static entities, and actively and frequently choose and change these affiliations based on convenience, friends and family, finances, and changing preferences. They navigate, conform, bend and adapt to the rules and structures as independent agents” (Mandviwalla & Schuff, 2014, p. 4548). Explicit in this description of how students behave is a recognition that forces external to the campus create pressure and enable complex dynamics that influence education environments. Implicit in the statement is that as pressure influences students, it will result in several effects on the campus environment, including enrollment behaviors, student activism, and demand for career outcomes. Students’ role in HE environments and influence on university systems supports the argument that CAS is a model for understanding universities.

Mandviwalla and Schuff (2014) also argued the administrative structure of HE is not alone capable of the outcomes of the “U.S. higher education system that continues to churn out Nobel laureates, new ideas, innovations, and new businesses” (p. 4548). This argument aligned with other scholars who recognize that the complex outcomes of HE are a result of complex, interdependent, dynamic systems that transcend disciplines and boundaries to deliver results that are greater than the sum of individual parts (Lohmann, 2006; Love & Estanek, 2004; Veltman et al., 2019, 2021).

Through a historical and systems analysis, Lohmann (2006) argued universities should be understood as CASs because of how they evolved, currently exist, and the complex outcomes

they deliver. According to Lohmann, universities are self-organized, complex organizations rather than intentionally constructed systems with component parts that leaders can assemble and disassemble at will. Through the lens of history, Lohmann pointed to faculty governance, the expansion and contraction of the university in response to public need and pressure, and the complex structures that allow for independent colleges within universities as evidence of the behavior of CASs in action. Bento (2011) similarly argued the modern academic departmental structure in research universities are CASs and acknowledged that forces and factors external to universities also influence their behavior. Through a systems theory lens, Lohmann argued the functions of research, teaching, service, academic professionalism, and contributions to local and global economies result in an outcome that is more than the sum of its parts. This argument reflects an understanding of CASs as an interdependent system that leaders cannot deconstruct and reconstruct to produce similar results (Marion, 2008; Uhl-Bien et al., 2007). Lohmann's argument is also unique in that it situated research universities as CAS because of the dynamics that formed them and the complex outcomes they deliver. Their framing of universities as CASs built on other theory of CASs that focused on structure and function.

Morrison (2010) also recognized the potential for complexity theory and CASs to understand education systems but cautioned the application without further analysis. Core to Morrison's concerns is the unpredictable nature of emergence, how emergence as a solution may abdicate leaders of their responsibility for outcomes, and what they perceive as the lack of consideration for ethics and values within the theory. Morrison also questioned if CASs can achieve their potential for change in organizations because they require humans to operate in high levels of disequilibrium, which may go against human nature to seek stability.

Although Morrison's concerns are valid and deserve additional exploration, they primarily focus on the effectiveness and efficiency offered by complexity theory and CASs and reflect thinking aligned with a command control notion of hierarchy and bureaucracy. For this dissertation, my interest in CASs is to consider HE organizations through a lens of self-organizing and interdependence as the context in which wicked problems exist. I also question Morrison's perceived lack of values and ethics within complex systems theory because value disagreements among people are understood to be one of many pressures that create disequilibrium and facilitate emergence (Arena & Uhl-Bien, 2016; Marion, 2008). However, the theory of CASs does not prescribe a preferred value or ethical orientation. Instead, the values of individual agents shape the organization, which could be problematic. For example, Cabrera (2019) described how Whiteness reflects dominant American values that have and continue to marginalize non-White individuals in HE. When the values of Whiteness perpetuate within CASs in HE, the theory of complexity does little to push against these norms. Instead, it relies on conflict to facilitate disequilibrium and prompt emergence that would challenge White norms. Recent calls to decolonize institutions (la paperson, 2017) and the movement for racial justice (Ahmad, 2020) may be examples of destabilizing forces that require reconciling values within CASs in HE. The lack of value orientation in CASs theory stands in contrast to scholarship that has shaped the equity and justice movement in HE and stressed the need to recognize and actively work against the systemic presence of racism and racist norms (Crenshaw et al., 1995; Harris, 1993; Ladson-Billings, 1998; Yosso, 2005).

Previously explored notions of HE organizations can also shed light on the presence of CASs within institutions. Again, complexity science has found when independent adaptive agents interact, they can and often do come to share preferences and world views even across

boundaries (Marion, 2008; Marion & Uhl-Bien, 2001; Uhl-Bien & Arena, 2017). Bergquist and Pawlak (2008) reflected a commensurate understanding that faculty and staff from similar cultures form connections across academic disciplines and administrative hierarchies around shared interests and objectives. Staff and faculty affiliation by culture reflects how networked interdependent individuals self-organize across hierarchies around common interests within CASs. Bergquist and Pawlak (2008) also spoke about how affiliated groups partner within and across cultures to leverage and amplify their shared interests. CASs as individual entities are similarly understood to form interdependent bonds that work toward shared purposes (Bento, 2011; Bore & Wright, 2009; Lohmann, 2006). However, where Bergquist and Pawlak described HE cultures with consistent characteristics, CASs emphasizes the dynamic processes and relationships that form at any time for any shared purpose.

Just as CASs exist within an institution, they also span institutions and influence HE from the outside. According to HE scholars, the norms, traditions, and preferences of an academic discipline or professional association significantly influence the direction of HE (Kezar, 2018; Toma, 2012). Academic disciplines and professional associations should be understood as CASs because they operate autonomously, align around shared interests, and influence norms and behaviors within and across HE institutions. Mandviwalla and Schuff (2014) named the influence of academic disciplines on the structure, norms, and behavior within the academy as the invisible college. However, academic disciplines and professional associations are not the only external forces influencing HE institutions. Toma (2012) used the concept of isomorphic change to explain how and why institutions will shift to become more like peer and nonpeer institutions in pursuit of prestige. The influence of these collegial forces on higher education institutions reflects the behavior of CASs on an organizational level.

Summary of CAS and CAS in Higher Education

The research and theorizing on CAS within organizations establish them as spaces of interaction and interdependence where conflict and pressure lead to solutions to problems through dynamic processes that may address wicked problems. Scholars have argued CASs are a means to understand the outcomes of HE organizations that the formal hierarchical system of command and control is insufficient to produce. Scholars have also contextualized CASs within HE to explain the interdependencies between faculty, staff, students, and external stakeholders. CASs provides a nuanced means to understand and describe the informal structures that reflect networked relationships and boundary spanning within hierarchical and siloed institutions. Furthermore, at least one scholar has raised concern that the theory on CASs lacks a value orientation that may diminish its relevance as an explanatory theory within HE. However, the theorizing of CASs in organizations stresses that value disagreement plays a critical role in the process of emergence within CASs. Moreover, it does not exclude other theories that shape the values and paradigms within HE organizations.

Although limited, the research on CASs in HE helps establish the university organizational context as a space of formal hierarchy and informal interdependent dynamic systems within which wicked problems exist. The research on wicked problems and CAS has emphasized that the complexity of organizations, including HE organizations, contributes to problem wickedness. The visualization in Figure 2 builds on Figure 1 and adds complex organizational systems and CASs to this research's conceptual framework.

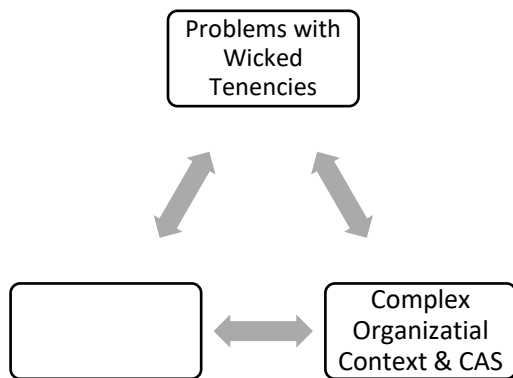


Figure 2. Visualization of conceptual framework, part 2 of 3.

This review’s final area of exploration is how leadership to address wicked problems is understood to occur in complex systems with formal structure and informal, dynamic relationships. The following section explores leadership theory to address wicked problems in complex systems within Drath et al.’s (2008) DAC leadership ontology outlined in the theoretical framework.

Leadership to Address Wicked Problems in Complex Organizations

This review established that the organizational context HELs operate is complex and that wicked problems are more challenging because of complex organizations’ dynamic and interdependent nature. Although most leadership literature has not accounted for the interrelated nature of complex organizations, wicked problems, and leadership, a body leadership theory has emerged in recent years to inform how HELs address wicked problems. The following review explores leadership theory from multiple paradigms that surface concepts for relevance to my research question: How do a small group of midlevel higher education leaders (HELs) practice leadership to address wicked problems in the complex organizational context of public research universities?

Returning to the discussion of midlevel leaders from Chapter 1, this group of HELs is understood to hold a unique position within an institution that results in high levels of responsibility but minimal authority. As such, they must lead collaboratively, work across hierarchical boundaries, and leverage influence rather than authority to accomplish objectives (Branson et al., 2016; Pepper & Giles, 2015). According to Kezar et al. (2006), a revolution has emerged in the exploration and development of leadership theory that now understands it to be a context-bound process focused on mutual power and influence, collectives, and collaboration, and seeks to promote learning, empowerment, and change. The theories and research explored in this review are part of the revolution in leadership theory, are aligned with the DAC ontology, and inform the work of midlevel HELs. The included theories also span a boundary in relational leadership theory of an entity focus of leadership, which is attentive to the role of the individual, and a constructionist focus that conceptualizes leadership as a process (Ospina & Uhl-Bien, 2012). This discussion does not include theories of leadership that are solely entity focused and those that do not integrate complex contexts or wicked problems.

Because there is an immense amount of leadership theory, it is essential to distinguish between the formal theory based on empirical research and informal theory not based on research but still influences popular culture and scholarly debate (Dugan, 2017). Kezar (2006) recognized the benefit of informal theory for the concepts that it contributes to the development of empirical theory, which “offer[s] complex explanations for why and how a phenomenon (for example, leadership) occurs” (p. 5). Through my review of leadership theory, I explored formal and informal theory from multiple paradigms to understand leadership to address wicked problems in complex organizations. I did not accept that a single leadership theory could provide the guidance needed to address wicked problems in complex organizations.

The purpose of this review of leadership theory was not to propose one leadership model to address wicked problems in CASs but to expose and explore them in a relationship with the other two concepts. This research assumed an understanding of leadership as a social, recursive, dialogic, and reflective practice that people engage in rather than a set of traits, behaviors, or attributes that individuals display (Raelin, 2016). The notion of leadership as practice evokes the Freire concept of social justice praxis by which people in collectives engage, reflect, make meaning, and take transformative action (Freire, 1993). A practice stance on leadership also accepts that all members of an organization or community can engage in leadership, that learning and development can and will occur through practice and reflection, and that leadership is a dynamic rather than static or linear process (Drath et al., 2008; Freire, 1993; Love & Estanek, 2004; Raelin, 2016). Although a practice stance of leadership may evoke Freire's concept of praxis, it does not necessitate a focus on social justice. However, because I am interested in addressing wicked problems that include inequity and injustice, it is critical to interrogate theory for how it contributes to equity and justice outcomes.

Wickedness and Leadership in Public Management

As part of their theorizing on problem wickedness, Head and Alford (2015) were critical of public policymakers' and managers' hierarchical and structured approaches to addressing problems. They assert that policymakers and public managers should pursue collaboration and identify complexity-informed leadership strategies to address wicked problems. However, they did not conduct empirical research to inform their assertions. According to Head and Alford, collaboration is critical to address wicked problems because it increases the likelihood that stakeholders develop a shared understanding of problems and agree upon potential solutions. The scholars propose adaptive leadership (Heifetz, 1994) as a strategy to intentionally engage those

with shared responsibility for the wicked problem in the problem-solving process. However, Head and Alford recognized that leadership and collaborative strategies are insufficient to address wicked problems. They proposed that systemic changes to organizations are necessary to make them more responsive to the challenges that wicked problems present. In the next section I will return to adaptive leadership theory but first it is important to explore the recommendation for systemic changes in organizations and how it supports the pursuit of organizational changes to address equity and justice.

Head and Alford (2015) offered four systemic changes to enhance responsiveness, collaboration, and the power of adaptive leadership by reconstructing organizations to decrease silos and prevent niche expertise. According to Head and Alford, two changes are necessary to support their vision of work environments. First, organization leaders must reimagine funding structures that promote adaptability and collaboration. Second, the evaluated and measured outcomes need to shift to account for iterative and ongoing work to address wicked problems in practice. Finally, Head and Alford encouraged changes within human resources to develop staff knowledge, skills, and experiences that support success in addressing wicked problems in complex organizations.

The organizational changes that Head and Alford (2015) proposed aimed to improve the ability of organizations to be more effective at addressing problems with wicked tendencies. These strategies could be applied to any number of wicked problems but are particularly meaningful to this research when applied to recommendations for justice in HE. Gonzales et al. (2018) advocated for HELs to pursue labor, intersectional, reparative, and epistemic justice. HELs who seek to advance justice could leverage the recommendations of Head and Alford and Gonzalez et al. in at least three ways. First, they could center intersectionality (Crenshaw, 1989)

and impact those who experience multiple forms of marginalization to develop strategies and engage parties who share responsibility for intersectional marginalization. Second, they could establish funding and evaluation strategies to advance equitable outcomes of labor and reparative justice that move beyond strategies of equality (Barone & Mora, 2023). Lastly, they could hire and develop a workforce who operate from a critical epistemological position and possess the appropriate experience and skills to further equity and justice in practice. These concepts offer an equity and justice-informed strategy to reimagine and reorganize organizational systems to address wicked problems through shared problem solving, resource allocation, and shifts in epistemological norms. Although changes to the systems and structures of organizations may support solutions to wicked problems, the connection between systems changes and leadership is underexplored in the scholarship.

In the following section, I explore select theories for their contributions to understanding the leadership process and the role of leaders who work in complex settings. Because this scholarship has largely failed to interrogate the wickedness of inequity and injustice, I continue to interrogate theory through this lens.

Adaptive Leadership

Adaptive leadership (Heifetz, 1994; Heifetz & Laurie, 1997) is among the most prevalent leadership theories that aims to improve the ability of individual leaders to influence groups of people to solve wicked problems. Heifetz and Laurie (1997) encouraged leaders, focusing on those in for-profit organizations, to take six approaches to meet adaptive challenges. Adaptive leaders must (a) get on the balcony to gain perspective on the problem and context, (b) identify the adaptive challenge, (c) regulate stress and distress, (d) maintain focus on the adaptive challenge, (e) distribute responsibility for problem solving throughout the organization and seek

solutions from those not considered experts, and (f) protect ideas from below. It is important to recognize that adaptive leadership is an informal theory, and little empirical research has explored the proposed leadership concepts (Dugan, 2017). Although, as an informal theory, adaptive leadership makes a few key contributions to my exploration of leadership to address wicked problems in complex organizations.

A strength of the theory is its acute focus on leadership to address problems with wicked tendencies. As previously discussed, the theory used the concepts of adaptive and technical challenges that this review has established are synonymous with Rittel and Webber's (1973) wicked and tame problems. Additionally, Heifetz and Laurie (1997) situated leadership to address wicked problems in a command and control structure while engaging individuals throughout an organization to contribute to the development of solutions. Dugan (2017) recognized that this aspect of adaptive leadership was disruptive to previous dialogues on leadership because it shifted the focus to those without positional authority and their impact on problem solving. Stress regulation as a function of adaptive leadership has since been supported by research on how to develop the ability to address wicked problems in students (Veltman et al., 2019, 2021). Finally, multiple scholars who explored wicked problems and how to address them in complex organizations have used the theory as part of their framework.

Adaptive leadership shows alignment with the scholarship of equity and justice but also perpetuates traditional notions of leadership that may not sufficiently address inequity and marginalization. A positive of adaptive leadership is that it positions knowledge generation as something that happens within the collective membership of the organization. The distribution of authority and engagement of members across organizational boundaries as knowledge producers align with strategies Gonzales et al. (2018) and Stewart (2018) called for to disrupt power and

oppression in organizations. However, both Gonzales et al. (2018) and Stewart (2018) explicitly call for those with marginalized identities to be part of decentralizing knowledge. Heifetz and Laurie (1997) did not call for leaders to engage those from marginalized communities, but they did call for leaders to protect the voices of those with dissenting viewpoints. This reflected Stewart's call for leaders to protect minoritized populations and to reject the traditional norms in favor of addressing issues of inequity and injustice. Again, although there is potential alignment between theories, adaptive leadership was not developed, and has not been empirically explored, for its ability to inform leadership toward equity and justice in complex organizations.

Adaptive leadership has additional limitations for its application in HE. It has not gained the same level of interest within HE as in the for-profit environment. Although the theory does push against the dominant tripod of leadership by expanding the contributions of others, it has a greater focus on the entity than the constructionist view of leadership (Ospina & Uhl-Bien, 2012). The six concepts of adaptive leadership (Heifetz & Laurie, 1997), which center the actions and approaches of a single leader in a position of power, serve as evidence of the entity focus of adaptive leadership. This leader-centric position falls short of the distributed and collective leadership framed by the DAC ontology (Drath et al., 2008) and as well as those who advocate for leadership as a practice that all members of an organization engage in (Freire, 1993; Love & Estanek, 2004; Raelin, 2016). Even though adaptive leadership focuses on wicked problems, it lacks empirical research, continues to perpetuate positional leadership as a dominant force, and does not explicitly support pursuits of equity or justice.

Complexity and Leadership

Leadership theory based on complexity has sought to advance a view of leadership as a process that occurs in CASs between individual agents and within the context of an organization.

Rather than the attributes or behaviors of individual leaders, “complexity’s focus for leadership is literally the ‘space between’ individuals” (Lichtenstein & Plowman, 2009, p. 618). Scholarship on complexity and leadership has emerged and matured over the last two decades; however, it has yet to establish a standard set of principles, lexicon, or methodological foundation and reflects a body of scholarship still in development (Rosenhead et al., 2019). This section explores two contributions to the literature on complexity and leadership, complexity leadership theory (Arena & Uhl-Bien, 2016; Uhl-Bien et al., 2007; Uhl-Bien & Arena, 2017) and Lichtenstein and Plowman’s (2009) leadership of emergence. These formal theories were selected because they hold significance within the body of scholarship on complexity leadership (Rosenhead et al., 2019) and are focused on leadership in CAS to address wicked problems. In the conclusion of the section, I integrate the HE scholarship and informal theorizing related to complexity and leadership.

Arena and Uhl-Bien (2016) framed the primary research interest of complexity leadership theory (CLT) as “How in the context of bureaucratic organizing structures, can organizational leaders enable emergence of new solutions and innovation needed to survive and thrive in today’s complex world?” (p. 23). The scholarship on CLT emerged from mix-methods, multiyear research of 30 organizations identified for their ability to address adaptive challenges (Arena & Uhl-Bien, 2016; Uhl-Bien et al., 2007; Uhl-Bien & Arena, 2017). This research also established the presence of the formal operational and entrepreneurial systems and the role of adaptive space as a source of emergence within organizations discussed early in this chapter.

CLT scholars argued, when faced with wicked problems, “the natural proclivity of people and organizations is to respond with order – to turn to hierarchical approaches of leading and managing change top-down” (Uhl-Bien & Arena, 2017, p. 10). Uhl-Bien and Arena (2017)

recognized this response provides a sense of control, fits within the training and operating norms of managers with expertise in command-and-control organizations, and meets the needs of most members of an organization when faced with uncertainty. In contrast to this natural proclivity, their research identified that organizations that can address wicked problems do so by activating an adaptive response and enabling the emergence of novel solutions through the adaptive space that brings a new order within networked systems (Uhl-Bien & Arena, 2017). Through this process, “networked agents are able to resonate around a new approach, alternative way of thinking, or adaptive solution that meets the needs of a complex challenge” (Uhl-Bien & Arena, 2017, p. 11). The scholarship also identifies cohesion and brokering as two key attributes that occur in and across CAS, contributing to the emergence of solutions to wicked problems.

Cohesion among the network of agents within a CAS supports idea sharing and builds trust among agents. Trust increases the ability of the CAS to generate, adapt, iterate on, and expand the impact of a novel solution (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017). According to these scholars, brokering is an action of individuals to connect ideas, people, and information across CAS to spark innovation and increase the impact of new ideas. Brokering in CLT is synonymous with brokering and boundary spanning in CAS (Veltman et al., 2019) but situates this action as a leadership function. Those who engage in brokering are called *brokers*.

Brokers are understood to play a critical role in bridging the operational and entrepreneurial systems and catalyzing the ability of the adaptive space to emerge solutions to wicked problems (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017). Brokers hold varying degrees of positional or relational authority and have three advantages in organizations: (a) broader access to diverse information, (b) early access to new information, and (c) influence over the diffusion of information (Uhl-Bien & Arena, 2017).

Cohesion and brokering activate and catalyze the emergence of new solutions within CAS by leveraging complexity dynamics of conflict, tension, diversity of perspective, and linking up (Uhl-Bien & Arena, 2017). Although complexity dynamics are not the concern of this research, the function of brokering informs how midlevel HELs may work across boundaries and bridge the formal and informal administrative systems. Additionally, cohesion represents alignment among stakeholders in understanding a problem and the values they may share (Alford & Head, 2017). Cohesion also reflects how Drath et al. (2008) described leadership to build direction, alignment, and commitment.

The development of cohesion and the ability to broker across the adaptive space and throughout the operational and entrepreneurial systems are critical components of CLT. Leaders in adaptive organizations seek to maximize the role of each part of the system and actively work to enable adaptive space to “capitalize on the tension created between the entrepreneurial and operational system” (Uhl-Bien & Arena, 2017, p. 12). Uhl-Bien and Arena (2017) recognized although enabling adaptive space is a function of leadership across adaptive organizations, different leadership roles exist in the operational and entrepreneurial systems and the adaptive space. They identify that operational and entrepreneurial leadership are well-established in the leadership literature (Uhl-Bien & Arena, 2017). However, Uhl-Bien and Arena (2017) proposed that enabling leadership is a novel and unnamed form of leadership in the adaptive space. According to the scholars, enabling leadership works to manage tension, build connections, broker across systems, elevate the innovation that occurs in the entrepreneurial system, and prepare them to be adopted and scaled through an organization by the operational system (Uhl-Bien et al., 2007; Uhl-Bien & Arena, 2017). Uhl-Bien and Arena (2017) have identified five principles and six practices of enabling leadership that address how enabling leaders span

hierarchical structures, work among CAS, and foster solutions that address problems with wicked tendencies.

Principles and practices of enabling leadership straddle the entity-constructionist boundary by framing leadership as a process occurring among groups and the work of individual leaders to enable adaptive space (Ospina & Uhl-Bien, 2012). From a research standpoint, this understanding of leadership allows for research that would explore both the shared process of leadership in complex settings and how an individual understands and engages in that process. The research also identified that enabling leaders operate from tacit rather than explicit knowledge (Uhl-Bien & Arena, 2017). The novel introduction of enabling leadership and the recognition that enabling leadership is practiced from tacit knowledge creates a research opportunity that aligns with the work of midlevel leaders in HE.

Although a novel contribution to leadership theory, enabling leadership shares similarities with the leadership of emergence, which Lichtenstein and Plowman (2009) proposed. Leadership of emergence results from an analysis of empirical studies on the role of emergence in addressing adaptive challenges in one faith-based service organization, three for-profit technology start-up companies, and the theater collective of Branson, Missouri (Lichtenstein & Plowman, 2009). Their research aimed “to explore leadership in context and to gain insights on how to catalyze and enhance the creation of new order in a wide variety of organizations” (Lichtenstein & Plowman, 2009, p. 618).

Lichtenstein and Plowman (2009) found “the leadership of emergence is multifaceted, iterative, and deeply connected to each members’ perceptions of the situation at hand” (p. 626). The research identified four conditions of emergence; disequilibrium state, amplifying actions, recombination/self-organization, and stabilizing feedback (Lichtenstein & Plowman, 2009). For

each condition of emergence, leaders displayed different practices, which the scholars grouped into four themes. In the disequilibrium state, leaders disrupted existing patterns by embracing uncertainty and surfacing conflict. When amplifying actions, leaders encouraged novelty by allowing experiments, facilitating rich interactions in relational space, and supporting collective work. When recombining, leaders facilitated sensemaking and sense giving by creating correlations through language and symbols, connecting resources in new ways, or enhancing existing resources. Lastly, leaders provided feedback and integrated local constraints that reflected the new order to stabilize the change that had emerged. These local constraints served to solidify the new order, which minimized additional adaptation and ensured the collective effort of the theater community was maintained.

The research also identified that leadership of emergence is not the work of a single leader but rather “emerges throughout an organization as influence, novelty, and outcomes” (Lichtenstein & Plowman, 2009, p. 618). This articulation of leadership reflects an understanding of how novel solutions emerge through and among CAS. It also helps establish that the organization’s context is critical to how problems are understood, and that leadership occurs. The findings that Lichtenstein and Plowman’s (2009) research produced regarding the role of individuals within systems reflects an intentional decision to research individual leadership and the meso-organizational context as a relationship. This approach strongly aligned with my interest in researching how individuals understand and practice leadership in the context of larger organizational systems. The leadership behaviors that leadership of emergence offers share similarities to CLT’s enabling leadership practices and help establish a foundation of leadership practices that individuals use in the process of leadership with others.

The leadership of emergence behaviors (Lichtenstein & Plowman, 2009) and CLT's enabling leadership practices and principles (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017) stress the importance for leaders and groups to embrace tension and uncertainty, to leverage connections and interactions during periods of tension and conflict to spark new ideas and thinking, to use sensemaking through stories and symbols to increase collective understanding and to find ways to bring stability and closure to the process of emergence and change. Each theory also balances the entity and constructionist perspectives of leadership (Ospina & Uhl-Bien, 2012). Finally, both understand that organizations have formal and informal structures where CASs play a critical role, and each leverage previously discussed concepts of adaptive challenges and leadership (Heifetz, 1994; Heifetz & Laurie, 1997).

Lichtenstein and Plowman (2009) emphasized the outcome of emergence is uncontrollable and that leaders and organizations that seek to foster emergence must accept a high degree of ambiguity. This finding stands in contrast to the outcomes of enabling leadership. Although Uhl-Bein and Arena (2017) recognized that CAS facilitate unpredictable and novel solutions, their positioning of enabling leadership in the context of the entrepreneurial and operational systems implies a degree of control. Even with this distinction, these two theories provide multiple complementary insights into leadership and the role of emergence in addressing wicked problems in the context of complex organizational settings. Theories of leadership based on complexity have gained some, albeit minimal, attention in the theorizing and empirical research of HE leadership. In the next section, I explore the limited scholarship.

Complexity and Leadership in Higher Education. The adoption of complexity into the research and lexicon of HE has not gained the traction it has in other fields. Nearly 2 decades ago, scholars attempted to connect complexity theory and the new science (Wheatley, 2006) with

the practice of leadership in HE organizations (Kezar et al., 2006; Love & Estanek, 2004). Love and Estanek (2004) challenged scholars and practitioners to reframe the foundational understandings of how leadership occurred in the context of relationships, siloed HE organizations, and hierarchical management. They argued while the command and control style of leadership embodied in managerial culture (Bergquist & Pawlak, 2008) dominated HE administration, there was “evidence that the university is increasingly postmodern, and nonrational, intuitive, and multiperspectival meaning-making systems are gaining favor” (Love & Estanek, 2004, p. 10). Leadership, according to Love and Estanek (2004), is a process of “individually generated relationships and actions among members throughout an organization focused on struggling together to influence and promote organizational learning and accomplish positive changes to benefit the common good” (p. 38). Kezar et al. (2006) supported the role of individual and organizational learning as a contributor to leadership and encouraged a broader understanding of collectives working toward shared interests. Through the lens these scholars proposed, leadership in HE would embody the duality of the entity and constructionist perspectives of leadership (Ospina & Uhl-Bien, 2012) and elements of complexity leadership theories (Arena & Uhl-Bien, 2016; Lichtenstein & Plowman, 2009; Uhl-Bien & Arena, 2017).

In their informal theory of pervasive leadership, Love and Estanek (2004) proposed a conceptual schema of four elements to inform HELs through the explicit lens of complexity and the new science. They offered that leadership should (a) value the dualisms rather than try to simplify them, (b) to pursue and embrace transcending paradigms rather than root individual and collective thinking in a single paradigm, (c) to recognize and foster connectedness among people and systems, and (d) to embrace paradox as they are inevitable and catalyze critical reflection and action. However, in recent scholarship, Murray (2017) recognized that when faced with

complex contexts and challenges, HELs continue to “elect simplicity over complexity” (p. 514). Recently, Murray (2017) renewed the call for complexity-informed leadership practice in HE that “privileges the power of networks . . . allows inefficiency in favor of inclusivity [and] embraces, in short, a distributed model of leadership over a centralized one” (p. 514). Although these scholars have called for a complexity-informed leadership ethos, there may be good reasons that the scholarship is limited.

Kezar et al. (2006) proposed that complexity did not gain traction because, as “organizations with ambiguous goals and purpose, diffused power, and decentralized systems” (p. 111), complexity has always existed and is not novel to HELs. This view of complexity as woven into the fabric of HE is what Lohman (2006) argued for through their historical analysis of universities as CAS. Perhaps complexity as a worldview and operational norm is so interwoven into HE that it has created an invisible lens and led to a tacit understanding of complexity-informed leadership.

Kezar et al. (2006) also identified that complexity and chaos are challenging to study in HE through traditional, functionalist research because they would seek to understand and predict the impact of leadership on the individual and the various levels within an organization simultaneously. Rosenhead et al. (2019) leveled a broad critique of complexity leadership research that aligned with and advanced Kezar and colleagues’ argument. According to Rosenhead et al. (2019), scholars have intentionally resisted researching complexity and leadership through the methodology that formed the foundation of complexity science in the natural sciences. Although experimental and correlation-based research on leadership in complex systems may be difficult, and scholars may have resisted, it may also be unnecessary. Kezar et al. (2006) and Rosenhead et al. (2019) separately proposed that qualitative forms of research may be

best suited to expose, explore, and vividly describe the relationship between complexity and leadership.

The resistance to change, or the need to control change, by HELs, may serve as an additional factor that informs why they have not adopted complexity leadership in research or practice. Though not pursued through the lens of complexity, research on grassroots leadership in HE (Kezar, 2012; Kezar & Lester, 2011) revealed that HELs in positional power often resist or manipulate change from lower system levels. Desired changes and new ideas that emerge from the grassroots of college campuses then go through a convergence process by which grassroots leaders attempt to scope and scale their ideas, programs, and solutions through top-level administrative leaders (Kezar, 2012; Kezar & Lester, 2011). This concept of convergence in HE shares some similarities with the process of brokering in complexity theory (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017; Veltman et al., 2019). However, brokering benefits the utility and adoption of the new idea or solution. In comparison, the convergence process is filled with negative conflict and leads to outcomes that are often detrimental to the interests of grassroots leaders. Differences in structure and operating norms between organizational leaders that enable an adaptive response and leadership in HE that maintains hierarchical command and control structures may account for the differential outcomes of brokering and convergence, respectively (Kezar, 2012; Kezar & Lester, 2011; Murray, 2017).

Although scholars have advocated for HE to embrace complexity to inform leadership, it is clear the theorizing and practice have not done so. When faced with wicked problems, HELs still favor responses rooted in structure and hierarchy. Nevertheless, there is some evidence that complexity permeates the system of HE. Scholars who have advocated for complexity-informed leadership stress that dialogical thinking among individuals and learning throughout an

organization is critical to the process. The resistance to and manipulation of ideas and solutions from grassroots leaders may serve as an additional point of evidence that HE leadership is not yet able to enable adaptive responses to wicked problems.

Discussion on Complexity and Leadership. The scholarship reviewed in this exploration of leadership and complexity depicted a critical relationship between leadership, context, and the need to address problems with wicked tendencies. It shed light on leadership as a process through which novel ideas, knowledge, and solutions develop within complex organizations. CLT offers an understanding of leadership that occurs in organizations with formal and informal structures. The theory also offers a new concept of enabling leadership which is understood to happen in a temporal adaptive space that spans organizational boundaries and connects the formal systems within an organization. Enabling leaders are known to practice through tacit knowledge, including how they broker ideas, information, and resources across organizations (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017).

HE scholars have proposed leadership in HE should be understood and researched through the lens of complexity. However, the research agenda and the practice of leaders show little evidence that complexity is gaining support among top-level HELs. Scholars internal and external to HE stressed the importance of learning and sensemaking in the process and practice of complexity leadership and the work to address wicked challenges. Through individual meaning-making and organizational learning, it may be possible to surface the tacit knowledge and practice of complexity in HE leadership that scholars have claimed exists. This reflective practice may also provide an opportunity to make explicit the implicit knowledge that supports enabling leadership and the process of brokering in CLT. Engaging a group of midlevel leaders

to reflect on and explore ideas of complexity and enabling leadership within the context of their organizations while they work to address wicked problems motivates this research.

Although the potential to connect leadership and complexity in HE creates a research opportunity, it is critical to name that the formal and informal theorizing explored in this review has largely abdicated any responsibility to advance equity and justice through theory. However, there are potential alignments between the complexity leadership theory and equity and justice theory that merit exploration.

Similar to adaptive leadership, complexity leadership theories advance a shared and distributed understanding of leadership that is called for by Gonzales et al. (2018). Because the complexity view of leadership believes that all members of an organization should practice leadership, it also loosely aligned with Stewart's (2018) and Ahmad's (2020) calls to broadly engage marginalized populations in the solutions needed to address inequity and injustice. In contrast to adaptive leadership, which maintains power in adaptive leaders, CLT proposed redistribution of purpose, authority, and importance among the entrepreneurial system and adaptive space and the function of the operational system. The three forms of leadership described by CLT could inform how leaders in HE's operational system should reframe their work with leaders in the entrepreneurial system and adaptive space as partnerships. The importance of dialectical thinking to understand one's leadership in the context of larger systems invokes the notion of praxis as a means for individuals to advance social justice within dominant structures (Freire, 1993). As with adaptive leadership, although there are potential connections to explore, the lack of attention to equity and justice in complexity-informed leadership leaves a chasm in the scholarship that informs my research project.

Social Change Leadership and Social Change Organizations

In this review, I have argued that leadership theory accounting for complex contexts and the need to address wicked problems lacks a focus on the pursuit of equity and justice. In reality, the cannon of leadership theorizing and empirical research has broadly failed to center the need for equity and justice outcomes and account for the complexity of social structures that perpetuate inequity (Dugan, 2017; Museus et al., n.d.). In this section, I explore an empirically researched theory of leadership and leadership in social change organizations rooted in the pursuit of equity and justice. I am especially interested in the unique contributions and ways it supports or diverges from previously discussed leadership theories.

The theory of social change leadership (SCL; Ospina & Foldy, 2010, 2005; Ospina et al., 2012) resulted from multiyear, multimodal qualitative research on leadership within and across organizations with a core purpose of facilitating social change. According to Ospina and Foldy (2005), SCL emerges from social constructionist understandings of leadership as “shared or collective rather than inherent in one or more visible individuals or dyadic relationships between leaders and followers” (p. 2). From an ontological level SCL quickly aligned with DAC understanding of the source of leadership and resists the tripod ontology. Leadership in social change organizations is grounded in values of inclusion, equity, democracy, and social justice; as such, they embrace a belief that everyone has leadership potential (Ospina & Foldy, 2010, 2005; Ospina et al., 2012). SCL recognizes that a leader’s role is fluid; an individual may serve as a leader at a point in time and serve another role at another point in time while others step into lead. The concept of grounded humanism forms an SCL worldview that shapes two leadership drivers; the need for systemic change toward equity and the importance of having visions for the future to achieve that end (Ospina & Foldy, 2005; Ospina et al., 2012). An additional set of

assumptions within SCL that value equity, inclusion, and social justice inform how social change leaders understand themselves, others, and the concept of power. These guiding assumptions, the world view of grounded humanism, and underlying leadership drivers shape leadership as both a process and a practice by individuals within social change organizations (Ospina & Foldy, 2005; Ospina et al., 2012).

SCL also has an outcome orientation of leadership to further equity and justice that links “the importance of both beliefs and behaviors—worldview and action—and the interaction between them as fundamental to leadership” (Ospina & Foldy, 2005, p. 2). SCL enacts the shared worldview through multiple approaches, including community organizing, policy advocacy, community development, direct service provision, and capacities development within individuals and across agencies (Ospina & Foldy, 2005; Ospina et al., 2012).

Based on the research used to form SCL, Ospina and Foldy (2010) also revealed how social change organizations (SCO) collaborate to achieve shared interests while still working independently toward their own goals. In SCO, the connection process is a leadership function known as *bridging* (Ospina & Foldy, 2010). The notion that leadership is also an interorganizational process aligns with the idea that multiple CAS will connect to accomplish shared interests or when mutually beneficial (Uhl-Bien & Arena, 2017). The behavior of a collective of theaters in Branson, Missouri, that Lichtenstein and Plowman (2009) used to support their theory on the leadership of emergence may reflect the behavior of SCO as CAS. However, it is necessary to recognize that the theaters were not seeking social change.

The connection between SCO could be relevant to HE administration, where siloed administrative units and academic departments work together across organizational boundaries. Leadership in SCO is further relevant because a core motivation for collaboration is to address

problems one organization cannot solve independently (Imperial et al., 2016; Ospina & Foldy, 2010). In so much as individuals play an important role in bridging organizations and bringing them together, the concept shares similarities with brokering within and across CAS (Uhl-Bien & Arena, 2017; Veltman et al., 2019) and may inform the behavior of cultures (Bergquist & Pawlak, 2008) within HE institutions.

The conceptualization of SCL (Ospina & Foldy, 2005; Ospina et al., 2012) and SCO, as informed by SLC (Ospina & Foldy, 2010), aligned significantly with my research interests. Core among them is that it advances an empirically researched theory of leadership that centers equity and justice. The theories of SCL and SCO situate the need to address inequity and injustice as the central purpose of leadership and foreground equity, inclusion, and social justice as values that shape grounded humanism's worldview and operating norm. The worldview, values, and processes that support the pursuit of equity and justice are also explicitly understood by members of the organization, which contrasts how enabling leadership is understood. Additionally, the ways SCO partner to address shared interests reflects the behavior of CASs. This presents a potential to understand and inform partnerships across administrative and academic units within a HE organization, as well as across HE institutions and professional associations that have not been previously addressed in leadership theory. Critically, the leadership approaches and knowledge of SCL and SCO center equity and social justice where adaptive leadership and complexity leadership theories do not.

Although the theory that supports SCL and SCO has not yet gained traction in leadership theory and research, its choice to center equity and justice amplifies its importance to my research. SCL and SCO theory also align with leadership theories that address wicked problems

in complex organizations that fail to include equity and justice as objects in the theory-building process.

Discussion of Leadership to Address Wicked Problems

As previously addressed, this exploration of leadership theory did not seek to identify a single theory to support research on leadership to address problems with wicked tendencies in complex HE organizations. Rather, I explored how leadership theory informs the relationship between wicked problems, complex organizational contexts, and leadership. The theories explored in this review shape an understanding of leadership as an individual practice and a shared process in complex organizations. The collection of theories informs the work of midlevel HELs who rely on collaboration, boundary spanning, and social influence. The explored theories also stress the importance of learning and developing new knowledge or values to address wicked problems.

As an emerging theory, CLT framed the formal and informal systems that leaders operate within and the varied roles that leaders hold in adaptive organizations. CLT also introduced enabling leadership as a new concept of leadership that catalyzes the potential of CASs in the adaptive space to offer solutions to wicked problems. Within CLT, brokering is a critical leadership function to spark, expand, and scale new ideas. Importantly, the scholarship on enabling leadership identified it as being tacitly understood by those who practice it.

SCL proposed a leadership theory with a foundation built on grounded humanism and the core purpose of leadership to advance outcomes of equity and justice. Leadership in SCL is understood to be dynamic, where individuals at all levels of the organizational hierarchy contribute to the process of leadership. SCL also accounts for interorganizational leadership and the necessary partnerships between organizations to achieve shared interests. The

interorganizational collaboration of SCO reflects the behavior of CAS and sheds light on how midlevel leaders may connect administrative and academic units to address shared problems.

The leadership that informs solutions to wicked problems in complex systems serves as the final element of the conceptual framework for this research. In Figure 3, I add the final elements to the visualization of the conceptual framework for this research. The addition of leadership to address wicked problems encompasses the body of scholarship that I have reviewed. The addition of people in the center of this image draws attention to the role of individuals as groups in the practice and process of leadership. I hope it also evokes the tension between the entity and constructionist views of leadership that permeates the theories discussed in this review. With these elements added, the image represents a conceptual framework for the relationship between leadership, wicked problems, and complex organizational contexts of HE.

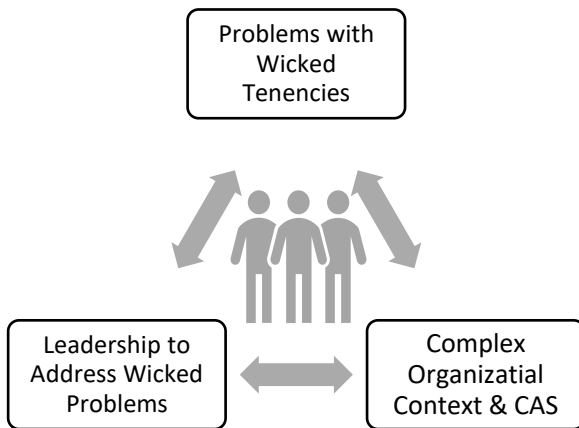


Figure 3. Visualization of conceptual framework, part 3 of 3.

Chapter Summary

In the introduction of this chapter, I proposed a theoretical framework that includes the participatory paradigm, complexity theory and the new science, and the DAC ontology. The

subjective-objective ontology and critical epistemology of the participatory paradigm form the philosophical basis for this research project. The other two components of the theoretical framework are commensurate with this ontological and epistemological stance and shape the theoretical lens through which this research is pursued and understood.

In the literature review, I explored relevant scholarship and offered a conceptual framework on the relationship between wicked problems, complex organizational systems, and leadership. The research and theorizing support the need to understand these three concepts as interrelated and appropriate for future research on the process of leadership to address problems with wicked tendencies in the context of complex HE organizations. Unfortunately, the body of theory and research on these topics has largely failed to pursue and interrogate the concepts in HE or through the lens of equity and justice. Because of this deficit, I offered critique and attempted to demonstrate potential links connecting the scholarship on equity and justice in HE to each concept. The gaps and the potential links create research opportunities to continue to explicate leadership to address wicked problems in HE toward outcomes of equity and justice.

As a researcher rooted in the participatory paradigm, I was interested in a project that explored and shed light on the process of leadership and impact leaders and their organizations. Through this review, multiple opportunities have surfaced that could impact the body of research as well as the work of practitioners by engaging in an action research project. The implicitly understood practice of enabling leadership in the adaptive space and the work of brokering is one opportunity to build and identify explicit knowledge. The theory of SCL and SCO has been underexplored and offered a unique contribution to leadership to address wicked problems that deserve additional attention. How HELs identify, understand, and adjust their leadership practice based on the wickedness of a problem, especially problems of inequity and injustice, serves as an

additional area of potential learning and exploration. Only by engaging with midlevel HELs to explore how they understood leadership to address wicked problems could I learn if any, all, or none of these resonate with participants and their leadership practice.

Broad agreement among scholars that new knowledge and values are often needed to address wicked problems (Head, 2019) supported the pursuit of an action research project through which participants engaged in a research process that also included individual learning. The research of Veltman et al. (2019, 2021) were two among multiple studies that established that leadership to address wicked problems is a collaborative and participatory process.

In the next chapter, I describe the methodology and methods I enacted to conduct an action research project that explored leadership to address wicked problems in complex HE environments with a group of midlevel HELs from public universities.

CHAPTER 3: METHODOLOGY

I established through the literature review that a gap exists in the scholarship on leadership to address wicked problems in HE. Additionally, the leadership of midlevel leaders in HE is contextually unique within the academy and under explored (Branson et al., 2016; Fey & Carpenter, 1996; Wilson et al., 2016; Young, 2007). Research on leadership from those in midlevel positions in HE found it is highly relational and involves work on challenges that are not clearly understood, do not have clear solutions, and span organizational boundaries (Branson et al., 2016; Pepper & Giles, 2015). Research external to HE has found similar leadership occurs among leaders in other organizations (Lichtenstein & Plowman, 2009; Uhl-Bien & Arena, 2017). Scholarship on midlevel leaders pointed to this form of leadership being tacitly understood by those who practice it in and outside HE (Branson et al., 2016; Fey & Carpenter, 1996; Uhl-Bien & Arena, 2017). Because this form of leadership has been underexplored and tacitly understood by those who practice it, a unique research methodology is necessary to make explicit knowledge that is likely only tacitly known by participants.

In addition to making tacit knowledge explicit, knowledge generation among midlevel leaders HELs is important in this research for a second reason. Leadership to solve wicked problems requires the development of new knowledge, values, and ways of understanding the world to advance solutions to problems with wicked tendencies (Alford & Head, 2017; Bartunek & Moch, 1987; Heifetz, 1994; Rittel & Webber, 1973). Given the significance of problems in HE and the urgency to address these challenges, research on leadership and problems should result in practical learning that leads to transformational outcomes. Learning by participants is

critical to expose the tacit leadership necessary to advance solutions to wicked problems. A research methodology that fosters both individual learning and practical solutions is necessary.

My participatory stance and action research methodology for this project necessitated individual learning and transformational outcomes for the research to be valid (Heron & Reason, 1997; Herr & Anderson, 2015; Wood, 2020). Later in this chapter, I explicitly address the action research methodology and tradition I use to explore my research question. Before doing so, I return to the participatory paradigm and its expectation for the research experience.

The epistemology of the participatory paradigm requires the participation of knowers in the process of knowing and stresses that interaction with the world generates knowledge (Heron & Reason, 1997; Herr & Anderson, 2015; Wood, 2020). Research conducted from a participatory paradigm has multiple purposes, including generating knowledge among participants, contributing to scholarly discussion, and creating impact among participants and their problems (Heron & Reason, 1997; Herr & Anderson, 2015). This research project met these purposes by working with a small group of midlevel HELs, using an action research methodology, and generating shared knowledge of leadership to address wicked problems.

In my research, participants applied the knowledge generated through the research process to problems they faced on their campuses. I synthesized and reported the knowledge generated from this research to inform scholarly discussion on the research question. Before I discuss the methodology of this project, I need to revisit the ontology and epistemology of the participatory paradigm and establish the axiology of this research.

Ontology and Epistemology Revisited

In Chapter 2, I established the theoretical framework through which I pursued this research. The participatory paradigm served as the primary ontology and epistemology for the

project. The ontology of the paradigm is understood to be subjective objective in which there may be a reality that exists, and the knower's interaction with reality shapes our understanding of it. Heron and Reason (1997) described "the very process of perceiving is also a meeting, a transaction, with what there is" (p. 278). Heron (1996) parsed this distinction further, "It is subjective because it is only known through the form the mind gives it; and it is objective because the mind interprets the given cosmos which it shapes" (p. 11). Moreover, because human interaction with the world is the basis for the paradigm, there is also an understanding of reality as intersubjective, where people collectively shape reality through their interactions with each other (Heron & Reason, 1997). The intersubjective ontology aligns with the DAC ontology, which frames leadership as a process that collectively and continuously forms among those involved and engaged with one another (Drath et al., 2008).

Heron and Reason (1997) offered four ways of knowing that demonstrate an understanding of reality: experiential, presentational, propositional, and practical. These four ways of knowing were more fully described in Chapter 2 and inform this research in two ways. First, they establish midlevel leaders have multiple ways of knowing that can evidence leadership to address wicked problems. Second, these ways of knowing are related to the validity measures for action research (Bourner & Simpson, 2005; Coghlan & Pedler, 2006; Herr & Anderson, 2015; Wood, 2020), discussed later in this chapter.

Finally, the critical subjectivity of the participatory paradigm establishes the role and influence of intersubjectivity in the development of knowledge. According to Heron and Reason (1997), "Having a critical consciousness about our knowledge necessarily includes shared experience, dialogue, feedback and exchange with others" (p. 283). The understanding that knowledge develops collectively informs the intent of this research to engage midlevel leaders in

collective meaning making. I discuss the process of collective meaning making later in this chapter. Next, I address the value stance in which I situate my research.

Axiology

Axiology establishes the researcher's beliefs about what is ethical and valuable (Terrell, 2015). The participatory paradigm is value laden, does not seek objectivity, and the researcher's and participants' values and beliefs influence the research process (Herr & Anderson, 2015; Nicholas & Hathcoat, 2014). Action research as a methodology of the participatory paradigm is "inquiry done *by* or *with* insiders to an organization or community, but never *to* or *on* them" (Herr & Anderson, 2015, p. 3). I embraced my and my participants' values in this action research project.

The value orientation of the participatory paradigm also shapes the expectation that research pursued through this paradigm will create impact and change (Coghlan & Pedler, 2006; Heron & Reason, 1997; Herr & Anderson, 2015; Wood, 2020; Zuber-Skerritt, 2018). The belief in research as a means of transformation shapes an understanding that action research through the participatory paradigm is not value free and objective. Instead, research should intentionally seek to create change through the research process driven by values. As a researcher, I value equity, justice, and learning as a means for transformation.

The intentional involvement of participants to catalyze transformational outcomes necessitates a unique consideration for the ethical implications of the research. Although action research should "develop and maintain social and interpersonal interactions that are nonexploitive and enhance the social and emotional lives of all people who participate" (Stringer, 2014, p. 23), specific action needs to be taken to do so. According to Wood (2020), action researchers must work with participants at the onset to identify potential ethical

considerations and continue to engage them throughout the research project as it evolves. My intent for this research project was to impact participants and their problems, creating potential ethical conflicts. To address this concern, I ensured participants maintained control of how they enacted insights from this research in their work if they chose to. The choice to act was their decision, not mine. Additionally, I identified data gathering and analysis methods to ensure that my research process and results authentically reflect the experience and insights of those who participated. Later in this chapter, I discuss the specific methods used to mitigate ethical conflicts.

In contrast to other action research, my project did not seek emancipatory objectives for participants from marginalized communities. The lack of an emancipatory aim for participants from historically marginalized communities mitigates some ethical risks. Although my multiple privileged identities impacted the research process, my choice not to work specifically with marginalized communities also reduced ethical concerns about how a researcher can impact these participants. Later in this chapter, I speak about my positionality as an action researcher, my relationship with my participants, and their autonomy and control in the research process. The research positionality I approached this research through also mitigated ethical concerns.

Methodology

This project's research question was rooted in the explicit understanding of leadership needed to address wicked problems of inequity and injustice in complex organizations. Scholars have argued qualitative methods may be best suited to explore and understand complexity in organizations (Kezar et al., 2006; Rosenhead et al., 2019). However, scholars have also shown this midlevel leadership to be tacitly understood and practiced (Branson et al., 2016; Uhl-Bien & Arena, 2017). Because of this, I needed a research method to transition tacit knowledge to

explicit knowledge while working in complex organizations. Moreover, the wicked problems HELs face, especially those of inequity and injustice, require urgent attention and action. As such, I wanted a methodology that engaged participants to address problems in their local context through the research process.

For multiple reasons, action research methodology was an ideal methodological family for this research. First, action research engages participants in cycles of action and sensemaking to generate knowledge, both individual and public, and catalyze impact in the local context of participants (Coghlan & Gaya, 2014; Herr & Anderson, 2015; Nicholas & Hathcoat, 2014; Revans, 1982; Wood, 2020). Action research projects also offer situation-specific insights that may be extrapolated and found helpful in other contexts or settings (Coghlan & Gaya, 2014). A research question pursued via action research methodology is “concerned with the particular, as opposed to the universal” (Nicholas & Hathcoat, 2014, p. 4). Finally, According to Herr and Anderson (2015), action research projects pursue multiple outcomes that “transcends mere knowledge generation to include personal and professional growth, and organizational and community empowerment” (p. 1). Individual learning, knowledge generation, and local impact are central to action research and align with my theoretical and conceptual framework. However, action research consists of many methodologies and methods that pursue these outcomes, and others, to varying degrees (Herr & Anderson, 2015; Levin & Greenwood, 2007). Because there are multiple forms of action research, I had to determine the tradition best suited to achieve my research interests.

As previously discussed, the nature of my research interest required individual learning, should result in local impact, and must contribute to the scholarly discussion on the topic. Multiple action research methodologies focus on these outcomes, many of which fall within the

participatory action research (PAR) tradition. PAR is perhaps the most widely used form of action research and is known for its focus on objectives of equity and justice. However, PAR expects participants to own and control the research question and process (Freire, 1993; Herr & Anderson, 2015; Wood, 2020). Because I had a specific research objective and wanted to maintain ownership over the research process, it could not choose a PAR-based methodology.

The action learning (AL) tradition is emerging as a action research methodology rooted in leadership development and problem solving (Bourner & Simpson, 2005; Coghlan, 2013). I identified AL as ideal for my research interest for several reasons. First, it focuses on individual learning and local impact while allowing the researcher to maintain ownership of the research process and outcomes (Coghlan, 2013; Coghlan & Pedler, 2006). Second, researchers have demonstrated AL as an effective means to facilitate peer-to-peer leadership development while addressing wicked problems (Leonard & Lang, 2010; M. J. Marquardt, 2000; McNamara et al., 2014; Revans, 1982; Volz-Peacock et al., 2016; Zuber-Skerritt & Louw, 2014). The function of peer-to-peer leadership development and problem solving via AL aligned with research demonstrating midlevel HELs develop their leadership capacity through collegial interaction and support (Fey & Carpenter, 1996; Sermersheim & Keim, 2005). Finally, AL scholars have been clear that academic research via the AL methodology must produce shared knowledge that contributes to scholarly discussion on the research in addition to outcomes of individual learning and local impact. (Bourner & Simpson, 2005; Coghlan, 2013; Coghlan & Pedler, 2006). According to Bourner and Simpson (2005), “the creation of new knowledge can only be called research when the knowledge that is advanced is placed in the public domain” (p. 143). Although AL has significant overlap with my research interest it does not consider how researching inequity and injustice impacts the research process.

As AL has continued to evolve, scholars have merged AL with PAR to form the unique Participatory Action Learning and Action Research (PALAR) methodology. This methodology centers PAR's social justice and emancipatory objectives and links them to AL's individual and organizational learning objectives through a process that pursues academic outcomes (Wood, 2020; Zuber-Skerritt, 2018). Although PALAR strongly aligned with my project, it maintains a participant-driven research agenda based in PAR. Instead of manipulating a core aspect of PALAR to suit my needs in ways that would have been inauthentic to the methodology, I borrowed elements of PALAR to design my AL research methodology. Doing so allowed me to maintain a researcher-driven AL project that accounted for complications that arise when trying to further equity and justice through research. The following section establishes my AL methodology for this research project and how PALAR influenced my research design.

AL Research

The World Institute for Action Learning described the AL process as one that “involves a small group working on real problems, taking action, and learning as individuals, as a team, and as an organization” (2022, para. 1). The process is a collaborative effort in problem solving and learning where individuals work in groups to bring about change for themselves and their organizations (Pedler, 2008; Revans, 1982). Academics, consultants, and managers have implemented AL in varying approaches and settings as a tool for leadership development and problem solving (Boshyk, 2000; Cowan, 2014; M. Marquardt et al., 2018; Pedler et al., 2005; Volz-Peacock et al., 2016). Research has shown that AL programs have at least three consistent components; “(1) work on real programs; (2) for the purposes of participant learning; (3) and organizational solutions” (Cowan, 2014, p. 16). Academics have continued to build on these

components and the theoretical underpinnings of AL to advance an AL-based research methodology (Bourner & Simpson, 2005; Coghlan, 2013; Coghlan & Pedler, 2006).

In line with the participatory paradigm, the theoretical foundations of AL draw an inseparable link between action and knowledge development (Bourner & Simpson, 2005; Coghlan & Pedler, 2006). The root of this understanding comes from Revans' (1971) framing of a praxeology of AL that connected three systems he named Alpha, Beta, and Gamma in a process of action, reflection, and learning similar to the practice of leadership described by Love and Estanek (2004) and Raelin (2016) discussed in Chapter 2. Revans (1971) described system Alpha as investigating the problem, system Beta focused on investigating solutions, and system Gamma involved the individual's ability to adapt and change based on information gained through Alpha and Beta. Revans' praxeology advocated for action learners' continuous and often simultaneous practice of these three systems.

Coghlan and Pedler (2006) proposed systems Alpha, Beta, and Gamma form the foundation of an AL research project. According to these scholars, system Alpha requires the researcher to analyze and articulate the problem the research intends to explore; system Beta requires exploration and resolution of the problem through cycles of action and reflection; system Gamma focuses on and communicates the individual and organizational learning occurring through the research process. However, these three systems alone are not sufficient to produce AL research.

Bourner and Simpson (2005) asserted AL research also must address shared knowledge by addressing the question: "How can I solve this program in a way that will help other people solve similar problems in the future?" (p. 143). Although this question offers insights for future practitioners and contributes to shared knowledge, it focuses on the solution to a single problem

rooted in a context. Coghlan and Pedler (2006) proposed an alternative option for the research to contribute to practitioner learning or “what has been learned about the practice which is useful to other practitioners?” (p. 137). Given that my research interest was in the practice of leadership by practitioners, this latter question by Coghlan and Pedler guided my use of AL methodology to produce practitioner learning.

Data that serve as evidence to demonstrate systems Alpha, Beta, and Gamma and practitioner learning through AL research originate from four sources. According to Coghlan and Pedler (2006), data come from four sources, (a) the context of the problem, which includes the work, the organization, and participant engagement with it; (b) the AL set and what the participant(s) have learned in the AL set; (c) relevant external information and literature that has made a difference; and (d) myself as the researcher and what I have learned about me. Pedler described these sources of information as the DNA of the AL research, which the researcher and participants must weave together to produce knowledge. Because my research question focused on how participants understand leadership, I was most interested in the first three streams. I kept a reflective journal that supported my analysis for these three streams but did not offer an account of my experience because it was not a research question.

The AL experience includes multiple components that contribute to a successful research outcome. Pedler (2008) proposed four elements of an AL process, the person, the problem(s) of focus, the AL set, the action taken on the problem, and the knowledge that comes through action and reflection. Marquardt et al. (2018) refined these elements further to include the problem or challenge, the AL set or team, a questioning and reflective process, the strategies developed and actions taken, a coach or facilitator, and a commitment to learning at the individual, set, and organization levels. The elements of an effective AL experience align with research findings on

what academic programs need to do to develop leadership among students who seek to address wicked problems (Veltman et al., 2019, 2021). In Chapter 2, I discussed this scholarship in greater detail, but in brief, it called for programs to be collaborative, participatory, and focused on real-world problems.

For my AL process, I implemented multiple aspects proposed by these scholars. I recruited individual midlevel HEL working on wicked problems in their local context. I brought them together and created an AL set that engaged in collaborative cycles of action and reflection. As the researcher, I served as the facilitator of this process. The AL set catalyzed multiple outcomes of individual learning and organizational impact through systems Alpha, Beta, Gamma, and practitioner learning. The interaction of these elements resulted in multiple outcomes for participants and the articulation of practitioner learning, which formalized this AL process as scholarly research.

In the following sections, I expand on elements of AL that I implemented for this project, participants, and the problems they face, the AL set, and my role as the AL researcher–facilitator. In each section, I address how I enacted them through this research.

AL Participants and Problems

Problems in the AL process need to be significant, urgent, and important to a participant and their organization, and participants need to have the ability to take action on their problem (M. Marquardt et al., 2018; Volz-Peacock et al., 2016). In AL, individuals can either come to the project with a problem or identify a problem as part of the project (Leonard & Lang, 2010; M. Marquardt et al., 2018). When individuals come to the research with a problem, the process is a multiproblem or open-group program (M. Marquardt et al., 2018). I created a multiproblem AL

project by recruiting participants from different universities who were engaged actively in a problem with wicked tendencies that included an intent to address inequity or injustice.

The problem in which each participant was engaged and the organization in which it existed served as the local context. Their local contexts are where the individuals implemented solutions and practiced leadership (Coghlan & Pedler, 2006; Revans, 1982). In Chapter 4, I share each participant's local context, their wicked problem, the leadership practice in which they engaged during the research, and the impact of the research and their leadership. The practice of leadership, rather than the outcome of the problem, was the primary interest of this research project. As such, the particulars of each local context, attempted solutions, and the resulting outcomes were most important to facilitate knowledge development toward systems Alpha, Beta, Gamma, and practitioner learning. In the next section, I discuss the AL set for this research.

The AL Set

The AL set is core to the AL research process (Bourner & Simpson, 2005; Coghlan, 2013; Coghlan & Pedler, 2006; Wood, 2020). In an AL set, participants present the problems they are working on, collectively explore how they are understood, potential solutions they could attempt, and reflect on actions taken. According to Wood (2020), the AL set is “a place where personal growth is enhanced, as individuals reflect on their values, assumptions, visions, and behavior, holding themselves accountable for their subsequent actions, as they collaborate with others in crafting their collective social justice agenda” (p. 66). The design and intention of an AL set align with scholarship that shows midlevel HELs prefer to and benefit from peer-to-peer engagement to develop their leadership capacity (Branson et al., 2016; Fey & Carpenter, 1996; Sermersheim & Keim, 2005). An ideal AL set consists of four to eight participants and includes a diverse mix of people who bring multiple viewpoints to the set (M. Marquardt et al., 2018).

The AL set for this research consisted of five participants who met six times over roughly 3 months. I used Microsoft Teams to host virtual meetings because participants were geographically distributed across the United States. The details of the AL set meetings, and my use of Microsoft Teams are discussed further in the methods section.

The cadence of AL set meetings meant participants went back and forth between their local context and AL set meetings multiple times. In the AL set, they reflected on their experience and efforts to deepen their understanding of their problems and leadership practices. The cycles of action and reflection as part of the AL set stimulated learning and knowledge development on leadership to address wicked problems that aligned with how Marquardt et al. (2018) and Pedler (2008) described the AL process to work. Through the AL set, participants developed a deeper understanding of their individual problems and leadership practice and generated practitioner learnings that we offer to scholars and practitioners in Chapter 4. Next, I discuss the final element of my AL design, myself as the AL research–facilitator.

AL Researcher–Facilitator

In AL, a coach plays a critical role as a guide for the AL set, focusing on individual and group learning (M. Marquardt et al., 2018). My interest in surfacing tacit knowledge and facilitating learning aligned with this role of the coach. However, because I pursued this project for research purposes, I had additional responsibilities with the AL set and approached my role as an AL researcher–facilitator rather than a coach.

As a researcher, I was responsible for establishing the research agenda, exploring themes related to the research question, surfacing practitioner learning for review, and guiding an AL experience toward process validity. As a facilitator, I managed the AL set meetings and the dynamics among participants, started discussions, attempted to balance participant contributions

and ensure everyone had time to speak, and prompted reflection. My responsibilities as the researcher and facilitator were not mutually exclusive. Prompting reflection and working to balance who was speaking influenced my ability to explore the research question and identify practitioner learning. Simultaneously serving in both roles was why the frame of research–facilitator was an appropriate way to frame my work with the AL set.

Tension consistently existed within the role of researcher–facilitator. I had to decide when we met, what we discussed, and what to prioritize within the meetings that all had costs or benefits to my interests as facilitator and researcher. I faced consistent challenges with time management and on what to focus the conversation. For example, the elements of the conversation that were most interesting to the set members and beneficial to group dialogue were often less applicable to my research interests. As a researcher–facilitator, I had to choose how and when to steer the discussion toward my research interests, which at times was at the expense of participant engagement with their peers. In the methods section, I discuss my challenge with time management and its impact on the research in greater detail. The impact of timing was significant enough that it also became a research limitation I discuss in Chapter 5.

One research method I intended to borrow from PALAR as a researcher–facilitator was to reduce my role in the AL set so that participants could take greater ownership of the discussion and engage one another in deeper questioning and reflection (Wood, 2020). Though this approach aligned with the norms of multiproblem AL sets in which participants share the role and responsibilities of the AL coach (M. Marquardt et al., 2018), I could not bring it to life within my AL set. In retrospect, I did not create the right conditions for this to happen. I could have done more to set the context and establish participants as cofacilitators. However, because I needed to manage the process toward answers to my research question, I felt it necessary to

facilitate the dialogue. There were moments in the AL set meetings where if I had left participants to pursue their interests fully, they would have quickly filled the entire time with only one or two people sharing their work. As the researcher–facilitator, this was not something I could allow, so I never genuinely tried to turn over the process to them.

AL Research Summary

AL as a research methodology is still emerging, but scholars have provided initial guidance on establishing an AL research project. Core to that process are elements I have described as participants and their problem in their local context, the AL set, and the researcher–facilitator. For each element, I also described how I actualized it through the research process. Figure 4 provides a visual representation I created of the relationship established between the AL set, participants and their local context, and my involvement as researcher–facilitator. In the next section, I describe the methods I used to actualize this AL research project.

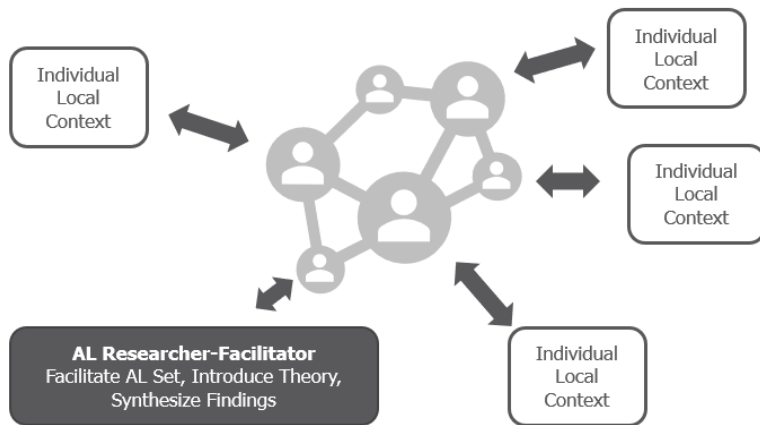


Figure 4. Relationship between local context and AL set for participants.

Methods

AL requires the creation of an environment where a minimum amount of structure is in place to facilitate action and reflection but not so much that it stifles the learning process. This balance is understood and described in a few ways by scholars. Marquardt et al. (2018) described the ideal AL process as balancing order and chaos whereby the resolution of the two catalyzes exploration and learning. Multiple scholars have embraced a description of action research as starting intentionally messy or fuzzy and then gaining structure and clarity through the process (Coghlan & Gaya, 2014; Cook, 2009; Wood, 2020). Throughout the proposal and research process, I conceptualized the methods of AL similar to the process of slow cooking a stew.

A chef can rely on certain ingredients, tools, and processes when cooking a stew. First, heat a large pot. Then sauté onions, celery, carrots, salt, pepper, and maybe meat of choice. Finally, add stock, bring it to a low boil, then reduce to a simmer. As the ingredients and heat shape the stew's flavor throughout the day, the chef will taste test and perhaps add potatoes or beans, herbs, and spices, and adjust the heat as they build the flavor. The AL process unfolded similarly. I began the process with a set of standard processes and tools, but as participants and the process affected one another, they influenced the process and outcome. An example of this was the choice to reduce and eventually remove the review of emergent themes from past meetings in favor of more time for participants to share their work and engage in question and answer with one another. In doing so, the AL experience resulted in human participation in the process that shaped the research.

As discussed in the methodology section, the AL set served as the core of the AL research process. The set met regularly over 3 months with the same five members. Pedler (2008) proposed a consistent pattern for each meeting that involves brief updates, in-depth

exploration of challenges and efforts through question and answer (Q&A), review of the meeting, and preparation for the next meeting. This pattern creates minimal structure and allows for unstructured questioning and discussion. My research design included this cycle and two additional elements to facilitate my research objectives.

The first additional element was introducing participants to relevant scholarly concepts. For the AL set meetings, I created meeting topics based on relevant scholarly literature to promote the exploration of leadership to address wicked problems in complex environments. In preparation for the discussion, I gave participants short videos and academic articles that they could review. I provided videos and articles (see Appendix A) to give participants a low-burden and a higher-burden option. The low-burden video option provided participants with a minimum level of content they could reflect on before the meeting, while the academic articles provided greater depth and detail if they were interested in further exploration. Participants did not watch the videos or read the articles in the meetings, and I did not track with which options participants engaged, although some mentioned they watched the video or read the article as we discussed. Unexpectedly, participants identified and shared other academic concepts they found relevant to the literature we reviewed and their work as midlevel leaders. The scholarship they brought forward added to the discussion within the AL set. In Chapter 4, I share more about the ideas they contributed. The scholarship I introduced as well as participants' concepts collectively contributed to achieving Coghlan and Pedler's (2006) third source of data, relevant external information, and literature.

The second element I added to my research design was to review emergent themes at each meeting. I intended the review of themes to drive progress toward practitioner learning and ensure participants vetted the concepts for authenticity. The first opportunity to do this was in the

third meeting when I presented my summary of how participants described leadership through the previous meeting and their reflective journals. However, participants did not engage in this discussion, and the time I used to review it with them took time away from participant updates and discussion about their work. By the end of the third meeting, it became clear a better use of our time was to discuss their work rather than review emerging themes. As a result, I decided to deprioritize this element of the meeting schedule and prioritize participant discussion on problems, actions, and Q&A with other participants. Because of other changes to the meeting schedule, this decision had a limited impact on the research process. I will discuss this further in the next section on the meeting schedule and agenda.

Figure 5 provides a visual of the original process I designed for AL set meetings informed by Pedler's (2008) outline, plus the additional two elements I added. As discussed, the second element, the review of emergent themes, was reduced over time to prioritize the third element, the exploration of problems and understandings. The following section summarizes the schedule for AL set meetings and the agendas that guided discussion at each meeting.

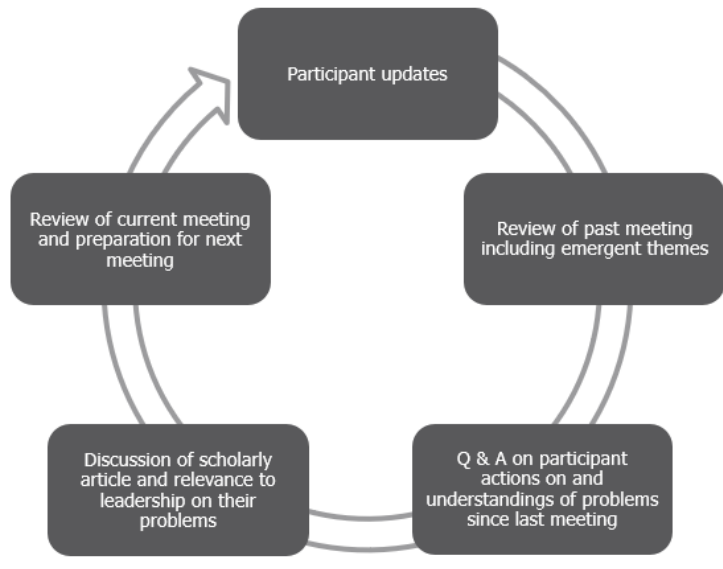


Figure 5. Process for AL set meetings.

AL Meeting Schedule and Content

I designed the research schedule for AL set meetings to explore the leadership in which participants engaged to address their wicked problem in their local context. I sought to minimize the time burden of the research on participants while also allowing enough time between meetings for them to take meaningful action on their work. Because the research question focused on the practice of leadership rather than the impact on their problem, allowing enough time for a participant to address a problem entirely was unnecessary. The schedule I designed was for seven meetings of the AL set to occur over 13 weeks. I created this knowing it would likely change based on participant availability and used it as a starting point with the members of the AL set.

The meeting schedules I designed occurred on a variable basis. The first and last two meetings had just over a week between them. I designed the third, fourth, and fifth meetings to have extended gaps of 3 to 4 weeks between them. The meeting content and what I asked

participants to do between meetings informed the need for a variable meeting schedule. Extended periods between Meetings 3, 4, and 5 were essential for participants to review the scholarship and consider how it applied to their work. I created a detailed summary for each meeting including the purpose of the meeting, the guiding journal questions, the concepts introduced, and video and article citations (see Appendix A).

The agenda for each meeting was designed in advance and based on Pedler's (2008) outline, plus the additional two components of emergent themes and scholarly concepts. Figure 5 visually represents the process I designed for each meeting. The first and final meetings deviated from the designed cycle to achieve specific objectives. In the following section, I summarize the agendas I designed for each meeting and discuss adaptations that occurred in response to how the AL set meetings unfolded.

Purposes of and Retrospectives from AL set Meetings

I designed the first meeting, informed by guidance on AL, to set the tone for the AL experience, familiarize participants with the process and their role in it, establish norms, explore ethical considerations, and develop relationships (Coghlan & Pedler, 2006; M. Marquardt et al., 2018; Pedler, 2008; Wood, 2020). A critical norm of an AL set I tried to establish in meeting one is that questions rather than statements should guide the reflective process and that statements should only come in response to questions (M. Marquardt et al., 2018). The goal of the reflective process in the AL set is to prompt learning that moves beyond what happened to understand why it happened and the related underlying assumptions (Wood, 2020). In addition to establishing norms for AL research, exploring ethical considerations for our AL experience was critical.

Addressing the ethics of this research and how participants would engage with one another and their local context were elements of PALAR (Wood, 2020) that I adapted to this

research and added focus to in the first meeting. During the meeting, I emphasized that participants controlled their decisions and actions within their local context. Furthermore, any action they take in their local context or challenges they bring to the AL set should consider that their colleagues are not part of this research. Additionally, although members of the AL set were known to one another, they were not known to others. In the first meeting, we discussed their responsibility to maintain confidentiality and not disclose identities or discussions outside the AL set.

By engaging in this discussion about norms and ethics, participants added wanting to know how everyone showed up to each meeting and asked that we incorporate an icebreaker at the start. We ended up using a version of the question “What is your weather today?” to learn how each person what doing, what emotions they were showing up with, and what experiences they were having outside of the AL set that might impact their time with the AL set. The icebreaker discussions resulted in valuable insights into the experience of midlevel leaders and revealed more about participants and their challenges and successes while we met. Ultimately, the first AL set meeting created the context for the remaining meetings and created the possibility of adaptations.

After the first AL set meeting, I felt I needed to do more to establish the norm of question asking and that their questions should help explore the research questions. To address this, I created a question bank (see Appendix B) for the second meeting to support the question-asking process. The questions I drafted prompted areas of thought I believed would help my research interests and allowed participants to explore their work further. The question bank was well received, and I continued to provide it to participants through the fourth meeting. I also added questions to the bank as the content of the meetings evolved.

The second meeting through the fifth meeting were all designed using the cycle depicted in Figure 5. Because participants identified the importance of an icebreaker, I incorporated that into the start of every meeting, replacing the participant update. As previously discussed, after Meeting 3, I removed the themes review to create more time for participant updates and Q&A. In Meetings 3 and 4, participants explored the scholarship on wicked problems and complexity as outlined in the meeting schedule (see Appendix A).

During the second meeting, the group decided to consolidate Meetings 4 and 5, which focused on complexity leadership, into one extended meeting. This choice reduced the total number of meetings to six but kept the total duration of the AL set meetings to 13 weeks. With the additional time in Meeting 4, participants dug deeper into their challenges and the organizational context in which they practiced leadership. This change did not significantly impact the agenda or purpose for Meetings 4 and 5. Returning to my decision to deprioritize the review of themes, consolidating Meetings 4 and 5 also meant there was only one meeting where we did not review themes. However, because of the longer meeting time, I explored emerging themes naturally during the discussion.

The formal review of practitioner learning occurred during the fifth meeting and was the primary review of emerging themes. I used the entirety of the meeting to present to the group the practitioner learning I had synthesized from my time with them and through review and analysis of the data. I did this through a PowerPoint presentation and included examples from our discussions and journal entries to support my findings. During the presentation, I stopped regularly to seek participant feedback, input, and critique. The processes added greater nuance to what I had initially gleaned. One example of this was participants' view on how senior leaders were both crucial and obstructive to their leadership efforts and ability to expand the impact of

solutions to broader audiences. In previous meetings, I had heard discussions of senior leaders but was uncertain how meaningful it was. By reviewing this element of practitioner learning with them, they affirmed what I was hearing and expanded on it in meaningful ways. The discussion throughout Meeting 5 was pivotal in developing authentic practitioner learnings I describe in Chapter 5.

The purpose of the last meeting was to get final thoughts and updates from participants on the progress of their work and to bring the experience to a close. Participants also explored how the research process impacted them and their work in their local context. I used the last few minutes of the meeting to thank participants and share meaningful aspects of their leadership I learned from them over our months together. Sharing what I learned from them was more than a transactional act. It was rooted in my value for learning and the privilege of learning with and from peers.

Decisions to implement an icebreaker, create a question bank, remove emerging theme reviews from the meetings, and consolidate Meetings 4 and 5 were adaptations made to meet the needs of the AL process. These choices reflected how the facilitation of AL research is messy and cannot be expressed fully in the original research design. Returning to my analogy of AL research facilitation as akin to cooking a stew, these choices represented how I behaved as a chef responding to the dynamic stew I created.

Later in this chapter, I share more information on data collection, privacy, confidentiality, and data management regarding AL set meetings. Next, I describe my recruitment process and who participated in this research.

Recruitment and Participants

The target population for this research was midlevel leaders from public research universities. Midlevel leaders report to or are one level removed from the senior administrative leader within their division or academic unit and have responsibility for a functional discipline and may or may not supervise staff (Branson et al., 2016; Fey & Carpenter, 1996; Wilson et al., 2016). This description of midlevel leaders in HE administrative units reflects the understanding that midlevel leaders operate as superiors, subordinates, and peers who must work up, down, and horizontally across the organizational structures to be successful (Hecht & Pina, 2016; Marshall, 2012). Embedded in this understanding of midlevel leaders for this research is that they are administrators rather than faculty. Example position titles of midlevel leaders include directors, assistant, associate, executive directors, assistant or associate vice presidents, deans, chancellors, or provosts, and those in special assistant and chief of staff roles for senior administrative leaders. Because midlevel administrative leaders exist across academic and administrative units within a university, I did not limit where in the institutional structure a participant was employed.

For AL research to be effective, participants need to be significantly involved with and able to contribute to a problem in their local context (Coghlan & Pedler, 2006; Revans, 1982; Wood, 2020). I pursued midlevel leaders actively involved in problems that reflect wicked tendencies (Alford & Head, 2017; Heifetz, 1994; Rittel & Webber, 1973). The problems they brought to the research also needed to seek to address elements of inequity or injustice within their local context. The social identities of participants were not a qualifier for my recruitment strategy; however, I sought to enlist a diverse group of participants, knowing that their identities would be relevant to their leadership to address wicked problems of inequity and injustice and, therefore, important to the research experience.

Recruitment

My recruitment strategy was akin to purposive, nonrandom, intentional sampling (Terrell, 2015). I worked through my network of HELs using LinkedIn and direct email to reach potential participants and people who could share the opportunity with others. I also worked through the professional student affairs organization NASPA to email a targeted group of members who fit the criteria for participation. My recruitment materials directed interested individuals to fill out an online interest form (see Appendix C), which was the first stage in the data collection process. In addition to the interest form, potential participants had to take part in a video screen (see Appendix D) to verify they met the stipulations for participants, communicate to them the research process, and answer questions they had. Both stages of this recruitment process involved data collection. I describe their role in the data collection process later in the data collection section.

In early August of 2022, I began recruiting by posting a call for participants (see Appendix E) on my personal LinkedIn page. I then messaged individual HELs within my LinkedIn network with that post and asked them to share it with their peers or, if they were interested, to submit their interest. In addition to recruiting on LinkedIn, I sent an email message (see Appendix F) to HELs in my professional network, asking them to share with potential participants or to express their interest in the research.

I also recruited participants through the student affairs professional association, NASPA. To do so, I requested a list of self-identified midlevel leaders from public research universities from the organization. As a member of NASPA, I had access to member information that nonmembers do not. The list they provided had over 2,500 members, not all from public research universities, and did not include email addresses. To get email addresses, I conducted individual

internet searches based on name and institution for publicly available email addresses. This process was time consuming and doing so for all individuals on the list would have significantly delayed my recruitment efforts. As such, I focused my attention on members from large public research universities who were in associate or assistant vice president or dean roles and those in chief of staff or special assistant positions. As I collected contact information, I sent out emails in batches. Once I worked through this group, I started to reach out to directors and assistant directors. Ultimately, I emailed roughly 250 people from this list and received two responses. I stopped my outreach when I secured enough participants for my research.

Interest in my research process was sparse. As I attempted to recruit, I realized that starting my outreach in early August was not ideal. For professionals at semester schools, it landed when they were ramping up for the term to begin, and for those at quarter schools, it arrived when many were on vacation or still decompressing from the academic year. After a month of outreach, three people had expressed interest, and one of those did not work at a research university. Given the low level of interest, I decided to expand the research context to include non-APLU public doctoral-granting institutions so that this person with a unique perspective as a midlevel leader could be involved. This decision did not drastically change the research context as doctoral granting public institutions still serve multiple purposes and constituencies. By expanding the population beyond research universities, I secured another participant who was aware of my research through my professional network.

Ultimately, my recruitment strategy resulted in seven HELs responding to my interest form. I invited each of them for a video screen to discuss the research, and six accepted. I met with each of them to explore their position on campus and the challenge they faced, shared with

them the research process, and answered their questions about the research. I provide details on the screening process and how I collected consent in the data collection section of this chapter.

All six potential participants who engaged in the video screen fit my stipulations of midlevel professionals working on wicked problems and expressed interest in participating. I invited all six to participate; however, two were from the same institution. In individual follow-up calls, both said they were unwilling to participate with someone from their campus. Because both were willing to participate, I chose the person whose problem had the most explicit challenge of inequity to participate.

Participants

Ultimately, five midlevel HELs agreed to participate in the research. The group included four men and one woman. Three members were White, one was Black, and another Pacific Islander. Two members identified as gay, one as queer, and the other two as straight. All five identified as being from middle-class or middle-income backgrounds. One participant identified as a veteran and another as a person with a disability.

They held positions as chief of staff, executive director, director, assistant director, and operations manager. One participant worked in the president's office, and another in the office of the vice provost for student success. Three participants worked specifically to support marginalized student populations. One participant was responsible for campus housing.

The institutions at which they worked spread across the mainland United States to the Islands of Hawai'i. Two participants held master's degrees and were pursuing doctorate degrees. The other three had already earned doctoral degrees. Each participant had worked in higher education for at least five years. Two participants made job transitions during the research

process, and one took on significant additional responsibilities. Of these five individuals, I had existing collegial relationships or had previously interacted with three.

The wicked problems they brought with them to the research were diverse. One participant was responsible for growing campus housing and ensuring access and affordability for low-income, first-generation students at a majority-minority, Hispanic Serving Institution. A second participant oversaw the campus’ strategic plan, including implementing diversity and inclusion objectives and supporting the university’s pursuit of becoming a Hispanic Serving Institution. Two participants worked on their campus’ response to bias and crisis and faced unique challenges within their respective university contexts. The last participant was working to create a first-year experience for students with disabilities. The wicked problems with which they entered the research were dynamic, and for many participants, they evolved during the research timeline. In the accounts of practice in Chapter 4, I address each person’s wicked problem, how they made sense of them, and the leadership they engaged in during the research to address them. Table 1 briefly introduces participants using pseudonyms for their names, general position titles, and a summary of the problem they worked to address.

Table 1

Research Participants

Name	Title	Problem summary
Glenna	Chief of staff to the president	Enacting culture change toward DEI vis-à-vis strategic planning
Felipe	Operations manager in the office of the vice president of student success	Formal crisis response in an informal cultural context
Lincoln	Director of disability resources for students	Going beyond compliance to serve students with disabilities
Denzil	Assistant director of diversity, equity, and inclusion & interim director of student cultural center	Improving bias response in a complex multicampus system
Kristian	Executive director of student housing	Developing equitable housing at a growing HSI

I worked to secure a diverse group of participants through my recruitment strategy. However, through the process, I repeatedly heard from women and people of color that they did not have the capacity or were unwilling to engage in my research. Some of these folks shared they could not or would not engage because they were overworked, were asked to take on an expanded set of responsibilities, prioritized their personal well-being, or had priorities outside of work as reasons they would not participate. Their absence is meaningful and something I speak to further in the research limitations in Chapter 5. In the next section, I share how I compensated participants for participating in my research.

Compensation

As part of my research process, I offered participants a \$50 gift card to the website www.snackmagic.com. I chose this option for compensation because the site allows participants to choose snacks or other items delivered to their homes. This compensation gave participants autonomy to choose preferred items. It was also a symbolic gesture to bring the participants together over food and to provide them with caloric sustenance as they invested their energy in this research. The gift cards were sent to the participants by email after they attended the first meeting. There was no requirement to return the gift card if they did not continue with the research. In the next section, I discuss the action research context of this project.

Action Research Context

In Chapter 1, I framed the global context of this research as U.S. public research universities and the wicked problems they face. Although my research question was rooted in this global context, I pursued this project in my participants' local context, in line with my action research tradition (Coghlan & Pedler, 2006; Herr & Anderson, 2015; Nicholas & Hathcoat,

2014). The local contexts of this research were the five organizational environments at each U.S. public university where the participants worked. Although the target local context for this research was public universities that were members of APLU and designated by the Carnegie Classification system as conducting very high-volume research, I struggled to find participants from these institutions. As previously discussed, because of my inability to find participants from this type of institution, I expanded the acceptable local contexts to include public doctoral-granting universities.

All participants in this research worked at public universities. Three of the five worked at institutions that are APLU members and designated as conducting very high-volume research. One participant was from a high-volume research university, and the other was from a doctoral university. One participant was from a doctoral university with a strategic objective of regaining research university status. In the participants' AOPs in Chapter 4, I provide additional detail on each individual's local context. In the next section, I address my data collection process for this research, including how I attended to privacy, confidentiality, and secured consent.

Data Collection and Participant Privacy and Confidentiality

In the methodology section, I described the three streams of data I wove together to produce scholarly research: (a) the context of the problem, which included the work, the organization, and participant engagement with it; (b) the AL set and what the participant(s) learned in the AL set; and (c) relevant external information and literature that made a difference (Coghlan & Pedler, 2006). I used multiple strategies to collect data from the first two streams, which are the focus of this section. The information I gathered to establish the context for this research and complete the literature review informed aspects of my data gathering process, which I address later in this section.

I collected data for this project using tools available through the Colorado State University Office 365 suite, including Microsoft Forms, Word, Teams, and OneDrive. The Microsoft Privacy Policy (Microsoft Trust Center, 2023) established the privacy and security that protects participant information and identity for these tools. Colorado State University's Institutional Review Board approved my data collection strategies and approaches for participant privacy and confidentiality. This section describes my data collection process and how I attended to participant privacy and confidentiality.

Data collection for this research began with the initial participant interest form and subsequent screening process. To ensure participants met the criteria for the research, I implemented a multiple-stage screening process that collected data used in the research. The first stage involved an online interest form (see Appendix C) through which participants answered questions about their work, their role, and the problem they faced. These data were collected through a Microsoft Form and stored in my password-protected CSU Microsoft OneDrive. At this stage, I collected initial consent (see Appendix C) from potential participants that covered the data they shared in the interest form and the phone screen if they agreed to this next step. All individuals who expressed interest met the stipulations for the research and consented to a phone screen. I invited all to a phone screen, and all but one accepted.

The video screening (see Appendix D) served as a second source of data collection regarding participants, their roles as midlevel HELs, and their problems. I conducted video interviews via my Microsoft Teams with CSU. I used a semistructured interview format (Merriam & Tisdell, 2016) that allowed for unstructured dialogue and questions from potential participants. During the video screen, I took notes on participants' responses in Microsoft Word and stored those notes in my CSU Office 365 OneDrive account. I only maintained and used data

for this research project from confirmed participants. I destroyed data provided by individuals who did not participate in the research before the first AL set meeting. Following the video screening, I sent all potential participants informed consent information (see Appendix G). This consent form covered their participation in the entire research process. I collected participant consent using a Microsoft Form.

The primary data source was the discussions with and between participants in the AL set. I conducted all AL set meetings on my CSU Microsoft Teams account. I recorded each meeting and used the embedded function within Teams to generate an initial transcript of the meetings. After each meeting, I downloaded the transcript and amended it for accuracy by rewatching the AL set meeting. I saved meeting recordings and transcripts in my CSU Microsoft OneDrive.

The AL set meetings fell between a semistructured and unstructured interview, as described by Merriam and Tisdell (2016). The structured component reflected Pedler's (2008) outline for AL set meetings illustrated in Figure 5. The unstructured approach allowed all members of the AL set the freedom to explore the topic based on the content of the conversation. This combination of structured and unstructured discussion was ideal for an AL set process that moved through topics based on the experiences and concepts that participants explored in each meeting.

A final means of collecting data was through reflective journaling (Merriam & Tisdell, 2016; Zuber-Skerritt & Louw, 2014). I asked participants to journal in response to open-ended questions sent to them between AL set meetings (see Appendix A). The purpose of journaling was to create another stream of data from participants in addition to what they verbalized during AL set meetings. Journal questions prompted participants to reflect on topics before gatherings of the AL set. I initially sent participants journal questions using a Microsoft Form similar to the

intake process. However, doing so meant they could not see their responses. After the second journal response, I created a Microsoft Word document for each participant, including all responses to date, and then added journal response questions for future meetings to the document. By creating these individual Word documents, each participant could see their previous entries when they responded to new prompts. I saved all journals in my CSU OneDrive and provided participants with an individual link to access their drive.

Participants' engagement with journaling varied significantly. Three of the five participants answered each of the journal prompts. Two participants answered some but not all the responses. Participants often brought forward content from their journals into AL set meetings. Although no participant said this, seeing the content in both places gave me a sense that the journals were a helpful space for participants to reflect and prepare for future meetings. After the research, I invited participants to download their journals, but I do not know if anyone did.

Because this is AL for the purpose of research, two additional factors impacted the participant experience and the data collection process. First, I introduced participants to multiple scholarly concepts on leadership to address wicked problems in complex environments (see Appendix A). These concepts catalyzed reflection and focused participant discussion in AL set meetings and journal entries. By introducing these concepts, I incorporated relevant scholarship reflecting the third stream of data for action research. Participants also surfaced other concepts and scholarship that resonated during the AL set meetings, which added to the discussion on relevant scholarly topics.

A second influencing factor was my participation as a researcher who analyzed data and presented findings as practitioner learning for participants to review. As discussed, I reviewed

practitioner learning with participants in Meeting 5. During this time, participants affirmed what I heard in the data, added greater nuance and significance to some practitioner learnings, and challenged others. The review of practitioner learning was an intentional decision to engage participants in member checking (Merriam & Tisdell, 2016) and ensure the findings of this AL project were relevant and authentic to the participants' experience (Wood, 2020).

Privacy and Confidentiality

Anonymity in this AL research project was not possible because when participants participated in the AL set, they became known to one another and disclosed aspects of their identities, institutions, viewpoints, and leadership strategies during the experience. However, there were multiple points within this research where I took steps to create a higher degree of privacy, including for AL set meetings. I also created strategies within the AL set to give participants agency to decide if and how to communicate experiences they may not want to disclose in the AL set meetings. After discussing my efforts toward a more private research experience, I address steps taken to provide a higher degree of confidentiality for research participants.

Privacy was possible during the initial intake process and the first steps of data collection. For my intake process, potential participants responded to an online interest form using Microsoft Forms provided in my previously described CSU Microsoft 365 account. Via this form, participants choose when and where to engage. Responses to the intake form were stored in a password-protected CSU Microsoft OneDrive and were only available to me and my committee chair. After completing the recruitment process, I saved all participants' responses and deleted the responses of those who did not participate. I also deleted the original version of the intake form and the associated data.

By conducting my video screen using Microsoft Teams, participants could choose where and when they engaged in that call. Potential participants were sent unique links so only they could access the meeting. I also maintained a waiting room for the call to ensure no one unexpectedly entered the virtual meeting room. I did not record the video screenings. I took notes from the meetings on a Microsoft Word document and stored those in my Microsoft OneDrive account. I deleted notes from these meetings from those who did not participate. These strategies created a higher degree of privacy and confidentiality.

As previously stated, participating in the AL set made it impossible for participants to remain private. However, by using Microsoft Teams for virtual meetings, participants could decide where to join the meetings and could do so in physical spaces that were private for them. I invited participants to AL set meetings using a link to a Microsoft Teams meeting. I set up a waiting room for each meeting to control who entered the meeting to ensure that no uninvited people joined.

I also worked to create a research environment where participants maintained agency and self-determination to choose if and when to disclose information about their experience. As discussed earlier in this data collection section, I created two means for participants to provide me with information about their experience without discussing it with other members of the AL set. The journal responses and the review of their AOP provided a direct means of communicating with me. Both data collection strategies are discussed earlier in this section, and both created private channels where participants could communicate with me at a time and location of their choosing that their peers in the AL set could not view. To ensure participants understood their autonomy and communication options, I discussed it with each participant in the

intake call, then again with the group in the first AL set meeting and documented it in the informed consent process (see Appendix G).

Finally, I assigned all participants and their institutions a pseudonym to promote participant privacy. I replaced participants' names and the names of their institutions in the data generated from the intake forms, journal responses, and transcripts from AL set meetings with their pseudonyms. Throughout this dissertation, I used pseudonyms to refer to the participants and their institutions. To ensure I could reconnect participant information with the data, I maintained a separate document as a key with participant information. This document was stored in a different folder within my Microsoft OneDrive account than the rest of my research data.

The primary effort to promote confidentiality and protect participant information was to ensure it was collected and stored securely. As previously discussed, I collected and stored participant data using tools from my Colorado State Microsoft 365 account, password protected and protected through dual-factor authentication protocols. The Colorado State University agreement with Microsoft and the Microsoft Privacy Policy (Microsoft Trust Center, 2023) govern data privacy and security. Only my dissertation chair and I had access to Microsoft 365 account where data were collected and stored.

Transcripts and journal responses were analyzed using the data analysis tool, Dedoose. This system is password protected, and data protection within Dedoose is governed by the Dedoose security policy (Dedoose, 2022). Only I had access to the Dedoose account. Before uploading transcripts and journal entries to Dedoose, I replaced all names and institutions with pseudonyms.

Because participants were known to one another, it created the risk that they could disclose confidential information to others outside of the AL set. To address this, I informed

participants about the nature of group research and the risk it creates for confidentiality through the intake process and the consent form, the interest form (see Appendix C), and the final informed consent (see Appendix G). Participants opted into the research with full awareness of the risk for disclosure. To mitigate disclosure from participants, I facilitated a discussion during the first AL set meeting regarding their role and responsibility to maintain confidentiality. As discussed at multiple points in this chapter, I also allowed participants to review their AOP at two different times where they could revise or delete the content they did not want shared. No participant provided significant edits about their identity or to the information I shared about their work and experience with the AL set.

The destruction of data for this research will happen at multiple points. I deleted data from those who did not participate before the first meeting of the AL set. Data that could potentially expose participants' identities, like video recordings of the AL set meetings, will be destroyed when no longer needed to support the research. All data from participants in the Microsoft 365 account and the Dedoose system will be destroyed three years after the completion of this dissertation, approximately in September of 2026.

Importantly, because this research experience resulted in professional development and productive problem solving for participants, they must maintain their agency to disclose their participation in this research and the impact of the experience in ways including but not limited to professional interviews, publications, presentations, and academic coursework. The option to publicly share their experience in the research process was explicitly addressed in the recruitment process (see Appendix F) and informed consent (see Appendix G) and was a potential benefit of participating. Additionally, sharing their experience with the research can contribute to the dialogic validity of the project (Herr & Anderson, 2015) and is an equity-

informed practice encouraged by PALAR (Wood, 2020). In the next section, I address my data analysis process and the tools I used to analyze data.

Data Analysis

My objective through data analysis was to build knowledge toward systems Alpha, Beta, Gamma, and practitioner learning (Coghlan & Pedler, 2006). Addressing systems Alpha and Beta required different means of analysis than addressing system Gamma and practitioner learning. Additionally, because my AL research design involved cycles of action and reflection across multiple meetings of the AL set, I needed to create an iterative approach to data analysis. In this section, I articulate the multiple and iterative strategies I used for data analysis to address each system and practitioner learning.

I designed my data analysis strategy to create two products critical to AL, an account of practice (AOP) for each participant and our practitioner learnings generated through the research (Coghlan & Pedler, 2006). The AOPs described the participants' local context, the problem they faced and their leadership to address it, the impacts of their work, and how the research experience impacted them. Each AOP communicates systems Alpha, Beta, and Gamma. As previously discussed in this chapter, the practitioner learning shared the knowledge developed through the research experience offered to scholars and practitioners interested in leadership to address wicked problems.

These two products were also important to data analysis because I engaged the participants in creating them to ensure the final product felt authentic to their experience, an important outcome of equity-informed AL (Wood, 2020; Zuber-Skerritt, 2011). I discuss the importance of authenticity further in the quality measures section later in this chapter. In the

following data analysis subsections, I describe how I engaged my participants in the analysis process to try and achieve authenticity. First, I address the tools I used to conduct the analysis.

Data Analysis Tools

I conducted most analyses for each system and practitioner learning in the data analysis system Dedoose. I uploaded all meeting transcripts and participant journal entries into Dedoose once revised and edited to replace personally identifiable data with pseudonyms. Dedoose was an ideal QDA because it allowed me to add to the corpus of data for the project continuously and supported the coding and memo-writing strategies I used to analyze data.

In addition to analyzing data in Dedoose, I also engaged in journaling. I kept my journal in a Word document in my CSU Microsoft 365 account. At times my journal was narrative and reflective. I expressed my insecurities and anxieties as an emerging researcher at multiple points. I was a skeptic and cheerleader at the same time. Going into my last AL set meeting, I wrote, “After nearly 10 hours with these folks, I still have this anxiety-inducing question—do I have enough? Of course, I have enough!” At other times, my journal served as a space where I bulleted out what I was hearing or thinking while rewatching AL set meetings and analyzing data. While reviewing meeting four and revising the transcript, I wrote, “Reading between the lines a little, I get the sense these folks are all patiently impatient. They want change, they are ready to move quick, but they are also willing to work and let things play out.” This idea of being patiently impatient is something I return to in Chapter 5 and reflects the importance of pursuing authenticity through my data analysis. Ultimately, I did not enter my journal as data for this research because it did not apply to the research question. However, my journal was a beneficial tool that contributed to my data analysis.

The following sections address my multiple and iterative data analysis strategies and how I built an AL research product that addresses systems Alpha, Beta, Gamma, and practitioner learning.

Data Analysis for Systems Alpha and Beta

Addressing systems Alpha and Beta is primarily a descriptive summation of a participant's local context, the problem they worked on, and their leadership efforts (Coghlan & Pedler, 2006; Wood, 2020). I gathered data to inform these systems through the phone screen, AL set meetings, and journal responses. Although addressing systems Alpha and Beta does not require data coding and theme generation, my effort to write summary accounts in the participants' own words was supported by in vivo coding (Manning, 2017; Saldaña, 2016). I used in vivo coding as my primary method for coding transcripts for system Gamma and practitioner learning, which I discuss in greater detail in the following section.

After the second meeting, I realized in vivo coding alone for systems Alpha and Beta would result in too many codes. Additionally, I was already having difficulty identifying with whom the various codes were associated. Before coding the third meeting, I created individual codes for systems Alpha and Beta for each participant. I then added these codes to previous codes I created. Doing so meant I often coded a datum twice: (a) once as it related to system Alpha or Beta and (b) then again as it related to an element of their leadership that might be relevant to system Gamma or practitioner learning. An example of this was Denzil's complex organizational environment at VSU, which I discuss in Chapter 4. In a single statement, he communicated a descriptive account of 24 campuses in his local context and the complexity he navigated as a leader. In the Dedoose system, I could see multiple codes on a statement, which helped me connect in-vivo codes and my codes for each system. I used this process for the

remainder of the research, and it worked well to analyze data associated with specific systems and participants.

An important iterative step in my process was to have participants review my analysis and articulation of systems Alpha and Beta in their AOPs. This iterative review was necessary to strive for authenticity and critical because participants' understanding of the problem and their actions evolved through the research process (Bhattacharya, 2017). I wrote an initial summary addressing systems Alpha and Beta for each participant after the second meeting they attended. I articulated them in the form of an AOP. I then emailed each participant their AOP for review and edits using an individual link to a Word document in my CSU Microsoft OneDrive. Because it was early in the research process, most of the feedback I received involved corrections to details about their context and their problem description.

After the final meeting, I revised each AOP, using new data and feedback from the initial review, to create a near-final draft for the participants to review. At this point, the AOPs also included my interpretation of system Gamma. In the following subsection, I discuss my analysis of this system and how it differed from Alpha and Beta. Participant feedback on the final AOPs varied widely. Multiple participants only affirmed that the account reflected their experience. Felipe provided specific feedback on my use of colonialism and recommended I use active words like colonization to describe what his community experienced. Finally, one participant expressed embarrassment about contractions they used while speaking, which I offered to correct and deflected their embarrassment by saying that it must have been a transcription error. I also used this review as an opportunity for participants to provide any final updates to their work. During this review, Glenna shared an evolution to her challenge with data and the steps she and her

colleagues took to create a data dashboard that provided greater nuance to their diversity and inclusion efforts at FRSU.

I used participant feedback from this second review round to write the final AOPs that integrate existing scholarship and my reflections. I present each participant's AOP in Chapter 4. I did not engage participants to review this final version of their AOP for two reasons. First, the initial two rounds of revision generated only minor changes and inform the final AOPs. Because of their previous level of feedback, I felt a third review was an unnecessary burden on them and would not provide significant benefit. Second, by the time I wrote these final drafts of their AOPs, it had been nearly 2 months since our final AL set meeting. Because this time had passed, I expected them to feel their involvement in the research had concluded. Reengaging them at this point felt unnecessary and burdensome, given their previous engagement and input reviewing their AOP. In the next section, I address my data analysis strategies for system Gamma and practitioner learning.

Data Analysis for System Gamma and Practitioner Learning

As previously discussed, addressing system Gamma required identifying how participants developed as leaders, what they learned through the process, and how it impacted their work (Coghlan & Pedler, 2006). Practitioner learning is what the participants and I have offered to professionals and scholars regarding leadership to address wicked problems that we generated through the AL research experience (Coghlan & Pedler, 2006). To effectively and authentically address these two components, I employed inductive reasoning and analysis to identify insights and findings (Merriam & Tisdell, 2016).

Inductive reasoning was necessary to address system Gamma and practitioner learning for two reasons. First, because leadership on wicked problems has been under explored, I could

not confidently develop predetermined codes to analyze data. Second, leadership to address wicked problems in complex (Uhl-Bien & Arena, 2017) and midlevel leadership in higher education (Branson et al., 2016; Fey & Carpenter, 1996) is often tacitly understood by leaders. As such, I could not expect participants to have explicit awareness of their leadership and how or why they engaged in specific ways. I “worked up” from the data (Bhattacharya, 2017) using inductive strategies that allowed me to shine a light on insights from the participants’ dialogue, writing, and experience that they may or may not have realized.

I began the research process intending to use an eclectic coding approach that leveraged the simultaneous use of in vivo and affective coding strategies (Saldaña, 2016). Eclectic coding is similar to open coding (Saldaña, 2016), which Merriam and Tisdell (2016) described as allowing the researcher to code without preconceived notions of what is meaningful and relevant. The ability to code openly was necessary because, as I have established, there is not enough empirical research on my topic to work with existing codes.

Saldaña (2016) described the role of a code as something that captures the essence of the data. My primary coding method was in vivo coding, which I employed to capture the essence of data through the words of the participants to develop my codes (Saldaña, 2016). In vivo coding also supported the development of a research product that felt authentic to the participants’ experiences because their words informed it. Additionally, because I sought to understand leadership that involves complex human interaction on problems with values conflicts, I believed it necessary that my coding methods accounted for the emotions and values that inform my participants’ leadership practice and the problems they face. I started the research intending to use affective coding, namely emotion and values coding, to investigate the emotions, values, conflicts, and judgments (Saldaña, 2016) that informed my participants’ leadership practice.

After using this simultaneous coding strategy for my first three meetings, I realized affective coding did not benefit my analysis. Participants either explicitly expressed their emotions, which I captured by in vivo coding, or they expressed them through nonverbal actions that I could not confidently capture through affective coding. For example, participants would explicitly state that they were frustrated when experiencing a value conflict, and I captured that with an in vivo code. Alternatively, as a nonverbal action, they might have leaned into the frame of their video camera and shrugged their shoulders when discussing a senior leader's decision they seemingly disagreed with or were frustrated by. Although I could imply what they intended through this action, I was not positive and decided not to code that behavior. For these reasons, I amended my coding strategy and only used in vivo coding for the remainder of my analysis.

I used an iterative, multiround coding strategy to make sense of the codes I created from the words of my multiple participants. The purpose of second-round coding was to distill the codes generated during the first round into "categories, themes, concepts, and/or assertions" (Saldaña, 2016, p. 234). For my second round of coding, I intended to use pattern coding to combine my first round of codes into categories and themes based on patterns and similarities in the codes and data (Saldaña, 2016). Through the data analysis process, very few patterns emerged in the initial codes. The lack of patterns was in part because the language that each participant used was unique. As a result, pattern coding via specific words proved ineffective in connecting codes into themes. However, when I used it to connect the concepts represented in the data, I could connect similar actions that participants took and common understandings they shared. For example, Felipe very explicitly talked about informal support systems for students on his campus. At the same time, Lincoln discussed how he and his staff worked through relationships, some of which are personal or nonprofessional relationships, to get

accommodations for students. Although these initially started as different codes, they shared the similarity of working outside of the formal organizational system to get work accomplished, and I grouped them as a similar theme for practitioner learning.

As I proceeded through the first and second rounds of coding, I wrote analytical memos that informed my code development and supported my iterative, multiple-round approach to coding (Merriam & Tisdell, 2016; Saldaña, 2016). As previously discussed, I also journaled before and after meetings and throughout my coding process to capture my experience and what I found in the data. Memo writing and journaling helped me connect similar concepts not evident in individual codes. For example, the practitioner learning of Cultural Navigators, Allies, and Accomplices began with in vivo codes for cultural navigators, keystones, and allies, all being separate because of how participants described them. My memo writing and journaling helped me connect these roles as similar functions on campus that were important to participants.

Dedoose was a significant asset during the data analysis process for system Gamma and practitioner learning. The tools in Dedoose allowed me to code, recode, and categorize data that shared common concepts. Memos I wrote in the first and second rounds of coding stayed with data as I merged codes into themes, ensuring that I did not lose the logic that helped me make sense of how and why I connected specific codes.

Through my iterative data analysis strategy, I also engaged participants as sense makers as we addressed system Gamma for each person and a collective articulation of practitioner learning. For system Gamma, I used the same participant review of their AOP I described for systems Alpha and Beta to gain their feedback and affirm that I was accurate with my description. For practitioner learning, as discussed earlier in this chapter, I began the research process intending to surface emerging themes during meetings and to conduct a comprehensive

review of practitioner learning during the second to last meeting of the AL set. For reasons I have addressed previously, I shifted my review of emerging themes to the fifth meeting, where I presented the practitioner learning I synthesized from my data analysis. Through this review with participants, they added affirmed, added nuance to, and challenged the practitioner learning and related themes that I identified. This process was critical in creating practitioner learning that authentically represented the participants' experiences.

Although I began this research with a plan for analyzing data, the reality evolved. My experience with data analysis for system Gamma and practitioner learning again reflected the messiness of AL research and how I had to adapt along the way. The need to relinquish and amend my coding methods was something that Saldaña (2016) prepared me for as part of the analysis and synthesis process and helped me to justify my decision when I struggled to produce results using my original strategies. My process also aligned with Saldaña's (2016) assertion that coding and theme generation is an iterative process that gains greater clarity and accuracy through multiple cycles. Through this research, I used my iterative data analysis process to build a rich, nuanced, and authentic articulation of system Gamma for each participant and our shared participant learnings. In the next section, I address my researcher-facilitator positionality and relationship with the participants in this research.

Action Research-Facilitator Positionality

At the opening of this dissertation, I presented the positionality in which I entered this research. It included how my social identities and experiences shape my perception and how my perception has been shaped by larger social forces. This articulation is one understanding of the researcher's positionality and how it impacts research. Positionality in action research also focuses on the researcher's relationship to participants and the research context. Specifically, it

needs to address whether the researcher is an insider or outsider among the participants and within the research context (Herr & Anderson, 2015; Wood, 2020). Rather than a binary between insider and outsider, positionality is understood to exist on a spectrum and can shift during the research process (Herr & Anderson, 2015). Some scholars have critiqued action researchers who have focused too much on this understanding of researcher positionality and abdicated the need to address how their socialized identities or experiences with power or marginalization influence the research (Wood, 2020; Zuber-Skerritt, 2018). I agreed with this argument and have included both understandings of positionality in this dissertation.

Herr and Anderson (2015) articulated a continuum of researcher positionality that ranges from insider self-study to outsider research on action research. I have summarized their continuum in Table 2. For three reasons, my action research positionality for this project was predominantly Position 5, a researcher in collaboration with insiders. First, as previously discussed, I maintained a degree of ownership of the research process that prevented the research from being genuinely collaborative. My description of my role as researcher–facilitator was evidence of this need. Second, as the researcher–facilitator, I created the opportunity for participants to collaboratively shape the AL process and research outcomes as outlined in the methodology section. Third, I was an outsider because I was not a member of their local context and did not work in HE during the research process. A benefit of my outsider position was that it diminished the power imbalance among my participants compared to research with colleagues on the same campus (Herr & Anderson, 2015). At times I did share my personal experiences as a HEL who worked on wicked problems but doing so never shifted my position to that of an insider.

Table 2

Summary of Herr and Anderson's (2015) Continuum of Researcher Positionality

Researcher positionality	Shift from insider (1) to outsider (6)
1	Researcher as insider, researcher studies own self/practice
2	Researcher as insider, research pursued in collaboration with other insiders
3	Researcher as insider, research pursued in collaboration with outsider
4	Reciprocal collaboration, research pursued as insider–outsider teams
5	Researcher as outsider, research pursued in collaboration with insider
6	Researcher as outsider, research pursued as studies on insider

Although I did not work in HE while I engaged with my research participants, I have over 14 years of experience in HE. Eight of those years were as a midlevel leader who worked on wicked problems in a complex organizational environment. After concluding the research with participants, I returned to a role in HE while still writing this dissertation. My experience as a midlevel leader and my reintroduction into HE drew me slightly closer to being an insider in this project, especially as it relates to my interpretation of practitioner learning and how I write about it in this dissertation. However, my core position as the researcher remained as an outsider to my participants and their local contexts. In the next section, I explore quality within action research and how I worked toward validity through my project.

Quality in AL Research

Action researchers have not settled on quality measures within the methodology (Coghlan & Pedler, 2006; Herr & Anderson, 2015). The subjective-objective ontology, multiple intended outcomes, and blurred lines between researcher and participant complicate how quality is defined (Heron & Reason, 1997; Herr & Anderson, 2015; Nicholas & Hathcoat, 2014). Heron and Reason (1997) proposed that quality in participatory research is rooted in a critical subjectivity that builds through multiple cycles of action and reflection toward demonstrating

their four ways of knowing: practical, propositional, presentational, and experiential. These scholars have added that transformation is a core purpose of the paradigm and that research should be evaluated, in part, on the impact it creates. Through this discussion of quality, experiential and practical knowing hold added importance as they reflect participant engagement with the object of study, the ability to create impact, and what they know because of the experience. Coghlan and Pedler (2006) offered a similar understanding of quality rooted in experience and learning and proposed that a researcher should provide evidence to answer three questions “1) What is the evidence of real problems being addressed? . . . 2) What is the evidence of action being taken on the problems? . . . 3) What evidence of learning has taken place?” (p. 136). By answering these questions, the researcher can evidence how their project addressed systems Alpha, Beta, and Gamma discussed earlier in this chapter.

Although action on problems to generate impact and knowledge are at the core of quality in action research, two other attributes are worth noting. First, action research and the project’s results must feel authentic and resonate with the participants (Wood, 2020; Zuber-Skerritt, 2011). Wood (2020) and Zuber-Skerritt (2011) argued that authenticity applies to all aspects of the research experience, including the problems faced, the process engaged in, the actions taken, and the project’s synthesis and reporting. Second, AL must result in shared learning (Bourner & Simpson, 2005) or practitioner learning (Coghlan & Pedler, 2006) by contributing to the discussion among practitioners or scholars on the topic. Herr and Anderson (2015) captured all the previously discussed validity measures for action research through their five validity criteria.

Herr and Anderson (2015) articulated five criteria for validity in action research, which I have summarized in Table 3. They proposed these measures of validity for three reasons, first they reflect the desired outcomes of action research. Second, they address criticism within

academe regarding action research as a valid means of generating knowledge that contributes to both theory and practice. Finally, to spark debate among action researchers regarding the most appropriate means to evaluate quality action research.

Table 3

Summary of Herr and Anderson's (2015) Validity Criteria

Validity criteria	Summary of criteria
Outcome	The research process leads to a more complex understanding of problems, which compels the research and facilitates solutions to these problems.
Catalytic	The research process should result in all involved seeking to reorient their understanding of reality and be motivated to change it.
Democratic	The research process broadly engages parties with a stake in the problem under investigation and the means to pursue answers. The inclusion of multiple voices is an ethical and social justice concern.
Process	The research process creates cycles of reflection and action that permit ongoing learning within the individual or system context. Multiple voices enhance validity. The process adheres to other quality standards of specific methods used.
Dialogic	The research generates new knowledge. The methods, evidence, and findings resonate with and generate discussion among interested scholars.

Multiple scholars, including Herr and Anderson (2015), recognized that validity as a measure of quality has positivists roots, and those familiar with other forms of qualitative research often resist the use of validity in qualitative research (Coghlan & Pedler, 2006; Wood, 2020; Zuber-Skerritt, 2011). As a developing action researcher, I embraced these validity measures for my project because they capture all other means of discussing quality in action research and offer a clear and concise criterion for developing and evaluating my research. This understanding of validity also has greater adoption among scholars, which allowed me to contribute to a more extensive discussion in the AR scholarship.

The influence of criteria on the project depends on the action research tradition chosen, and no project will meet all five to the same degree (Herr & Anderson, 2015). My pursuit of an

AL project influenced by the PALAR centered my attention on the outcome, dialogic, and process validity criteria. I intended for my project to facilitate better problem solving, foster learning in participants, and produce practitioner learning that can contribute to scholarly discussion. I addressed outcome validity through systems Alpha and Beta. System Gamma and practitioner learning contributed to achieving dialogic validity. An essential aspect of the dialogic process for my research was to bring the themes my participants surface into a discussion with existing scholarship on leadership and wicked problems. I engage in this discussion in Chapters 4 and 5. Connecting to existing literature also informed my decision to introduce participants to the scholarship on wicked problems and complexity leadership. Lastly, I met process validity by facilitating multiple cycles of action and reflection among my participants through a process that aligned with the norms of AL. A critical component of process validity is ensuring that my research results are authentic to the participants. The need for authenticity drove my decisions on data collection and analysis discussed earlier in this chapter.

Chapter Summary

In this chapter, I communicated my approach and the decisions I made to explore how five midlevel HELs understood leadership to address wicked problems. I based the project in the participatory paradigm, followed AL methodology and methods, and met the validity criteria for AL methodology. The results of the research surfaced practitioner learning, fostered individual learning, and created local impact through multiple cycles of action and reflection.

In Chapter 4, I share the participants' exploration of systems Alpha, Beta, and Gamma for each participant through their AOPs. I conclude Chapter 4 by presenting the practitioner learning I generated with participants through the AL research process and how it integrates with

and challenges existing scholarship on leadership to address wicked problems of inequity and injustice.

CHAPTER 4: ACCOUNTS OF PRACTICE AND PRACTITIONER LEARNING

As addressed in Chapter 3, scholarly action research must address systems Alpha, Beta, and Gamma for each participant through a written account of practice (AOP) and offer the practitioner learning generated through the research process (Bourner & Simpson, 2005; Coghlan & Pedler, 2006). This chapter is organized into two main sections to address these requirements. The first section includes AOPs for each participant that attempt to summarize their exploration of their wicked problem, their work to address it, the impact of the research, and what they gained through the process. Each AOP is primarily a descriptive account of their experience, effort, and learning. Because an AOP is often a first-person account of the research, I restrained from adding significant analysis or critique, but at the end of each AOP, I provide my reflection on their leadership practice and exploration of their wicked problem. Every participant had the opportunity to review, comment on, and suggest changes to two drafts of the AOP. Each participant affirmed the drafts of their AOP were an authentic description of their experience. The final AOPs were rooted in the information contained in the initial drafts but have not been reviewed or approved by participants.

The second section shares the practitioner learning we generated through the research process. The practitioner learning is what participants and I offer to scholars and practitioners who are interested in leadership to address wicked problems in complex higher education (HE) environments. In this section, I integrate our practitioner learning with the scholarship discussed in Chapter 2 and add my analysis on how it aligned with, contradicted, or expanded the existing knowledge base. The practitioner learning does not offer a theory to address wicked problems in HE. Instead, the practitioner learning reflects what the five participants in this research and I

found meaningful and worth sharing with other leaders and leadership scholars interested in our work.

Through the individual AOPs and practitioner learning section, I answer the questions that guided this research:

- How do a small group of midlevel higher education leaders (HELs) practice leadership to address wicked problems in the complex organizational context of public research universities?
 - How have the HE professionals adapted their leadership practice based on their engagement with the action learning (AL) set?
 - How have participants in this action research project impacted wicked problems that include challenges of inequity or injustice on their campuses?

Felipe's Account of Practice: Formal Crisis Response in an Informal Cultural Context

At the start of this research, Felipe (he/him/his) worked as an acting director in residence life responsible for bias incident response, student crisis support, and diversity and equity initiatives at a land-grant research university in the Pacific Northwest. Between the time he expressed interest and the first AL set meeting, he accepted a new role as an operations coordinator reporting to the vice provost for student success at Queen Lili'uokalani University (QLU), a land-grant university on the occupied lands of Hawai'i. His responsibility at QLU was to codify the systems, processes, and tools to respond to student crises and experiences of bias. For simplicity, I referred to his work as crisis response, which also includes experiences of bias and other student emergencies. Together with Felipe, we determined that because his new responsibilities closely matched the wicked problem he first applied to this research to pursue, and because he was still working as a midlevel leader at a public research university, his

participation in the AL set made sense from a research perspective and could benefit him in his new challenge at QLU.

Felipe identified as a queer Native Hawaiian man returning home to work at QLU. In the first AL set meeting, he described himself as Miss Marie, referencing Marie Kondo. He believed his identity, positionality, professional responsibility, and scholarly interest were intertwined. He shared:

So I've kind of come in here to be the Marie Kondo . . . I love her, her philosophy, and I think it's my positionality. I'm just like, navigating a crisis and care and that's kind of my area of expertise. It's my area of research study.

At the time of this research, Felipe was a doctoral student researching how crisis response systems exist in formal and informal networks on college campuses. As Felipe engaged with the QLU community and worked to develop systems and structures, his understanding of his positionality, his problem, and how to address it evolved in relation to one another.

Because of the uniqueness of his transition, how Felipe understood his problem expanded as he spent time working on his problem. Although all participants increased their understanding of their problem through the research process, Felipe was the only one who began working on his problem while in the AL set. The process of AL unfolds in cycles of action and reflection (Coghlan & Pedler, 2006; Wood, 2020; Zuber-Skerritt, 2018). Because Felipe started the research process with almost no understanding of his problem, no familiarity with the context, and no tangible action on his problem, his experience with the research resulted in demonstrable cycles of action and reflection.

In my summary of Felipe's experience with the research, I attempt to communicate how these cycles unfolded and led to one another in three phases. In the first phase, Felipe understood

and attempted to approach his problem through his established leadership practice. He quickly ran into resistance from his colleagues to his approach and had to adapt. In the second phase, Felipe explored the role of Hawaiian norms and practices in his leadership. Through this phase, he began questioning his leadership in the context of a colonized community at QLU and how his behavior perpetuated Western norms and values. Felipe integrated what he learned during his first 3 months at QLU, and the cycles of action and reflection, to identify a path forward.

His Early Exploration of Crisis Response

When Felipe started at QLU, he believed the wicked problem he would work on was how to formalize and create systems and processes to support the campus crisis response. Felipe quickly learned that multiple factors complicated the challenge. According to Felipe, the campus did not have a formal response team, but an informal network existed to support students. As a result, even the language he used to talk about his work could be problematic. He shared, “One thing I’m also learning about is what language I use. Right? So, saying am I establishing something, or am I just enhancing? Or am I just working alongside people who are doing this work?” How Felipe framed his approach to his work shaped how he understood his problem and how people responded to him. He was conscious of the impact of language moving forward and began to focus on working with colleagues who had long engaged in the work.

The informal support system at QLU occupied much of Felipe’s early consideration for his wicked problem. According to Felipe, “I want to acknowledge and recognize that QLU has always been supporting students and providing them resources and care. But it hasn’t been done in a formal way.” Felipe described multiple examples of informal support structures, like the “Auntie in food services who gives out leftovers on Fridays.” Up to the midpoint of the research,

Felipe focused on solving his wicked problem by formalizing the informal care network and implementing case management tools and strategies in the cultural context of QLU.

Although formalizing the informal network was his focus, he struggled to make early progress. When I introduced the complexity leadership theory framework of organizations (Uhl-Bien & Arena, 2017) to the AL set, Felipe recognized that the campus crisis support network almost exclusively operated through the entrepreneurial system and adaptive space. One way to interpret Felipe's challenge and the resistance he experienced is to consider the difficulty of transitioning the informal care network to a formalized approach in the operational system of the QLU administration. Although that interpretation may have merit, it fails to consider the cultural context and why the crisis response network exists in informal spaces.

By the midpoint of the AL set meetings, Felipe began to explore how the Hawaiian history with colonization, his own identity, and his professional experience also contributed to the wickedness of his problem. Early on, he acknowledged, "I am at QLU in the state of Hawai'i, which was formally a kingdom, a sovereign nation. And so, I'm navigating the political dynamics of Native Hawaiian identity while also recognizing Western influence." Felipe shared, as he worked on the care network, he experienced resistance from his colleagues that he connected to the colonized history of Hawai'i.

According to Felipe, his colleagues challenged him on his desire to fix how they supported students. Felipe shared being critical of Hawaiian norms and attempting to instill Western practices was a common approach by people from the U.S. mainland. At the end of this AOP, I reflected on how Felipe's description of himself as Miss Marie could have influenced the perception that he was there to fix QLU.

Colleagues also perceived Felipe as an outsider and challenged his competence in working with QLU students, specifically Native Hawaiian students. They dismissed him by telling him, “You don’t know how to care for Pacific Islander students. I do, and that’s our work. You just send them to us, and we’ll figure it out.” As a Native Hawaiian who felt he was coming home, these perceptions hurt Felipe, and he was aware they could erode his colleagues’ trust in him. Ultimately, he was concerned that negative perceptions of him would impact his ability to lead solutions to his wicked problem.

Up to this point in the research timeline, Felipe attributed the reaction and resistance he experienced from his colleagues to their previous experiences with colonization. He questioned if his arrival from an institution on the U.S. mainland affected their perception of him and activated their resistance. At this point, he did not identify himself as actively contributing to their resistance, but that realization changed later in the research process. First, Felipe paused and reflected on his leadership approach. As a result, he shifted focus from creating formal systems to building relationships and embracing his Native identity within QLU cultural norms.

Building Pilina and Working With Others

In his first few weeks at QLU, Felipe’s boss asked him, “How are you establishing pilina?” Pilina is a Hawaiian norm of connecting, meeting, and building relationships (University of Hawaii News, 2023). Felipe raised this question his boss asked multiple times throughout the research process, and his engagement with it grew over time. Although relationships were necessary for all the participants in this research, building pilina happened in the unique cultural context of QLU. Establishing relationships by building pilina became a new focus of Felipe’s work.

Building pilina was not a new practice to Felipe, but he shared with members of the AL set that after over a decade on the U.S. mainland, he had forgotten some of the norms. He provided an example: “When someone gives me a platter of vegetables from their garden, I’m supposed to return that platter with items from my garden or from my home as a thank you. Like, that’s just understood.” In response to receiving vegetable platters, Felipe spent the weekend baking so he could enter the next week with something to offer his colleagues. Although this might appear like a small gesture, Felipe shared the “unwritten rules within a system have been really hard to navigate while also being the new person in the group. While also being in a place of leadership.” Felipe also shared, at QLU, building pilina expanded well beyond gift giving.

In a later meeting of the AL set, Felipe discussed that to build pilina, he had to know how he entered a relationship and who else he brought with him into that relationship. According to Felipe, it was necessary to consider how his family members, boss, or mentors may have impacted the person or the person’s family he was trying to connect with. Building pilina was not a discrete act between two people; instead, it recognized the history of family and professional networks. Although Felipe did not seem to struggle with this aspect of building pilina or the work of gift giving, cultural norms around elders on campus did challenge him.

According to Felipe, elders hold a place of significance on campus, and colleagues pay them respect for their knowledge and the work they have established. Tangential to respect for elders was respect for legacy staff members regardless of if they were considered elders. One way to show respect for elders and legacy staff members was to appreciate their work and insights. This aspect of respect impacted how Felipe could pursue his work as a new employee. He shared, “There is a complexity around the association of years of service with the proficiency of work. So, because I’ve only been here for 2 months, I don’t know anything. Whereas people

who've been here for 20 years know everything.” This norm meant Felipe not only needed to show appreciation for longtime staff members, regardless of how he perceived their work, but also received less credence because he was new. Being new to campus, younger, and working on a problem staff had worked on for years all challenged Felipe’s leadership practice. As a result, Hawaiian cultural norms minimized his authority and influence as he began his work at QLU.

As Felipe wrestled with his problem, position in the community, and how to build pilina, he landed on the importance of face-to-face interactions to establish himself as a trusted partner. Felipe learned that at QLU, it was not helpful to send an email if he had not established a relationship with the person because “it can come off as taking over or there’s a lot of miscommunications that can take place.” Although it was essential to have face-to-face interactions first, Felipe also found just dropping in on people was not helpful. He shared, in his first weeks at QLU, he stopped by the food pantry unannounced and introduced himself as someone from the office of the vice president. Rather than being welcomed, the staff reacted with concern that something must be wrong because staff from the vice president’s office came by. Although he believed face-to-face interactions were important to building pilina, he needed a different approach when establishing initial connections.

To establish relationships, he started working with trusted leaders who could introduce him and “vouch” for him, in his words. He began working with other leaders at the assistant vice president level to invite him to staff meetings or tour him through office spaces. He named them as allies, and their introductions helped him create initial connections so he was known when he sent an email or visited an office. He also identified key people on campus who were critical to the organization’s ecosystem, knew the culture, and could help him navigate the campus environment. He referred to these colleagues as keystones of the organization. During AL set

meetings, Felipe shared being vouched for by allies and working with keystones helped him begin to build pilina with colleagues. Although he was making progress with colleagues, he still faced resistance that required other responses.

As discussed early in this AOP, Felipe experienced resistance because people did not believe he could support Native Hawaiian students, and they did not know he was Native. He shared with the AL set, “I recognize that I look racially ambiguous. Like, my name does not scream ‘He’s Native Hawaiian’ and so . . . they didn’t know that about me.” He offered this perspective later in the research process. Having spent a few months on campus by this time, he decided to take a more direct approach with colleagues who displayed resistance related to his identity. For these instances, Felipe said he would bring them in and “give them a big old hug.” He understood that their perception of him did not match who he was, so Felipe spent time with them, shared meals with them, and let them know who he was and his experience as a Native Hawaiian. Spending time with colleagues to get to know one another aligned with building pilina and helped Felipe reduce resistance and gain trust.

Not being trusted was hard for Felipe, especially because he was returning to QLU to serve Native students as a Native Hawaiian. Felipe expected that establishing relationships with colleagues at QLU, which he built as a student and through work in professional associations like NASPA, would help his transition. While reflecting on these existing relationships, he shared, “These are the aunties and uncles . . . I thought I had the street cred. I don’t have the street cred.” Toward the end of the AL set, Felipe had a realization about work and relationship building during a meeting of the AL set. At his previous institution, people built relationships by doing work together. However, at QLU, people had to build a relationship before work could proceed

successfully. This realization helped Felipe understand how he needed to lead differently by investing time to build pilina.

Although Felipe had this realization, it did not immediately impact how colleagues perceived him, and he continued to experience reactions and resistance throughout the research process. He was also committed to reflecting on and adapting his practice as a midlevel leader. Through his efforts to embrace Hawaiian cultural norms, build pilina, and engage in ongoing reflection, Felipe had another significant realization that shifted his understanding of his problem and how he pursued solutions.

Felipe's Role in His Wicked Problem

By engaging with the community and intentionally reflecting on his experience, Felipe realized pursuing a formal response network may be an act of colonization. In the fourth meeting of the AL set, Felipe questioned the need for formal care systems. He asked himself, “Because the peer institutions that QLU benchmarks themselves have care teams and formal systems, does that mean that is something that is a problem here?” Through his recent work and by asking questions like this, Felipe considered if he was perpetuating values from HE institutions on the U.S. mainland and questioned if he was perpetuating colonizing practices. Although he previously connected colleagues’ resistances to their colonization experience, he now recognized that his actions contributed to the factors that made his problem wicked. Felipe was the only member of the AL set that explicitly recognized that his behavior increased the wickedness of the problem he sought to address.

As a result of these realizations, Felipe shared his next leadership action was to spend time with the QLU community and let them tell him if there was a need for formalized crisis response. He offered his plan to “just sit down and listen . . . to see if this is a critical issue if this

is a wicked problem, that the [QLU] community has assessed. Then, that's when we can move forward." When Felipe shared this next step, I perceived him to have a high degree of conviction and expected future updates from him would involve a thoughtful process of listening. However, Felipe seemed to move quickly from this self-reflective and curious moment to act to implement a more formalized system.

About a month later, at the final meeting of the AL set, I asked participants to share an update that summarized where their work on their problems stood. Felipe shared he and a partner in the office of the vice president were formalizing some crisis response processes. This update surprised me because it did not reflect his plan to listen. He was clear that the processes they were moving forward with were under the purview of his office. He gave examples like administrative notices for student deaths and administrative student withdrawals. He also shared, to do so successfully, he and his partner would need to start by building a relationship with the registrar's office. According to Felipe, simply implementing a new system without involving the impacted offices would not work, and he needed to bring them into the new culture of the office. Although I was surprised at how quickly Felipe moved from intentional listening to implementation, it was clear he was considering other offices in the process and the necessity to involve them.

Additionally, Felipe reflected that moving forward was only possible because he had established *pilina* with his colleagues. According to Felipe, colleagues now "[trusted] me as a person, not my positionality." As a result, he thought he could start formalizing some aspects of campus crisis response for which he was responsible. He also backed away from the need to formalize the entire system. Whereas his approach simplified the scope of his wicked problem, he now pursued it with *pilina* and collaboration as the centerpieces of his process.

How the Research Impacted Felipe

Felipe communicated multiple benefits from his time with his peers in the AL set and the broader research process. As discussed in the previous section, the research process helped Felipe identify that his leadership approach was an act of colonization. While reflecting during an AL set meeting, he shared:

As a person who has greatly seen the impact of colonization . . . it wasn't until in this moment, in this conversation, in this reflection, that I realized, oh, I'm coming from this kind of outsider coming in situation. I'm saying there is a problem.

His time on the U.S. mainland impacted him in ways he did not realize. The research process helped him critically reflect on his behavior and provided space to deconstruct norms to better align with practices at QLU.

During the research, Felipe developed the understanding that relationship building in a community that resisted colonizing behavior takes time, thoughtfulness, and recognition of how history influences current relationships. He shared with the AL set:

It is so easy, especially when we are working within capitalistic structures, to be like, okay, so I'm gonna build a relationship with this person for 1 hour. I'm gonna have lunch with them, and then we're gonna be the best friend, and we're able to make things happen.

In his first 3 months at QLU, Felipe learned the importance of attending birthday parties and participating in holiday tea events. He also critically considered how his family or mentors may have harmed his colleagues or their families. By the end of the AL set, Felipe embraced the notion that leadership is successful at QLU because of the person, not the position. He also

understood this type of leadership takes time and he needed to invest time with his colleagues to address wicked problems at QLU.

Lastly, Felipe was explicit that his involvement with the AL set was a stabilizing force during change and a catalyst for a productive transition to his new role at QLU. Engaging with other midlevel professionals working on wicked problems grounded him in his new role and the significance of his responsibilities. By hearing from others about their wicked problems, Felipe became more comfortable accepting that he, too, was working on a wicked problem. Feeling like a peer was a meaningful outcome for Felipe, who shared he often considered himself a graduate student even though he was well into his career. This research experience resulted in Felipe having greater comfort with his identity as a midlevel leader responsible for leading efforts to address wicked problems.

My Reflections on Felipe's Leadership

Felipe entered this research process during a period of significant transition. In the first meeting of the AL set, he joined from his apartment, which he had packed to move later that week. He was sick and exhausted from the stress of moving but optimistic about his return to Hawai'i to start work at QLU. Being optimistic in the face of adversity was an aspect of Felipe's leadership comportment evident throughout the research process. As discussed in his AOP, his transition to QLU was rich with resistance, much of which was associated with him and his leadership practice.

Felipe's early optimism about his work at QLU could also have been perceived as overconfidence and may not have set well with his new colleagues. Felipe introduced himself as Miss Marie, referring to Marie Kondo, and he was brought into QLU to clean up a mess and organize existing processes. I do not know if he shared that view with colleagues at QLU or only

members of the AL set, but I can understand how this mentality could spark resistance. In my professional practice, I never enjoyed someone new coming in and telling me they would clean up my work. That mindset discredits the people involved and does not recognize the inherent messiness of wicked problems (Head, 2019; Rittel & Webber, 1973).

Although Felipe may have been overconfident, he quickly began to critique and adapt his leadership practice and question how his behavior contributed to his wicked problem. It may have been due to his overconfidence or unfamiliarity with his new position, but Felipe needed to adapt to succeed. More so than any member of the AL set, Felipe shared how he was modifying his leadership practice to be more effective in his work at QLU. Felipe was also the only participant to meaningfully explore how colonization shaped the context of his work and consider his leadership practice and how he perpetuated colonizing practices. Although he never used the term, I believe Felipe's critical self-analysis was an act of decolonizing his leadership practice.

Throughout Felipe's reflections on colonization at QLU and his role in perpetuating colonizing practices, I kept returning to la paperson's (2017) challenge to create decolonized third world spaces in universities. I wondered if the informal response network was already a decolonized space and what an intentionally designed decolonized crisis response network could look like. During one discussion on the topic, I offered the concept to Felipe in an attempt to create further dialogue and consideration of the idea. He did not respond to it meaningfully in the meeting but continued to explore colonization and its influence on his leadership. Given the role of public research universities in colonization and the proliferation of behavioral intervention teams, bias response programs, and other crisis response networks, analyzing them through a

decolonizing lens could result in more equitable solutions to wicked problems associated with campus care response networks.

Decolonizing my leadership practice is a concept that came to my attention during my doctoral coursework through class discussions and la paperson's (2017) articulation of the scyborg and their role in HE. It is something I have struggled to implement in meaningful ways. I greatly appreciated Felipe's willingness to be vulnerable in the AL set and critique his role in continuing colonization. This act is a leadership behavior I will attempt to embrace in my future practice, and I challenge other midlevel leaders to consider the effort of decolonization as part of their leadership practice.

Beyond considering colonizing practices, Felipe focused acutely on relationship building during the research process. It was linked intrinsically with building pilina. His reflection on the need to build relationships before engaging in work rather than while engaging in work has challenged me since he raised the idea. In my midlevel leadership, I have almost exclusively built relationships while working with people. I have often experienced challenges and resistance that subsided as I got to know my colleagues and they got to know me. Wicked problems are wicked because stakeholders have differing values and perspectives on the problem and how to move forward (Alford & Head, 2017; Rittel & Webber, 1973). By flipping the relationship-building process to first be about the people and then about the work, midlevel leaders may find they can reduce conflicts and build congruent thoughts toward potential solutions.

Glenna: Enacting Culture Change Toward DEI vis-à-vis Strategic Planning

Glenna (she/her/hers) was the chief of staff to the president at Front Range State University (FRSU), a public doctoral-granting institution along the U.S. Rocky Mountains. The institution was in a phase of strategic growth, had ambitions to become a research university, and

was working toward expanding its professional degree offerings to achieve that goal. A critical component of the growth trajectory at FRSU was expanding enrollment and services for Latinx students to earn Hispanic-Serving Institution (HSI) designation.

Glenna identified as a White, educated, woman with financial stability. Her identities and her skill to drive projects toward outcomes and accomplish work shaped her positionality at FRSU and how she approached her responsibilities. As chief of staff to the president, Glenna ensured progress toward FRSU's strategic plan and related initiatives. However, she was not responsible for any single initiative and described that she worked "through influence and other types of leadership" to advance elements of the strategic plan. She was a president's leadership cabinet member and collaborated with academic and administrative leaders across campus to further the university's objectives. Glenna had two staff who reported to her and helped facilitate the work of the president's office.

The institution was in a second, 2-year phase of a 10-year strategic plan focusing on "creating plans, structures, and programs that foster an inclusive environment." According to Glenna, a key element of her wicked problem was the conflict between the aspiration to be an inclusive campus and how they became one. She said, "It is difficult to operationalize in a meaningful way . . . while I believe the university is firm in its commitment, it is nascent in its ability to define and implement clear actions." Additionally, because of turnover at the leadership level, most of the people responsible for the strategic plan were not involved in its development. Glenna described this put the new leadership in a position where they "might not have identified the goals and the visions and in the same way, and yet are now responsible for implementing it." A campus climate survey; developing a comprehensive diversity, equity, and

inclusion (DEI) strategic plan; and progressing toward an HSI designation were all strategic plan objectives. As chief of staff, Glenna was involved in the leadership of these objectives.

At the first AL set meeting, Glenna spoke about her role in influencing and shaping campus culture through the strategic plan. She shared, “This is a problem that I don’t have direct ownership for, but in my role, I have responsibility for making sure that things happen.” She also confessed leading cultural change would require her to lead through strategies with which she was less comfortable. Namely, she was “thinking about collaborative processes, really navigating complex systems and relationships.” Her discomfort persisted through the research process as she grappled with how to lead change.

During the research process, Glenna’s action to foster culture change was almost entirely through personal reflection, relationship building, and one-on-one conversations. She worked to influence how leaders at FRSU thought about data and metrics to measure equity and inclusion on campus. Her contribution to FRSU’s official pursuit of HSI status took small steps forward but remained predominantly in the conceptualization phase. Through her work on both efforts and engagement with the AL set, she expanded her view on the effect of interpersonal and intrapersonal dynamics on wicked problems and the need to embrace complexity to address complexity. Incidents in her day-to-day work as the president’s chief of staff also challenged her and impacted her work on her wicked problem.

In this account of practice, I attempt to communicate 3 months of Glenna’s work, reflections, impact, and learning succinctly and compellingly. At the onset, it is prudent to note that given the short timeline of this research project, she was not likely to achieve measurable outcomes on her problem. The scope and scale of her responsibilities and the challenges she worked on for the campus required ongoing effort for multiple years. Instead, her experience and

the impacts she had reflected a continuous pursuit to shift culture toward a more inclusive and equitable FRSU.

Leading for Better Data

Leadership at FRSU wanted to use data to guide and evaluate progress on the strategic plan and objectives of inclusivity. Although data-informed decision making may appear to be a tame problem, Glenna identified and worked to address two challenges that made this element of her problem more wicked. The first challenge involved a campus climate survey, and the second challenge related to how senior leaders viewed data and their preferences for simple metrics.

Driving Response to the Campus Climate Survey

At the start of the AL research process, FRSU launched a campus climate survey. In an early meeting of the AL set, Glenna shared participation was minimal and many community members had started but not finished the survey. Glenna attributed some of the low response rates to a campus culture that did not value or have a history of acting on climate surveys. She shared, “I think there is a sense from people, especially who have been at the institution for a while, that feedback just kind of goes into a void.” More importantly, she thought the campus community did not trust the new leadership to listen and act on what they shared. She also questioned if people felt safe taking the survey, saying, “It did kind of make me wonder . . . if that suggests something about how people are experiencing the climate and felt like they would be too identifiable or didn’t want to share for some reason.” Ultimately, Glenna was concerned about how low participation in the survey would continue to impact campus climate and the ability of the leadership to create culture change.

To try and increase the response rate, she leaned into personal relationships and individual conversations to encourage other campus leaders to push participation. Glenna shared,

“My colleagues and I are trying to do a lot of personal outreach to encourage people . . . through relationships as opposed to . . . official channels.” According to Glenna, this approach came with a degree of risk because although encouraging people to participate and assuring them that their feedback mattered, she did not have evidence that leadership would take it seriously. In her words, “This is a little bit untested for me because I’m still new to this institution.” By assuring people their response was significant without evidence to support it, Glenna believed she was risking her personal capital with colleagues. Being new on campus complicated people’s trust in her and made Glenna question her confidence in the leadership team and what would happen with data. The role of personal capital and trust among colleagues were concepts that Glenna returned to throughout the research process. I discuss both concepts in greater detail later in her AOP.

The data collection phase of the climate survey concluded after the third meeting of the AL set. As a result, driving participation was no longer a focus of Glenna’s regular updates. In her last discussion on the challenge, she considered the need for the president and other leadership members to communicate to the campus how they will engage with the results and the actions they will take. She thought it was her responsibility to facilitate a conversation with members of the president’s cabinet on how to “indicate that we have heard people and consider their feedback and, and even if the response might not look like what they would have envisioned that, that we are taking action.” Her focus on the campus climate survey concluded while the data were analyzed, and Glenna’s attention shifted to another data-related challenge.

Challenging the Desire for Simple Metrics

The type of metrics that the board of trustees wanted to demonstrate equity and inclusion at FRSU became a second element of Glenna’s wicked problem that she discussed during AL set

meetings. Glenna described that trustees wanted “quantitative goals for [the] strategic plan. They want to know the numbers and the metrics that are easily measured.” The need for simple metrics was something Glenna struggled with philosophically throughout the research process, especially as it related to measuring experiences of DEI. She shared, “It’s hard to reduce to simple metrics, and I’m also trained as a qualitative researcher, so my brain just doesn’t work that way.” As a midlevel leader engaged in equity and inclusion work, and an academic trained to think about nuance, Glenna felt compelled to challenge the desire for simple metrics. She was also concerned that presenting simple metrics could “offer a false picture if [they] say something like, ‘We’ve closed equity gaps’ because now [underrepresented minority] student populations have the same 4-year graduation rates as White students.” Further, she said, “I just think that obscures so many realities.” The challenge to get trustees and other FRSU leaders to understand the complexity of measuring equity, inclusion, and campus culture was a focus of her discussions in the AL set meetings.

As chief of staff to the president, Glenna was in a central position to identify better metrics and influence how the cabinet kept the trustees informed. However, she struggled to find the data to tell the story of equity and inclusion effectively. She shared, “I continue to be in the struggle of not just enacting cultural change, but then thinking about how to talk about it in a way that . . . accounts for how kind of messy and complex culture change is.” Glenna was sure the simple metrics the board wanted were insufficient, but she was unsure what data would capture the complexity of culture change and inclusion at FRSU.

As Glenna considered her next steps, an opportunity arose when a peer on the president’s cabinet voiced their concern that cabinet members oversimplified the complexity of their areas of responsibility for the strategic plan. Glenna shared this colleague had said, “Wow, those sound

like really tidy updates for very complex issues.” At that moment, Glenna identified them as a potential partner in her effort to add nuance to data and metrics. However, she did not take immediate action in the meeting. Instead, she waited until after the meeting to follow up with this new ally via a one-on-one conversation. Unfortunately, Glenna never shared in an AL set meeting if or how this ally helped to move things forward.

At the end of the research process, Glenna’s leadership through one-on-one conversations and continuous efforts to advance an interest in more nuanced data resulted in what she believed was a step forward with the cabinet. Members agreed with Glenna that the campus could benefit by moving the trustees beyond simple metrics toward a richer understanding of the university’s DEI challenges. With Glenna’s guidance, they decided to use some of the unstructured time at the next board meeting to engage trustees in “more meaningful ways within the life of the university.” In practice, they planned to have leaders from diversity programs and student fellows engage with trustees over dinner and breakfast during their meetings. Glenna and the other board members hoped this process would add more depth to how the trustees viewed equity and inclusion on campus and move them toward recognizing the limitations of simple metrics. Although this was an outcome of her leadership, the strategy deserved questioning. At the end of her AOP, I critique this approach.

After the AL set meetings concluded, Glenna reviewed a draft of her AOP and reported the president’s cabinet continued progressing. She shared she was working to create a data dashboard with other cabinet members. When complete, the dashboard would hopefully communicate multiple data points to give a more holistic understanding of the progress of the strategic plan and the impact on equity and inclusion at FRSU. Glenna identified achieving

meaningful areas of progress by swaying members of the president's cabinet to take a more active role in shaping the trustees' agenda and expanding data used to make decisions.

Becoming an HSI

Between the first and second meetings of the AL set, FRSU publicly launched its pursuit of the HSI designation. Gaining HSI designation was an element of the strategic plan at FRSU, and Glenna was in a position to shape the strategy and tactics the campus pursued. She described consistent enrollment of Latinx students and a focus on servingness as two core challenges to becoming and sustaining their HSI designation.

According to Glenna, the enrollment requirement was front of mind for FRSU leaders because an institution in the region recently lost its HSI status after only one term following a drop in enrollment. As a result, the leadership at FRSU was cautious about moving too quickly. FRSU had only just enrolled the required 25% undergraduate, full-time equivalent Hispanic students that the U.S. Department of Education (n.d.) required in the academic term our AL set began. Beyond enrollment, there was a desire at FRSU to enact the serving mission of an HSI but not much clarity as to what that involved. When another member of the AL set asked what inclusion would look like for Hispanic students, Glenna said, "I think we're kind of stuck on saying, you know, we value servingness. But, we haven't kind of gone down that next level to, to think about physical spaces, curriculum, how we do business." Glenna's response reflected that although she recognized the need for FRSU to change to serve Latinx students, she also lacked a clear vision for what the campus would do to become an HSI. Similar to her desire for better data, Glenna recognized the need for a different approach but was uncertain about what to do next.

Between the second and third meetings of the AL set, Glenna was one of three leaders from FRSU to participate in a consortium meeting of regional campuses, all striving to become an HSI. When discussing the upcoming meeting, she expressed excitement for learning from other HE leaders aspiring to similar goals while maintaining autonomy for how FRSU would pursue its HSI status. Glenna discussed the event with other participants at the next AL set meeting after the consortium meeting. She shared a speaker challenged attendees to consider how they would cocreate their HSI campuses with members of the Latinx community and how impacted she was by the challenge. In her words, “I mean, that seems kind of intuitive, but the, the, way it was framed just struck me as something that I hadn’t foregrounded that is important to keep in mind.” Recognizing the importance of cocreating FRSU as an HSI with the community it serves was an important realization, but unfortunately, it was where her leadership toward becoming an HSI appeared to stop while she was with the AL set.

Taking ownership of how she understood and conceptualized the pursuit of the HSI designation appeared as significant learning moments for Glenna as she explored this challenge. However, self-reflection and consideration for how FRSU should move forward with others to cocreate the future represented Glenna’s progress on this challenge during the research timeline. If FRSU made significant advancements toward becoming an HSI during the research process, Glenna did not share those advancements. As the AL set concluded, there were no demonstratable advances of becoming an HSI beyond the public launch and membership in the local consortium. However, it was clear that Glenna was committed to a process of cocreation with the community and prepared to engage with intention, openness to ideas, and awareness that her positionality would impact leadership.

Relationships and Individual Behavior

When Glenna entered the AL set, she described her leadership as being “effective as a thought partner, an advisor, and an intermediary.” Further, she shared, “I am used to getting things done through influence and relationships, not authority.” Leadership as a function of relationships was front of mind for her as she worked with other campus leaders who held responsibility for elements of the strategic plan. During the research process, she often referenced how she would need to have a conversation with another campus leader or facilitate a discussion with the president’s cabinet in response to an emerging element of her wicked problem. She also said it was important for her to occasionally take off her “chief of staff hat” and distance herself from the president when talking with colleagues. Using individual or small-group conversations was her most relied-upon strategy to advance work. This strategy emphasized her relational approach to leadership, but relationships and interpersonal behaviors impacted her ability to influence culture change around her wicked problem.

Because the president’s leadership team members were all new to campus, it shaped their relationship with colleagues. As previously discussed, most of the leadership team was not around when the campus drafted the strategic plan. The practical impact of this reality was that campus community members lacked trust in the leadership to do what they said they would. As previously discussed, Glenna attributed a lack of trust as one of the reasons community members did not respond to the campus climate survey. Toward the end of the AL set process, Glenna reflected that transition impacted the context of the problem she worked on. She said, “The turnover . . . there’s just constant change in navigating interpersonal dynamics and it’s so fluid.” While exploring how leadership transitions impacted the goal of culture change, she also

identified that her newness to campus complicated her ability to lead in ways that had previously worked for her at other campuses.

Part of Glenna's leadership practice leading into the research was to work through relationships and use her capital with colleagues to fortify trust for the leadership team. She continued this practice throughout the research process. However, when she attempted to do so on the campus climate survey, Glenna realized her newness to campus meant she did not yet have the capital to influence her colleagues. Using personal capital to influence people was an important tool Glenna relied on, and the absence of personal capital at FRSU emphasized its importance.

Toward the end of the research process, Glenna reflected on personal capital and her transition to FRSU. She shared, "I think a lot about that and moving from one organization to another really resets that in ways that are challenging that I don't think I fully anticipated." When I asked how she attempted to build relationships and establish capital, she shared she would try to do so when things were calm, often over lunch or coffee. However, she also admitted, "It does take a lot of time to, to, build that up and I feel at a disadvantage. I wish that I could expedite it in some way and that I have not found how to do." In addition to recognizing the value of personal capital to leadership, Glenna also began to connect interpersonal and intrapersonal dynamics to why problems are wicked.

When I introduced the scholarship on wicked problems to the AL set, it challenged Glenna to consider interpersonal dynamics as contributing to the problem she faced on campus. Glenna was not specific in how it challenged her, but when reflecting on the wicked problems model toward the end of the AL set meetings, she shared, "The wickedness of some of the problems that I've discussed really does come from interpersonal dynamics and navigating

those.” Reviewing her group updates, the interpersonal dynamics that most complicated Glenna’s work seemed connected to her efforts to lead the cabinet and the trustees toward better equity and inclusion metrics. In addition to interpersonal dynamics, she was curious how intrapersonal dynamics and individual choices impacted her wicked problem.

Glenna raised the concept of immunity to change and shared, “Scholars are trying to diagnose even if you really believe in something like, say, DEI, why could you still not achieve your goals.” She shared the concept was interesting because it addressed the human component. She said, “I think [the human component] is part of that complexity or what makes the problem so wicked.” Understanding individual behavior intrigued her partly because it helped her understand why some people became barriers to change. This situation was one of two times Glenna raised individual behavior and how it played out in systems. When reviewing the spaces and systems of complexity leadership theory, she challenged:

There are so many pieces that I think are missing about how complex people are, that if we just talk about systems as if they happen in isolation and aren’t activated by people, we kind of miss even what solutions might be possible.

Glenna’s interest in individuals and how they impacted problems and solutions expanded as the leadership process unfolded.

Although Glenna started the research experience focused on her leadership through relationships, she seemed to have ended the process with an expanded view that people and relationships impact problems, not just leadership. Her interest in the dynamic became evident in the updates she shared and the questions she asked other members of the AL set. By the end of the experience, nearly every question she posed to others involved interpersonal dynamics,

problems, and leadership. Her expanded curiosity and discussion of relationships in wicked problems and the behavior of individuals served as evidence of her interest in the topic.

Other Responsibilities of a Chief of Staff

Glenna's leadership to sway and influence culture change on campus co-occurred with the other responsibilities of her role. She said, "The nature of my role means that I am often in response mode and moving from one urgency to the next." The frequency of disruptive events and her need to respond necessitated her shuffling priorities and quickly shifting focus from one to the next. During the research process, Glenna experienced two major campus events that upended her ability to advance any aspect of the strategic plan for extended periods. Glenna's reality as a chief of staff was that she did not have long, uninterrupted periods of focused work. Instead, over a longer arc of an academic year, she continued to find ways to progress on the strategic plan's objectives and attend to the urgent matter of the moment. In the next section, I discuss how AL set experience served as an important reminder to Glenna about what it takes to address wicked problems as a chief of staff who must also respond to the emerging needs of the campus president.

The Impact of the Research on Glenna

Throughout the research process, Glenna was incredibly introspective about her work and openly discussed how she was challenging her assumptions and ways of leading as a chief of staff. In many of her updates to the AL set, she shared she was "thinking about", "wrestling with" or "peeling back the onion" on aspects of her wicked problem, her leadership practice, or a concept introduced to the group. Throughout her account of practice, I shared realizations she had related to cocreating a serving institution, the influence of interpersonal and intrapersonal dynamics, and how leadership transitions and her newness to campus shaped the context of her

problem. In this section, I discuss two other impacts the research process had on Glenna. The first is how she described herself as “being on a journey” to reconceptualize her leadership practice with a strong focus on the need to address complexity. Second is how the AL set methodology impacted her and her leadership practice.

My introduction of the wicked problems model and complexity leadership theory pushed Glenna to consider how to adapt and lead progress in complex systems. Glenna recognized her comfort and strength as an operational leader in complexity leadership theory. She described, “I’m skilled at making order out of chaos. It’s kind of a coping mechanism when things are messy, I just want to make them neat and create a system.” She also shared, “I can see why organizations, when things become really complex, want to default to having systems in place that appear to be clearer and more bureaucratized.” Her ability to navigate and be successful as an operational leader partly made her successful as a chief of staff. However, her strengths in creating organization were not enough to address more complex issues.

Although she recognized the reliability of her leadership practice, she also shared, “[I was] sitting with this idea that complex problems require complex solutions, and I’m trying to force myself to lean into that.” Through the research process, Glenna recognized the value in leadership that embraced complexity but admitted she struggled to lead that way. She offered, “I think working to be more adaptive is probably healthier for the organization, just harder to be in. I don’t know that I know how to help be a leader in creating that kind of space.” As the AL set meetings ended, Glenna had embraced a new paradigmatic understanding that addressing complexity requires complexity. In one of the last AL set meetings, Glenna shared expanding her leadership practice to include complexity concepts would probably be her “ongoing, lifelong,

personal and professional challenge.” In addition to experiencing a paradigm shift regarding her leadership, Glenna also identified practical implications of her work through the AL process.

The methods of AL and the impact of participating with the AL set were meaningful to Glenna. She expressed dedicating time to consider the complexity of her challenges was important as a leader. She shared because she often reacted to emerging situations, she could not “preserve dedicated time to engage in complex thinking, which is critical to being able to address complex, wicked problems.” In addition to dedicated time to consider her leadership and the problems she faced, the AL set reminded her of the importance of learning with an “extended network of colleagues” outside her organization who faced similar problems. Glenna described that through the AL set, she benefited from “insights and ideas from others on the content of the problem [she was] working on and gleaning insights from how others are navigating the problems they are working on.” Participating in the AL set reminded Glenna that dedicated time for reflection and dialogue with peers about wicked problems are important practices for HE leaders.

My Reflections on Glenna’s Leadership

Glenna brought a necessary perspective of midlevel leadership to this research. As the president’s chief of staff, she was positioned to dramatically influence change on campus by shaping the direction other leaders took in their work on the strategic plan. Her positional affiliation with the president and seat on the leadership cabinet created a guise of power juxtaposed with her authority for the strategic plan. Of all the members of the AL set, she likely had the most significant gap between positional leadership and direct authority. If she could figure out how to successfully navigate that gap and sway others to advance priorities that furthered equity and inclusion, she could bring about meaningful change.

In the framework of complexity leadership theory (Uhl-Bien & Arena, 2017), Glenna was most comfortable as an operational leader. Her desire to make order out of chaos and advance projects forward was ideal for the operational system. However, she was not likely achieve the culture change she wanted to foster through operational leadership alone. Glenna expressed interest in and would serve herself well to explore strategies of brokering and enabling leadership (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017). She could use her position in the operational system to identify, refine, and scale grassroots efforts to create more inclusive and equitable spaces and experiences at FRSU. Although we did not discuss it in the AL set, I became confident there were activists and allies in the FRSU community who were experts on equity and inclusion who could bring transformational ideas to the forefront. I also became confident that Glenna would advocate and agitate on their behalf. Glenna had relational strengths and a position in the leadership structure that made her an ideal person to find those experts, make needed connections, and help them expand their scope of impact through the university's operational system.

If Glenna does embrace the practices of an enabling leader, she must be aware of her positionality and constantly critique her intentions. She should ask herself if she is working in partnership with these community members, or if she is exploiting them. In the AL set, Glenna held up the involvement of staff from the diversity programs and student diversity fellows with the trustees as a win in her efforts to expand the board's view of metrics. The situation into which she invited those community members was ripe for exploited labor, microaggressions, and unintended trauma if not managed through appropriate equity lenses. She did not share how she intended to manage that situation through an equity lens, and I did not seize the opportunity in the AL set meetings to ask her.

While reviewing transcripts and reflecting on our time in the AL set, I realized there were multiple questions I wish I had asked Glenna to explore this aspect of her leadership further. If I could, I would want to know how the university compensated participants for their labor. I would also want to know how she prepared the cabinet members and the trustees to be equity-informed hosts who did not commit microaggressions and perpetuate hegemonic White norms during the experience. To her credit, Glenna may have taken those actions, and I was just not aware. I trust this is not the only time Glenna will work with community members as she continues to support FRSU's goal to become an HSI.

As a practitioner, I found Glenna's introspective nature and willingness to reconsider her leadership practice inspiring. In my experience, it is easy to get comfortable with my leadership practice and challenging to break established leadership norms and behaviors that have helped me succeed. Glenna never expressed defensiveness and consistently positioned herself as willing to do the work to become a leader who could positively impact wicked problems. Her comportment and leadership methods are necessary in HE, and people impacted by wicked problems should benefit from her presence at FRSU. As I advance in my leadership practice, I will strive to keep these aspects of Glenna with me.

Lincoln's Account of Practice:

Going Beyond Compliance to Serve Students With Disabilities

Lincoln (he/him/his) was a director at Inland Northwest State University (INSU), a land-grant research institution in the interior northwest area of the United States. Lincoln was responsible for campus climate and community building in the division of student affairs. His work portfolio included responsibility for multiple identity-affirming services and community spaces for students, staff, and faculty and implementing accommodations through the disability

resources for students (DRS) office. Lincoln had been at INSU for over a decade and had deep relationships with his colleagues and a broad knowledge of the campus community.

Lincoln identified as a queer White man with a disability. Even after a long tenure at INSU, he was the youngest director in his division. He had six direct reports and another eight staff who indirectly reported to him across the multiple offices under his purview. Lincoln's positionality in his work at INSU was a significant contributing factor to his understanding of and work to advance a solution to his problem. With the departure of multiple senior leaders at INSU, Lincoln reported to the vice chancellor for student affairs. Because of his profile on campus and longevity with the institution, Lincoln also contributed to collaborative DEI and justice efforts throughout the INSU system.

The wicked problem Lincoln brought to the research was the need to create an intentional first-year experience for students with disabilities. Lincoln described that less than 10% of students were registered with the DRS office, but he believed that upwards of 20% of students could qualify for accommodations. Serving many students would require an expanded approach. Lincoln's larger aim was for INSU "to go beyond compliance" and establish services, support, and experiences that facilitate identity and community development for students with disabilities.

The DRS office was responsible for disability student accommodations for a multicampus system. However, Lincoln was only developing the first-year experience for students at the main campus. Although other first-year experience programs existed, this would be the first one focused on students with disabilities. At the start of the research process, the program did not have funding, faculty, or a curriculum, and Lincoln needed to work with other staff responsible for DEI at INSU to develop the program.

A first-year experience was one of many objectives in Lincoln's office to go beyond compliance. His staff also wanted to facilitate more inclusive study abroad, internships, and career programs; offer robust academic support; and create a community among students with disabilities. There was also pressure from faculty who needed more support to respond to students who were self-advocating for accommodations in the classroom. In Lincoln's words, "I'm trying to get to a point where we can offer really incredible services at a land-grant price, which is free." Lincoln recognized his wicked problem was challenging because of stakeholders' many different objectives to support students with disabilities.

After the first meeting of the AL set, Lincoln shifted the problem he focused on in response to two new opportunities. While he still worked toward a first-year experience, he had the chance to launch an academic success class in the spring term for students with disabilities who were on low scholarship after their fall term. Student activism during autumn finals also created the opportunity to establish a disability cultural center. Lincoln believed both opportunities supported his goal of going beyond compliance for students with disabilities. He also thought progress on both would inform the creation of a first-year experience program. In addition to his leadership on the course and the cultural center, Lincoln also responded to demands in the daily work of a midlevel manager.

During the third AL set meeting, Lincoln shared his perspective on addressing his wicked problem, which permeated the rest of the research process. He offered, "For me, the problem seems really simple. We have a need, let's pilot some things and look at the research and move forward." His matter-of-fact view of his challenge represented Lincoln's practical and pragmatic attitude throughout the research process. It also oversimplified what he was working on and the context in which he attempted to lead solutions. During the AL set meetings, he identified two

overarching factors that added to the wickedness of his problem and contradicted his view that his problem was simple.

First, the DRS office's primary responsibility was to ensure the university complied with the Americans with Disabilities Act. According to Lincoln, achieving compliance on campus was challenging for multiple reasons that influenced each other. First, some faculty were resistant to providing legally required accommodations. In Lincoln's experience, this small but vocal group often tried to justify their resistance via a concern for fairness to students without disabilities. Second, demonstrating the need for accommodation required significant labor and financial commitment from students to get the necessary tests and documentation. The campus processes for compliance and the documentation it required also created an immense workload for staff to respond to student requests. Lincoln also expressed his reticence to engage the office of the attorney general in work that was not directly related to compliance and accommodations for fear of how they would respond. These factors made clear that the legal landscape for compliance and long-held beliefs about fairness in academia shaped the wickedness of the problem.

Lincoln also identified the campus structure and relationships at INSU, both formal and informal, as adding wickedness to his problem. The DRS staff were only responsible for establishing the need to provide accommodations, while other offices or faculty were the ones to implement accommodations or proactively improve accessibility. How the campus administration shared responsibility for accommodations required Lincoln's staff to collaborate and influence others to improve the experience for students with disabilities.

At INSU, effective collaboration depended on the relationship between the people involved. According to Lincoln, "It's all relational at INSU." He shared the geographic isolation

of the campus and the long tenure of many staff meant collegial and social boundaries and formal campus structures were often blurred, if not erased. During the research process, Lincoln said informal relationships and systems often determined if and how work was advanced. Lincoln also described INSU as coming out of a time when previous leadership created an environment among staff that he gently described as “chaotic.” This experience strained formal and informal relationships over the years and continued to impact how offices worked together.

Lincoln’s identification of all these complicating factors while believing his problem was simple exemplified the gap between problem formulation and problem solving identified by Lyles and Mitroff (1980). In the following sections, I attempt to convey how Lincoln provided leadership to address his wicked problem, how his understanding of his problem evolved, and the progress he made in his work. Because his priorities shifted as the research progressed, it minimized the tangible impact he could have in a short period. Nevertheless, Lincoln worked quickly to address multiple opportunities.

Building an Academic Support Class for Low-Scholarship Students

The opportunity to build an academic success class was an extension of a current program to support low-scholarship students. The academic support office oversaw the program and was responsible for the course’s pedagogy, curriculum, and outcomes. The DRS staff could not move forward without the support of their colleagues in academic services. This partnership emphasized that the only way to move beyond compliance at INSU was through the participation of other offices.

The academic support office staff favored the opportunity, but Lincoln and his colleagues quickly identified multiple ways the curriculum was not accessible and would not be inclusive for students with disabilities. Lincoln realized moving forward would require a modified

curriculum, and he would need to tell the staff responsible for the program that their course was not accessible. Delivering this news and getting approval for the needed modifications necessitated a delicate negotiation with the academic services staff.

Lincoln named a few experiences and mindsets that informed his approach to this conversation and the negotiation with his colleagues. First, he had some expertise in the matter both from his staff on accessibility issues but also because he had previously taught a version of this class to transfer students and was familiar with key outcomes. Lincoln also successfully modified similar courses in the past to make them more inclusive and tailored to marginalized audiences. He recalled how he revised a curriculum to tailor it to an LGBTQ audience, saying:

We're gonna teach these skills with LGBTQ authors. And we're gonna have you read an article by a queer person. A queer person of color. A queer person with a disability.

Because you're not gonna see that in your curriculum otherwise.

He brought his past success to the dialogue but knew it would not ensure buy in on a relational campus. Lincoln indicated, "I need to figure out how to give them the feedback of 'this is kind of a mess and very unclear for students.'" However, he would do it in what he described as a "midwestern" approach to feedback that was softer and guided them to identify why the course, as it was, was problematic. He worked with his staff to propose a curriculum based on the original course design that the academic services office could approve. He described it as teaching the same class but "in a slightly different way" that would be inclusive and accessible.

When discussing what it took to get approval for this course, Lincoln also talked about a specific strategy he used to advance critical objectives, saying, "I've been here a long time. Right? I tend to just say yes to people, because I'm like, that will bank me capital for later." Once he earned that capital, he used it sparingly but tapped into it in this situation to advance the

academic success course with his colleagues. Building and using personal capital is an approach to collaboration that he identified as necessary to midlevel leadership in the relational environment of INSU.

Although Lincoln knew this academic success course would not be part of the first-year experience, he could not pass up the opportunity for a pilot to lay the groundwork for future offerings. The approach to testing something small, learning from it, and moving forward exemplified his pragmatic view on his wicked problem. It also reflected his belief that DEI work progressed on campus in what he described as “if you give a mouse a cookie.” For Lincoln, this approach prioritized relationships of change because relationships were necessary to move anything forward at INSU. It also meant advances in diversity, equity, inclusion, and justice (DEIJ) happened incrementally. He said, “Change has to be negotiated and once one thing is changed or in place, then you can ask for the next thing.” Taking on this course, redesigning the curriculum, and piloting something new was Lincoln’s strategy to make progress while maintaining relationships.

Through his efforts with his staff and negotiations with colleagues in the academic support office, they gained approval to offer this course to students with disabilities. Invitations to participate went out to students after faculty posted grades from the fall term. Unfortunately, in Lincoln’s words, “Just because you build it does not mean they will come.” After developing a curriculum, gaining buy in from colleagues, identifying their audience, and promoting the course, their efforts resulted in only three students registering to take it. As a result, he canceled the course for the semester.

I asked Lincoln what would come of all the work they put into developing this support program, and his answer reflected his belief that progress to go beyond compliance is

incremental. He said, “I think it’s what’s necessary . . . I don’t think change happens overnight. It’s like these little pieces, and hopefully, we start to get into their brains about how to do a better class for students with learning disabilities.” He also shared, now that the curriculum was more accessible, they would use it in other classes to benefit students with disabilities.

Lincoln also continued looking forward to the first-year experience next year and believed he could increase student interest by improving the outreach and engagement strategy they used for the success course. According to Lincoln, the short time between terms and the email-only outreach likely contributed to low interest. For his first-year experience, Lincoln planned to focus on getting in front of students through face-to-face interactions. He indicated, “My goal is to really integrate more into our orientation program . . . having an access advisor there to do an info session.” Lincoln did not express why he thought this practice would make a difference, but it was clear that connecting with students was critical to gaining their interest. Perhaps the relational nature of INSU applied to students in a similar way as it applied to professional relationships.

An Opportunity for a Disability Cultural Center

Before finals for the fall term, student activists organized a campaign to pressure the president’s office to create a cultural center on campus for students with disabilities. A cultural center had long interested the DRS staff, but Lincoln knew it was significantly outside the office’s purview and could create complications with their compliance mission. However, the president’s office responded to the student’s demands by asking Lincoln’s boss to take responsibility for the response, and his boss welcomed the opportunity. Early in the new year, Lincoln’s boss asked him to oversee discussions between the administration and students to explore creating a disability cultural center. As the AL set concluded, he shared with his peers

that he was optimistic about how a new center could advance conversations and relationships on campus to improve the environment for students with disabilities.

By the last meeting of the AL set, Lincoln identified a staff member to facilitate meetings between the administration and students. He decided to step back from the group meetings and let another person take the lead. He viewed his role as engaging partners and supporting his staff members as they moved the process forward. Lincoln briefly mentioned this approach was something his boss suggested as a strategy based on their previous experience with similar work but did not elaborate.

Lincoln previously shared he was skeptical of working groups but also offered a story of what they could accomplish when he got “the right people at the table.” In his experience, participants needed the authority to make decisions and take responsibility for their portion of the solution. He also believed working groups worked best when they advocated for possible reasonable improvements rather than “asking for a 4-bedroom penthouse in Manhattan.” He reasoned leadership on campus wanted to make progress but needed manageable things to which they could say yes. According to Lincoln, this practice worked, saying, “It makes them feel good. It makes us move things forward, and we can ask again.” During the final AL set meetings, Lincoln shared he was working to identify the right partners to participate. If I had the opportunity to continue to explore his work on this topic with him, I would be curious to know how his previous experience with committees and incremental progress informed whom he brought to the committee and the advice he gave his staff who was leading the effort.

The opportunity to create a cultural center came as the staff in DRS were launching their academic success course. The work on the disability student center began after they canceled the academic success course due to low student interest. Lincoln quickly pivoted his attention from

one to the other. The rapid transition reflected how he approached his work as a midlevel leader responsible for multiple priorities and offices. In the next section, I discuss how Lincoln pivoted priorities multiple times during the research and its relevance to leading solutions to wicked problems for midlevel leaders.

Persisting Through Barriers as a Mid-Level Manager

While Lincoln worked to develop the academic support course, he faced multiple challenges and barriers in his work as a midlevel manager of the DRS office. During one of our AL set meetings, Lincoln described the barriers to success as coming from “all directions. Left, right, and center.” He was incredibly frustrated at internal barriers to getting students the necessary accommodations. He described his frustration by saying, “It just kills me . . . I’m literally just moving or removing barriers that are silly.” Lincoln recognized documentation was necessary for accommodations from a legal perspective but said the wait times and costs to get diagnosed and the geographic isolation of INSU made it difficult for students to get the necessary paperwork. As a result, students were negatively impacted. Lincoln shared, “We’ve lost students that can’t start, or they don’t have access to therapy, or mental health, or a doctor.” Because of the challenges students faced at INSU, he questioned the strict adherence to process and documentation.

Lincoln also faced a prevailing philosophy among some faculty about accommodations, which he described as “the rigor of the hoop jumping.” In Lincoln’s experience, some faculty believed students proved their need for accommodations by jumping through hoops. His frustration led Lincoln to pursue informal channels to get around barriers. He said, “I just learned how to do it more covertly . . . to figure how to remove barriers because, you know, assume the disability anyway. It’s just a hoop jumping nonstop.” Like his work on the academic support

course, Lincoln relied on relationships to accomplish this work. The covert action and related individual conversations were reliable, although potentially problematic, strategies for Lincoln to work through the informal system of relationships at INSU.

Finally, Lincoln had a critical staff member receive a job offer during the research process, and he needed to respond, or he would lose the staff member. This individual led the development of the academic support course and would teach it in the spring term. Lincoln shared his “house of cards would fall if this person left.” With the support of his boss, Lincoln counteroffered and was grateful when the staff member decided to stay. Lincoln said this was one of those moments in the life of a midlevel manager from which was easy to forget and move on, but had he not been successful with his counteroffer, it would have had a detrimental impact on DRS for the foreseeable future.

Lincoln quickly moved forward in these instances once he addressed the challenge. Not only did he move on in the work setting, but he also moved on in AL set meetings. In the situation regarding his staff member, I reminded him that he was concerned about it in the past meeting. Lincoln identified that persisting through barriers and quickly moving forward to advance priorities was vital to the work of a midlevel manager. It was a part of his leadership practice and shaped how he addressed wicked problems.

Impact of the Research on Lincoln

Through the AL research process, Lincoln identified several areas of learning. A significant shift for Lincoln was realizing he had been working independently and through informal systems for too long and needed to start working through his boss and the formal system on campus. Lincoln shared, “[Working outside the formal system] mostly just allows me to do what I want. And I think I’ve been doing a lot of that for too long.” During the research

process, Lincoln began to reengage with the formal structure of the university and work through his boss, who partly motivated this change. He shared, “I forgot I have a supervisor until recently . . . and now I’m putting the wheels back on the bus.” Lincoln’s new supervisor helped him realize they could be an asset to expand the impact of his work.

The support Lincoln experienced from his boss when he needed to retain a staff member and how they supported the student interest in the cultural center were transition points. As a result, Lincoln wanted to engage with them more but was thoughtful about tapping their influence. Lincoln stated, “I’m trying to be thoughtful about harnessing the power of who my boss is, and I’m also saying like, please give me the feedback and like, let’s move this forward in a way that will be sustainable and useful.” As he began to work through formal systems more often, he did not turn away from reliable, informal networks. He continued to value the relationships that allowed work to get done quickly. Lincoln ended the AL process with a value for formal and informal systems and how they helped him achieve objectives.

Lincoln also greatly appreciated how the AL set experience let him process his challenge with a set of peers who were not members of his staff or colleagues at INSU. He said, “I loved this research project. It has helped me to think through options and how I navigate problems in the workplace. It was nice to hear how others navigate the issues on their campuses.” Processing with peers who worked on similar problems also helped him manage his feelings about the challenge at INSU. Lincoln explained, “The problem is still sticky, but talking about it has made it easier to handle. I’m not holding onto stress.” Lincoln’s appreciation for the process was so significant that he wanted others to have something similar. According to Lincoln, “Midlevel managers should do more of these types of sessions. There is a lot of benefit from talking to others, especially those from outside your institution.” In our final AL set meeting, Lincoln

shared he was working with colleagues at INSU to bring a program to campus with a similar methodology. If successful, it would engage people across institutional silos to gather regularly to discuss their interests and challenges in pursuit of a more diverse, equitable, and inclusive INSU.

My Reflections on Lincoln's Leadership

Lincoln brought more than a decade of experience at the same campus to the research process, making him unique among participants. During his tenure at INSU, he embraced a leadership practice rooted in relationships and the informal organizational system of the university. Leading through relationships was nearly ubiquitous in his updates to the AL set. I recognized Lincoln understood and navigated his environment through relationships, but I questioned if other leaders at INSU held the same view. Lincoln could have been embedded within one culture of the institution (Bergquist & Pawlak, 2008), whereas others operated from drastically different cultures. On the other hand, if his assessment that relationships at INSU superseded the formal structure, it may have served as evidence of complex adaptive systems (CASs) in HE and their influence on organizational systems (Bento, 2011; Lohmann, 2006; Martin, n.d.). Both could be true, but through the research process, Lincoln began to think differently about only operating through relationships.

As the research process concluded, Lincoln questioned how he and his staff relied on informal networks to accomplish their goals. He was also increasingly interested in working through his boss and the formal structure at INSU to have a more significant impact. Lincoln's decision for his staff to lead the exploration of the cultural center put him in a position to serve as a broker (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017) between the committee and his boss. Like Glenna, Lincoln was well positioned in his midlevel role to have a significant impact

if he could figure out how to advance ideas from adaptive spaces, like the committee, and grow and scale them through his boss and the operational system of the institution.

Lincoln may have needed to push himself to scale ideas for a more significant impact. He clearly preferred to simplify the challenge he was working on and make it more manageable. Keeping things manageable was evident in his preference for incremental change, but it also may have been a necessity to accomplish his daily work as a midlevel leader. Among the participants, Lincoln showed the least interest in the complexity framework (Uhl-Bien & Arena, 2017) and how complexity may have contributed to the wickedness of his problem. Instead, he valued the wicked problem matrix (Alford & Head, 2017) because he could compartmentalize where his problem was situated. Although it may not immediately achieve transformational outcomes, his preference to simplify his challenge aligned with recent theorizing on addressing wicked problems (Alford & Head, 2017; Daviter, 2017).

His acceptance of incremental change at INSU contrasted with Stewart's (2018) call for transformational change but aligned with Daviter's (2017) views on taming and coping with wicked problems. At INSU, he significantly contributed to equity and inclusion on campus, demonstrating how incremental change led to meaningful change. It was also worth questioning if Lincoln's tenure on campus or privileged identities may have contributed to accepting incremental change as the norm. His experience, tenure at INSU, and positionality all likely contributed to his optimistic view of incrementalism.

Among all of Lincoln's leadership qualities, I greatly appreciated his ability to quickly shift priorities and avoid getting bogged down when things did not go as expected. As a practitioner, I knew it was easy to get emotionally invested in a project like the academic success course, and I knew it would affect me if students were not interested. Lincoln's leadership

reminded me that when working on wicked problems, multiple opportunities exist to have a positive impact. He embodied how the responsibility of a midlevel leader is to act and learn from their efforts. This positive and pragmatic aspect of his leadership is something I will seek to integrate in my leadership practice.

Denzil's Account of Practice:

Improving Bias Response in a Complex Multicampus System

When Denzil (he/him/his) began the research process, he served as an associate director for DEI at Valley State University (VSU), a large public, high-volume, land-grant institution in the mid-Atlantic Appalachian region of the United States. The university system had a main campus and roughly two dozen regional campuses that shared a president, provost, and accreditation process. Denzil's scope of responsibility at VSU was quite broad. He was physically situated with the main campus but advised and supported DEIJ efforts in the division of student affairs and the campus residential living program for the entire VSU system. He also served as an interim codirector of the campus cultural center on the main campus. His position reported to an assistant vice president for DEI in the division of student affairs, and he was responsible for eight staff across his multiple responsibilities.

Denzil worked in student affairs for 10 years. He identified as a Black, able-bodied, cisgender man and a veteran of the U.S. Airforce. He recognized being a well-educated Black man in the position he held was perceived as a threat by some on campus but also that it was an asset to others, especially Black and brown individuals and students who recognized him as a success story and a representative for them in official university spaces. In Denzil's role, understanding positionality and leading with it in mind was critical to success.

In the check-in question for the fourth meeting of the AL set, I asked participants, “If you were to describe yourself as a mode of transportation today, what would you be?” Denzil responded, “I’m an 18-wheeler. And the reason why I said that is because I have accepted a role at another university and the movers are here as we speak, packing the truck.” This statement was how Denzil shared the news that he had accepted a new position and would be leaving VSU. He remained off camera for most of the meeting but was present in the conversation as he attended to this major life event. A few weeks later, he started his new role as the director for DEIJ for the college of arts and sciences at a large private research university. Denzil transitioned to that position with two meetings left in the AL set schedule but maintained an appointment at VSU through the end of the research process.

As an advisor on DEIJ efforts for multiple campuses and an interim codirector of the campus cultural center, Denzil worked on myriad challenges that could likely fit in the context of this research. His chosen wicked problem for this process was the systemic review and improvement of the VSU’s bias response program and the related process. Denzil was especially interested in how an improved bias response program could support “students, faculty, and staff and actually implement protocols and practices that can be applied consistently throughout the system.” He added, “Each of our campuses aren’t necessarily resourced the same.” The Bias Response Team (BRT) was responsible for the program, the review, and the implementation of improvement. Denzil was one of three members from student affairs. The rest of the team included representatives from human resources, undergraduate education, graduate education, affirmative action, faculty affairs, and student conduct.

Barriers to Effective Bias Response at VSU

Denzil identified three factors that shaped the wickedness of his problem and his leadership to advance solutions. The first factor involved the leadership of a new president and their impact on the problem context at VSU. Denzil did not discuss his work to impact or counter the new president's influence, but their words and decisions directly impacted him. The second and the third challenge were interrelated and involved the complex organizational structure at VSU, the effect on staff and faculty involved in bias response, and how Denzil led within and across formal systems to support the bias response program. Because they were interrelated factors, I discuss them together following Denzil's thoughts on the president.

Impact of a New President

VSU had a new president, and their leadership impacted the campus community and Denzil's work throughout the research. Early in the research process, the president transitioned the BRT chair into their office as a special liaison on DEIJ. An assistant vice provost for educational equity became responsible for the BRT. Denzil welcomed this change because the previous leader held tight control over the BRT processes, managed implementation of recommended improvements, and limited members' work.

Denzil was directly impacted by their leadership when they told him he "did not have the credentials" to lead bias response training and prevented him from doing so. Although Denzil was not specific about his missing credential, he did not yet have his doctorate. The necessity for this credential to be qualified to train faculty reflects longstanding academic norms (Bergquist & Pawlak, 2008) that persist in research universities. It exemplified why universities were unique places to address wicked problems. Although the previous chair may have been concerned with these norms, the new chair was not. As they assumed responsibility, they freed the team to move

forward with many of their recommendations for improvement and appointed Denzil to lead bias response training. Although the new leadership was a positive change by the president, they also negatively impacted the campus context, according to Denzil.

Leading up to and throughout the research process, the VSU president made public comments that sought to reduce VSU's role in advancing DEI. Denzil viewed the comments made by the president as rolling back progress on DEI. He believed they would negatively impact the work that members of the BRT and others involved in DEI could accomplish. Denzil also believed the president's comments harmed minoritized community members and had a more significant impact because the president was a person of color.

When reflecting on how the president shaped the environment at VSU, Denzil shared, "Sometimes, it will have to get worse before we get better. I think that's where we are as the university right now, is the worse part." It would have been interesting to explore how he supported his staff or worked with peers on the BRT to respond to the president's remarks, but this discussion did not surface. Denzil also did not share if the president contributed to his decision to leave VSU. Because his transition to a new campus was not part of my leadership objectives, I did not explore it with him. In retrospect, it would be interesting to know if Denzil pursued an environment more conducive to change. Denzil was among multiple participants who expressed that leaders impacted their ability to advance solutions to wicked problems. In addition to the president's impact, Denzil shared how the complex environment at VSU and the bias response process were interrelated and added to the wickedness of his challenge. In the practitioner learning section, I explore the role of bosses and other leaders to midlevel leadership in greater detail.

Bias Response in a Complex System

Denzil immediately identified the complexity of his institution as a significant challenge to the success of bias response. The system contained roughly two dozen regional campuses. Each campus had a chancellor who reported to the vice president for regional campuses, who then reported to the provost. According to Denzil, the reporting structure contributed to the wickedness of his problem because “everyone is reporting to who their people are and [information and needs are] not necessarily getting back to the network of people that needs to know.” An informal system of power and authority amplified the challenge of the formal reporting structure. Denzil attributed “a push and pull of the internal politicking” as a contributing factor to his problem’s wickedness because “leaders at regional campuses make decisions based on the perceived power and direction of leaders at the main campus.” Internal politicking and the role of perceived power represent informal systems in the formal organizational structure. According to Denzil, accomplishing the objectives of the BRT in this organizational context was impossible through top-down directives.

Denzil also identified the structure of the multicampus system and the politics caused information and decisions related to bias to be “diluted down” as they moved through the environment. As a result, the parties involved in bias response held different values for responding, knowledge of what they needed to do, understanding of what a solution looked like, and how they could contribute as partners. The variety of values, knowledge, and understanding contributed to his problem’s wickedness.

The formal protocols and processes for the bias response program also added to the wickedness of the challenge. At VSU, chancellors worked at the regional campuses, and academic deans worked at the main campus. When BRT received bias reports, they engaged the

chancellors at the regional campuses. However, the deans at the main campus were responsible for the academic units at the regional campuses rather than the regional chancellors. Denzil described identifying whom to engage with bias incidents and whom to involve first as “very convoluted” in the VSU context. Depending on who was involved in a bias incident also necessitated engaging other parties. For example, if an incident involved staff, human resources were engaged. Alternatively, if an incident involved students, student affairs leaders had to respond. The multiple response options created additional wickedness because of the convoluted response process and the presence of more stakeholders. In the next section, I explore Denzil’s leadership to enhance the university’s bias response process through consultation and effective training on the bias response process.

Denzil’s Leadership to Improve Bias Response

Denzil’s leadership to address this wicked problem involved a primary and secondary degree of involvement. His primary involvement, as previously discussed, was through the development and implementation of training. His secondary involvement was as a member of the BRT who advised and offered insight into the challenges the BRT faced and the direction they pursued. In the following section, I discuss his secondary involvement and conclude with his primary work on bias response training.

As a member of the BRT, Denzil participated in regular meetings where he contributed to discussions and decisions on strategy and individual incidents. He described himself as a “consultant or a listening ear” to the rest of the BRT members. As the student affairs representative, he was also responsible for looking after students’ interests. As reports came through or the team considered changes, he would remind his colleagues of the direct impact or trickledown effect that their decisions could have on the student community, especially students

with marginalized identities. This aspect of involvement with the BRT was important to support his primary responsibility, training others on bias response and the bias response program. He used discussion at meetings and suggested process changes to identify how to improve training for bias incident responders. He wanted to be sure responders understood the process and had the tools to impact bias response positively.

The BRT updated its processes and protocols to address the convoluted nature of bias response in the VSU system. The updates put deans and other academic leaders at the center of bias response. As part of the transition, the BRT experienced resistance from academic leaders. Denzil believed the resistance was associated with understanding the process. He shared, “Some of the pushback that we got from those individuals is like, ‘Okay, so y’all are sending me this report. What do I do with it? How do I respond to it?’” Although Denzil recognized familiarity with the process was essential, he also noted that “not all of [the] deans are on the same page or even in the same book” regarding the need for bias response. Denzil believed effective training and good processes would reduce resistance the BRT experienced. He also believed that if people were well trained, the experience could be less political. He stated, “There’s enough politicking targeting people’s social identities; we don’t need to add any more of our personal politics to it.” The resistance Denzil described and the presence of personal politicking emphasized the need for leadership that operated in the formal structure and accounted for the informal systems that added to the wickedness of bias response. Through the research process, Denzil shared multiple approaches he took through training to address resistance and build allies for the BRT.

Because of the complexity of the VSU system and the resistance that existed, Denzil sought to build buy in with deans rather than give them directives to follow. Building buy in and

getting academic leaders to opt in to the bias response work was also important, considering the impact the president created through their stance on DEIJ. One strategy he took was connecting the dean's objectives and challenges in their academic unit to successful bias response. Denzil indicated, "I really like to talk to them, to appeal to them, about how their work [with bias response] will impact their units." He tried to get deans to recognize that common challenges they faced, such as student retention and staff turnover, could result from an ineffective response to bias. He also intentionally courted leaders as bias response champions, believing that most faculty and staff "want to champion a success story." He went on to offer that it was his responsibility through training to "build the narrative and processes to influence those success stories." To further build champions, Denzil made sure leaders knew how they contributed to the success of bias response and was specific about the actions or attributes that had a positive impact. Denzil joked that his work identifying shared goals and developing common interests between academic leaders and the BRT was "really like donor relations type work, but they [gave him] no money." In addition to identifying shared interests and building champions, Denzil brought faculty into the training process.

Cofacilitators helped Denzil increase the impact his training had. He recognized his positionality influenced how people viewed him as a facilitator, so he identified academic leaders to join him in training other academic leaders. Not only did cofacilitators help address aspects of positionality, but they also contributed to problem solving. He shared, "I wholeheartedly believe that everybody has an area of expertise, and they can lend their expertise to solving the problems." He also intentionally sought cofacilitators who could influence their peers because of their academic expertise and the skillset they brought to bias response. According to Denzil, he needed a cofacilitator who was an "expert in engineering and having a conversation." Once he

selected a cofacilitator, he sought to identify a “person’s expertise or their talent or their skill or something that really makes them shine” and would have them be responsible for a portion of training, allowing them to stand out. By bringing in an academic leader to cofacilitate training, Denzil ensured attendees heard from a peer who believed in bias response, supported the process, and wanted to contribute to a better response system. Later in this AOP, I analyze how Denzil’s strategies align with concepts of complexity and wickedness.

In addition to his work with academic leaders, Denzil expanded the impact of bias response by bringing other administrators into the process. He offered that one of the things he does well is get others energized and excited about bias response. He shared, “From that excitement, teach them the necessary things to keep the conversation going without me being in the room.” This strategy paid off when he decided to leave VSU. For some time, Denzil had involved his assistant director in BRT meetings and had them cofacilitate training with him. Denzil thought he was “giving [them] an opportunity to learn new skills and, you know, sit in different rooms that [they are] not in to hear about different things.” When he decided to leave, his codirector became the person best prepared to assume his responsibilities on the BRT and train faculty, staff, and students.

How He Interpreted His Impact

As the AL set concluded, Denzil transitioned to his new campus but maintained a temporary and diminishing role with the BRT. Reflecting on his time with the AL set and how the campus bias response changed, he identified multiple improvements resulting from their review and related updates. Specific to training, Denzil believed it had taken a significant step forward in content, pedagogy, and delivery methods that worked well for multiple campuses. Denzil pointed to expanding training from students and administrators to academic leaders as a

significant accomplishment. He believed his colleagues on the BRT would continue to drive the training forward and flush out the newly developed content. He also observed that senior leaders, including the deans he trained, were buying into the bias response process and the need for bias response. They had a more meaningful understating of their role as responders and were better prepared to respond in the process. Importantly, those academic leaders were becoming champions for bias response among colleagues in their academic units. Considering this progress, Denzil also recognized the president might continue to negatively impact members of the BRT and the environment in which they worked. As he transitioned to his new job, he feared what might be ahead for his colleagues.

The retrospect Denzil provided was unique among participants because he was the only one ending his involvement with his wicked problem at the end of the research. His reflections indicated that the problems around bias response would perpetuate, and other leaders would continue to work on them. His reflections also offered a degree of distance and finality to his work. His transition stressed the importance of leaders preparing others to contribute and assume responsibility for the wicked problem in an ever-changing environment.

The Impact of the Research on Denzil

Denzil expressed the primary impact of the research process was the benefits of speaking with others about wicked problems. Midway through the AL set meeting schedule, Denzil reflected, “After our last conversation, I really felt like, oh, okay. My situation may not necessarily be [other participants], but the feeling, I’m not alone in having that feeling.” The impact of the AL experience was significant enough that Denzil shared he wished he could bring his colleagues into it with him. According to Denzil, participating in something like this would let his “other colleagues know that they’re not alone on some of the problems that they face.”

The experience was so impactful that he shared his experience with his colleagues. He wanted them to know they were not alone in the work they faced and the frustrations they experienced.

When he reviewed a draft of his AOP, Denzil shared with me that working with people outside of his campus assisted him in addressing his challenge. He offered, “The experience with the group helped me to continue to think about the work objectively. It also allowed for me to express my feelings safely without having jeopardize the project because of my personal feelings.” Working with a peer group of midlevel leaders outside his institution addressed feelings of isolation, created a safe space for dialogue, and allowed him to reflect on his problem and leadership objectively. This benefit of the AL set was common among participants, and I discuss it further in the practitioner learning section.

Aside from the benefits of meeting with the AL set and the community he developed, Denzil was more implicit about how the research process impacted or influenced his leadership practice. Inferring from the data, the introduction of the wicked problems framework (Uhl-Bien & Arena, 2017), and the model of organizational systems in complexity leadership theory added to how he understood his problem. When I asked what recommendations he would have for colleagues working on wicked problems, he shared leaders should “know and understand that the experience is shared. That the problem may be a [combination] of issues within the system. They must consider the impacts of their decisions and how it can influence future decisions/issues.” These three recommendations were core components of the theory on wicked problems. Denzil also shared he saw “the benefits of working on wicked problems as a community” as opposed to trying to address them as an isolated individual. The need for shared leadership reflected recent scholarship on how leaders and organizations adapt to address wicked problems, including problems of inequity and injustice (Imperial et al., 2016; Ospina & Foldy, 2010; Uhl-Bien &

Arena, 2017). These recommendations suggested the framework influenced his thinking even if he was not explicit about how he implemented these understandings.

Although Denzil was less explicit than his peers in the AL set about how the research impacted his leadership practice, he was very explicit that it benefited him personally as a leader. He affirmed the experience through his desire to share it with his colleagues on campus. In the next section, I offer reflections on Denzil's leadership, his contributions to this research, and my curiosity about his future.

My Reflections on Denzil's Leadership

Denzil's leadership style, positionality, and role on campus made him a unique and critical asset to this research. Denzil was situated squarely in the work of DEIJ on his campus. Additionally, his roles as associate director, interim codirector, and a member of the BRT were more common positions for midlevel leaders than positions like a chief of staff or director of housing. The roles he held may have made his experience more relatable and applicable to other midlevel HELs. In contrast, only a small percentage of HELs shared his perspectives as a Black man, which added weight to the insights he offered. The positions he held and the identities he brought to the research were simultaneously relatable and distinctly his.

I experienced Denzil to be an earnest and collaborative leader. He was faced with the wicked and harmful problem of acts of bias and had conviction in his belief that improving the university's response to bias was a means to improve the experience for marginalized individuals. He also wanted the process to work smoothly and effectively for people involved because experiencing and responding to bias was difficult enough. His effort to implement effective training could be considered a tame solution to a wicked problem (Rittel & Webber,

1973), but his strategies reflected a more complex understanding of the problem and the needed solution.

Denzil's strategies to improve training and positively impact bias response demonstrated he recognized the presence of and need to work through formal and informal systems to address his wicked problem. When I introduced the systems and spaces of complexity leadership theory (Uhl-Bien & Arena, 2017) to participants, Denzil identified the BRT worked mainly through the operational system and the adaptive space to achieve their goals. Although he did not apply the model to his training strategy in our AL set meetings, my interpretation is that his leadership of training in the bias response system at VSU was predominantly operational leadership. However, his strategies to engage other leaders to influence peers to reduce resistance and build buy in demonstrate aspects of enabling leadership. Nothing in the operational system of the BRT required him to take those steps. Because Denzil recognized the complexity of his environment and the wickedness of his problem, he used other forms of leadership to address those challenges.

Denzil did not indicate if his strategic engagement with others was a new approach for him. I assume he had past success leading training this way, so he understood these strategies would be successful even if he was unaware of why they were important in response to complexity and wickedness. His tacit understanding of enabling leadership aligned with previous research on midlevel leaders in HE (Branson et al., 2016) and emphasized the need for more research and discussion on the uniqueness of midlevel leadership in HE.

Denzil's transition out of VSU also offered a glimpse into CAS in HE and how one person's presence or absence can impact the system. As discussed in this AOP, Denzil brought a unique positionality and approaches to developing and implementing bias response training. As

his responsibilities shift to another leader, that individual will bring their positionality and approaches. Because Denzil invited his successor into the BRT and had them cofacilitate training with him, that individual may emulate some of the leadership that Denzil displayed. However, their involvement and leadership will likely shape response training and the larger BRT.

As a practitioner, I appreciated Denzil's comportment in the AL set and, I assumed, his work on campus. He was kind and curious and often contributed some needed levity to challenging discussions. He was committed to improving the aspects of the problem he was responsible for and hesitant to take on too much. When reviewing the wicked problems matrix (Alford & Head, 2017), I asked him how his problem might look different if he was trying to stop bias rather than respond to bias incidents. In response, he jokingly offered me a job to come help stop bias on campus. I understood his jest to mean he knew the problem space he was responsible for and could impact and needed to leave aspects of the problem for others to address. Although this approach might counter Rittel and Webber's (1973) original framing of wicked problems, it aligned with emerging discussion on the framework (Alford & Head, 2017; Daviter, 2017). Because of his approach to his work and how he engaged with his peers in the AL, I believe other HE professionals will be drawn to Denzil and want to work with him to address wicked problems on HE campuses.

I became curious about how Denzil will lead in his new position. As the person responsible for DEIJ in a large academic unit, Denzil will likely have the opportunity to shape the vision, strategy, and pursuit of objectives that can significantly impact students, staff, and faculty. As a positional leader, he will again lead from the operational system (Uhl-Bien & Arena, 2017) of the college's administration. I wondered how he will step out of that system to shape his strategy and pursue his objectives, if he would use similar tactics to motivate potential

partners and develop allies, and how his leadership will be different as a director. Denzil was explicit that this research experience was positive for him and that other midlevel leaders could benefit from participating. In his new role, I wondered if he will create experiences that allow other leaders working on wicked problems to connect, explore their work, and learn from one another. Although I will not be present to observe, I am excited for the impact Denzil will create in his new leadership position.

Kristian's Account of Practice: Developing Equitable Housing at a Growing HSI

Kristian (he/him/his) was an executive director of housing at Coahuila y Tejas University (CTU). CTU was a large research university in Texas, an HSI and majority-minority institution. Kristian described that CTU had nearly 50% first-generation students, and more than half of students were Pell Grant eligible. Kristian indicated, "We are by all metrics an access-based institution." The institution was one the largest universities in the state if measured by enrollment. However, because funding allocations in Texas were partially based on academic programs offered, CTU was in the bottom five for state funding. A new president at CTU was driving the campus to achieve Research 1 (R1) status by, in part, increasing enrollment, which would unlock additional state funding.

Kristian joined CTU within the prior year. He reported to the vice president of student affairs and was the division's youngest and newest leadership team member. Kristian oversaw a staff of more than 150 people, and his responsibilities for housing ranged from daily operations to strategic planning. He came to CTU with 20 years of experience in residence life and housing at large state research universities. Kristian identified as a White, gay, cisgendered man who grew up in a large urban setting in the northern United States but made a career working at more rural institutions in the southern United States. Among the most salient identities for him as it

related to his wicked problem was that of a first-generation student from a lower socioeconomic background. Now, he was responsible for hundred-million-dollar decisions impacting the financial well-being of first-generation students.

At the start of the research process, Kristian described his wicked problem was rooted in the need to increase enrollment and grow CTU to gain R1 status while continuing to meet its mission as an HSI and serve the local community. Kristian contributed to the enrollment strategy as part of the enrollment management committee. The specific element of the problem he was responsible for was growing housing capacity by 4,000–6,000 beds in the next 5 years to support enrollment targets. The opportunity to build housing to align with the HSI access mission of the university was why Kristian joined CTU. Throughout the research, Kristian focused on the wicked problem of equitable and affordable housing.

According to Kristian, increasing housing capacity at most universities would not be a wicked problem, but challenges and the context at and around CTU increased the wickedness. Competition in the local rental market was one factor that increased the wickedness of his work to provide affordable housing. CTU was in an area of Texas that was experiencing population growth. Between CTU and local renters, there was not enough housing capacity in the region to meet increasing student demand. According to Kristian, the demand in the local rental market had increased rental rates, and low-income students were getting priced out of the market. Because of the increased cost of living in the region, students turned to CTU for affordable housing. If they could not get a room on campus, they would move farther from campus, take on leases they could not afford, or choose to withdraw from CTU.

The demand for housing also meant it was the norm for students to lease apartments 9 to 12 months before moving in. According to Kristian, first-year, first-generation students often did

not know how early into the academic year they needed to sign a lease for the future. As a result, their options for local and affordable housing off campus were often gone when they did start to look. Later in this AOP, I discuss how this norm also complicated Kristian's effort to expand campus housing through purchasing.

Kristian also identified the capacity of housing at CTU, policies for student housing, and the audience the campus served all intersected to increase wickedness. The CTU housing system started the year above capacity and did not drop below 100% occupancy during the research. CTU had a first-year residency requirement for students. Kristian described this requirement as critical to success as an HSI, saying, "We have a lot of Latinx students who struggle with leaving their family . . . but then they identify later that that is actually critical to their ability to succeed." Maintaining the first-year requirement was necessary for student success, but increased enrollment pushed the system over capacity.

The issue of capacity and demand was at the center of the campus' need to increase housing. Kristian's wicked problem was to do so in ways that increased equity and affordability for current and future students. Improving equity in the quality and experience of campus housing was critical to this work. Previous leadership suppressed rate increases in the oldest and least desirable units while increasing them in newer and more equipped spaces to maintain affordable options. Kristian described that this practice created a significant equity gap in the experience students had living on-campus and affected student decision making when they picked where to live. Addressing the campus rate structure and changing how leadership approached affordability were short-term goals that Kristian pursued during the research process to advance equity. Later in this AOP, I discuss Kristian's leadership to address the rate gap, the resistance he experienced, and how it exposed the wickedness of the problem at CTU.

Given the urgency to meet the housing needs of CTU, Kristian experienced significant activity in a short time. However, the timeline on which housing projects unfolded also meant Kristian had to be patient for the impact of his work to take effect. Throughout the project, Kristian focused on equity and affordability for first-generation and low-income students. Because other leaders made choices about building and purchasing housing, Kristian had to propose options for them that furthered goals of affordable and equitable housing. Kristian described this process as “pre-doing the equity work.” This work was significant because the people making the decision were less informed about the problem and held varied views of equity and affordability. Among his challenges was the need to choose between options with some degree of negative impact.

During the research, Kristian focused on purchasing local apartments, revising the rate structure, responding to a new campus policy to no longer house returning and transfer students, and building new residence halls. In this AOP, I attempt to communicate the analytical, pragmatic, and persistent leadership Kristian provided to address his wicked problem. Through most aspects of his challenge, Kristian had to work with and push against university leaders. In doing so, Kristian was an antagonist to many senior leaders as he fought for necessary outcomes and tried to shift how they perceived affordability and equity in campus housing.

Purchasing to Expand Capacity

In the first meeting of the AL set in October, Kristian described that his team was about to launch a request for proposal (RFP) to local rental owners to purchase or lease their facilities. The leadership, including Kristian, identified buying or leasing rental units near campus would quickly increase housing capacity. In theory, they could accomplish a purchase or lease quickly. However, the housing demand in the region complicated the ability to do so. The norm for

students to rent apartments 9 to 12 months in advance disrupted the opportunity to purchase or lease within 1 academic year. Most desirable buildings near the campus had already started leasing for the 2023–2024 academic year when the campus launched the RFP. Kristian described that he had been trying to “beat the drum” since spring to create urgency but had been unable to move the administration quickly enough.

Kristian shared his view of the RFP process they were in, saying, “It’s a rush job. . . . We are doing a procurement window of just 18 days to secure their offer for a lease or a bid because they’ve entered pre-leasing.” Ultimately, the RFP failed to gain any interest. In their rush to get the proposal out, CTU only sent it to the property managers, not the owners or developers. Kristian described the impact of sending to property managers, explaining, “We essentially asked 60 people to get themselves fired. Right? Like if you sell the property to us, then you would have no job.” Kristian’s retrospective on the decision to send to property managers was critical of the choice, but he also appeared to take some degree of responsibility for the choice.

The seemingly tame challenge (Rittel & Webber, 1973) of whom to send the RFP to resulted in a failed effort because key decisionmakers were not informed. Kristian shared when they investigated why the RFP failed, they learned that no property owners received the request. As the RFP process and the review of it unfolded, property managers continued to rent out units, effectively blocking any possible sale until the 2024–2025 academic year. Not recognizing the tame problems of rental marketing timing and whom to inform about the RFP forced Kristian to delay any purchases for at least a year.

The failed RFP established the urgency to move quickly for senior administration, which is something Kristian had been unable to do. After the RFP failed, leadership decided to engage a broker to represent them to local property owners for a future purchase. Kristian hoped the

broker would succeed and create more capacity in 2 years. However, Kristian shared, “We are now in this weird limbo of still trying to solve our immediate need.” The inability to purchase meant capacity issues would likely continue for the next academic year.

In response to the increased demand and the failed RFP, the leadership made additional changes to housing policy. In the next section, I explore how Kristian led a response to the decision by leaders to no longer offer housing to returning or transfer students.

Reacting to Not Housing Transfer and Returning Students

Kristian had already taken multiple steps to meet the demand for housing. Under his leadership, the department created more student beds by turning single rooms into doubles, doubles into triples, and retrofitting lounges to create temporary housing. Although he pursued it, Kristian believed the strategy was problematic. He stated, “We know [it is] terrible for those with marginalized identities or folks who are being shoved into those spaces.” Through offices under his leadership, he also tried to educate students about affordable off-campus housing options and the urgency to rent. Kristian shared, “We’ve tripled the programming in the fall to engage in increasing sort of access to what affordable housing looks like.” The educational programming was both a response to increased demand and an attempt to help first-generation students understand the importance of acting early to find housing.

As the research progressed, campus leadership decided to no longer offer housing to returning or transfer students. Leaders made this decision in response to updated application and retention numbers showing increases in out-of-state applications and first-year retention rates. Kristian also faced a decrease in students who requested an exemption from the first-year residence requirement. Kristian recognized that these numbers were good for CTU, but as they related to housing, he lamented, “The curve is just in the wrong direction for me on all metrics.”

Kristian was also frustrated with the leadership and their decisions about campus enrollment. In an early meeting of the AL set, he shared, “Knowing that we are short on beds, the cabinet decided to increase our enrollment projection from 7,700 for next fall to 8,000.” His frustration was rooted in the reality that leaders consciously made the problem of affordable and equitable housing worse as they pursued enrollment figures that supported their pursuit of R1 status.

The leadership’s decision meant, for the first time, CTU would only allow first-year students to live on campus. Kristian and his team were responsible for rolling out this change and supporting students who had relied on on-campus housing. Although he attempted to do so through a lens of equity, he still had to communicate to all residents that they could not return to on-campus housing the following year. Before the announcement, his staff partnered with key offices to adjust the policy for returning former foster youth and students with disabilities, two groups with explicit exceptions in the policy change.

Even though his team worked with these offices and directly messaged these populations, they experienced what he named “backlash” from faculty and administrators who assumed they had not considered these populations. Kristian did not specify how he responded to campus community members’ concerns, but he made clear that he was committed to supporting these marginalized student populations. His staff also continued to offer educational sessions on affordable housing and support individual students through an office of off-campus housing.

Kristian also communicated another truth about the politics at CTU related to housing students. In his words, “[Students who needed housing were] gonna end up in some key offices that are going to call me and have the political clout where I’m gonna give them a bed.” Kristian believed this factor added an additional equity challenge whereby some well-connected students can access housing whereas others will be left to manage their situation alone. Although he was

aware of it and did not support the practice, he believed it was a reality at CTU that he could not, or perhaps should not, fight.

For all his efforts to respond in ways that considered equity for students, Kristian was expected to provide students with a place to live and had limited options once campus leadership made a policy decision. Kristian clearly disagreed with the policy change, but it was also hard to tell if he fought the decision or acquiesced to their choice without resistance. When he communicated this decision to members of the AL set, Kristian had already been in a combative position with senior leaders for many months. His efforts to purchase housing had not been successful, and by all accounts, he was looking at another challenging year ahead for occupancy. His responses to the decision also felt slightly apathetic and accepting of the reality he faced. Although Kristian advocated aggressively in multiple areas related to housing equity and affordability, this was a decision I perceived him responding to rather than shaping. In the next section, I discuss Kristian's efforts to revamp the housing rate structure at CTU, an effort he fought to shape.

Creating an Equitable Rate Structure

When Kristian took his leadership role at CTU, he inherited housing facilities with significant variance in quality and a rate structure that fostered an inequitable experience. As an example of the many quality issues, he pointed to double rooms with only one electrical outlet as a problem, saying, "We put these digital natives into a bedroom with one, two-pronged outlet. From a perspective of what students need to be successful, it is so outdated." Previously, administrations intentionally suppressed living costs in these legacy rooms to maintain affordable options. Kristian shared the gap between the least and most expensive rooms at the

time of this research was more than \$3,000 a semester. This rate structure, coupled with the quality of housing, created an inequitable and divided experience for students at CTU.

Kristian identified the rate gap had multiple equity impacts. First, it created an experiential divide between people who can and cannot afford quality housing. Second, students who chose lower-cost options could find themselves stuck because they could not afford to move if needed. According to Kristian, “It’s not uncommon [to have] a terrible roommate conflict, which may be related to [their] identity, but the only room available for [them] to move to is way outside of [their] price range.” When these situations arose, Kristian’s options were to require a student to stay in an unhealthy situation or move the student and absorb the loss created by the rate gap. Kristian was explicit that he always moved the student, but the expense he absorbed was money that would go to other improvements in the system. Lastly, Kristian believed that students chose to live in higher-cost facilities they could not afford because of what they believed it said about them. According to him, students picked their rooms “based on what their perceived reality is.” Further, he shared, “Right? Like, if I don’t choose to live in the expensive building, I’m self-identifying to other folks that I am poor.” During the research process, Kristian proposed, advocated for, and achieved a new rate structure that created more equity in the student experience.

At the start of the research process, Kristian had a task force looking at the rate structure for campus housing and how it could be updated to increase equity and access. Through the task force’s work, Kristian proposed to the president’s cabinet to close the rate gap. Kristian shared, in the proposal, “[He] brought some room rates down as high as 18% and brought the bottom up by about 15%.” In doing so, he made higher quality housing more affordable and accessible to

lower income individuals. The new structure would also make it easier for students who lived in lower cost housing to move if necessary; however, the structure increased rates on legacy units.

This proposal was counter to how CTU leaders had defined access for low-income students. Kristian shared, “The cabinet had massive problems with it because they felt like I was not considering low-income individuals. So, I got summoned to a cabinet meeting to discuss differing definitions of equity.” Although he was not explicit about how he did it, he assuaged their concerns, and the cabinet moved the proposal forward to the board for approval.

Kristian pursued this rate change in the context of his other challenges to affordability and equity. When he shared this update, I found myself aligned with the cabinet members who questioned his decision to increase rates on the legacy facilities. I appreciate that increasing access to better facilities is progress toward equity, but, in my experience, some students depend on the lowest rates possible to afford college. Over the next few meetings, Kristian shared a pragmatic view on midlevel leadership that helped me appreciate his decision on the rate structure.

Kristian offered to the AL set that as a midlevel leader working to address a wicked problem, he believed he was always making decisions that had negative consequences. He likened it to pulling a lever that would create a desired impact but also create a negative one.

According to Kristian:

Leadership in challenging inequity and injustice has to include some level of understanding of the impact of lever pulls. That you know the cause and impact of what you choose to do, and do your best to mitigate the impact to the individuals you serve. In the case of the rate structure, increasing the cost of legacy units would add a financial burden. However, lowering the cost for higher quality units interrupted a cycle of inequity where only

people with financial resources could afford quality housing. Ultimately, Kristian pulled the lever to create a version of equity that advanced access to quality housing for all, knowing that his decision would negatively impact some students. In this light, I could appreciate Kristian's decision and understand why others may critique his choice.

Kristian's work to adjust the rate structure contributed to one aspect of his wicked problem, and the impact of this change will affect students at the start of next year. In contrast, Kristian persistently pursued solutions with campus leadership to build housing in ways that would create affordable and equitable options for future CTU students.

Building for the Future

Building additional housing units to meet campus demand was a significant focus of Kristian's time during the AL set meetings. He pursued this work while also navigating other aspects of his wicked problem. The experiences of attempting to purchase local rental units, responding to the shifts in whom the campus housed, and adjusting rental rates all contributed to and shaped why building new residence halls at CTU was so complex and wicked. The crux of the challenge for Kristian was how to create affordable and equitable housing while also building for a future at CTU where the student body would look different. Additionally, Kristian pursued his work with senior leaders who held considerably different views about equity, affordability, and the role of campus housing. I communicated some of those varied viewpoints in previous parts of this AOP, but most came to a head while trying to manage the financial reality of building 5,000 to 6,000 new beds.

When Kristin entered the research, construction on residence halls that would provide 1,900 new beds was underway. The campus had also contracted a consultant group to understand the future need. Early in the research process, Kristian anticipated the consultants would

recommend that the campus acquire 3,000 to 4,000 new beds in the next 6 years. Kristian was very concerned about the financial impact of doing so. He shared, “We can’t afford any of this, and the rental rate models to make this work are quite out of line with what our affordability is.” Although Kristian was concerned about affordability, many members of the university leadership disagreed with him. The view of leadership was critical to the campus’ direction because members of the president’s cabinet and the board of trustees would ultimately approve the funding to move forward.

According to Kristian, some senior leaders, including the president, desired “to be in an amenities market” and to offer housing experiences that compete with other institutions that do not share the access and HSI mission of CTU. For Kristian, pursuing this type of housing meant leaders did not recognize that, for many CTU students, “amenities are not as important.” In Kristian’s experience, the Latinx and first-generation students CTU served had different housing needs. As discussed in the introduction to this AOP, Kristian’s experience showed him Latinx and first-generation students often moved back and forth between home and campus to take care of family responsibilities. They needed spaces they could return to and focus on classes. Kristian was committed to quality housing, as evidenced by his work on the rate structure, but he disagreed with the desire of some administrators to build “amenity monsters,” as he referred to them. He believed the interest in amenities reflected a priority for students from higher income classes and a desire to maintain status with other research institutions.

Kristian’s view on affordability for current and future students and how he believed the university should respond involved pushing the limits to prioritize equity. Although he was uncomfortable with what it would cost the campus to build the needed beds, he believed it necessary to advance affordable and equitable housing. According to Kristian, “You kinda bite

the bullet a little bit, and just sort of have to push it and sort of know that it's gonna be problematic." He also described the need to push it as "bending the proforma to the breaking point." Both thoughts communicated a belief that the administration needed to use its power to advance equity and justice, even if it presented a risk. Taking this financial risk tested Kristian's comfort level with making decisions of this magnitude. His discomfort was rooted in his positionality as a first-generation student from a lower socioeconomic background. Nevertheless, his positionality was also why he led with equity and affordability as his desired outcomes.

As he advocated for this view of the future, he often conflicted with and was critical of cabinet members whom he believed consistently undersold "marginalized students as not being as capable as traditional students at other institutions." Kristian used phrases like "kicking hornets nests," "shaking trees," and "pushing boulders uphill" to communicate his work to agitate and influence senior leaders toward priorities of equity and affordability. He did so by writing memos and briefs, constructing proposals, and giving presentations that centered the needs of Latinx and low-income students. When necessary, he also directly confronted leaders in meetings, phone calls, and emails.

Kristian also engaged his boss and other allies in the senior leadership to advocate on his behalf. One example was an assistant vice president for finance and administration who became a vital partner. Regarding this ally, Kristian said, "She understands the big picture and speaks [chief financial officer]. So, she's become sort of a core ally in these conversations about the rates and those other things." Kristian used multiple strategies to advocate for affordability and equity in the discussion about housing at CTU. However, his efforts were not always successful.

A major complicating factor in his work on affordability was the rise in interest rates on financial loans after the COVID-19 global pandemic. As interest rates rose above 6%, the

institution's leaders chose to self-fund construction using an internal loan from its reserves rather than issuing bonds to pay for construction. The logic was that this would save the campus money in the long run, but leadership required Kristian to pay interest on the loan upfront. Kristian described this to the AL set, saying, "The institution has offered me a very generous loan from our reserves at a 6% interest rate. That they would like paid upfront. And so, I was handed a \$4.7 million bill on Friday." Kristian used snarky humor to communicate his frustration with the decision. He also shared he had a "very heated" discussions with the chief financial officer, the president, and his boss about what he viewed as "a money grab" by campus leaders.

Additionally, by requiring Kristian to prepay interest, it had a direct impact on his ability to improve existing housing. Kristian shared with AL set, "We've got some buildings that are in need of massive repair that are our low rates and so those buildings will not get the renovations they need." In contrast to the decision by leaders to no longer offer housing to returning and transfer students, this decision was one that Kristian seemed to fight aggressively. His discussions with the chief executive officer, the president, and his boss appeared to carry out over multiple weeks as he tried to advocate for a different path forward. However, in the end, it was clear to Kristian that the decision would not change. In his last discussion on the topic, he seemed to concede some understandable financial reasons that he could accept even though he disagreed with the decision. Ultimately, macroeconomic forces outside his control or the control of campus leadership shaped this aspect of his wicked problem. The situation demonstrated that factors well beyond campus boundaries shape wicked problems and that leaders only have so much influence on potential solutions.

At the end of the AL set experience, the campus leadership had yet to decide on the next phase of building residence halls. According to Kristian, the president was committed to CTU

having a bed for every student who wanted one. As a result, the campus was likely to pursue an aggressive path toward increased capacity. However, it was unclear if leadership would align with Kristian's version of equity and affordability for on-campus housing.

Impact of the Research on Kristian

Kristian communicated three impacts or benefits that he gained through the AL research experience. The first was that the wicked problem and complexity leadership frameworks helped him reframe and understand his problem and work in new ways. As a result of this new conceptualization, he took different actions and expanded his sense of midlevel leadership. The second benefit came from engaging with peers from other institutions working on wicked problems from similar professional levels. The last benefit was a broader understanding of what it means to work on wicked problems in complex environments as a midlevel leader.

By engaging with the wicked problem and complexity frameworks, Kristian felt validated that what he faced on campus was real and that others shared similar challenges. He even began to question if he worked on tame problems anymore as a midlevel leader or if every problem that elevated to his level had a degree of wickedness. As Kristian explored his challenge through the wicked problem framework (Alford & Head, 2017), he identified that because "neither a problem or a solution is clear," it created confusion and made the problem more wicked. He began to express that his problem was not just one wicked problem. He shared, "I think I have this big problem, but really, it is this mash of 18 little problems that create the big problem." As he identified these attributes of his problem, he started to lead differently by engaging different partners and asking different questions to address shared challenges of enrollment and housing and how they contribute to access, equity, and affordability.

The complexity leadership framework of organizations (Uhl-Bien & Arena, 2017) helped Kristian reframe the organizational position he held and led. He recognized that his history in university housing shaped his preferred leadership style but that his position and problem necessitated a leadership shift. He shared, after nearly 2 decades in a relational residential life environment, “I want to be in the adaptive space, maybe even the local space preferably. But to be functional, I have to live in the formal space.” Although Kristian recognized the need to lead more from the operational system, he did not abandon his relational roots and continued to expand how he engaged people who worked for him to enable adaptive solutions.

Kristian shared the research experience made him more willing and vulnerable with his staff to “put some things on the table that maybe [he] would have held closer to the vest.” Further, he shared, “Here’s the dumpster fire I’m dealing with, what am I not seeing in this?” Kristian was explicit that the choice to trust and engage colleagues was because of his time with the AL set and how their discussions benefited his work.

Reflecting with peers from other campuses who faced similar wicked problems as a member of the AL set was a significant benefit for Kristian. He explained the process “allowed for a different lens to a lot of existing problem understanding and development, and a shift in the ways in which to approach problems.” By participating in the AL set, he also heard from leaders across functional areas without political turbulence between coworkers. He shared, “I have great colleagues on campus. But here, in a resource-constrained place, every conversation is a negotiation.” Although he was not explicit about it, working with his peers in the AL set may have also led to Kristian appreciating how people and relationships added to the wickedness of his problem.

It appeared Kristian expanded his understanding of how resistance by individual cabinet members and relationships between his boss and other cabinet members complicated his work. Early in the AL set process, Kristian placed the responsibility for relationships and resistance at the cabinet level on the president to address. By the end of the research, he more frequently explored resistance and interpersonal relationships as part of his updates. He also embraced the immunity to change concept that Glenna brought forward.

As the research process ended, Kristian shared his view, indicating, “Wicked problems are unavoidable, particularly as we seek to understand access and inclusion work.” Kristian believed this fact was especially relevant as more marginalized populations entered HE. It also aligned with his belief that HELs needed to recognize and seek to mitigate the negative impacts of their work, as discussed in his effort to address rental rates. Kristian shared:

Frequently, when individuals move into midlevel leadership, they assume that they can solve problems, make decisions, and solve issues without a negative impact. The sheer complexity of the problems we are discussing make that unavoidable. That level of reality means we need to spend time seeking to minimize risk and impact, not avoid it.

This view on leadership reflected an action-oriented and pragmatic approach that Kristian brought to addressing his wicked problem. He accepted the reality of negative consequences and stressed it was critical to identify impacts in advance and make decisions that prioritized equity and justice outcomes.

My Reflections on Kristian’s Leadership

Kristian led from a position at CTU and during a time at CTU where he could have a long-term impact on affordable and equitable housing. Because of the experiences he shared and how he engaged with the group, I perceived him to be an equity-informed leader whose

leadership approach was simultaneously cerebral and pragmatic. Kristian's updates were detailed, poignant, and often laced with critiques of other leaders. He frequently used sarcasm and hyperbole to communicate his frustration with people who had power over the trajectory of his work.

Kristian's recognition that his wicked problem was a collection of many minor problems aligned with recent theorizing on understanding and addressing wicked problems (Alford & Head, 2017; Daviter, 2017). He also worked at the institutional level, where even the more minor aspects of equitable and affordable housing were significant and came with their own degree of wickedness. He was likely correct, at his level of midlevel leadership, that he no longer dealt with tame problems.

As a White, male executive director with experience as a first-generation student, Kristian used his positionality to push aggressively on campus leadership. His positionality also likely created the privilege to do so in ways other AL set members did not have. As a White male, he was part of the in group with much of the CTU Leadership. Although he actively and aggressively disagreed with them, he could do so without the repercussions that other midlevel leaders may have faced. In my perspective, Kristian used this positionality to advocate for Latinx, low-income, and first-generation students. However, decisions about the rate structure and his response to no longer house returning and transfer students were worth critiquing through the lens of his positionality. I also questioned if his stance on the unavoidability of negative consequences and willingness to make those decisions were related to the privilege he experienced as a White male.

A few years back, I attended a NASPA Western Regional conference where critical legal scholars spoke on the role of a HE attorney general (AG) in advancing social justice. They

shared their perspective that a university president could employ an AG to tell them what they could do within the law, or they could employ an AG to provide legal justification for the actions they want to take. They argued campus presidents should use their administrative roles to advocate for equity and justice, even if their work was controversial. As I spent time with Kristian, I consistently returned to my experience at this conference and his proactive approach to the administration's role in advancing equity and justice. His belief that individuals had to "bite the bullet" to advance equity even though it may create other challenges exemplified this proactive and possibly controversial stance on the administration's role in creating affordable housing.

Although I may critique some of Kristian's actions and choices, I aspire to be a leader who uses the system to advance equity and justice. Public universities need more leaders in positions of power willing to leverage and risk the system as it stands to advance solutions to wicked problems of inequity and injustice that challenge the future of HE.

Practitioner Learning

Practitioner learning is the shared knowledge generated through the research process that can be helpful to others who are interested and engaged in the topic (Coghlan & Pedler, 2006). As discussed in the methodology section in Chapter 3, for AL to be a viable research methodology and not just a leadership development tool, scholars agreed it must offer shared practitioner learning. I generated the practitioner learnings offered in this section through my iterative analysis and synthesis process, informed by the cycles of action and reflection the participants undertook. I transcribed each AL set meeting, conducted an initial round of in vivo coding following the meeting, and explored the transcript for initial commonalities between participants. I also coded and analyzed journal entries from each participant. After transcribing

and coding the third meeting, I engaged in a second round of coding to bring shared concepts together and identify unique viewpoints and practices. For all meetings after the third, I simultaneously coded for new content and connected codes to broader themes when there were evident relationships.

To engage participants in the data analysis process, I intended to bring concepts from my data analysis process to the meetings to get the participants' reactions or corrections. In Chapter 3, I outlined this review of emerging themes as part of each AL set meeting cycle. In practice, this process was time consuming and took vital minutes away from richer discussions on problems and each participant's work. An example was in the third meeting when I offered the participants my initial description of how they articulated leadership. My description included the idea that operating context, the people involved in what they were working on informed leadership and that there was no single approach to successful leadership. Participants' responses to this description were not strong, yet they did not have much to add or correct. By the end of the meeting, it was clear I should allocate the time spent on emerging themes to participant updates and their questioning of one another. As a result, I decided to limit the review of emerging themes to the end of meetings, if we had time, and planned for a comprehensive review of themes during the second to last meeting.

In the fifth meeting of the AL set, I gave a comprehensive presentation of the practitioner learning themes I identified by analyzing the first four meetings and their journal responses. By taking this approach, I had time to build a detailed articulation of the practitioner learning, complete with examples from our discussions. By the fifth meeting, participants engaged with the research and each other for nearly 3 months and established greater comfort in discussing topics with one another and challenging my thoughts. Participants affirmed, expanded on, and

challenged multiple concepts through the presentation and discussion. Findings regarding positionality, working with tension and pressure, and navigating individuals who resisted all took on additional significance in this research because of their input in this session.

In the final meeting of the AL set, I brought forward one additional theme related to their patience and persistence in addressing their wicked problem. The theme existed subtly in the data, and it was not until after I analyzed the transcript of our fifth meeting that I realized I needed to check the concept with participants. I described this theme to them as them being “patiently impatient” in pursuing their wicked problems. The participants resonated with the concept but also resisted putting it forward with that title. Their resistance centered around patience being necessary but also problematic when advancing equity and justice. Glenna explicitly called out how her privileged identities allowed her to be patient when she should move more urgently sought to reduce harm. Through their feedback, I integrated this practice into the more significant theme titled “Taming the Problem,” which became more nuanced because it highlighted the tension between the necessity of patience and the need to be relentless in their pursuit of equity and justice outcomes.

The practitioner learnings I offer in this section had consensus support from the participants but do not reflect the experience or leadership practice of everyone. I highlight where a particular theme challenged participants, similar to the description of being patiently impatient. Additionally, some insights were specific to an individual. I include them because of the differential perspective they offer and identify them as unique to the participant in the presentation of practitioner learning. I organized the findings into categories that aligned with the theoretical framework for this research and integrated the findings with the relevant literature. The following sections are the practitioner learnings I offer on behalf of the participants. Doing

so helped establish this AL project as scholarly research instead of simply AL for leadership development (Bourner & Simpson, 2005; Coghlan, 2013; Coghlan & Pedler, 2006). These practitioner learnings were our contributions to the scholar–practitioner discussion of leadership needed to address wicked problems of inequity and injustice in large public universities.

Public Universities Are Complex Organizations

Through the research process, participants identified that their universities were complex organizations with formal and informal systems. In their positions, they were part of the formal system of the university. They held authority over functional areas like housing, disability resources for students, and campus cultural centers. Across the group, they sat on committees, took responsibility on teams, and were members of the presidential leadership cabinets. In their positions, they reported to senior leaders within the formal structure of the university. Additionally, they had to navigate established and significant informal structures to advance their work. They leveraged personal and professional relationships, built buy in for ideas across multiple departments, collaborated with other administrative units to pilot programs, and tapped into student activism when it created opportunities.

The participants' descriptions of their campuses and discussion of their work supported scholarship linking a complexity view of organizations and HE (Bore & Wright, 2009; Love & Estanek, 2004). Mandviwalla and Schuff's (2014) articulation of the invisible college may have aligned most with participants' experiences. Denzil's efforts to navigate the formal structure of a 24-campus system while accounting for the unique views and norms of academic leaders and the culture of their disciplines exemplified how the invisible college influenced his context.

Participants also resonated with Uhl-Bien and Arena's (2017) description of complex organizations having two systems, the operational and entrepreneurial, and the adaptive space.

Each participant identified that they worked in at least one system and the adaptive space as they pursued their work. They recognized the role of the operational system as the formal structure of campus and also saw their work in the adaptive space or entrepreneurial system. They also had preferences for how and where they pursued their work.

Glenna was explicit that as the president's chief of staff, her leadership strengths were in the operational system because of her ability to bring order to chaos. However, as the research progressed, she identified that to increase equity and justice through strategic planning, she would need to work in ways that aligned more with the adaptive space. Glenna attempted this by bringing more voices to meetings of the board of trustees and leveraging relationships to encourage more participation in the campus climate study. However, her work in the adaptive space and entrepreneurial system was most likely to be tested when she engaged the local Latinx community to create FRSU as an HSI with them. Glenna recognized that being more adaptive was necessary for the institution to evolve but struggled with how to lead FRSU in that direction. Other participants shared her challenge to lead through the adaptive space, which aligned with scholarship highlighting the difficulty of leading in complex organizations (Leonard & Lang, 2010; Lichtenstein & Plowman, 2009; Uhl-Bien & Arena, 2017).

With less specificity, participants also spoke about their work in ways aligning with CAS in organizations. This factor was most prevalent in Lincoln's setting at INSU, where he described relationships as dominating the organizational landscape. In his AOP, I discussed how he and other colleagues were free to move across and around hierarchies to get work accomplished and serve students with disabilities. Multiple participants expressed frustration with individuals or small groups who resisted efforts to advance equity and justice. When viewed through the lens of CAS (Arena & Uhl-Bien, 2016; Dooley, 1997; Marion, 2008; Uhl-Bien et al.,

2007), these individual agents developed shared views and interests, creating a barrier to change for participants.

Members of the cabinet at CTU who had a different view of equity and affordability than Kristain, and who resisted his efforts to update the rate structure and create affordable housing reflected CAS in action. Although CAS could be a catalyst for emerging new ideas, CAS could also perpetuate existing norms. In Kristian's case, as I argued in Chapter 2, the CAS he worked with wanted to maintain norms of access and affordability aligned with White culture (Cabrera, 2019) rather than advance a new equity-informed view of what equitable and affordable housing should be.

Senior Leaders Impact Success

In complex organizations, participants identified supervisors and other senior leaders amplified or hindered their abilities to enact solutions to wicked problems. In the formal campus structure, supervisors and other senior leaders in positions of power made critical decisions that shaped if and how participants pursued their problems.

As discussed in his AOP, Denzil experienced two different assistant vice presidents who led the BRT. The first held tight control of what improvements the team could make and even prevented Denzil from facilitating training for faculty because of his credentials. In contrast, the second assistant vice president accepted the BRT's recommendations, supported improvement efforts, and assigned Denzil to train faculty leaders. Lincoln's vice chancellor showed a similar level of support when she embraced the call from student activists to create a disability cultural center and asked Lincoln to guide the process forward. Lincoln's vice chancellor also provided other support from her position of authority when she identified funding for him to retain a critical staff member. These experiences reflected how senior leaders played a critical role in the

university's formal operational system (Uhl-Bien & Arena, 2017) to support work toward equity and justice.

Participants also experienced supervisors and senior leaders who supported and advocated for equity and justice outcomes among their peers. The CTU president, who aligned with Kristian on the need for affordable and equitable housing, pushed on the members of his cabinet who wanted to maintain traditional stances of affordability and access on campus. As previously discussed, members of his cabinet acted as a CAS, and he took an active role in pressuring them to adapt. Kristian's president also embraced input and feedback from Kristian about access and affordability issues. Kristian indicated, "[The president] wants me in his face. He tells me all the time, like, 'I appreciate you're honest with me. I appreciate that you lay out the problem.'" From a positional view of leadership in a hierarchal organization, the president's actions reflected listening to and protecting voices from below (Heifetz & Laurie, 1997). Senior leaders who supported the participants' work were also considered allies and accomplices, which I discuss in greater detail later in this chapter.

Senior leaders also stifled progress. Previous research on grassroots leadership in HE (Kezar, 2012; Kezar & Lester, 2011) found leaders in positions of power often limited or manipulated new ideas and suggested changes. As supportive as he was of affordable housing, Kristian's president also oversimplified what it would take to meet the housing demand on campus. His urgency for a solution prioritized his interest in offering more housing and made it difficult for Kristian to ensure they were making sound financial decisions for the future of CTU students. Similarly, the board of trustees at FRSU preferred and demanded simple metrics on the issues of inequity on campus. According to Glenna, she and other campus leaders were "constantly navigating these pressures to provide updates in a way that's easily digestible." The

desire of the board of trustees for simplicity limited how other leaders on campus viewed the problems of inequity and injustice and potential solutions.

Leaders in positions of power and authority, including senior leaders who supervised the midlevel participants in this study, were situated in the formal operational system of the university. As such, they served as an important catalyst in the participants' abilities to formalize and expand the impact of their solutions. They played a significant role in influencing other senior leaders who may resist new ideas or hold views of equity and justice that contradict those the participants were trying to advance. The dynamic between the participants in this study and the senior leaders they worked with reflected, in part, the dynamic between leadership in the adaptive space and leadership in the operational system that Uhl-Bien and Arian (2017) described. Later in this chapter, I discuss participants' relentless approaches to progress and their various strategies to influence others, including senior leaders, through the formal and informal campus systems. In Chapter 5, I share opportunities for future research and implications regarding the dynamic between midlevel and senior leaders to address wicked problems of inequity and injustice.

Complex Organizations, Equity, and Justice

Felipe and Denzil each surfaced unique perspectives about working in complex organizations directly relevant to the pursuit of equity and justice that previous formal and informal theorizing has not addressed. According to Felipe, at QLU, the history and experience with colonization resulted in the informal system as the dominant system on campus. In his words, because of colonization, "friendships and relationships are much more valued than [positional authority]." Although Felipe recognized a formal hierarchy existed, his perception was that the informal campus system was more influential when advancing solutions to equity

and justice. As discussed in his AOP, his colleagues actively resisted his leadership through the formal organizational system because it triggered past experiences with leaders who tried to implement colonizing practices on campus.

Denzil offered that colleagues felt silenced by the formal system of the university but that leaders could also use the formal system to protect marginalized voices. He described how members of the BRT often felt silenced by leaders in the operational system, leaving them unwilling to speak up about problems in their respective areas for fear of retribution. In Denzil's words, "Many of us DEI professionals do not have the authority and the power to actually call out a lot of the issues that we know to be the issue within the system out of fear of retaliation." Conversely, as a director of the cultural center, Denzil used his positional authority in the operational system to protect the employees and students connected to the space. Although not connected to complexity theory of organizations, the dual role of the university system that Denzil identified aligned with la paperson's (2017) assertion that institutions can be first and can be third world universities. In his case, Denzil experienced how the structure of the first world university perpetuated White norms while using his formal authority in the institution to protect students and staff so they could do their work in a third world university-type space. Later in this chapter, I return to this example and discuss it in relation to leadership.

Summary of Public Universities as Complex Organizations

Although the purpose of this research was not to demonstrate that HE organizations are complex, the participants' experiences and how they described their context emphasized the importance of understanding large public universities through a complexity lens. Their experience also raised the critical role that supervisors and other senior leaders play in advancing solutions to wicked problems. Two participants made novel connections between the model of

complex organizations, explicit elements of colonization, and the silencing or protecting of minoritized voices that previous research has not addressed. Later in this chapter, I explore the leadership practice of participants in the context of complex organizations. In the next section, I share how participants resonated with the concept of wicked problems and how it supported them in understanding their challenges of inequity and injustice.

Problems Have Wicked Tendencies

In Chapter 1, I asserted literature informing HE leadership had not seriously considered the importance of understanding problems of wickedness in university settings. Participants' experiences in the AL set and the practitioner learnings supported this assertion. During early meetings of the AL set, participants identified multiple aspects of their problems that increased their wickedness. They also described challenging elements of their work that were better described as tame problems (Rittel & Webber, 1973). However, they did so without explicit knowledge of the concepts or how problem elements were connected to increased wickedness.

When I introduced participants to the theory of wicked problems through Alford and Head's (2017) scholarship and a brief video (Systems Innovation, 2016), their resonance was strong. Participants quickly linked their problem's elements to the wicked problem model. They also reacted to the content in ways that implied they were unfamiliar with the concept. One example came from Kristian, who joked he had to walk away from the video because the content felt personal to his situation. In the following section, I explore the aspects of wickedness that participants identified and connect them to the evolution of scholarship on wicked problems.

Through the research, participants identified their problems existed in complex organizations with multiple stakeholders with varying degrees of ownership of the problems. Participants also had different levels of authority and control over the problems they were

working on, and they all had to work with others to advance solutions. As the research progressed, they also identified that value differences and individual or group resistance to new ideas influenced how stakeholders viewed the problem and potential solutions. Participants also recognized their positionality, lived experiences, and leadership behaviors influenced how they understood the problem and pursued solutions.

These problem elements that participants identified aligned with Rittel and Webber's (1973) original articulation of wicked problems; however, participants did not agree their problems were either wicked or tame. Instead, they recognized that the elements existed in varying degrees within their problem and the wickedness of their problems was not all equal. In response to an update from Kristian on his problem, Glenna said, "I would say that's a very wicked problem, and I'm feeling like mine is a lot tamer after that. Like wow! I just don't even know where to go." Glenna's response emphasized the understanding within the group of variable wickedness. This understanding, and the attributes I described previously, aligned with recent scholarship recognizing wicked problems on a continuum rather than a binary (Alford & Head, 2017; Daviter, 2017; Head, 2019; Head & Alford, 2015; Newman & Head, 2017).

Among key contributing factors to the wickedness of a problem were the people involved with the problem, their experience with it, and the values and beliefs they developed regarding the problem and solution. Participants became more attuned to the impact of campus community members who held different or outdated views of equity and justice. For Denzil, the most explicit complication came from the new president's actions, but he also faced resistance from faculty who believed the campus should have a different response to bias incidents. Lincoln experienced resistance from a small number of faculty who did not want to provide accommodations to students based on their beliefs of fairness. The resistance to different views

of equity and justice from these participants was similar to the resistance Kristian experienced from members of the president's cabinet, as discussed regarding CAS. The desire to maintain the status quo that harmed marginalized communities could be linked to the perpetuation of White norms (Cabrera, 2019; la paperson, 2017) at public universities and added to the wickedness of their problem.

Felipe was the only participant who linked colonization as a factor that shaped his context and wicked problem. As discussed in his AOP, the history of colonization at QLU shaped how his colleagues understood the problem of crisis response, how they viewed potential solutions, and how they engaged with him and his leadership practice. At QLU, colleagues who resisted colonizing practices increased the wickedness of Felipe's work but in a way that favored decolonization. One way to understand their resistance was as an effort to create third world spaces in first world universities (la paperson, 2017). When Felipe realized he was acting as a colonizer and bringing preferences from the U.S. mainland to QLU, he shifted his practice to better align with his colleagues. la paperson's (2017) lens of first and third world universities helped make sense of the resistance other participants experienced, but as previously stated, those colleagues resisted change and prioritized maintaining the status quo of first world universities.

As participants explored the resistance individuals created to new ideas of equity and justice, Glenna shared the wicked problems and complexity theory models do not account for individual behavior and how it impacted her problem. Her view had merit. Although the scholarship on wicked problems (Head, 2019; Newman & Head, 2017; Rittel & Webber, 1973) explored individual beliefs and values, and complexity scholars placed independent agents as the building block of CAS (Marion, 2008; Uhl-Bien et al., 2007; Uhl-Bien & Arena, 2017), neither

meaningfully explored intrapersonal factors shaping individual decision making. Glenna raised the concept of immunity to change (Kegan & Lahey, 2009) as a potential addition to the theories explored in the AL set. Immunity to change sought to explain why individual people, even those who value a desired outcome, can unintentionally or actively resist change. For Glenna and others, immunity to change added nuance to the resistance that individuals create within their problem context. Further exploration of Kegan and Lahey's (2009) immunity to change concept, or other scholarship relating to change for individuals, could help HELs faced with wicked problems move resisters toward new solutions of equity and justice.

In addition to the complications that groups and individuals create, participants noted the problems they worked on were not singular. Kristian shared, "I think as we've moved through this framework, I've started to realize like, I think I have this big problem, but really it is this mash of 18 little problems." The idea that wicked problems were a collection of more minor problems resonated with participants and exemplified how organizational context, cultural norms, individual behavior, and other tame elements of their problem combined to create more wicked challenges. The reality that wicked problems are linked was present in Rittel and Webber's (1973) original model of wicked problems. The scholars recognized problems are interconnected within larger systems and that attempted solutions affect other problems in unknowable and unchangeable ways. I return to this element of wicked problems later in this chapter to explore it through a leadership lens and describe how participants pursued solutions to multiple interconnected problems.

The discussion of wicked problems being a collection of multiple, more minor problems resonated with Felipe, who surfaced the scholarship of Adrienne Maree Brown (2017) and their use of fractal problems. The concept positions fractals as micro instances of macro problems that

exist in society. Felipe provided an example of a bias incident between a faculty member and a student as a fractal of the broader issue of bias in the United States. By understanding a larger wicked problem through fractals, Felipe focused on addressing the micro incident before him to contribute to a broader solution. Brown's theorizing on fractals and how addressing them contributed to more significant social change aligned with Daviter's (2017) views that scholars of wicked problems need to find manageable ways for practitioners to advance solutions for the theory to have practical utility. Although Brown's work advocates for broader social change, the incremental approach may contrast with calls by other advocates for transformational change (Ahmad, 2020; Stewart, 2018). Digging deeper into Brown's work on fractals and its applicability for midlevel leaders may have benefited the participants. Brown's scholarship was partly based on Wheatley's (2006) theorizing on the new science and focused on the need for emergent solutions to broader social change. Their scholarship is worth further exploration by HE leadership scholars and practitioners interested in addressing wicked problems on college campuses.

Toward the end of the research process, Kristian summarized his views related to midlevel leaders in HE. He shared, "Wicked problems are unavoidable. Particularly as we seek to understand access and inclusion work. These problems have and will continue to exist as the spectrum of identity and who is using our spaces continues to expand." Throughout the AL set meetings, the participants emphasized they were working on problems with wicked tendencies and did not indicate they believed they would go away. The intention of this research was not to validate the wicked problems concept; however, my participants' experiences support past scholarship that argued the model has utility for understanding problems in HE (Beer & Lawson, 2018; Bore & Wright, 2009; Camp, 2017; Krause, 2012). By exploring their problem through the

wicked problems lens, participants gained insights into their challenges and thought differently about their practice of leadership to address them. The participants' experiences and insights supported the need for future research on wicked problems in HE and how concepts like immunity to change (Kegan & Lahey, 2009) and problem fractals (A. M. Brown, 2017) could inform the practice of midlevel leaders.

In the next section, I share the practitioner learning developed through the participants' leadership practice during the research process. The knowledge offered through this research helped illuminate the third element of my theoretical framework and highlighted how participants addressed their wicked problems in their complex organizational environments.

Skillful Navigation of Complex Environments to Address Wicked Problems

In Chapter 2, I asserted an evolved understanding of leadership has emerged among scholars that recognize it as a practice emerging from informal human networks and through the hierarchy and formal structures of organizations (Arena & Uhl-Bien, 2016; Drath et al., 2008; Dugan, 2017; Heifetz & Laurie, 1997; Imperial et al., 2016; Lyles, 2014; Uhl-Bien et al., 2007). Participants' experiences in this research affirmed this practice of leadership. It also supported existing scholarship on midlevel leadership in HE that recognizes the need for influence as relational leaders to collaborate across their institutions' formal and informal boundaries (Branson et al., 2016; Fey & Carpenter, 1996; Love & Estanek, 2004; Pepper & Giles, 2015). In their complex environments, they used skillful approaches to further their efforts to enhance equity and justice through informal and formal organizational systems.

In the following sections, I share how participants led from their positionality, employed multiple practices to navigate their relational environments, implemented several strategies to address the complexity of inequity and injustice on their campus, and considered the need to

meet complexity with complexity. The practitioner learning shared in this section addresses the core research question for this research of how midlevel leaders practice leadership to address wicked problems in complex organizations.

Leading From Their Positionality

Each participant's positionality informed how they understood their wicked problem and shaped their leadership practice to influence the solutions they pursued. Personal identities, professional positions, relationships with senior leaders, and lived experiences with their wicked problems or the students and staff for which they were responsible all shaped how they thought about and practiced leadership to address their problems. The awareness of their positions, identities, and lived experiences shaped how they engaged with others as leaders demonstrated that midlevel leadership was practiced simultaneously from an entity and constructionist perspective (Ospina & Uhl-Bien, 2012). Leading from their positionality to define problems and solutions informed by their perspectives also aligned with Rittel and Webber's (1973) original scholarship on how leaders make sense of and seek solutions to wicked problems. Although informed from their positionality, participants were conscious of how their positionality shaped their work and adjusted their leadership to increase their likelihood of success, further emphasizing the duality of midlevel leadership as emerging from the individuals but in process with others who also contribute to leadership and solutions.

Denzil's awareness of his positionality and how he adjusted his leadership was an example of leading from their positionality. Denzil recognized himself as a well-educated Black man who was a positive influence for Black, Indigenous, and people of color students and staff but also recognized others could view him as a threat when he worked on bias response issues. As discussed in his AOP, he often brought in other trainers who shared identities and

professional positions with people he trained to bolster his success in bias response training. In doing so, trainees heard from a peer with whom they shared identities and to whom they may be more inclined to listen. Although this approach did not address embedded issues of implicit bias and anti-Blackness in Denzil's working environment, he accounted for his positionality and adjusted his leadership to build buy in among academic leaders for bias response. Success as a leader on campus also meant Denzil increased his influence and positional leadership. As he advanced as a leader, he put himself at tables with other decisionmakers and brought his positionality and the people he represented to those discussions.

Another way participants recognized and navigated their positionality involved their formal reporting structures to senior leaders. Multiple participants reported to leaders at or above the level of their institution's vice president, which created complications, especially as they navigated relationships on their campus. An exchange between Felipe reporting to a vice chancellor for the first time and Glenna having multiple years of experience working as a chief of staff to a university president exemplified why reporting to a senior leader was challenging. As addressed in his AOP, Felipe received concerned responses from staff at the food pantry when he dropped in unannounced, and he asked Glenna how she navigated her connection to the president with colleagues. She shared with Felipe that she tried to be explicit with colleagues about this aspect of her positionality when she showed up to conversations. Glenna often told colleagues if she was engaging as the president's chief of staff or as a peer and thought partner. Although Glenna may not have been able to eliminate her positionality to the president, she was conscious of the relationship and attempted to create clear distinctions with colleagues. This structural aspect of positionality aligned with previous research on midlevel leadership in HE (Branson et al., 2016; Fey & Carpenter, 1996; Pepper & Giles, 2015) and exemplified midlevel

leaders' unique positions in the institution. A richer understanding of positionality and midlevel leadership would also expand the scholarship on brokering (Uhl-Bien & Arena, 2017) and boundary spanning (Veltman et al., 2019) and how these individuals lead across hierarchies from their positionality.

Engaging their positionality also meant participants considered the gaps in their knowledge and critically analyzed the impact of their work. According to Glenna “Humility and an openness to continual learning are critical. Leadership to address inequity and injustice may require acknowledging that you have opportunities for growth in your awareness.” Lincoln exemplified this need. Because of his identity and work experience, he believed he had a well-established lens for queer issues. However, adding disability resources to his portfolio required more work. He shared, “The professional judgment that I have around disability . . . it is so much more taxing. I have to think twice or three times as hard to make sure I’m making the right decision.” Participants named taking on a new responsibility, moving to a new geographic region, and evolving student populations were factors that necessitated deeper engagement between positionality and their leadership practice. Across participants, they considered how multiple aspects of their positionality influenced how they approached their problems, colleagues, and leadership practice. Their positionality was the foundation from which they engaged with colleagues in their complex organizations. The following section explores how they worked through relationships to navigate their campuses’ formal and informal organization systems.

It Is All Relational

In the practitioner learning section, I addressed that participants identified they worked in complex organizations with formal and informal systems. To advance solutions toward equity

and justice in these systems, participants were keenly aware of campus relationships and found ways to navigate existing relationships or build new relationships to enhance their influence. In an early meeting of the AL set, Lincoln shared how relationships at INSU shaped how all work got done on campus. Lincoln shared, “It’s all relational at INSU because it’s a small town. So, you’re friends with your colleagues. And as people move into different places, they [are] often well connected.” Lincoln’s statement embodied the rich dynamics existing between colleagues on each of the participants’ campuses.

As previously discussed, these relational dynamics reflected the presence of CAS (Marion, 2008; Uhl-Bien & Arena, 2017), which positively and negatively influenced new solutions toward equity and justice for participants. They also supported Love and Estanek’s (2004) argument that relationships have emerged as a meaningful way of understanding HE administrations and that leaders must learn to navigate them to be successful. Participants in this research employed several leadership practices to lead positive solutions to their wicked problems in their relational environments. They enlisted the help of cultural navigators, allies, and accomplices; worked through personal conversations; and built and used their personal capital. Felipe’s leadership practice to build pilina aligned with how other participants navigated their relational organizations, but he acted in pursuit of culturally relevant objectives. Because of this alignment, I have included examples of his work in these practices.

Cultural Navigators, Allies, and Accomplices. Because of his history on campus, Lincoln knew of relationships and could navigate them independently. However, other participants did not possess his institutional knowledge and needed guidance from experienced colleagues. Participants who were new to their campus spoke of the importance of cultural navigators to help them understand institutional history. Glenna described how she turned to

trusted colleagues with long tenure at FRSU to “help explain, maybe, some context that [she] might not see or might not be aware of. Or, help [her] gain insight into who the community is and sort of the collective identity of the institution.” Multiple participants said they needed these colleagues to see the institution in a way they could not. Although he valued cultural navigators, Kristian also pointed out that it was essential to continuously evaluate if the guidance received from cultural navigators was helpful. He described an experience in his first year at CTU in which he received insights from a colleague who proved themselves unreliable. As a result, he had to backtrack on a project because that navigator put him on the wrong path.

In addition to cultural navigators, participants turned to and built relationships with allies and accomplices who played vital roles in expanding the impact of their leadership and opened relationships with them. As discussed in his AOP, Felipe experienced strong reactions from colleagues because he was an outsider and because of his positionality. In response, he worked with accomplices who cosigned for him as a trusted partner. He shared an example of working with an assistant vice president for student success who brought him into the office and introduced him to staff by organizing a tour. Similarly, Kristian worked with a colleague in the president’s cabinet who specialized in business administration and aligned with Kristian’s goals for equitable and affordable housing. This individual helped Kristian make sense of the financial side of his problem and spoke on his behalf with the chief financial officer and other key decisionmakers. The allies and accomplices with whom participants formed relationships served as critical catalysts and connectors to further solutions to wicked problems.

Allies, accomplices, and cultural navigators were critical catalysts in the leadership practice of participants that reflected their ability with boundary crossing (Veltman et al., 2019) and brokering (Uhl-Bien & Arena, 2017). These individuals also demonstrated they were

boundary spanners and brokers who worked from their position in the institution to build valuable connections across boundaries. Building these relationships also reflected another strategy participants leveraged to navigate their relational environment, individual conversations with colleagues.

Individual Conversations. Throughout the research process, participants continuously spoke of conversations with individual colleagues as a tool to make progress on their wicked problem. They used this strategy to build relationships, push against practices perpetuating inequity and injustice, and have difficult conversations with colleagues. From her chief of staff position, Glenna relied on these individual discussions to connect with other leaders. When her colleague in the president's cabinet raised the messiness of progress updates, she made it a point to follow up with that individual to explore how they could work together to improve the process. Similarly, Felipe used individual conversations to address resistance and build pilina. As discussed in his AOP, colleagues challenged his identity and ability to support Hawaiian students. His response was to invite them to lunch and draw them closer by getting to know one another through conversation.

Participants also used one-on-one discussions to engage in a practice Lincoln described as priming the pump. Knowing that individuals often resisted new ideas, participants worked in advance to plant ideas that would influence colleagues over time. According to Lincoln, priming the pump was necessary because “people get stuck into like, what's been done. And then you're like, we're about to shake their world, just the tiniest bit. But let me, let you know, 6 months in advance.” Glenna shared, when priming the pump, she tried to be strategic about the needs of the person she worked with and what would sway them. In her words, “Knowing that some people will want data. Some people will want an article that they can take home to read and reflect on,

or they need 6 months to process.” Participants reported using this approach in one-on-one settings rather than in larger groups, which helped them reduce resistance and bring individuals along to address issues of inequity and injustice.

Through individual conversations and the act of priming the pump, participants worked across hierarchical boundaries and used influence rather than positional authority to make progress on issues of inequity and injustice. These strategies aligned with previous research on midlevel leadership in HE (Branson et al., 2016; Pepper & Giles, 2015) and emphasize why exploring leadership through this unique position on campus is essential.

Banking and Using Personal Capital. Lastly, participants recognized the value of banking personal capital and worked intentionally to grow their capital with colleagues. This strategy involved building favor and trust with coworkers and tapping into that favor later to move work forward. Lincoln identified that he regularly said yes to his colleagues when they asked for help. By saying yes over his long tenure at INSU, Lincoln built a bank of capital that he used when necessary. During the research, Lincoln used some of his capital with the office that owned the academic success course to revise the curriculum to support students with disabilities. Lincoln was unique among participants because he had spent enough time at INSU to develop capital, whereas others who were new on campus struggled without capital.

Glenna and Felipe had less than a year at their respective institutions, limiting their ability to build the capital they needed to maneuver effectively. Glenna admitted that being new to campus reset her capital in ways that she did not expect. She also recognized that the significance of events at FRSU in the prior year kept her from spending casual time with her colleagues over lunch or coffee, a strategy Glenna used in the past to build capital and relationships. Both she and Felipe recognized they needed capital with their new colleagues, and

both struggled to speed up the process. As Felipe spent more time reflecting on the impact of colonization at QLU, he linked the idea of building capital quickly with capitalist goals for efficiency. For him, building capital and pilina were connected and could not be rushed. At QLU, he needed to build capital by spending intentional time with people on campus and showing up to celebrate important personal milestones and community resistance events.

The discussion on banking and using personal capital emphasized how vital a strategy it is for midlevel leaders and that building capital is time consuming. Personal capital is not a strategy in the literature on midlevel leadership or leadership to address wicked problems in complex environments. The role and impact of capital may overlap with enabling leadership concepts of trust and cohesion (Uhl-Bien & Arena, 2017) and could influence the ability of leaders to bridge connections between people and organizations (Lichtenstein & Plowman, 2009; Ospina & Foldy, 2010) but it is not clear from this research that they are synonymous. Future research on the role of capital could inform the practice of midlevel leadership.

From my experience as a practitioner, I believe that capital is a critical leadership practice for midlevel leadership, especially when working in the informal system of the university. When I managed strategic initiatives for the vice president of student affairs, personal capital was necessary, and I focused on building and using capital to progress on key objectives. I was cognizant of when I had capital with coworkers and when I had exhausted that capital. I also used coffee, lunches, and event attendance to develop capital. Although those strategies were helpful, I found more success with Lincoln's approach to saying yes to colleagues and supporting them in achieving their goals. I regularly asked my vice president to assign me to committees or projects that emanated from other parts of campus so that I could earn capital by supporting my colleagues. Showing up and contributing to objectives that support marginalized

students or originated from offices that explicitly fostered equity and justice on campus was critical to building capital with those populations. It was also necessary to recognize my positionality and arrive at the work genuinely interested in their goals. Failure to do either made the interaction transactional and would not lead to successfully developing capital. Of the many strategies to succeed on a relational campus, my experience emphasizes the necessity of personal capital.

Our discussion on personal capital was one of the few times I engaged in dialogue as a practitioner rather than a researcher. During these discussions, I spent more time sharing my personal experience than asking participants questions about their experiences. It was a moment when my positionality as an action researcher shifted to being an insider working with other insiders (Herr & Anderson, 2015).

Summary of It Is All Relational. Participants identified leading from one's positionality, navigating relationships, working with cultural navigators and allies, and banking and using personal capital as essential elements of their leadership practice in a relational organization. Many of these strategies align with and are additive to research on leadership to address wicked problems or the leadership practice of midlevel professionals. However, building and using personal capital is a new addition to the scholarship. Future research could explore any individual practice or combination of practices to understand how midlevel leaders enact these elements of leadership in rich and nuanced ways.

In the following section, I explore strategies participants used to advance solutions to their wicked problems that were less dependent on interpersonal relationships.

Strategies to Advance Solutions

Participants implemented multiple strategies to advance solutions to their wicked problems. They included the need to tame the problem, pre-do the equity work, and work with tension. These strategies were not independent of one another and often practiced concurrently. They also intersected with previously discussed practices of leadership that participants relied on in their relational organizations. These three practitioner learnings shared how participants framed, understood, and sought to advance solutions to their wicked problems in their complex organizations.

Taming the Problem. As previously discussed, participants recognized their wicked problems as multiple interconnected issues. Rather than trying to address the totality of the wicked problem, they strategically identified where they could progress at the moment. This approach aligned with scholarly critiques of the original model of wicked problems for how it totalized a problem, leaving practitioners with challenges so complex and messy that they have no way to make progress (Alford & Head, 2017). By taming their problems, participants recognized and managed the tension between being patient and making progress. Most participants were uncomfortable with being patient. However, taming their problems resulted in consistent advancements toward equity and justice. Although they were uncomfortable with it, this strategy aligned with the outcome orientation of social change leadership (SCL), which favored action to create impact based on a worldview of equity and justice (Ospina & Foldy, 2005). By acting on their wicked problem, participants were creating social change, even if it did not address the full scope of the problem.

Multiple participants led progress toward equity and justice by identifying elements of their problems they could address even if larger elements remained. Denzil first trained students

and staff on bias reporting before he worked with faculty leaders because of the complexity of the academic structure at VSU. Kristian simultaneously advanced a more equitable rate structure and pursued additional housing capacity. The new rate structure did not address the capacity issues, but it advanced equity and affordability while they increased housing at CTU. Glenna knew a strong response rate was needed to take the climate survey results seriously and justify broader investment in equity and justice at FRSU. Rather than focusing on the survey outcomes, she pushed to drive up response rates to support her future work. Each example represents how participants found segments of their problem they could address, which all had positive outcomes.

In their original scholarship, Rittel and Webber (1973) were critical of problem-solving strategies that did not address the totality of the problem. They referred to this as taming the problem. Participants in the research pushed back against this critique and thought the only pragmatic way to pursue outcomes equity and justice was by addressing the component of the problem that they could at the moment. Lincoln offered that his success at INSU came by asking for what was possible and then asking for more. He described, “You gotta make it more of like a like, give the mouse a cookie and ask for a glass of milk later.” Working with options that senior leaders could approve allowed him to make consistent progress on issues of inequity and injustice. The need to work within the context of what senior leaders would approve was discussed earlier in this practitioner learning as an important element of expanding the scale and scope of impact through the operational system. Lincoln’s incremental and pragmatic approach may fall short of the transformational change for which some scholars have advocated (Ahmad, 2020; Garcia, 2020; Gonzales et al., 2018; Stewart, 2018). However, in his experience, he made meaningful progress over a longer timeline by doing so. Again, the commitment to progress

aligned with the outcomes orientation of research on social change leadership (Ospina & Foldy, 2005).

With reluctance, Glenna shared Lincoln's view. In her words:

My greatest ambition would be a fundamental shift, a paradigm shift, in how our institutions are structured and how they operate. . . . But if I think realistically, I think about more participatory environments, better representation, more thinking about who's at particular tables and whose voices are made absent.

Glenna's discomfort with this approach was rooted in the necessity of patience to advance solutions, even though patience perpetuated inequity and injustice for marginalized communities.

As discussed at the start of this practitioner learning section, being patient was an aspect of addressing wicked problems that participants were uncomfortable with but recognized as necessary to pursue equitable and just solutions to their problems. Kristian described the necessity of patience to increase housing capacity, stating:

There is no world in which in a year, I could have solved hyperinflated rates [and a] lack of beds. That has been challenging for me . . . to solve this large of a problem, patience is the only tool I have to get it right.

For participants, relentlessness was a counteraction to patience. Each participant demonstrated an unwavering commitment to addressing their challenges and continued to act on them while being patient for the right conditions to develop so they could take bolder action. Ospina and Foldy's (2010, 2005) scholarship found leaders at social change organizations are inherently committed to equity and justice. Although it was unclear if participants worked for social change organizations, each participant had an inherent and relentless commitment to social change.

Pre-Do the Equity Work. Because participants worked on problems that spanned boundaries and required support or, in some cases, approval from other leaders, they had to prepare ideas and people to ensure they could move forward. While discussing how to get approval from senior leaders for new ideas of equitable and affordable housing, Kristian described his work by saying, “It’s on us as the midlevel folks to pre-do that just, equitable work. Right? It’s my job to write the brief in a way that covers those things.” For Kristian, this meant he needed to identify solutions that improved equity and justice in campus housing, propose those to senior leaders, and advocate for their approval. This practice was necessary because senior leaders at CTU faced so many decisions and did not have the experience or knowledge to understand the nuance and complexity of the inequity of affordable housing. Kristian’s work was to shape and influence their decisions. Felipe shared a similar realization that he needed to be the expert on specific equity issues because his vice chancellor could not be the expert on everything. His work was to do research and prepare his vice chancellor with good information and proposals that she could advance.

Pre-doing the equity work was linked with taming the problem. Participants regularly worked on smaller-scale initiatives and then expanded them in scope and scale when successful. An example is Denzil’s work to train students and staff before moving on to the more complex work of training faculty leadership. Similarly, Lincoln decided to pilot the academic success course knowing that the results would inform his goal of a first-year experience for students with disabilities that would involve more students. By working at a smaller scale first, participants could learn and apply their knowledge to the broader wicked problem to have a meaningful impact on a larger audience.

To pre-do the equity work successfully, participants used previously discussed leadership practices of individual conversations, priming the pump, and working with allies and accomplices to create a context where leaders could approve their proposals. An element that remained unclear through the research was how participants identified the equity outcomes they pursued. Much of the scholarship on leading solutions to wicked problems suggested leaders must create the opportunity and mechanisms for new ideas to emerge from other parts of the organization (Heifetz & Laurie, 1997; Lichtenstein & Plowman, 2009; Love & Estanek, 2004; Marion, 2008; Uhl-Bien & Arena, 2017). This need was especially present in the scholarship to advance solutions of equity and justice (Ahmad, 2020; Ospina et al., 2012; Stewart, 2018), in which scholars were explicit that marginalized and minoritized individuals must be engaged in the process.

Participants' intentions and explicit strategies to engage others in developing equitable and just solutions were varied. As discussed in her AOP, Glenna's work to expose the trustees to marginalized voices during board meetings and the necessity to engage the community in cocreating FRSU as an HSI were evidence that she was considering this need. However, I remained uncertain if her engagement prioritized and protected these populations or compensated them for their labor, as discussed in her AOP. When Felipe decided he needed to stop and listen to the community to determine if there was a problem at QLU, he too demonstrated the practice of engaging others; however, he quickly moved from listening to action, and it was unclear how their voices shaped his decision to move forward. Other participants were less explicit about how they developed their ideas. Future research that explores how midlevel leaders work with marginalized communities or employ other strategies

to identify which solutions to inequity and injustice to advance would enhance what it means to pre-do the equity work.

To successfully pursue their equity and justice work, participants had to navigate tension in their complex environments to address wicked problems. In the next section, I share how participants understood the role of tension in their efforts to address wicked problems.

Productive Tension. Participants identified tension in the organizational environment was needed to address wicked problems but also introduced risk. Felipe offered the group an analogy of why tension was needed. He shared a bridge needs tension from both sides of the span to be stable. Similarly, a problem needs tension to motivate change and create urgency. Scholars on complexity identify the necessity of tension and disruption as a catalyst for change (Lichtenstein & Plowman, 2009; Marion, 2008; Uhl-Bien & Arena, 2017; Wheatley, 2006). Moreover, the leadership theory on addressing wicked problems in complex environments emphasizes that leaders need to work with and regulate tension for solutions to emerge and take hold (Heifetz & Laurie, 1997; Lichtenstein & Plowman, 2009; Uhl-Bien & Arena, 2017; Veltman et al., 2019, 2021). Participants resonated with the need for tension and aligned around the benefit of what they described as productive tension.

Denzil described productive tension's role, sharing, "Doing like, DEI work and equity work, [tension] is producing something." He also shared how leaders who work to advance DEI "have to go through and endure the tension, manage tension, as it is happening to move the needle forward or the group forward to a more equitable and just community or organization." Felipe resonated with unproductive tension and described it as tension that does not have a direction and causes harm. He likened productive tension to fire; managed fire can cook food and

heat a home. However, when a fire is left unmanaged, it can destroy a house in the way that unproductive tension can halt or reverse progress on wicked problems.

Participants may have created tension from implicit knowledge in their leadership practice. When Denzil and his partners benchmarked their program against other institutions, it created pressure at VCU to keep up with peer institutions. Peer comparison is a known strategy in HE to catalyze change (Kezar, 2018). Scholars also identified that it leads to unintentional or isomorphic change (Toma, 2012), where institutional practices drift toward similarity without clarity that the change is positive. It was unclear if Denzil and the BRT intended to create tension, but they used the findings of their peer benchmarking to advocate for and justify updates to the program.

Kristian intentionally sparked disruption among decisionmakers by “kicking hornets’ nests” and “shaking trees.” The disruption he fostered often explicitly challenged how leaders thought about equity issues. Kristian was clear that he created these disruptions to get people to think differently and create urgency to move efforts forward, but he was not discussing this approach as part of his leadership practice. After I introduced the scholarship on complexity leadership, he connected this behavior to the importance of productive tension when trying to address wicked problems. Although Kristian understood there was a benefit to creating urgency and getting people to think differently, he did not associate his behavior with the role of tension when problem solving in complex environments.

Participants were also opportunistic in response to the tension others created in their environment. Lincoln tapped into the tension student activists sparked to move closer to a disability cultural center at INSU. Kristian, Glenna, and Denzil all worked in organizations with

new presidents, which was a catalyst for disruption and tension in their environment that they used to address their wicked problem.

Whether participants tapped into tension created by others or initiated it on their own, they understood it as a catalyst to progress and the importance of keeping it at a productive rather than harmful level. This research did not uncover how participants managed tension in their environments to ensure it stayed at productive levels. Future research could explore how leaders identify appropriate tension levels and increase or decrease tension in the problem environment to increase their likelihood of success.

Summary on Strategies to Advance Solutions. To advance progress toward equity and justice, participants employed strategies that included taming the problem, pre-doing the equity work, and working with tension. Their decision to tame the problem challenged them to reconcile the negative impact of being patient with the necessity of patience to make progress. Pursuing positive outcomes relentlessly was a counteraction to their discomfort with patience, supporting their ongoing work to address their wicked problem. Because they all held positions and worked on problems that needed support from senior administrators, they often had to pre-do the equity work and move it forward through the university's operational system. Although it was clear that participants were thoughtful about the solutions they decided to advance, they were unclear about how they engaged marginalized populations in discussions and decisions about solutions. Lastly, participants understood that tension was important in advancing solutions to their wicked problems and recognized the need to keep it at appropriate levels. In the next section, I explore how participants evolved their understanding of complexity as a tool to address the complexity in their environments and the wickedness of their problems.

Meeting Complexity With Complexity

The approaches participants used to navigate their relational environments and advance solutions to their wicked problems discussed to this point reflected many of the principles and practices of leadership based on complexity theory discussed in Chapter 2 (Lichtenstein & Plowman, 2009; Love & Estanek, 2004; Uhl-Bien & Arena, 2017). Working through formal and informal networks, leveraging relationships, linking common interests, and using tension were all leadership practices identified in the complexity research. Many participants employed these strategies through tacit rather than explicit knowledge as to why they were important in complex environments, which also aligned with scholarship on CLT (Uhl-Bien & Arena, 2017) and midlevel leadership in HE (Branson et al., 2016; Fey & Carpenter, 1996).

In the fourth meeting of the AL set, I introduced complexity concepts through two videos and an academic article participants reviewed before the meeting (Leadership for Personalised Care, 2021a, 2021b; Uhl-Bien & Arena, 2017). After that introduction, how participants discussed their problems and their leadership approaches began to shift. Over the next few meetings, their awareness of the need to meet complexity with complexity became more explicit. Glenna embodied this realization when she shared, “Problems are not singular, nor are the solutions . . . your approach to solving complex problems needs to be complex and nuanced.” Glenna was more explicit than most participants about her intention to introduce complexity to address complexity, but all participants pursued strategies that reflected complexity thinking even if they did so through tacit knowledge.

Glenna intentionally added complexity to her problem context when she worked through the president’s cabinet to expose the board of trustees to Black, Indigenous, and people of color students and staff who facilitated DEIJ programs on campus. She knowingly wanted to disrupt

the desire for simple metrics by adding nuance to the discussion on equitable outcomes at FRSU. This realization came after she reviewed the concepts of wicked problems and complexity leadership, and she linked this approach to working in a complex organizational environment. Other participants introduced complexity but were not explicit that they intended to do so.

As discussed in the previous section on tension, Kristin intentionally pressured senior leaders to make decisions and act with urgency by “kicking hornets’ nests.” Kristian was aware that he took these actions to try and move solutions forward, but he did not consider them a leadership tool to manage tension. After considering his actions in this new light, his explicit interest in tension and managing tension as a factor in his leadership increased in the AL set meetings.

At the end of the research, both Lincoln and Glenna were poised to take steps to engage broad audiences to address their respective problems. Lincoln was in the process of charging a committee to explore a disability cultural center, and Glenna was considering how to engage the local Latinx community to collaborate on the development of FRSU as an HSI. Although they had yet to act, both opportunities presented the chance to meet complexity with complexity by creating and managing conditions in the adaptive space. They could deconstruct hierarchies and share responsibility for leadership to generate solutions as informed by charging committees, engaging constituents, and trusting these leaders to identify solutions (Ospina & Foldy, 2010; Ospina et al., 2012). Glenna’s work presented the most explicit opportunity to engage with other organizations focused on the outcomes of the local Latinx community in ways that could reflect how social change organizations are known to bridge their work toward shared goals (Ospina & Foldy, 2010). In doing so, they could embrace their role as brokers and boundary crossers (Uhl-Bien & Arena, 2017; Veltman et al., 2019) to find and link ideas across existing groups with

similar interests. As brokers and boundary crossers, they could help test and iterate recommendations to increase the likelihood that senior leaders will adopt them in the operational system. Although this research did not explore what they would do, both situations offered me an exercise to explore what it would look like to inject complexity into their work to more appropriately meet the challenges of their wicked problems.

Through the research process, participants increased their agreement that leading solutions to wicked problems in complex environments required complex solutions. Their degree of intention and explicit awareness of how they used strategies and practices based on complexity thinking varied. The knowledge gap between the need for complexity and how to lead solutions via complexity motivated this research. By introducing complexity concepts, this research found midlevel leaders believed this approach was essential; however, the practitioner learnings suggested participants still often operated from tacit knowledge about how to lead in complex environments. This finding demonstrates the need for additional training and research focused on complexity leadership practices and principles.

In the next section, I discuss the benefit of the AL process for participants, the importance of peer-to-peer learning for midlevel HE professionals, and how AL learning impacted their leadership practice.

The Benefit of the AL Process

Participants unanimously agreed the AL process and the time with members of the AL set significantly benefited their leadership on their wicked problems. The willingness to engage in a reflective and dialogic process to explore their leadership and the challenges they worked to address exemplified an understanding that leadership is a practice that requires action and learning (Raelin, 2016). I pursued an AL research project because previous research with

midlevel leadership (Branson et al., 2016) and leadership to address wicked problems (Uhl-Bien & Arena, 2017) found leaders pursue their work through tacit knowledge. Leadership development scholars advocated that AL is a catalyst for leaders to gain explicit awareness of their tacit knowledge through cycles of action in a local setting and intentional reflection among peers (Leonard & Lang, 2010; M. J. Marquardt, 2000; McNamara et al., 2014; Revans, 1982; Volz-Peacock et al., 2016; Zuber-Skerritt & Louw, 2014). In this section, I share how participants benefited from the AL set and the AL process in ways that support the argument that AL is an effective methodology to strengthen a leader's practice.

Hearing from peers, participants felt validated that they were working on immensely challenging problems in complex environments and were comforted that they were not alone in facing them. Denzil shared his experience in the AL set with his colleagues at VSU. He wanted them to know they were not alone and that peers at other institutions were also working to address similar challenges. Kristian was also explicit that exploring the wicked problems model with other members of the AL set helped him make sense of his problem and feel validated that what he perceived as a "complex mess of challenges" was real.

In addition to finding comfort among peers facing similar problems, Glenna was explicit that the dedicated time to reflect was a crucial benefit of the AL set. As discussed in her AOP, she shared, in her role as chief of staff, she rarely had time to reflect because the job demands required her to react to emerging priorities. Through the AL set process, Glenna linked intentional reflection on her challenges and her leadership to address them as a critical leadership practice. Felipe also appreciated the dedicated time to reflect. The AL set occurred at a vulnerable time in his transition to QLU, and he shared it provided a critical space for him to process the challenges as a new staff member trying to make sense of a new institution. In

addition to dedicated reflection, participants also named that they benefited from learning with an extended network of midlevel peers.

Participants also identified that getting insights from leaders in different functional areas was helpful. More beneficial was talking with colleagues from different institutions who were not part of their campuses' relational and political complexity. Through the AL set experience, participants identified that relational dynamics significantly contributed to their wicked problems. Because the AL set members were not part of their problem in their local context, they could engage in conversation differently, allowing them to explore their problems and leadership in ways they could not on their campus. Participants' experiences affirmed previous research finding midlevel HE leaders benefit from peer-to-peer learning (Branson et al., 2016; Fey & Carpenter, 1996; Sermersheim & Keim, 2005) and added nuance as to why learning with an extended network of colleagues was beneficial.

Participants had slightly different justifications as to why working with an extended network was beneficial, but each appreciated a group of peers to talk with who were not their coworkers. Kristian offered that a related element for him was the competition for resources did not impact members of the AL set like it impacted relationships among his coworkers at CTU. Lincoln recognized that compared to his staff, he was not the expert on disability resources in the office. The AL set was an environment where he could talk openly about his work without the pressure or expectation to be an expert. Although their reasons were nuanced, participants shared the view that dialogue with an extended network of colleagues positively impacted them and their leadership practice on campus.

An unanticipated outcome of the research was that some participants valued peer-to-peer learning so significantly that they sought ways to engage others on campus in broader dialogues.

Lincoln was most explicit about enacting the AL set experience on his campus. As discussed in his AOP, he highly valued talking with colleagues across silos and believed it was necessary for staff at INSU. At the end of the research, Lincoln shared he was working with the professional association on campus to design a staff engagement opportunity where professionals from different parts of campus who did not regularly work together would gather in small groups to discuss issues of inequity at INSU and their work to address them. He also recognized the program might not have the same impact as this AL experience because it involved people from the same institution even though they worked in other administrative areas. This awareness further emphasized the importance of an extended network of colleagues. His drive to create the program was an endorsement of intentional reflection and peer-to-peer learning as an effective leadership development strategy.

The benefit of intentionally reflecting on their work among an extended network of colleagues may have been the most unanimously supported practitioner learning participants identified. They emphasized that through the AL set, they reflected on their challenges and leadership and benefited from dialogue with their peers in a shared learning experience. Their AOPs and the practitioner learnings shared in this section also support how they evolved their leadership practice and pursued solutions to their wicked problems because of the AL research process. Although this research did not set out to demonstrate that AL is a powerful catalyst for leadership development, participants' experiences supported previous scholars' assertions (Boshyk, 2000; Cowan, 2014; M. Marquardt et al., 2018; Pedler et al., 2005; Volz-Peacock et al., 2016). It also made a strong case for intentional reflection and peer engagement as critical tools in the leadership practice of midlevel HELs working on wicked problems.

Chapter Summary

Chapter 4 had two major sections. The first section offered an AOP for each participant that illuminated their local context and addressed how their engagement in the research process explored and impacted systems Alpha, Beta, and Gamma. Each AOP addressed how participants' understandings of their problems and leadership practices evolved during the research process. They also summarized how participants impacted their wicked problem during the research and what they learned.

The second major component of the chapter offered the practitioner learning participants generated through the research. The practitioner learnings I offered represented the shared knowledge developed through the research process offered to the scholar-practitioner community working to address wicked problems in complex public universities. Through cycles of action and reflection, participants identified that they navigated relationships and complexity within their local contexts and offered multiple insights and strategies for other leaders to consider. Participants also named the critical benefit to their leadership practice that reflecting with an extended network of peers provided. The information shared in the AOPs and the practitioner learning answered the guiding research question for this research and illuminated opportunities for future research. In Chapter 5, I summarize the findings, discuss researcher limitations, offer implications for practitioners, and conclude with recommendations for future research.

CHAPTER 5: DISCUSSION

The purpose of this study was to work with a group of midlevel higher education leaders (HELs) to explore the leadership needed to advance solutions to wicked problems of inequity and injustice in large public universities. My participants gathered as an action learning (AL) set to explore the problems they faced and their leadership to address them. The questions that guided this research were:

- How do a small group of midlevel HELs practice leadership to address wicked problems in the complex organizational context of public research universities?
 - How have the higher education (HE) professionals adapted their leadership practice based on their engagement with the action learning set?
 - How have participants in this action research project impacted wicked problems that include challenges of inequity or injustice on their campuses?

I answered these questions in detail in Chapter 4 through the accounts of practice and practitioner learning. In the following section, I summarize the practitioner learning to answer the first research question. Because the answers to each subquestions are individual to the participant, I do not revisit them in this chapter. I provided answers to each subquestion in each participant's account of practice (AOP). Following the summary of practitioner learning, I return to the conceptual framework I established for this research and interrogate the practitioner learning offered to scholars and practitioners through this lens. I conclude the chapter by sharing what I believe are the implications of this research, my recommendations for future research, and the limitations of the project.

Summary of Practitioner Learning

Practitioner learnings are the knowledge and insights on leadership to address wicked problems in complex environments that my participants and I developed through this research project. Along with each AOP, they described how participants in this study practiced leadership to address wicked problems. For parsimony, I grouped the practitioner learnings offered into four themes: (a) public universities are complex organizations, (b) problems have wicked tendencies, (c) they skillfully navigated complex environments to address wicked problems, and (d) the benefit of the AL process. Because I integrated the practitioner learnings with the existing scholarship in Chapter 4 and by reviewing the learnings through the conceptual framework, I do not do so in this section. This summary is a succinct articulation of the practitioner learning generated through this process that speaks to how these midlevel leaders practiced leadership to address wicked problems in their complex universities.

Public Universities Are Complex Organizations

Participants agreed their universities were complex and filled with complexity. The presence of formal and informal organizational systems strongly influenced their experience and the leadership they engaged in to address their challenges. By introducing the complexity leadership theory model of organizations, participants identified that they worked across the operational and entrepreneurial systems and the adaptive space to lead solutions to their problems. They also identified that supervisors and other senior leaders played a critical role in advancing or stymieing solutions to wicked problems of inequity and injustice. One participant also built on the model of complex organizations by considering how colonization impacts the behavior of individuals and the operating norms in an organization. A second participant offered that the formal operational system of the university can simultaneously silence people working

for equity and justice while also protecting marginalized communities in the system. Again, senior leaders and supervisors played a critical role in how the formal university system shaped equitable and just outcomes.

Problems Have Wicked Tendencies

Participants agreed the challenges of inequity and injustice on which they were working had wicked tendencies and the wicked problems model helped them understand their problems and how to move forward. Unanimously, participants believed their problems were not wicked or tame but rather existed on a continuum of wickedness. They also found their problems were not singular; they consisted of many minor problems that created greater wickedness. A participant introduced the concept of fractals (A. M. Brown, 2017), in which minor problems are reflections of more significant social issues. This concept resonated with participants, and it helped to conceptualize what they faced on their campuses. A common element of wickedness when trying to foster equity and justice were the varied viewpoints and values that other staff held toward problems affecting marginalized communities and perpetuating inequity and injustice. Ultimately, by exploring their problems through the concept of wickedness, participants gained a deeper understanding of why their challenges were so difficult to address and adjusted their leadership accordingly.

The Skillful Navigation of Complex Environments to Address Wicked Problems

Participants skillfully navigated their complex environments throughout the research process to advance solutions to their challenges of inequity and injustice. They led from their positionality and recognized how their formal positions, personal identities, and lived experiences influenced their leadership and engagement with others. Leading from their

positionality was critical because the organizations in which they worked were complex, dynamic, and highly relational.

To successfully maneuver through their organizations, participants sought out cultural navigators, allies, and accomplices who helped them understand their context, build relationships, and advance priorities. They relied on individual conversations to build relationships, have difficult conversations, and challenge thoughts and practices that prevented equitable and just solutions from taking hold. Participants also used individual conversations to “prime the pump” with key stakeholders, decisionmakers, and senior leaders whom they needed to support and advance solutions to their wicked problems. Lastly, they considered the importance of personal capital as a critical tool for navigating their relational environments. However, building capital took time and required meaningful engagement with colleagues. For some, they established capital through shared work and supporting the interests of their coworkers. For others, building capital required attending to cultural norms and participating in personal events or shared experiences. No matter how they built capital, it was time consuming, and they could not expedite the process.

Participants also employed multiple nonrelational strategies to move their work forward. Nevertheless, through these strategies, they tapped into the approaches they used to navigate their relational environments. Because they recognized their problems consisted of multiple challenges with varying degrees of wickedness, they believed the most effective strategy to advance solutions was to tame the problem and address the elements they could rather than try to solve all aspects of their problem simultaneously.

In their midlevel roles, they also relied on other senior leaders to provide final approval to a solution or to help scale it within the operational system of the university. However, these

individuals were not often as versed in the intricacies of the problem or the solution. Advancing solutions through others required participants to pre-do the equity work. For participants, this meant they researched their challenges, identified and evaluated potential solutions, and developed proposals others approved. Pre-doing the equity work was linked with how participants understood their need to tame the problem and the work they did to “prime the pump” with critical stakeholders.

Through this research, it was unclear if or how participants worked with the communities most impacted by the wicked problem to develop the solutions they moved forward. The absence of this answer was essential, considering the privileges these individuals held and their interest in advancing equity and justice. Finally, participants recognized tension and pressure were critical in advancing their solutions. They identified the importance of productive tension as a necessary element in the problem context to address inequity and injustice. However, their role in creating and managing tension to ensure it was productive was underexplored in this research.

Through the research process, participants gained a deeper appreciation for the need to meet the complexity of their challenges and context with complexity-informed strategies. During the meetings of the AL set, participants explored how they worked through informal and formal networks, leveraged relationships and linked ideas, engaged broader audiences, and tapped into productive tension to advance their work. Their reasoning as to why these strategies were needed and how they addressed aspects of their wicked problems in their complex environments increased in clarity and purpose as the research progressed. The tacit knowledge that informed their leadership practice on how and why they should meet complexity with complexity became more explicitly understood by the end of our AL set meetings.

Benefits of the AL Process

A final and significant theme of our practitioner learning was the benefit of the AL research process for participants and their leadership for multiple reasons. Unanimously, participants agreed exploring their challenges and reflecting on their leadership with other midlevel peers had multiple positive outcomes. The early conversations provided an initial sense of comfort and validation that they were not alone in facing and trying to address a wicked problem. As they continued to meet and reflect together, they gained more meaningful insights into what made their challenges wicked and how the complexity of their organizations contributed to their challenges. Through the AL set experience, they augmented their leadership practice to address the wickedness and complexity they faced.

At the end of the process, they said that reflection and dialogic exploration of their experience improved their leadership practice. Engaging with peers from outside their organizations was a significant benefit because these new relationships did not come with the same political and relational complications that would exist if they did so with their peers. As the research concluded, participants expressed that the process of action and reflection with peers was a critical component of leadership to address wicked problems.

Summary of Practitioner Learning Section

The practitioner learning described in this section summarized what participants and I offered for consideration for scholars and practitioners. In Chapter 4, I presented a detailed account of practitioner learning, including examples from participants' experiences and integration with existing scholarship. In the next section, I return to the conceptual framework I created for this research and discuss how the practitioner learnings and participants' experiences answer the research question through this conceptual lens.

Practitioner Learning in Conversation With My Conceptual Framework

My conceptual framework established the connection between scholarship on problems with wicked tendencies, complexity in organizations and complex adaptive systems (CAS), and leadership. Participants' experiences and the practitioner learning generated through this research supported the interconnectedness of these concepts and the reality of leaders working in collaboration with colleagues and community partners. Because I focused my research question on the leadership of midlevel HE administrators, I explored the results of this research through the conceptual framework from the leadership perspective.

Leadership

In my conceptual framework, I argued midlevel leadership in HE should be understood through both the entity and process perspective (Ospina & Uhl-Bien, 2012) because leaders hold positions of power and they engage in collaborative work with collectives where leadership is dispersed. Participants' leadership practices in this research support this argument. Leading from their positionality was critical to my participants' leadership practices. By leading from their positionality, they accounted for their formal positions, social identities, and lived experiences as they built collaborative relationships with colleagues to advance solutions to their wicked problems. The practice of leading from positionality reflected their awareness that they always led from their formal positions but did so in a dynamic process involving others who also led.

The process of critical reflection and application participants demonstrated by leading from their positionality also supports the understanding that leadership is a practice (Raelin, 2016). Participants further demonstrated a practice stance of leadership through their appreciation of the AL process, the value they demonstrated for learning with an extended network of peers and colleagues on campus, and how they engaged with their coworkers to solve

problems. Their engagement as leaders exemplified dynamic cycles of action, dialogical reflection, learning, and application as critical to the practice of successful leadership as advocated for by multiple scholars (Drath et al., 2008; Freire, 1993; Love & Estanek, 2004; Raelin, 2016).

On the surface, people could view the practitioner learnings participants and I offered as traits or behaviors of leaders, but this would be an oversimplification of what participants communicated. The shared practitioner learnings were elements of a reflective, context-informed, and integrated leadership practice. We offer them for consideration and critique by scholars and practitioners interested in or actively working to address wicked problems in complex environments. Scholars and practitioners who engage with the practitioner learnings of this research can assume a practice stance of leadership by interpreting and synthesizing the experience and offerings of the research participants, applying what they learn from this research in their leadership, and analyzing if it is beneficial to their practice.

Core to the practitioner learnings is that participants' experiences support scholarly assertions that wicked problems (Beer & Lawson, 2018; Bore & Wright, 2009; Camp, 2017; Krause, 2012) and complexity (Bento, 2011; Bore & Wright, 2009; Lohmann, 2006; Love & Estanek, 2004; Murray, 2017) exist in HE and that leaders need to account for this reality in their practice. Because participants in this research reviewed concepts of wicked problems and complexity, they could apply, critique, and affirm these concepts in the context of HE in ways previous research had not. By doing so, participants added nuance and perspective to existing scholarship, especially in addressing inequity and injustice.

Leadership and Wickedness

Participants resonated with the emerging theorizing on wickedness as a continuum (Alford & Head, 2017) and were able to analyze the problems they faced using Alford and Head's (2017) problem matrix. Participants identified that doing so helped them better understand their problem's uniqueness and how they might approach them as leaders. Their work identified multiple factors that made their problems more wicked. The varied priorities, conflicting values, personal identities, and unique lived experiences among stakeholders all resulted in different understandings of their problems and potential solutions. Often, the variance was rooted in different viewpoints, understandings, and values of equity and justice, which inhibited progress. Research on how leaders learn to address wicked problems found awareness of what makes a problem wicked is critical to advancing solutions (Veltman et al., 2019, 2021). Participants' abilities to analyze their challenges, understand how stakeholder perspective increases wickedness, and then apply this information to their work emphasized the importance of problem formulation (Lyles & Mitroff, 1980) and the need to explore and understand problems before implementing solutions.

A strongly shared practitioner learning related to wicked problems was that participants believed it was necessary to identify and advance solutions to elements of the problem they could, given the context in which they were working. They took this pragmatic approach rather than trying to address the totality of issues within their problem because the context made it impossible. This approach aligned with theorizing on wickedness, which embraced the coexistence of wicked and tame problems and the need to work through incremental solutions to address broader issues (Alford & Head, 2017; Daviter, 2017; Newman & Head, 2017).

This incremental approach reflected aspects of what Rittle and Webber (1973) described as taming the problem, which they viewed as antithetical to addressing the totality of a wicked problem. However, participants' incremental actions should not be confused with small actions. During the brief 4 months of this research, their incremental action included crafting a new curriculum to support students with disabilities, revising a housing rate structure to create more access and equity, training academic leadership on campus bias response protocols, and building pilina among new colleagues. Their work to tame their problems through incremental solutions still embraced the complexity and interdependence of the problem and did not employ a mechanistic approach that Rittle and Webber (1973) discouraged. Instead, taming the problem was an intentional strategy to advance solutions to elements of their problems that favored progress toward more equitable outcomes even if they could not address the totality of a problem.

This action-oriented approach that advanced equity and justice demonstrated aspects of social change leadership (Ospina et al., 2012). Yet, in the short timeline of this research project, they may not have achieved the transformational change within organizations that some scholars have advocated for (Ahmed, 2012; Stewart, 2018). Participants were not averse to transformational change but viewed pragmatism and patience as necessary to achieve broader objectives. They were also frustrated they had to limit their objectives to make incremental progress within their context. Participants questioned if their patience was influenced by their privileged identities and if they needed to act with greater urgency. Ultimately, participants' assessments of their wicked problems and the complexity of their organizations informed them of their need to be patient, pragmatic, and work relentlessly through incremental steps. They continued to experience tension and discomfort with their pragmatic and patient approach but

pursued it because they believed it resulted in more equitable and just experiences on campus. In the next section, I explore how complexity informed participants' leadership practices and how it connected with the existing scholarship.

Leadership and Complexity

Marion (2008) framed the presence of complexity in organizations as a process of constant and dynamic change due to the interaction of interdependent individuals who respond to pressure by making small shifts in things like viewpoints, values, and priorities. Marion described organization complexity as a shifting coastline reliably in the same spot but never quite the same as water and wind constantly modify the landscape. In this metaphor, participants serve as the water and the wind on their campuses. They relentlessly worked with others on campus to challenge outdated values, shift priorities, and bring colleagues with them in the change process in large and complex public universities.

One of the strongest points of resonance regarding complexity was the presence of formal and informal systems in their universities. Participants understood their campuses had formal structures by which the leaders implemented command and control of the institution and informal systems influenced by dynamic and interdependent relationships (Love & Estanek, 2004; Mandviwalla & Schuff, 2014; Wheatley, 2006). When I introduced the complexity leadership theory (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017) model of the entrepreneurial system, operational system, and adaptive space, participants identified their work and challenges within the model. The division between formal and informal systems helped participants understand where their challenges existed within their specific context and how they might approach their leadership differently based on the system or space they were working in.

The practitioner learning on navigating formal and informal systems expands on existing scholarship and offers insights into specific approaches employed in HE. As discussed in the practitioner learning in Chapter 4, participants sought out allies and accomplices, built and used personal capital, and leveraged individual conversations with colleagues to explore and advance solutions to their wicked problems. Participants did not use the language of brokering (Uhl-Bien & Arena, 2017) or boundary spanning (Lichtenstein & Plowman, 2009), but their work to build connections and maneuver ideas forward on their relational campuses embodied these concepts. This included the need to work with supervisors and senior leaders to advance ideas into the formal operational system of the university (Arena & Uhl-Bien, 2016; Uhl-Bien & Arena, 2017). Engaging in the practices of enabling leadership and boundary spanning without using the language from the scholarship was important because it reflected Uhl-Bein and Arena's (2017) assertion that the vernacular for this form of leadership has yet to take hold in scholarship and practice.

The approaches discussed in the previous paragraph also aligned with scholarship on midlevel leadership in higher education and the need to work across hierarchies and lead through influence rather than authority (Branson et al., 2016; Pepper & Giles, 2015). The need to navigate solutions through senior leaders and the challenges that people in positions of power often present to implementing new ideas also reflected research on grassroots leadership in HE (Kezar, 2012; Kezar & Lester, 2011). How participants described their leadership practice via this research drew a stronger connection between complexity-informed leadership and the scholarship on midlevel leadership in higher education.

Participants also identified the importance of some practices and principles of enabling leadership (Uhl-Bien & Arena, 2017) discussed in Chapter 2. They saw value in tension and

pressure as a catalyst to change, although participants did not explore how they managed that tension. Their recognition that political capital was necessary may have reflected the importance of trust between independent agents within larger systems (Uhl-Bien & Arena, 2017).

Participants also expressed the importance of meeting complexity with complexity to address their wicked problems, and some took action to use complexity concepts in their work. The willingness to use complexity was a notable result in light of Murry's (2017) research, which found leaders often failed to address complex problems because they preferred command and control strategies rather than working through complex networks.

Although participants were able to identify their challenges within the complexity view of organizations and practiced leadership that reflects enabling leadership, they did not do so explicitly. In large part, they did not link their leadership actions or mindset with complexity concepts in organizations until I introduced them to the model in the fourth meeting of the AL set. This reality supported the assertion by Uhl-Bien and Arena (2017) that people who engaged in enabling leadership in adaptive spaces did so through tacit knowledge and emphasized the need for increased familiarity with this unique form of leadership.

In the light of their work to advance equity and justice, two participants offered additional insights not present in previous discussions on complexity leadership. Felipe argued the community's experience with colonization shaped the complexity at Queen Lili'uokalani University (QLU). Because colonizers historically implemented command and control structures, the campus community resisted leadership through the operational system. As a result, the informal structures of the adaptive space and entrepreneurial systems took on greater significance at QLU. Felipe's application of this model in his context evokes la paperson's (2017) argument that universities are first world spaces that HELs can reconstruct and

decolonize to create third world spaces for equity and inclusion. His experience raised questions about how colonized thinking informs the complexity model, what a decolonized and complex organization could look like, and how leaders who seek to decolonize their environments can navigate their colonized campuses.

Additionally, Denzil offered that some administrators used the formal operational system at Valley State University (VSU) to silence people working on diversity, equity, inclusion, and justice (DEIJ) efforts, while other leaders used the system to protect marginalized students and staff. Some staff believed they risked their jobs when they raised concerns that painted the campus in a negative light. In Denzil's experience, this risk was especially true for marginalized staff. In contrast, Denzil used his position of authority to secure funding and campus facilities that they could use to shield staff and students from issues of inequity and injustice. The duality of how the formal operational system impacted staff and outcomes of equity and justice emphasized how vital individual leaders are within the formal system.

Although the purpose of this research was not to establish a theory of leadership to address wicked problems, participants' embrace of complexity concepts was an endorsement that leadership theory informed by complexity scholarship should gain more prominence in the training of HELs, especially midlevel leaders. CASs are a core element of complexity theory (Dooley, 1997; Marion, 2008; Uhl-Bien & Arena, 2017). In my conceptual framework, I argued they were a means to understand organizational behavior in public universities. In the next section, I return to the concept of CAS and explore how it showed up in participants' experiences.

Leadership and CASs

In my conceptual framework, I argued CASs exist in HE organizations, and the model provides essential insights into how informal systems in HE impact leadership. Participants' experiences in this research did not establish that CAS existed in their organizations. However, at least three elements of their experiences supported that the CAS model applied to HE organizations. First, participants experienced and discussed how their organizations comprised individuals linked through relationships that established informal systems. These networks of independent agents connected in informal networks served as a baseline for the presence of CAS. Second, participants also experienced sudden and unexpected changes that resulted from pressure in their organization (Marion, 2008; Uhl-Bien & Arena, 2017). New leaders, peer benchmarking, and student activism all sparked change. The impact of student activism was of note because students did not appear in most scholarship on CAS in HE, but it supported Mandviwalla and Schuff's (2014) assertion that students uniquely influence CAS in HE. Third, although participants experienced change, they also experienced a preference of CAS to find and maintain equilibrium (Marion, 2008). Likeminded networks of colleagues who shared and prioritized White norms over equitable and just solutions to wicked problems exerted their influence to prevent change was an example of CAS maintaining equilibrium.

Although these aspects of participants' experiences did not definitively establish that CAS were present in HE, the evidence suggested the model deserved additional consideration. Participants spent significant time discussing the informal systems they navigated but did not have a cohesive way of understanding how they organized and why they were influential. In the suggestions for future research, I discuss the need for greater exploration of CAS in HE.

Summary of Conceptual Framework and Practitioner Learning

Participants' experiences and how they communicated their leadership demonstrated the conceptual framework for this project was an accurate lens through which to explore and understand the leadership of midlevel leaders who worked to address wicked problems in complex HE organizations. The research demonstrated that midlevel leadership reflected entity and process frameworks and that leading through positionality included this duality in practice. Participants engaged in leadership as a practice, and their practice benefited from the reflective and dialogic process of the AL experience.

By engaging with the concepts and scholarship on wicked problems and complexity leadership, my participants advanced the previous informal theorizing and limited empirical research on the utility of both concepts in HE leadership. Through this AL research, participants established that understanding problems through the lens of wickedness was useful. They found it necessary to tame their problems rather than attempting to address them in totality to make progress. Participants viewed this incremental approach as necessary to achieve more transformational outcomes over the long term of their work.

Participants also identified that their universities had formal and informal systems that they had to navigate as midlevel leaders. The complexity leadership theory description of the entrepreneurial and operational systems, and the adaptive space, resonated with their experience. How participants understood complexity concepts and applied them to their leadership gained greater clarity and explicit awareness through the research process. With their focus on equity and justice, two participants provided insights about their campuses that were additive to the existing scholarship on complexity in organizations. Finally, participants' experiences and understandings of leadership supported, but did not definitively establish, assertions that CAS

were present in HE and that the model had utility to understand informal networks in HE organizations. In the next section, I discuss the implications of this research before moving on to suggestions for future research.

Implications

The results of this research raise multiple implications for HELs and the groups and professional development programs that educate and influence the practice of administrators at public universities. Each implication has multiple audiences that could take action to enhance midlevel leaders' abilities to address wicked inequity and injustice in complex higher education organizations. For each, I have called out the specific audience and action they could take based on participants' experiences and the practitioner learning participants and I offered.

Increase Familiarity With and Use of Complexity Thinking and Problem Frameworks

Participants found significant benefits in exploring their problems and leadership practice through the lenses of complexity and wickedness. Although some may have had tertiary familiarity with these concepts at the start of the research, my introduction of these ideas and the related leadership practices through the AL set was the first time that most of them engaged meaningfully with the concepts. Midlevel leaders, senior leaders in universities, faculty in higher education leadership programs, and leaders of professional associations can all work to increase exposure to these concepts and familiarity with how to engage them. Increased knowledge of these frameworks should improve the ability of midlevel HELs to lead intentional solutions to wicked problems in their complex organizations.

Similar to participants in this research, HELs may benefit from using Head and Alford's (2017) typology of wicked problems to better diagnose their challenges and identify what elements of wickedness they need to address. Additionally, Uhl-Bien and Areal's (2017) model

of complex organizations and the role of enabling leadership in the adaptive space may help midlevel leaders understand the unique position they lead from within the university. This framework may also assist midlevel HELs to be more active and effective at working with senior leaders to advance ideas from the adaptive space to the operational system, where they can have a broader impact.

The participatory paradigm I operated from stressed that individuals can and should explore and generate knowledge independently. Midlevel leaders can independently engage with the scholarship on wickedness and complexity to strengthen their leadership practice. Midlevel leaders must invest more energy into exploring and understanding the problems they face and improving how they navigate and leverage informal campus networks to develop potential solutions.

To support midlevel professionals motivated to engage in self-guided learning, I compiled an abbreviated reference list of articles, videos, and podcasts as a resource (see Appendix H). Although this independent approach is appropriate, participants in this research stressed that exploring these concepts with peers enhanced their leadership practice and ability to lead solutions on their campuses. To actualize the benefit of group learning, faculty in professional master's programs, leaders of professional associations, and senior leaders on campuses can play a vital role.

People in positions to organize and facilitate the learning and development of midlevel professionals should take action to build leadership competence to address wickedness and navigate complexity. These individuals should work this content into existing curricula, certification programs, conference agendas, and on-campus professional development events. The literature on complexity concepts and wicked problems is significant enough to include in

higher education professional programs and could replace outdated theories of leadership and organizations. Any exploration of complexity-informed leadership and wicked problems should also critique them for the lack of attention to the challenges of inequity and injustice. Dugan's (2017) critique of leadership theory is an example of how to do this and provides a foundational critique of complexity leadership theory and adaptive leadership from which students and professionals can build.

Professional associations hosting conferences should engage scholars or consultants as keynote speakers and workshop facilitators to introduce and explore wickedness and complexity thinking. Professional associations also likely have publications, podcasts, blogs, and other communication channels they can and should use to disseminate information related to wickedness and complexity. Because of the limited amount of scholarship on complexity and wicked problems that emanate from HE contexts, it is likely that scholars or consultants from other disciplines would provide the initial expertise on the topics.

Senior leaders at individual campuses can also help their staff become familiar with complexity concepts and problem frameworks. Many campuses host internal colloquiums, organize book clubs, or invite speakers to campus as part of professional and organizational development efforts. Organizational learning can lead to system-wide change (Bartunek & Moch, 1987; Kezar, 2018) and could create an environment where midlevel leaders can work more effectively with their colleagues. Senior leaders should work in their existing professional development strategies to increase staff understanding and competence to advance solutions to wicked problems in complex environments.

Create Opportunities for AL

The benefits participants experienced from the AL process emphasized the importance of intentional reflection on problems and leadership. Although midlevel professionals could make reflection a part of their practice through activities like journaling or working with an individual coach, participants found a clear benefit to engaging in the reflection process with an extended network of colleagues. The shared AL experience impacted their work on their campus and served as a powerful leadership development experience.

Midlevel leaders who work on wicked problems should seek opportunities to engage in AL experiences or other professional development to intentionally reflect on a problem and their leadership while working toward solutions. Though midlevel leaders could establish these experiences independently, senior leaders on campus should play a critical role in developing, funding, and supporting AL experiences facilitated by experienced AL coaches.

This research used a mutiproblem AL set model that brought participants together from different campuses with different problems. This approach benefitted the leaders and their work on their real-world wicked problems. Senior HE leaders are well positioned to work with their colleagues at peer institutions to cocreate and cofund AL experiences. Their engagement with professional associations, organizations like the APLU, or NCAA-affiliated conferences creates opportunities to find other interested senior leaders to cosponsor AL experiences.

Senior leaders could also establish single-problem AL sets on their campus where staff could collectively work on a shared problem and reflect on their leadership. They likely already employ collaborative committees or working groups to address shared challenges, making this approach easier to organize and implement. However, pursuing this strategy injects political and relational complications that participants identified when working with peers on their campus. If

these issues arise, participants may not experience the benefits of participating in an AL experience. Senior leaders could mitigate these issues by hiring an experienced AL coach who leads single problem sets to manage interpersonal dynamics within the set. An AL coach would also keep participants focused on exploring the problem and their leadership rather than simply moving toward a solution.

Another benefit of senior leaders organizing AL set experiences is that it increases their investment in, and hopefully support for, the process. Participants' experiences in my research emphasized that dedicated time to reflect and critically consider their problem and leadership was necessary, but their schedules and responsibilities outside the AL set made it difficult. Hopefully, through the support of senior leaders, midlevel professionals would allocate the time required for the process to benefit their leadership practice and the problems they face on campus. The involvement of senior leaders could also address the need for their support to adopt and implement solutions that midlevel leaders develop, a critical component in addressing wicked problems in large public universities that are discussed further in the following implication.

Senior Leaders Must Become Catalysts to Further Solutions to Wicked Problems

Participants in this research made clear that senior leaders, especially supervisors, played a critical role that either furthered or stifled their work to address their wicked problems through the formal operational system of the university. Many senior leaders who served on boards, participated as part of presidential cabinets, or led groups were detrimental to progress. Often, their outdated views on equity and justice or their inability to share power prevented midlevel leaders from fully realizing the objectives. It is also unclear if senior leaders understood their role within the context of the operational system compared to the work midlevel leaders were doing

in the adaptive space. Senior leaders who embraced the recommendations made by their midlevel leaders and who functioned to expand and scale efforts into the university's operational system were vital to success.

Senior leaders must understand and embrace their responsibility to transition ideas and solutions from smaller pockets of the university or informal spaces into the formal operational system where they can have a broader impact. The involvement of senior leaders is critical to midlevel leaders who can explore problems and develop solutions but often do not have the authority to make official decisions or the positional sphere of influence to scale them to have an effect across the university system (Kezar, 2012). Building their understanding of wicked problems and complexity-informed leadership may be a critical first step in supporting midlevel leaders.

Through the lens of equity and inclusion, senior leaders must also have a modern understanding of the experience of their marginalized students, staff, and faculty. Moreover, they must keep informed about emerging solutions and processes to address inequity and injustice in HE. Stewart (2018) and Ahmed (2020) provided multiple recommendations for how senior leaders can adapt their practice to lead more equitable and just solutions. The ability of midlevel leaders to positively impact equity and justice will improve when they no longer need to spend time and energy educating and winning over their senior leaders.

Additionally, senior leaders can build more equitable organizations. Leaders should invest in the learning and development of current staff and add focus to hiring staff to build a workforce with a critical lens and awareness of current interests toward DEIJ (Barone & Mora, 2023; Gonzales et al., 2018). Because the work to address inequity and injustice is incremental and not often measured through traditional means, senior leaders should create funding structures

and evaluation strategies to account for iterative and ongoing work to address wicked problems. The work of senior leaders to shift the epistemological viewpoint of their staff, update funding structures, and improve evaluation measures would all support the work of midlevel leaders and help to catalyze their efforts.

The barriers senior leaders presented, especially their resistance to equitable and just solutions, also emphasize the need for DEIJ training at the top level of public universities. Campus presidents must hold their cabinets accountable for equitable and just outcomes or find new leaders to help them meet equitable objectives. Senior leaders who want to advance equity and justice should surround themselves with leaders who want similar outcomes and are willing to engage in the challenging mental and emotional labor required to drive equity and justice to fruition.

The need for senior leaders to understand their role, prepare their organizations, and become catalysts for solutions to wicked problems does not abdicate midlevel leaders of their responsibility in the process. Midlevel leaders who want to address challenges of inequity and injustice must continue to engage with marginalized communities to foster solutions no matter the degree of support they have from senior leaders. Participants in this research demonstrated midlevel leaders play a vital role in advancing solutions among senior leaders who shared interests and those who held conflicting views. Navigating potential solutions with senior leaders and fighting for their support at the highest level will continue to be a vital role midlevel leaders play for marginalized communities.

Future Research

As an AL research project, I was interested in the specific and unique experience of the midlevel HELs from large public universities who participated. Participants' experiences and the

practitioner learning offered begged new questions and can motivate future research. As a participatory researcher, I provided recommendations for scholars, scholar–practitioners, and practitioners to consider pursuing. Further, each recommendation could be explored in various institutional settings, further illuminating how scholars and practitioners understand leadership, organizational complexity, and wicked problems. These six recommendations for future research would build on the practitioner learning offered through this project.

Explore Problem Frameworks

In Chapter 1, I argued HELs must investigate and understand problems more effectively before implementing solutions. Participants' experiences in this research supported that argument. More research is needed to understand how problem frameworks help leaders understand and lead solutions to their challenges. Because existing research has failed to do so, future research should intently focus on problems of inequity and injustice. Doing so is critical because of the myriad and unique factors that make challenges of inequity and injustice difficult to address. Participants in this research found the wicked problems model useful to understand their challenges, but they also surfaced concepts of immunity to change and problem fractals for their utility. Future research should continue to explore how leaders use the wicked problems model but could expand beyond this framework to build a broader understanding of which frameworks support the problem-solving process for leaders to achieve transformative outcomes for minoritized populations.

How Do Leaders Work With Minoritized Communities?

This research established that midlevel leaders collaborated across boundaries to address wicked problems. However, these leaders were not explicit about how they worked with community members to explore problems or generate and implement solutions. Future research

should explore how midlevel leaders engage with minoritized communities impacted by inequity and injustice in addressing wicked problems. New research could explore how to engage these populations through the lens of the complexity leadership model of organizations. Given that midlevel leaders work across the two systems and the adaptive space, a better understanding of what engagement looks like in each space or system could enhance their leadership practice. Exploring the level of compensation required to engage within various systems and spaces could also inform midlevel leaders' responsibilities when they involve these communities in problem solving.

Qualitative research that investigates engagements determined to be successful or action research that explores ongoing collaborations between midlevel leaders and minoritized groups could illuminate how HELs and leaders from minoritized communities work together to address wicked problems. Alternatively, researchers could use critical quantitative analysis to explore preferred or effective leadership behaviors based on existing recommendations from scholars and advocates on how to engage minoritized groups to address inequity and injustice.

Increase Understandings of Complexity-Informed Leadership in Practice

This research advanced previous informal theorizing on the utility of complexity concepts to understand the organizational environment of large public universities and how to lead within them. The potential for future research to explore how HELs use complexity concepts to lead within their institutions is almost endless. However, my participants surfaced a few areas that served as starting points.

The presence of formal and informal systems in their organizations resonated with participants, as did the entrepreneurial and operational systems and the adaptive space. Future research could help describe how and where these elements exist in large public research

universities. Researchers could also investigate how midlevel leaders understand and enact their role as brokers or boundary crossers across formal and informal systems. This research drew a relationship between enabling leadership and the participants' leadership practices. Future research could more explicitly explore how midlevel leaders engage the practices and principles of enabling leadership. For example, participants surfaced the importance of productive tension, but the group did not address how they managed it or analyzed it to understand when to leverage tension as a benefit. Researchers could explore how midlevel leaders manage tension to ensure it is productive or how they assess the environment to identify when tension is at a productive level.

Illuminate the Critical Role of Senior Leaders

This research identified that senior leaders play an integral role in supporting and advancing solutions to wicked problems within the operational system of the university. The body of complexity-informed research has not explored how midlevel and senior leaders work together to scale and scope equitable and just solutions in complex organizations. Future research that explores both sides of this relationship and the leadership process in which both parties engage together should enhance the ability to develop and scale solutions to wicked problems. A literature review through the lenses of management, critical management studies, and complex organizations may connect existing scholarship and illuminate the dynamic between midlevel and senior leaders and their work to address wicked problems. Additionally, case study research that explores relationships with efforts that have demonstrated success or action research that explores this process in practice could be effective strategies to better understand the dynamic between senior and midlevel leaders.

How Do Leaders Build and Use Personal Capital?

Multiple participants identified that building and using personal capital was necessary to address their wicked problems. For students who were new to their campus, they identified that building capital was difficult, and the lack of capital impacted their leadership practice. Building and using capital as a leadership practice may be implicitly present in other leadership theories, but as an explicit leadership practice, it is largely absent from the leadership theory. Research that explicitly explores how midlevel leaders build capital with colleagues and how they use it to maneuver toward solutions would provide a richer understanding of how these leaders operate. In addressing equity and justice problems, the concept of capital as a tool may elicit neoliberal or colonizing strategies. Research on this practice may need to explicitly explore the language and frameworks appropriate for people leading solutions with marginalized communities toward equity and justice.

Higher Education Needs More Action Research

Although action research is known to be difficult, the success of this project demonstrated that it is possible and leads to positive impacts. Participants benefited from dialoguing and reflecting with their peers. They developed new understandings of their leadership practice and applied them to the problems they worked on in their local context. In doing so, participants and I were also able to offer scholarly insights through practitioner learning that contributed to the discussions on leadership, wicked problems, and complexity. Because participants could apply their learning immediately, it reduced the lag between conducting research and practical application to address inequity and injustice.

Increasing action research will require support from formal organizations that catalyze research. Doctoral programs in higher education leadership should ensure they present action

research as a viable research methodology and have faculty with knowledge and experience to support action research by students. Furthermore, academic institutions and professional associations should create additional opportunities for action research that can directly impact wicked problems. By offering funded fellowships and sabbaticals to engage in action research, scholar–practitioners can step away from daily responsibilities to engage in research that addresses problems they face. Organizations that fund research can also play a role in supporting action research projects and providing funding at a level that adequately compensates participants for their contributions.

More scholarship on alternative action research methodologies is needed to support the pursuit of action research. While developing my research methodology, most of the guidance I found on action research was for methodologies like participatory action research (PAR) that transition authority for the research to participants or self-guided research that only involved the researcher. Had I used a PAR methodology, I believe my research would have failed because I would have asked too much of participants. Moreover, if I had just conducted self-research, the practitioner learning would not have been as rich or nuanced as the learnings participants and I generated. Developing guidance on action research methodologies that ensure a diversity of participants while also ensuring the researcher is responsible for the research should help future action research succeed. I also found limited guidance on research methods, including data gathering and analysis strategies. Future scholarship on AL and other forms of action research can establish reliable research methods so scholars and scholar–practitioners can carry out action research projects with greater efficacy.

Limitations

In addition to my intentional choices to delimit this research, which included a focus on midlevel leaders from large public universities, several factors also limited the process and results. Limitations included the diversity of participants I recruited, how time impacted the AL set meeting process and group discussions, the exclusion of scholarship on management, and my ability as a first-time AL researcher-facilitator to explore participants' experiences deeply.

As discussed in Chapter 3, I struggled to find participants for my research. As a result, my research included more individuals who identified as men than women and no participants who identified as transgender. The participant group was also predominantly White. These identities aligned with my own identities as White and male, resulting in an overrepresentation of White and male voices in the research.

A second limitation involved time and how time shaped what we could accomplish in the AL set meeting process. My five participants lived across six U.S. time zones. This geographic sprawl made finding large blocks of overlapping availability difficult, limiting most meetings to no more than 90 minutes. Our meeting time was often further reduced because participants arrived late as they transitioned from other meetings. The short duration of meetings made it difficult to meet all five components of the AL set meeting I had designed. As discussed, I removed the review of themes at each meeting to ensure we had time for participant updates and discussion. Even by removing this component, we often ran tight on time and had to cut updates and discussion short. Doing so limited how much we could explore in each meeting and left important concepts underaddressed.

The duration of the research also limited how participants explored problems and leadership. Because we only met for 3 months, the timeline was insufficient to explore leadership

to address a wicked problem from the initial exploration through implementing and evaluating a solution. Elements of enabling leadership (Uhl-Bien & Arena, 2017) and leadership of emergence (Lichtenstein & Plowman, 2009) include how this form of leadership implements solutions and closes the work. Because none of the participants implemented their solutions fully, we did not explore these aspects of leadership.

The final limitation was my skill set as an AL researcher–facilitator. Although the time issues were real, I also believe I left topics unaddressed because I was focused on meeting management and missed opportunities to explore important topics that would have enriched the research. An example was our discussion on tension and how participants managed tension. I uncovered that tension was essential to them and their leadership to address wicked problems, but I did not notice in the process that I should explore how they managed tension. I did not realize I missed the opportunity to explore tension this way until I wrote Chapter 4, well after the research concluded. There are several situations similar to how we discussed tension where I think if I had more experience as an AL researcher–facilitator, I would have asked different questions that would have resulted in more nuanced and rich practitioner learnings.

Chapter Summary

In this chapter, I revisited and summarized the practitioner learning developed through this research. Then, I analyzed the practitioner learnings through the lens of the conceptual framework I created for this project. Participants’ experiences and the research results established that exploring and understanding leadership in relationship to wickedness and complexity was appropriate and beneficial. Given the results of this research, I offered implications and recommendations for future research for various audiences. Because of my stance in the participatory paradigm, I included ways midlevel professionals and scholar–

practitioners can develop their investigations and knowledge to lead solutions to wicked problems in complex organizations. I concluded the chapter by identifying the limitations of this research.

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APPENDIX A: MEETING SCHEDULE AND CONTENT

Meeting #	Meeting Purpose/Content	Journal Questions and Videos and Articles for Review	Meeting Date
0	Video screens to identify participants	N/A	N/A
1	Set research context and build relationships among participants. Participant introductions, review AL process and research schedule. Identify group norms, ethical considerations. Explore positionality and problems.	Journal prompts: 1)Please draft a positionality statement that will be used as a basis for your introduction. Your positionality statement should help others understand who you are and how you approach your professional work. It can include any salient identities, mentalities, beliefs, or behaviors that inform how you show up as a leader and engage in the work you do on your campus. One to three paragraphs are plenty for your response and bullet points are absolutely acceptable. 2)Please briefly describe the problem you are focusing on for this research. In your response consider addressing how the challenge came to be, your role in the work to address it, who the key players are, what efforts have already been undertaken, what conflicts exist, and where things stand as of now. What you share will help the other members of the action learning set gain the context for your work. This response will likely be longer than your positionality statement but does not need to be comprehensive. Both a narrative summary or bullet points are totally acceptable.	Oct. 13
2	Explore participant views of leadership.	Journal prompts: 1) How do you describe leadership? 2) How is your leadership unique as a mid-level higher education professional?	Oct. 25
3	Explore problems through lens of wicked problems Discuss Accounts of Practice and	Review below content. Video strongly suggested. Article provides additional scholarly discussion if interested. <ul style="list-style-type: none"> • YouTube Video: Approximately 15 mins 	Nov. 21

	participant review of them – member checking.	https://www.youtube.com/watch?v=TNyDX1jnDv8 <ul style="list-style-type: none"> Article: Approximately 30 mins. wicked problem Typology, Alford and Head (2017) 	
4	Explore problems and organizations through the lens of complexity. Explore Complexity leadership theory.	Review and makes edits to Account of Practice. Review below content. Video strongly suggested. Article provides additional scholarly discussion if interested. <ul style="list-style-type: none"> Watch YouTube Video on complexity: 15 mins https://www.youtube.com/watch?v=OZihLASP7uk What YouTube Video on Complexity Leadership: Approximately 35 mins (start at 12:00 end at 46:00) https://www.youtube.com/watch?v=KN-zSULhxzk Article: Complexity leadership theory, Uhl-Bien and Arena (2017) 	Dec. 19
5	Review practitioner learning	Journal prompt: 1) What should other mid-level leaders know about leadership to address wicked problems? 2) What aspects of leadership are critical to address challenges of inequity and injustice?	Jan. 5
6	Finalize practitioner learning, close AL set meetings	Journal prompt: 1) How has participation in the AL set and this research process impacted you and the problem you have been working to address?	Jan. 12

APPENDIX B: QUESTION BANK

Question Bank

- What are you doing to make progress on your problem?
- How has the wicked problem frame influenced the way you work on your problem?
- What do you feel like you are held up on and what are you trying to do to address it?
- How has your work as a leader evolved while you've worked on your problem?
- How might your approach be different if you were not trying to further an equity objective?
- How do relationships with colleagues contribute to your work on your problem?
- How important is the leader you report to in your ability to advance your objectives and why?
- Where are you seeing success or progress on your problem and what do you think has contributed to it?
- How do you engage other people to lead and contribute to addressing your problem?
- What if any specific actions did you take?
- Who are the people you work closely with?
- What, if any, value conflicts exist among stakeholders?
- Where do you feel like you are making progress?
- What aspects of this problem are challenging you as a leader?
- How do you contribute to the group defining the objective?
- When it comes to equity and justice, what would success look like?
- How do other people define the problem in ways that might be different than you?
- How does your positionality/your multiple identities impact how you view the problem?
- How does your positionality/your multiple identities impact how you engage in leadership?

APPENDIX C: INTEREST FORM WITH INITIAL CONSENT

Leadership to Address Wicked Problems: Action Research Intake Form

Thank you for your interest in this action learning research project on leadership to address wicked problems by mid-level higher education leaders.

The purpose of this research is to surface shared knowledge and catalyze real-world impact via a small community of mid-level higher education administrators who are leading efforts to address problems that include elements of inequity or injustice at public research universities.

Intended outcomes of the research for participants include personal leadership development, an expanded professional network of mid-level leaders, and the chance to apply new knowledge to the wicked problem they are trying to address. As a scholarly research project, the research will also result in knowledge and insights to offer the broader field of mid-level professionals who work to address wicked problems of equity and justice.

The research timeline includes a 30-60 minute video call to screen participants for qualifications, review the research protocol, and answer questions about the research. The bulk of the experience is seven, 90 minute meetings over the course of 3 months. Between meetings, participants will also be asked to review related concepts, respond to journal questions, and review summaries of their experience.

Basic qualifications for involvement:

- 1) Currently a mid-level higher education administrator at a public research university in the United States.
- 2) You are actively working on a “wicked problem” that has an explicit interest in addressing an issue of inequity or injustice on your campus.
- 3) Are willing to work with 3-5 other mid-level administrators to explore leadership to address wicked problems.
- 4) Are willing to commit 18-22 hours over the course of seven on-line meetings, journal response, and concept review.

Full-time faculty who hold administrative positions are not eligible to participate.

Compensation: As a token of appreciation for your involvement, each participant in the research will be given a \$50 credit with SnackMagic.com to select a collection of snacks of your choice after the first meeting.

If you are interested, the questions that follow are to identify those suited to participate. If your responses meet the research stipulations you will be contacted for a video screening to explore potential involvement. Everyone who fills out this form will get a response within 1 week of submitting the form.

This research involves consent at multiple phases. A description of process, risk, risk

mitigation, and benefits are presented for each. A full account of risk, risk mitigation, and data management for this project will be addressed as part of the informed consent process during the video screening.

If you have questions about the research project please contact Sean Ferris at xxxx@colostate.edu. The study has been approved by the Institutional Review Board at Colorado State University (protocol # 3603). Ryan Barone is my dissertation adviser and the co-primary investigator on this research project. If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at: xxxx@colostate.edu; XXX-XXX-XXXX. Thanks for considering this project! - Sean

Section 1

Consent

This research involves consent to participate at multiple stages. In the first part of the research you will be asked to provide personal information including your name, demographic information, contact, campus of employment, and details about the wicked problem you are working on.

These questions will take approximately 5-10 minutes.

The risks at this stage of the research are minimal and involve the confidentiality of your data. To mitigate this risk your responses will be stored in a password protected in a Colorado State Microsoft 365 account that only the researchers have access to. If you do not to participate in the research, your information will be deleted once participants have been identified (approximately September 15, 2022). If you agree to participate your information will be deidentified and saved for 3 years after the research completes (approximately August 2026)

There are no benefits to you or the general public at this stage of the research.

All responses are voluntary. You can stop your involvement in this research at any time.

If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at: xxxx@mail.colostate.edu; XXX-XXX-XXXX.

1. Do you consent to providing your information for this phase of the research? Required to answer. Single choice.

Yes

No

Section 2 (For those who selected “No” in question 1)

Thank you for your time.

Because you did not consent to sharing your information there are no additional questions for you. If you did this on accident you can restart the form by clicking the BACK button.

Section 3 (For those who selected “Yes” in question 1)

Participant Intake Questions

2. Your first and last name.

Enter your answer

3. Your pronouns.

Enter your answer

4. What institution do you work for?

Enter your answer

5. What is your professional title?

Enter your answer

6. What is the best email address to reach you?

Enter your answer

7. What is the best phone number to reach you?.

Enter your answer

8. Check all means that are acceptable to communicate with you on.

Email

Phone

Text message

9. Please check all boxes that describe your work as a higher education administrator.

I report directly to the senior leader of my division (vice president, vice provost, dean, etc.)

The person I report to reports directly to the senior leader of my division (vice president, vice provost, dean, etc.).

I have full-time staff who report to me.

I am responsible for an administrative functional area (academic advising, student conduct, student union, diversity/equity center, recreation, Greek life, student retention, etc.)

I serve as a special assistant or chief of staff to a senior leader (vice president, vice provost, dean, etc.).

I regularly work with colleagues in other departments or divisions who I don't share a reporting structure with.

I am the senior leader in my division. I report directly to a president, provost, chancellor or executive vice president/provost/chancellor.

10. Please describe the problem/challenge you are working on and how it seeks to address an element of inequity or injustice on your campus. In your response please describe your role in this effort, where you believe your campus is in the process of finding a solution(s), and who you are collaborating with on this work (titles only, no names please).

Enter your answer

11. Please select the answers that best align with the following statements about the problem you are working on.

Strongly disagree Disagree Neutral Agree Strongly agree

The collaborators on this challenge have a shared understanding of the nature of the problem.

The collaborators on this challenge have always had a shared understanding of the nature of the problem. The collaborators on this challenge agree about the desired solution.

The collaborators on this challenge have always agreed about the desired solution.

Different value sets among collaborators make this problem more challenging to address.

The stakeholders for this problem share the same priorities to address it.

There is only one possible solution to this challenge. Addressing this challenge is going to require us to do things differently.

12. Identifying a diverse cohort of participants is important to me as the researcher and our ability to explore the topic together. If you are willing, please provide any salient identities that influence your lived experience and your professional work. Examples include, but are not limited to, gender, race, sexuality, socioeconomic status, ability, and experiences with foster care, homeless, housing insecurity. Holding underrepresented identities is not a requirement to participate in this research.

Enter your answer

13. Action learning does require significant time commitment from participants to be successful. The duration of the research project will extend for 13 weeks throughout autumn of 2022. Participants will meet every 1-3 weeks for approximately 90 minutes. All meetings will occur virtually on Microsoft Teams during the late afternoon/evening. As part of the research process, participants will also be expected to review content related to the research between meetings and respond to reflective journal questions. The total estimated time commitment is 18-20 hours over the 12 week period.

Below is the proposed schedule for meetings. This schedule is flexible based on participant availability and can be revised throughout the research process.

September 19 & 26
October 10 & 31
November 21

December 5 & 12

Can you commit to this level of involvement? Single choice.

Yes

No

I would like to but will need more information and/or require flexibility.

Section 4

Next steps and consent for video screening

Thank you for providing your responses and your interest in this research. The researcher will review your information and reach out to you about further involvement. You will only move forward if you consent to. Please review the following information and answer the last question.

The next phase in the research is a video call with the researcher to discuss the problem you are working on and the role on campus you hold. During this call the researcher will also review the research experience and schedule, discuss consent to participate, and answer any questions you have.

The call will take 30-60 minutes.

The risk at this point of the research is minimal and is primarily about participant privacy and confidentiality. To mitigate this risk the meeting will be conducted as a video calling using Microsoft Teams which allows you to participate at a time and location that is ideal for you. Additionally, the video call will not be recorded. Notes taken by the researcher will be stored in a Colorado State Microsoft 365 account that is password protected and only accessible to the researchers. If you do not to participate in the research, your information from the video screen will be deleted immediately. If you agree to participate your information will be deidentified and saved for 3 years after the research completes (approximately August 2026)

There are no benefits to you or the general public at this phase of the research.

All responses during the video screen are voluntary. You can stop your involvement in this research at any time.

If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at: xxxx@colostate.edu; XXX-XXX-XXXX.

14. Do you consent to a video call with the researcher? Single choice.

Yes

No

Section 5

Thank you

Thank you for submitting your responses. Because you did not consent to the video screening you will not move forward in this research. The responses you provided will be deleted when participant recruitment ends (approximately September 15, 2022). If you intended to consent to this next step you can click the back button to amend your answer.

Section 6

Thank you!

The researcher will review your responses and be in touch with you within 7 days. If you qualify for participation you will be invited to participate in a video call to discuss the research further.

APPENDIX D: VIDEO SCREEN PROTOCOL

Overview

The video screen is a semi-structured discussion with five objectives:

1. Review intake form responses to ensure the participant is mid-level leader working on a wicked problem to address inequity or injustice.
2. Assess if the participant would be an asset to the Action Learning Set.
3. Ensure the participant understands the commitment of my action learning protocol and is willing to invest the time.
4. Answer any question the participant has regarding the research experience.
5. Discuss next steps and the informed consent process.

Each interview will start with the same first question and then progress through three areas of interest to ensure they meet the participant inclusion criteria and assess how they would work with a group of peers in the AL set. For each area of interest the specific questions asked and their order will be informed by potential participant responses to the interest form and subsequent responses to each question. At the end of the call I will review the informed consent document with the potential participant and ask to address any questions they have. The video interview will not be recorded but I will take notes throughout the discussion.

Questions

- **Question 1: Can you share what drew your interest in this research project?**
- **Area of interest 1:** is intended to explore and ensure potential participants meet the description of a mid-level leader. Potential questions include:
 - In your interest form you described your role as (summarize response). Could you provide some additional context about the organization within (university) and how your role fits within that organization?
 - Can you tell me more about the formal reporting structure around your role? Who do you report to and who reports to you?
 - You indicated that you work with colleges in other departments/divisions, can you tell me more about what those collaborations look like?
- **Area of interest 2:** Is intended to explore and ensure potential participants involved in a wicked problem to address inequity or injustice? Potential questions include:
 - In the interest form you described the problem you are working on as (summarize problem). Can you tell me more about (specific component mentioned in interest form)?
 - How do you describe the specific issue of inequity or injustice that you all are trying to address?
 - How did this effort come about? How did you all decide it was an important issue to address?
 - Who all is involved in the effort to and why do you think it is important that they are involved?
 - What do you think makes this challenge especially difficult to address?
- **Area of interest 3:** Ensure they understand the action learning research process and the level of commitment expected of them.

- This research will use a methodology called action learning and it comes with a higher level of involvement than some research projects. Because of this, I want to talk you through what is involved and what you will likely experience.
- If you participate, you will meet with a small group of other higher ed leaders who are all involved in addressing problems like the one you described. These folks will all hold similar positions to you. It is kind of like a community of practice, if you are familiar with those.
- Meetings will happen every one to three weeks for about 90 minutes. In the meetings, each member will share the problem they are working on, their approaches, what is working, what is not working, etc. Other group members will then ask questions and offer their perspectives. The intent is to uncover new ways of understanding and working on your problem through questioning and reflection.
- How do you feel about working with others and talking through your work as a leader with a group of peers?
- A couple things happen between meetings:
 - First, you'll continue to work on your problem and have the chance to apply what you learned during the group meeting. Applying what you have learned is up to you. Then you will return to the group and discuss how things have changed since the last meeting.
 - Another is an expectation that you would watch YouTube videos and read articles I provide that will introduce ideas related to leadership and wicked problems. These are optional but they will be helpful to the research process and introduce new ideas to you.
 - I'll also provide you reflective prompts and ask you to respond to them between meetings in writing or an audio recording, although that is optional.
 - On my side, I'll analyze past meetings to identify the knowledge and perspective you all surface on addressing wicked problems in higher education. I'll then present those to you at the next meeting to get the group's input.
- This process of discussion, reflection, application will go through multiple cycles over the 3-month course of this research project. The process intends to develop a deeper and more explicit understanding of the challenges you face and the leadership needed to address them.
- Do you have any questions about what it means to be part of an AL set or what you would be getting involved in?
- I want to talk a little about the meeting timing. Right now, the planned schedule for meetings looks like this (present proposed meeting schedule to potential participant).
 - Do you think you could commit to this? Would you need anything to change or do you have any concerns about what is expected of you.
- Any additional questions about any of this?

Review Informed Consent Document with Potential Participant.

- Send informed consent document to participant through MS Teams during the call.
- Share screen and walk potential participant through all aspects of the document.

- After each section ask if the potential participant has any questions.

Next Steps

- You won't decide to participate now. After this call, I'll send you an email to inform you if you are a good fit for the research project. If you are, I will include the meeting schedule I shared with you as well as the informed consent document. If you want to participate, please follow the link in the informed consent document and sign the Microsoft Form within 72 hours of receiving the email.
- I'm happy to have another call with you if you have questions about this document or any part of the research process.

Any last questions I can answer for you?

Thank you so much for your time and your interest in this research. I'll be in touch via email soon.

APPENDIX E: LinkedIn RECRUITMENT

Image for recruitment post on LinkedIn



Research Interest Form Link: <https://forms.office.com/r/tJxpxkaAiL>

Content of LinkedIn Post

Colleagues! For my Ph.D. research, I'm recruiting 4 to 6 mid-level higher education leaders from public research universities to work as a group to explore the leadership needed to address wicked problems (WP) that involve challenges of inequity and injustice. If you're interested, please read more or if you know someone who might be, please forward.

So, what's a wicked problem and are you working on one? Problems are wicked when responsibility for them is shared among multiple stakeholders who often disagree about the nature of the problem or potential solution. WP also force us to think differently about our values and can't be solved using or normal ways of working.

Examples of WP in higher education that also involve challenges of inequity or injustice include student retention and persistence, policy changes, food and housing insecurity, building new facilities, decolonizing campus spaces, hiring and training staff, data analytics, mental health support, behavioral intervention, etc.

To participate you must be a mid-level higher ed administrators (assistant/associate director, director, associate vice president/provost/chancellor, chief of staff, etc.) working at a U.S. public research university. You don't have to be the person leading the effort to address the wicked problem, but you need to be actively involved.

The research will use Action Learning methodology. Participants will work as a group of 3-5 mid-level leaders who are all working on similar problems. The group will meet 7 times, every 1-3 weeks, this autumn to dialogue about the problems they face, their leadership to address them, and the knowledge gained. Between meetings members will work on the WP on their

campus, the researcher will introduce concepts related to leadership to address WP the form of videos, podcasts, and articles, and participants will be asked to journal about their work and what they've learned.

Through the cycles of action (work on the problems) and reflection (dialogue with peers, review of topics, journal responses) participants will have the chance to develop their leadership capacity, impact the problem they are working on, and generate knowledge that can be shared with other mid-level leaders.

Logistics: All meetings will be conducted on Microsoft Teams and last approx. 90 minutes. Work between meetings includes review of new concepts and optional journal responses. The estimated time commitment for participants is 18-22 hours over 3 months.

Compensation: As a token of appreciation, each participant will be given a \$50 credit to SnackMagic.com after the first meeting.

If you are interested: Please review the potential benefits, qualifications and fill out the information on this form: <https://forms.office.com/r/tJxpxkaAiL>

Thanks for considering!

APPENDIX F: RECRUITMENT EMAIL

Greetings colleague,

My name is Sean Ferris and I am a Ph.D. candidate in the Higher Education Leadership program at Colorado State University. I'm recruiting 4 to 6 mid-level higher ed administrative leaders from public research universities to work as a group to explore the leadership needed to address wicked problems that involve challenges of inequity and injustice. I got your contact from the NASPA directory and I'm reaching out to you to see if you might be interested in participating.

So, what's a wicked problem and are you working on one? Problems are wicked when:

- Responsibility for them is shared among multiple stakeholders
- Stakeholders disagree about the nature of the problem or potential solutions
- The problem forces us to think differently about our values
- The problem can't be solved using the same strategies we've used in the past.

Examples of wicked problems in higher education that also involve challenges of inequity or injustice could include student retention and persistence, policy changes, campus policing, financial aid, food and housing insecurity, building new facilities, decolonizing campus spaces, hiring and training staff, the use of big data, mental health support, behavioral intervention, etc.

To participate in this research, you must be a mid-level higher ed administrators (assistant/associate director, director, associate vice president/provost/chancellor, chief of staff, etc.) working at a U.S. public research university. You don't have to be the person leading the effort to address the wicked problem, but you need to be actively involved in the process. Full-time faculty who hold administrative roles are not eligible.

The research will use a methodology called Action Learning. Participants in this research will work closely with 3-5 other mid-level leaders who are all working on similar problems. The group will meet every 1-3 weeks over 13 weeks this autumn to dialogue about the wicked problem each person is working on, their leadership to address it, and the knowledge gained through their work. Between meetings each member will continue to work on their wicked problem. New ideas related to leadership to address wicked problems will also be introduced by the researcher in the form of videos, podcasts, and articles for participants to review between meetings.

Through the cycles of action (work on your problem) and reflection (dialogue with peers, review of topics, journal responses) participants will have the chance to develop their leadership capacity, impact the problem they are working on, and generate knowledge that can be shared with other mid-level leaders.

Logistics: All meetings will be conducted on Microsoft Teams and last approximately 90 minutes. In addition to meetings, participants will be asked to respond in writing to optional journal questions on specific topics related to the research. I estimate the research will require a commitment from you of 18-22 hours over the course of 4 months.

Compensation: As a token of appreciation for your involvement, each participant in the research will be given a \$50 credit with SnackMagic.com to select a collection of snacks of your choice after the first meeting.

If you are interested in participating: Please review the potential benefits, qualifications and fill out the information on this form: <https://forms.office.com/r/tJxpxkaAiL>

Thanks for your consideration!
Sean Ferris

Find me on LinkedIn: <https://www.linkedin.com/in/sean-ferris/>

The study has been approved by the Institutional Review Board at Colorado State University (protocol # 3603). Ryan Barone is my dissertation adviser and the co-primary investigator on this research project. If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at: xxxx@colostate.edu; XXX-XXX-XXXX.

APPENDIX G: FINAL INFORMED CONSENT

Colorado State University Consent to Participate in Research

Research Title:

Leadership to Address Wicked Problems in Higher Education using Action Research

My name is Sean Ferris. I am a graduate student at Colorado State University working with my faculty advisor, Professor Ryan Parone, PhD, in the school of education. I would like to invite you to participate in my research. The purpose of this research is to surface shared knowledge and catalyze real-world impact via a small community of mid-level higher education administrators who are currently involved in leadership to address wicked problems that include elements of inequity or injustice at public research universities.

Research methodology and procedures

This research uses Action Learning research methodology which is a process shared between the researcher and the participants. Whereas most research methodologies have a primary interest to generate scholarly knowledge, Action Learning shifts focus to include personal learning and the application of new knowledge in the participant's local setting. This research will use multiple forms of data collection that participants will engage in.

The intake form is the first point of data collection and provides foundational information on the participant, their campus context, and the problem they are working on.

The most significant research element is the Action Learning (AL) set. Over the duration of the research (approximately 13 weeks), participants will come together seven times as a group (the AL set) to reflect on the challenges they face, their efforts as leaders to advance solutions, the context they operate in, and what they are learning about their efforts. The AL set and is comprised of all participants and the researcher. Approximately 4-6 people in total will comprise the AL set, including the researcher. AL set meetings will be facilitated on Microsoft Teams and last approximately 90 minutes. **Meetings of the AL set will be video recorded with audio.**

Between meetings of the AL set, participants will continue to engage with the challenge they face on their home campus and will be expected to bring their experience back to discussion with other members of the AL set. The cycle of reflection in the AL set and action on the participant's home campus provide a structured means for action, reflection, and meaning making. Because AL set members will influence the discussion during AL set meetings, they therefore influence the research results.

To further promote personal learning and to address tacit knowledge, between meetings participants will be asked to review content related to the research in the form of online videos, podcasts, and articles. At times specified by the research protocol, participants will also be asked to respond in writing to journal questions related to the research project.

Your data

The research will collect personally identifiable information on you including your name, professional title, institution of employment, preferred contact information, pronouns, salient social identities. It will also collect information from you about your campus context, the problem you are working on, and the efforts you have taken to address your problem.

The insights you share on topics of leadership, equity and justice, wicked problems, and what you have learned through the research process during meetings of the AL set and in journal responses will also be collected as data.

Direct quotes from participant data will be used when sharing research results.

Meetings of the AL set will be video recorded with audio.

Benefits

The primary potential benefit to participants is the potential for professional development and an expanded network of colleagues in similar roles. Participants will also have the choice to apply what they learn on the challenges they face. After the research concludes all participants are free to share via professional conferences or publications their own experience with this research, what they learned, and how their solutions evolved. You are not free to share the experiences of others.

It is hoped that the research will also result in new knowledge that can inform the leadership practice of higher education professionals who work to address wicked problems.

Risks

There is a limited risk for participating in this study. Participants in this research are not anonymous to one another because they engage together as the AL set. Information participants choose to disclose in the AL set could create risk for one's professional reputation. Because participants are discussing leadership and efforts to address wicked problems that include issues of inequity and injustice the research creates the context for a participant to share something about their work or mindset that other participants may not agree with. Any disclosure about professional practice, comportment, and mindset to others presents opportunity for disagreement among colleagues.

Participants will be reminded in the first meeting the critical role they play in protecting confidentiality and that the conversation had should not be shared outside of the AL set meeting.

As with all research, there is a chance that confidentiality could be compromised; however, we are taking precautions to minimize this risk.

Privacy and Confidentiality

This research project is not anonymous, participants will be known to one another as part of the Action Learning Set. However, your study data will be handled as confidentially as possible. If

results of this study are published or presented, individual names and other personally identifiable information will not be used.

The research is being conducted via Microsoft Teams which allows you to engage in the research at a location of your choice. You will also be asked to provide written responses to journal questions allowing you a means to communicate with the researcher that does not require personal disclosure to other participants.

To minimize risks to confidentiality the following steps will be taken:

- All written responses and video recordings will be stored in the researcher's CSU Microsoft 365 Account. The account is password protected and access will only be granted to the principle investigators.
- Video recordings will be transcribed and maintained for as long as necessary to complete the research and will immediately be destroyed when no longer needed. It is anticipated they will be destroyed once the dissertation for this research is complete, approximately May of 2023.
- During transcription pseudonyms will be used to de-identify participants and their campus of employment.
- Transcripts of AL set meetings and written journal responses will be uploaded to the Dedoose Qualitative Data Analysis System to conduct data analysis. This system is password protected and access will only be given to the principal investigators.
- In the first meeting of the AL set the group will engage in a discussion regarding confidentiality to develop a shared understanding of their role to maintain confidentiality and prevent disclosure of personal information beyond the group setting.

We may be asked to share the research files with the sponsor or the CSU Institutional Review Board ethics committee for auditing purposes. Your identity/record of receiving compensation (NOT your data) may be made available to CSU officials for financial audits.

When the research is completed, I will save the transcriptions and other study data for possible use in future research done by myself or others. All data will be destroyed after 3 years of completion of this research, approximately August 2026.

Rights

Participation in this research is completely voluntary. You maintain the agency and self-determination to participate in the research at all phases of the research process. You can decline to answer any questions and are free to stop taking part in the project at any time. Whether or not you choose to participate in the research and whether or not you choose to answer any questions or continue participating in the project, there will be no penalty to you or loss of benefits to which you are otherwise entitled.

All data collected up to the point a participant ends their involvement may still be used as part of the research project. No formal steps are necessary to end participation however the researcher respectfully requests that you notify him by emailing sferris@colostate.edu or notifying him at an AL set meeting.

Researcher's ability to terminate involvement:

Because this research involves a group experience among the participants, the researcher reserves the right to terminate the involvement of a participant at any time. The primary reasons for termination would be disruption of the AL set, derogatory or discriminatory behavior toward others, or a clear lack of engagement with the research topic. If the researcher terminates a participant's involvement they do not have to return the compensation.

Time commitment and expectations

This research will involve a significant time commitment from participants. Starting in September, participants will meet as a group every 1 to 3 weeks for about 90 minutes at a time using Microsoft Teams. There will be seven meetings that occur over the course of approximately 13 weeks. During meetings we explore the challenges that each person faces and potential leadership approaches to address the challenge. Each meeting will be recorded, and the content of the discussion will be used as data for the research.

Between meetings you will be asked to respond to journal prompts, review relevant concepts by watching videos or reading articles. Two times during the research process, you will be asked to review an account of practice written by the researcher that seeks to articulate your campus context, the problem you are working on, the steps you have taken on your problem, and what you have learned as a result. The account of practice will be sent to you as a shared Microsoft Word document so you can provide feedback at a time and location that is convenient for you.

In total I anticipate the time commitment to be 18-22 hours over a 3-month period.

Compensation

As a token of appreciation, the researcher will provide you a \$50 gift to SnackMagic.com where you can order snacks of your choice to be delivered to an address of your choice. The gift will be sent after you complete the first AL set meeting. If you withdrawal from the research you do not need to return the gift.

Additional Information

The de-identified data (transcripts, accounts of practice, journal responses) collected through this research project can be used for future research without seeking additional informed consent.

Questions regarding the content, process, benefits, risk, or other topics related to this research project can be directed to Sean Ferris, Ph.D. candidate at xxxx@colostate.edu or to Ryan Barone, Principle Investigator and dissertation adviser at xxxx@colostate.edu.

If you have any questions about your rights or treatment as a volunteer in this research, contact the CSU IRB at: xxxx@mail.colostate.edu; XXX-XXX-XXXX.

Please visit this Microsoft Form to consent to participating in this research:
<https://forms.office.com/r/qPKyy1yCMV>

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APPENDIX H: RESOURCES FOR MIDDLELEVEL LEADERS

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