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PERCEPTIONS OF INDUCTION: A PHENOMENOLOGICAL CASE STUDY

By

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PERCEPTIONS OF INDUCTION: A PHENOMENOLOGICAL CASE STUDY

Abstract

The first months of teaching can significantly diminish a probationary teacher's perception of their ability when the nuances of the job and students become overwhelming. On average, a school will lose three out of every 20 teachers annually. The problem this study researches is how faculty and staff provide support for probationary teachers. Too often, induction models remain underdeveloped, understudied, and rarely are formative assessments associated with faculty interactions. In this study, the dynamic interplay between the individual, the environment, and behavior establish a deeper understanding of the teacher network as a social system with expected returns. The tenets of Lin's social capital theory (2001) and Bandura's theory of self-efficacy (1997) reveal more about the network and embedded resources.

Using a case study design, I conducted interviews with new teachers, continuing teachers, and mentors. Findings from interviews supported a gap in the literature pertaining to the intention design of an induction program specific to social learning opportunities to gain capital among the faculty network, thus increasing the new teacher's autonomy to problem-solve and operate independently. The results from this study may influence other schools to integrate similar induction programs designed to permit new members opportunities to exchange knowledge with returning members to build social capital before they must find resources independently.

Keywords: *Network, Mentor, Probationary teachers, Faculty network, Social capital theory, Theory of self-efficacy, Efficacious, Feedback loops*

DEDICATION

To my husband Harold, who provided me unwavering love and support to persevere;

To my children Erik and Lauren; who listened to endless hours of hunches, theories, and ideation
while helping me balance academia with time for family fun;

And finally,

To my extended family, friends, and colleagues that lived this journey alongside me.

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CHAPTER 1: INTRODUCTION

The first years of teaching require a high level of commitment. The first months on the job teaching significantly diminish a probationary teacher's perception of their ability when the nuances of the job and the personal context of the students become too much to manage (Dias-Lucy & Guirguis, 2017; Scherer, 2012; Will, 2018). The first year for a teacher is often described as a marooned traveler or "fixing the hole in the bottom of a leaking bucket" (McCann & Johannessen, 2009, p.111). According to the U.S. Department of Education's National Center for Education Statistics (NCES), up to 8% of teachers leave the profession annually and another 8% move to other schools, creating a staggering annual turnover rate of 16%. That means on average a school will lose three out of every 20 teachers (Carver-Thomas & Darling-Hammond, 2017; Harmsen et al., 2018; Nguyen, 2021; Wang, 2019).

One fundamental way of conceptualizing the unstable educational workforce is to understand it as a relatively understudied recruitment and retention that occurs when teachers leave for economic or professional alternatives and equally, the retention of teachers that may qualify to teach but fail to leave when they are unable to exemplify a standard of competency (Baker-Doyle, 2014; Marz & Kelchtermans, 2020). This perspective widens and emphasizes a potential gap between educational preparation and practice as relatively few educational students fail their coursework, which is associated more with pedagogy and content and less with the complexity of collaborating with parents, students, and colleagues (Gerrevall, 2018; Morrison, 2010).

Many districts focus on reducing losses by offering a gateway or orientation program commonly referred to as induction (Zembytska, 2015). These programs generally span one year

and employ a range of activities that include a mentor (Bickmore & Bickmore, 2010; Ingersoll, 2012; Ronfeldt & McQueen, 2017; Zembytska, 2015). Additional activities may involve discussions to exchange knowledge, opportunities to rehearse skills, and time to increase awareness by attending monthly workshops, observing other teachers, debriefing with a mentor following an observation, and discussing the collective progress and needs of the group (Carver-Thomas & Darling-Hammond, 2017). The inherent problem with this system is that the source of mentors remains limited, and it may retain mentors that are not competent.

To mitigate this challenge the induction model may need to expand the structural and programming goals to include access to the entire school network. The process for the probationary teacher begins with a mentor who serves as a faculty guide to help make the needed connections to manage the stress of the job while providing a variety of feedback and direction (Carver-Thomas & Darling-Hammond, 2017). Conceptually, the new member is hired for their content knowledge and followed by a year of exchanging that knowledge in the school's network to transfer and borrow information for social capital (Lin, 2001; Scherff, 2008). This network-induction model relies on guided mastery and context using a structure that focuses on interactions that are highly relational and targeted resources (Bandura, 1997).

Ingersoll's (2012) research reported first-year teachers who participated in a set of induction activities were half as likely to leave the field as those who did not participate. Ronfeldt and McQueen's (2017) research duplicated the same results and provided more context. They found that teachers who received a mentor, supportive communication from school leadership, attended beginning seminars, and planned collaboratively reduced the odds of moving by 44 through 46% compared to receiving no support at all (p. 403). While these

numbers are promising there remains room for more improvement to explore a much more efficient and effective method to build workforce capacity and self-efficacy.

First, I begin with a description of educational trends that emphasize the need for sustainable practices that support new and probationary teachers. Next, a conceptual overview of social capital and self-efficacy is presented to gain the background needed to understand how individuals invest in relationships and capture embedded resources (Bandura, 1977, 1997; Lin, 2001; Putnam, 1995). The chapter concludes with the statement of the problem, purpose of the study, research questions, limitations, rationale and significance, and definitions.

Statement of the Problem

The problem this study researched is how faculty and staff provide support for probationary teachers. Too often, induction models remain underdeveloped, understudied, and rarely are formative assessments associated with faculty interactions (Gerrevall, 2018; Ingersoll, 2012; Ronfeldt & McQueen, 2017). Ronfeldt and McQueen (2017) emphasize, “While being assigned a mentor seems to be better than being assigned no mentor at all, the quality of supports alongside their quantity will identify the most potent forms of induction” (p. 407). Therefore, the induction model that understands the tenets of social learning and designs with guidance leans into gradual release and self-directed mastery of skills with credible resources (Bandura, 1977, 1997). Furthermore, the framework that provides opportunity to form the social capital to rehearse, observe, and process feedback must take into consideration the positive influence of self-efficacy related to feedback, appraisals, and the loss of motivation that accompany attrition (Bandura, 1977, 1986, 1997; Lin, 2001; Timmons, 2010).

The integration of new and probationary teachers seems contingent on the relational capital that is acquired by observing and working directly with the faculty network that can

positively influence self-efficacy at a pivotal time in a teacher's career (Bandura, 1997; Lin, 2001). Knowing how successful teachers around them exchange knowledge and the contextual information in the faculty network has the predictive power to stabilize the faculty membership when the most salient methods and efficacious members are visible and available to the new and probationary teachers (Bandura, 1977, 1997; Dias-Lucy & Guirguis, 2017; Lin, 2001; Putnam, 1995; Scherer, 2012; Schiffer, 2007; Woodland & Mazar, 2019).

Purpose of the Study

The purpose of this phenomenological case study was to develop a deeper understanding of what reduces attrition of new faculty members with an intentional induction model using the perceptions of three major groups: teachers, mentors, and administrators (Stake, 1995). The contextually rich community data provided insight to a network structure and interactive behaviors that lead to a self-sufficient, efficacious workforce. The perceptions and insights collected from members with the case study network will illuminate the actors, pathways, and behaviors used in this community to cultivate a stable workforce that can exchange information to innovate and provide support. The social interactions that link network members provide the context needed to learn how the faculty network invests in new members and provides access to available resources (Bandura, 1997; Bogatti, 2019; Lin, 2001; Putnam, 1995). Concurrently, collecting insights from a bound group highlights the mechanisms and structural expectations surrounding tasks, skill sets, and the behaviors that develop social capital connections to remain competent, innovative, and healthy during the first years of teaching.

Research Questions

This study proposed the following research questions:

1. How are embedded resources realized and mobilized?

2. What interactions between groups lead from perceived to actual capacity?

Conceptual Framework

In Margaret Wheatley's (2006) *Leadership and the New Sciences*, she describes identity, as well as affiliation, as a system that is connected to the environment, people, and truth. She predicts, "people will invariably ask the network, who else do I need to know? Who else needs to be here to do this with me?" (Wheatley, 2006, p. 146). While her questions strengthen the concept of an integrated network during the induction model, it does not fully explore how network advice relies on one's belief in themselves and their position in the system. To explore this further I relied on the tenets of Albert Bandura's social cognitive theory of self-efficacy (Bandura, 1997) and Nan Lin's social capital theory (Lin, 2001) to guide this phenomenological case study.

Bandura's theory of social cognitive theory (1977) depicts the dynamic interplay between the individual, the environment, and behavior. Bandura (1997) reduced his social cognitive theory to isolate self-efficacy to study what an individual will initiate and how he or she copes with adverse conditions. He refers to perceived self-efficacy as the ability to predict an individual's level of effort and duration spent on difficult tasks. This is a significant measure for new teachers who encounter virtually everything as new. Bandura (1997) asserts the dimensions of self-efficacy can be measured and guided using four principal sources of information:

1. Organizing and rehearsing the modeled behavior symbolically and then enacting it overtly;
2. adopting a modeled behavior based on a valued outcome by verbal persuasion;
3. modeling observed/recanted behaviors using vicarious modeling if the model is similar; and

4. a state of arousal or motivation that compels task completion (p. 195).

Next, the theoretical contributions of social capital theorist Nan Lin (2001) establish the guiding principles for understanding the teacher network as a hierarchical, social system of embedded resources with expected returns. Lin's (2001) unique perspective in social capital begins with understanding the features of the network followed by intentional actions to form and activate connections (Deal et al., 2009; Lin, 2001). According to Nan Lin (2001), acquisition of social capital relies on relational connections, proximity, position in the organizational hierarchy, and the reciprocated return for engaging with another member. The postulates of Lin's (2001) theory assume resources are embedded in the network and individuals are motivated to gain or pool their resources.

Combining Bandura's (1977) social cognitive theory of self-efficacy and Lin's (2001) social capital theory provides a network of relationships that rely on location in the network to access and mobilize the embedded resources. The theories capture the complexity of entering a network for a probationary teacher who strives to develop a self-sufficient, highly efficacious reputation using colleagues for information, support, and innovation. These theories informed the social network integration during stages of the induction model to answer the research questions. Using the respondent's perceptions of the environment, personal appraisals, and recollections of opportunities in the faculty network contributed to a deeper understanding of how to effectively stabilize the teaching workforce.

Assumptions, Limitations, and Scope

The assumption guiding this body of work was that the networks reflect a stable culture that is reasonably efficacious in shared solution building (Bickmore & Bickmore, 2010). This expands to include solutions that meet personal and professional needs. Furthermore, I presumed

all participants were honest in their responses and motivated to find and report on resources. This assumed probationary teachers are motivated to pursue instrumental (new knowledge) social capital to grow their network using community context and decisions rooted in improving student outcomes. It was also a working assumption that all participants could locate resources within the network while balancing teaching and induction tasks with individuals for whom they hope to gain professional information and retain personal support (Lin, 2001). This assumption was guided by the unintentional times when the experiences of the mentor were not aligned with program goals (Gerrevall, 2018; Zembytska, 2015).

There are three primary limitations based on the methodology of phenomenological case study and the ability to apply the findings of this study to similar context and setting (Bloomberg & Volpe, 2016; Riessman, 2008). The method of case study aims to detangle the context provided by participants using their experiences of school structure, position in the network, ego (self) and the alters (connections) in the bound setting. It is a highly reflective process that requires continuous comparison to the research to examine self-control. Two significant goals were to establish confidence in the process to capture honest perspectives of the network and to take the necessary measures to safeguard personal data given the size and sensitivity of the case study.

The first limitation is the transferability of the study to other sites. This limitation is due to the methodology of case study using relevant and contextual claims that support the research questions according to the study (Bloomberg & Volpe, 2016, p. 47). The second limitation of the study is the enormous amount of data generated with some potentially contradictory information. This places a high demand on coding to preserve reliable conclusions with time spent on member

checking. The third limitation is the use of coding markers to identify individuals and groups within the network while not breaking confidentiality.

Rationale and Significance

The potential benefits to participants in this study were the opportunity for teachers and administrators to share their personal experiences, the perceptions of the induction model, and their own self-efficacy to influence a stable work force. Whereas the sample was bound to the site, it provided voice for new and probationary teachers that can illuminate strategies that enhance the induction model while facilitating reflective evaluation among participants of their own contribution and effectiveness. Through first person, personal accounts, participants will reveal mechanisms used by the faculty network and the impact on new teacher self-efficacy (positive, negative, neutral) by co-constructing the meaning. The outcome of the study provided participants to personally reflect on how the network functions and contributes to induction modeling.

Definitions of Key Terminology

When writing the definition of key terms materials including essays, research, and leading theorists were consulted. Key terms were generated based on their importance to the central concept and research questions. Furthermore, this section established the credibility and clarity of the study from the onset.

Discussion A form of collegial interaction and communication with others that “captures a wide range of behaviors, actions, and activities that mark the larger process of moving from isolation toward authentic collaboration” (Ford & Youngs, 2018, p.426). Conceptualization of collaborative discussions include mentoring to professional learning communities.

Efficacious describes people who are quick to take advantage of structural opportunities and figure out ways to circumvent institutional and cultural constraints (Bandura, 1997, p. 244).

Ego-centric actors can be individual persons, groups, or even some larger entity that focuses on students, teachers, and administrators (Carolan, 2014, p. 141).

Feedback loops A systems thinking construct to improve product and process when people engage in discourse and complex thinking with one another (Sherblom, 2015).

Growth plans A procedural document composed of independent observations, conferences, and other supervisory interactions with content specific strategies and measures that vary based on the individual and years' experience teaching (Carver-Thomas & Darling-Hammond, 2012). Conceptually, growth plans include action research and inquiry projects.

Human capital Content knowledge possessed by the individual, who can use it with great freedom and without much concern for compensation (Lin, 2001, p. 56). Conceptually, human capital includes resources one is born with (race and gender), caste and sometimes religion, as well as education and authority.

Induction model A formal and informal method of professional development designed for the probationary teacher with a focus on relationships to access the faculty for professional and personal support (Fox & Wilson, 2015, p. 93).

Mentor The “mutually beneficial formal collaboration between an experienced teacher (mentor) and a beginning teacher (mentee/protégé) which provides the new professional with ongoing psychosocial and instructional-related support during the first years of teaching” (Zembytska, 2015, p. 106).

Mechanisms The combination of relationships, pathways, and an individual's capacity to act that lead to the exchange of human capital and future benefits (Carolan, 2014).

Network The investment in social relationships in a school setting with expected benefits in return; also referred to as knowledge *currency* for future exchange (Lin, 2001).

Observation A method of modeling behavior to gain a “new perspective or novel behaviors” that occur by watching others and gaining knowledge and cognitive rehearsal without the risk of the consequences of a direct experience (Bandura, 1997; Warren & Loes, 2019, p. 120). Conceptualization of observation include shadowing and vicarious storytelling.

Personal needs Psychological needs, including self-reliance, esteem, and efficacy (Bickmore & Bickmore, 2010, p. 1006).

Probationary teachers Educators new to the field and a community (Carver-Thomas & Darling-Hammond, 2017).

Professional needs encompass technical, collegial, and reflective practices (Bickmore & Bickmore, 2010, p. 1006).

Resources The information, support gained, and innovative strategies sought out by probationary teachers (Lin, 2001).

Social capital The accessible resources through direct and indirect ties, made possible by the investment in social relationships with expected benefits in return (Lin, 2001, p. 56). It is also referred to as knowledge currency for future exchange that may be characterized as emotional care, intellectual reassurance, or another type of companionship (Hunt et al., 2012, p. 200).

Conclusion

The purpose of this study was to understand how an induction model supports probationary teachers within the school structure. The connections, actions, and environmental expectations that emerge inform the structural characteristics and faculty role to positively influence self-efficacy and mobilization of the resources. The concept of tracking a teacher’s

social network allows the probationary teacher to assess available resources and consider how to activate them (Carolan, 2014; Lin, 2001; Whitcomb et al., 2017). Furthermore, this study examined the integration of the probationary teacher as they experienced the mechanism and people as a social experience reliant on the induction model and faculty network. This phenomenological case study was bound to a highly efficacious network and invited respondents to share their personal biographies, experiences, and perceptions of the resources they accessed using the network.

Chapter 2 introduces the theoretical framework of self-efficacy (Bandura, 1977) and social network analysis (Lin, 2001). A review of the literature includes studies of several induction constructs to derive common design elements for induction models with a focus on social capital principles and structure. Chapter 3 presents a phenomenological case study design to discover how integration is experienced by probationary teachers and the faculty within the network. Design elements include purpose, research questions, site information, sampling methods, data collection, data analysis, limitations, and ethical considerations. Chapter 4 explains the method of analysis and Chapter 5 provides the results followed by the findings, implications, and recommendations for further study.

CHAPTER 2:

REVIEW OF THE LITERATURE

For any induction model to be successful, it is essential to understand its function in the school system and the role the faculty play. It is necessary to provide support in the form of connectivity for probationary teachers before they opt to leave the profession (Ingersoll, 2012; Woodland & Mazur, 2019). However, induction models that are designed to systemically socialize new members in a school system are difficult to find in the literature. The induction model that can predict the personal and professional tensions knows that everyone in the network is potentially a helpful actor. Therefore, it was the intent of this study to explore the perceptions of the elements of an induction model's mentors, discussion, observation, feedback, growth plans to understand the structural characteristics that support probationary teachers to access and mobilizing resources in the network.

To emphasize this point, a system that understands the whole is always greater than the individual parts; it makes little sense to understand the individuals (or presume we understand the individual parts) without reviewing how they all work together (Nichols, 2013). To effectively examine the complexity of a school system and all the working parts, it begins with knowing the actors, their efficacy levels, and the contextual details to fully understand their contribution to the system. Giving structure to the induction model is a dynamic and responsive network that uses the framework of social cognitive theory of self-efficacy (Bandura, 1997) and social capital (Lin, 2001; Putnam, 1995). These theories provide the framework needed to examine the phenomena and the characteristics of the induction model used to foster a variety of relationships that lead to resources (Whitcomb et al., 2017).

Theoretical and Conceptual Frameworks

The process of understanding how an induction model invests in new members is guided by social cognition theory of self-efficacy (Bandura, 1977; 1997) and social capital theory (Lin, 2001; Putnam, 1995) to explore the phenomena of integrating new and probationary teachers. The conceptual framework assumes there are resources embedded in the network and composed of some highly efficacious teachers who perceive, model, and extend themselves to create desirable returns that build self-efficacy and connections (Lin, 2001; Bandura, 1997). The reciprocity of return on relationships establishes the social capital needed to borrow information, retain support, and partner on matters of school (Lin, 2001).

The framework provides tools to understand what contributes to the preservation of new teachers using Bandura's (1997) guided mastery and Lin's (2001) work to stratify the network. Bandura (1997) points out the decision to initiate and persevere depends on the individual's self-efficacy to achieve the outcome. This point is relevant for new members who are likely to be unaware of the cultural and power norms that exist among friendship and task networks (Deal et al., 2009; Putnam, 1995). An unsuccessful attempt to collaborate could impede access and reduce efficacy levels as well as future attempts to reconnect. Bandura (2000) provides a set of guided mastery methods to consider these barriers for an induction model that also seeks balancing connections (bonds to bridges) to maintain a sense of belonging without losing identity and self-efficacy due to failed attempts (Lin, 2001).

Social Cognitive Theory of Self-efficacy

At its most fundamental, self-efficacy is the belief that one can produce a desired outcome (Bandura, 1997). The associated behavior is acquired and regulated using a cognitive process that can be altered using enactment, "performance-based procedures to effect

psychological change” (Bandura, 1977, p. 191). Bandura asserts perceived self-efficacy is an influential determinant of career choice and development. Higher self-efficacy is associated with fulfilling job requirements, using autonomy to innovate and redesign roles, widening personal options by taking the initiative to generate ideas and leading to job stability despite the challenges (Bandura, 2000). He concludes, “self-efficacy theory provides a conceptual framework within which to study the determinants in effective work design and the mechanisms through which they enhance organizational functioning” (Bandura, 2000, p. 122).

Self-efficacy beliefs are rooted in four principal sources of information:

1. Organizing and rehearsing the modeled behavior symbolically and then enacting it overtly;
2. adopting a modeled behavior based on a valued outcome by verbal persuasion (Lane & Sweeney, 2018);
3. modeling observed/recanted behaviors using vicarious modeling if the model is similar; and
4. a state of arousal or motivation that compels task completion (Bandura, 1977, p. 195).

The information coming from anyone, or a combination of these sources, is an opportunity to process and learn. Bandura (1997) contends experiences are only instructive to self-efficacy when they go through a complex reflective process to evaluate the outcome based on the individual’s interpretation that factors in, but is not limited to, “personal bias, perceived difficulty of task, emotional state, conditions during task” (Bandura, 2000, p. 126).

Strengths of the Theory

The perceptions of highly efficacious members who operate within and around the induction model provide opportunity to explore and understand the characteristics of a network

that can positively alter self-efficacy. The strength of the theory is its predictive power to cultivate competency using guided mastery (Bandura, 2000). Bandura (2000) asserts, “guided mastery provides one of the most effective ways of cultivating competency” (p. 126). The mentor establishes guided mastery using their position in the network to serve as a broker between network members to work one on one, lead a new teacher group, or serve as a network connection by association among existing faculty (Bandura, 2000, pp. 126-127; U.S. Department of Education, 2012). These concepts align with Lin’s (2001) assumption that resources are embedded in the teacher network and available to access. Bandura (2000) asserts that the combination is most impactful when performance skills and procedures are first modeled from sub-skills to more complex skills followed by guided practice with constructive feedback that is instructive versus evaluative and delivered in graduated amounts to apply new skills with early success. Guided mastery includes instructive modeling, guided skill enactment, and transfer training to real experiences.

The guide(s) that can co-narrate an event using vicarious context can assist in the individual’s development to produce a structurally competent response (Glibkowski et al., 2014; Lin, 2001; McAleese & Jennifer, 2019; Norrick, 2013). Therefore, the personal accounts told by highly efficacious individuals, mentors, and members of the faculty network have the epistemic authority to serve as instructive models when they combine procedure with vicarious modeling of the storytelling or observation kind (Bandura, 1977). Glibkowski et al. (2014) defended a narrative (epistemic) approach to close the gap between scholars and practitioners. The narrative-informed approach attempts to narrow the theory-practitioner gap that occurs when there is an emphasis on scholarly or practitioner knowledge and serves to balance responsibility and agency. The narrative can inform the gap that exists as fragmented experiential and scholarly knowledge

that is hard to translate, or new knowledge that needs time and space to examine a problem to solve and produce new outcomes. The story structure offers reflection of experiences that are epistemic or vicarious to raise questions to co-construct meaning that can lead to new knowledge. To exchange vicarious experiences is an essential ingredient to reflect on events and personal experiences. For example, it is common among probationary teachers to presume students are lazy when homework is incomplete. A highly efficacious guide may challenge the mentee's thinking, infusing relevant context (demographics, access to resources, linguistics) to highlight hidden challenges while offering innovative strategies that align with the probationary teacher's skill and efficacy levels (Gallavan, 2005; Hammerness & Matsko, 2012; Reschly & Christenson, 2012; Smith & Sheridan, 2019).

Weaknesses of the Theory

The opportunity for vicarious learning may occur frequently throughout the induction model, but it requires a level of skill available to only those with many hours of rehearsal and a familiarity with the community context to accurately reinforce positive behavior that aligns with building goals (Bandura, 1977; Lin, 2001). Self-efficacy must be fostered, or it can be negatively altered. Individuals with low self-efficacy will prefer direct instruction if they do not believe they can produce the performance outcome. Likewise, a series of failed attempts will reduce self-efficacy. While the stages of social learning lend themselves to modeling, stories, and practice that can positively increase self-efficacy, it lacks the ability to understand the depth and scope of the entire network. To understand the potential of the network requires a second theoretical framework to locate resources, to understand what investment value veteran teachers place on these relationships, and their capacity to provide guided mastery to *cultivate competency* (Bandura, 2000; Whitcomb et al., 2017).

Social Capital Theory

Nan Lin's (2001) social capital theory conceptualizes the fundamental behavior of ego (self) to bond or bridge with other actors to gain a return referred to as social capital (Putnam, 1995). Social capital is knowledge borrowed from other members and relies on a highly relational network. The return is the expectation of reciprocity that comes at the end of the process and begins with preconditions, followed by capital formation (Lin, 2001). The return of capital relies on ego's position in the network structure and is contingent on access and mobilization of resources. To gain a resource is called instrumental capital and to pool and protect resources is expressive capital. Instrumental capital includes knowledge, hierarchy position, and reputational status; expressive capital protects the status quo and maintains competency level and lifestyle to reduce stress. Lin (2001) asserts, the optimal balance for both is unknown and too much of one source of capital can risk the loss of identity or create class cultures that lead to conflict. The optimal balance for each type of interaction "holds the key in determining the dynamics of stability and change" (Lin, 2001, p. 249).

Strengths of the Theory

The narrow definition of Lin's (2001) social capital is structural and observable at the micro (ego) level making it possible to track the social interactions of ego and their social circle. This strategy relies on knowing the relational connections and pathways among individuals (Baker-Doyle, 2014). Conceptually, the probationary teacher's network depicts social capital pathways, directly and by association, to highly efficacious people with the predictive power to alter self-efficacy using guided mastery and the four principal forms of information (Bandura 1997; 2000). Therefore, understanding an individual's network has value in a qualitative case

study interested in understanding how the faculty network responds to the professional and personal needs of probationary teachers (Coburn et al., 2019; Lin, 2001).

Weaknesses of the Theory

An ego-centric map's predictive value has challenges to overcome in a qualitative study (Borgatti & Ofem, 2019). The leading methodology of network analysis is quantitative and not familiar to school settings. To capture meaning behind a network using only interviews demands a semi-structured set of questions that probe participant answers for association and links to the network and relationships. Furthermore, while it is conceivable to reach saturation of network data using the perceptions of the individuals, the model requires representation of multiple perspectives of individuals most familiar with the induction model.

Review of the Literature

This review begins with findings from Ahmed's (2021) dissertation on the effectiveness of an induction model employing Albert Bandura's social cognitive theory of self-efficacy (1997). Ahmed (2021) found untenured teachers had varying experiences, interpreted collaboration in their own way, and the requested team building, and group activities include networking opportunities. Therefore, the literature begins by examining the induction model and associated practices, followed by mechanisms that have evidence of positive influence on self-efficacy, while understanding the capacity of the network to respond (Bandura, 2000; Lin 2001).

Probationary Position in the Network

The individual stories, institutional training, and national data from the past 12 years collectively point to a national trend that indicates more knowledge is needed to fully understand the probationary teacher's story while rebuilding a workforce of teachers (Carver-Thomas &

Darling-Hammond, 2017; Daly et al., 2010; Dias-Lucy & Guirguis, 2017; Hagger et al., 2011; Hammerness & Matsko, 2012; Lockton, 2019; Pogodzinski, 2012).

Marz and Kelchtermans (2020) went further and suggested a solution that compares teaching standards unmet by educators that leave the field with a comprehensive definition of good teaching can give more attention to a conceptual framework that honors the sophistication behind teaching while grounding development in local opportunities to make sense of situations. This description points to the social context of teaching and position in the faculty to engage in sensemaking sessions.

Scherff (2008) outlined a probationary teacher's experience in the southeastern United States using two case studies. The case study hints at the network when making reference to a healthy work environment to facilitate a mentoring program. The narrative style study was designed to preserve the individual's personal identity using story elements to examine his or her transformation and exit from the profession. Scherff's (2008) choice of methodology depicts the challenges imposed on probationary teachers while referencing specific details using a story format. She points out that no matter the extent of the university programs a new teacher walks into a building with its own history, ways of interacting, methods of operating, and social and organizational culture (p. 1329).

Glazer (2020) also used a narrative approach to capture the stories of 25 invested leavers, or probationary teachers, to describe their decision to leave teaching after years of preparation. He conceptualized their stories using school structure, self-efficacy, and policy with their position in the network as a backdrop of the study. He analyzed 59 anecdotes built around teaching tension or conflict. Overwhelmingly, the student was the focus of tension in what he called the *survival stage* which was often set in the classroom. The recurring theme of

improvement was possible as teachers were trying to figure out who they wanted to be in the classroom and how to develop the skills to accomplish this (p. 5). More compelling, the second stage shifted from tension with students to external workplace conditions. Glazer pointed out that the teacher's perception shifted as he or she appeared to gain competence moving from students to a critique of the schools. Glazer (2020) offered next steps that might be gained locally by interviewing teachers upon their exit and through continued efforts to isolate methods of sensemaking with other teachers. One conclusion is the absence of a complete context, including the perspectives of other teachers and administrators and a limited understanding of what contributed to the trends and negative aspects. Therefore, the national context must be explored locally to build background and increase the value of these stories.

Ingersoll (2012), Carver-Thomas, and Darling-Hammond (2017) arrived at similar conclusions to review induction practices, looking at the activities used and their combinations as a solution to reduce attrition in the largest growing group in the largest profession. The collective effort of both researchers implies the faculty network is strained by characteristics associated to attrition that include teaching conditions. Ingersoll (2012) investigated the macro-context surrounding probationary teachers using national data as far back as 2008, noting that one quarter of the teaching force had less than five years of experience. Reporting on his own analysis revealed 50% of probationary teachers were projected to leave the profession before reaching five years. Carver-Thomas and Darling Hammond (2017) reviewed national data to advance the micro-context of attrition and reported that practices to reduce teacher turnover will rely extensively on the faculty network.

Compelling evidence from short and long-term studies include limited use of the faculty network to support new and probationary teachers. Dias-Lucy and Guirguis (2017) performed a

grounded theory, qualitative research analysis using a single subject study diary to supplement observations. The study mapped stress and coping mechanisms. The methodology of grounded theory contributed to understanding attrition when the subject reported relying on administrative support when the workload and routines were challenging, as well as when the subject began to reevaluate their own effectiveness. Hagger et al. (2011) explored similar forces of stress. They reported on the process of experiential learning with a study focused on methods to alleviate reliance on the mentor. Using a three-year longitudinal study of 36 student teachers and their own experiences, they conducted interviews on expectations of teaching and the skills they acquired that might transfer to other schools. Contextual knowledge was deemed significant among 15 out of 36 participants (Hagger et al., 2011, p. 391); despite the length of the study, less than 5% of participants reported using sources derived from a wider context (Hagger et al., 2011, p. 391); instead, they relied on an administrator as an informal mentor.

Kelchtermans's (2017) article to address the theoretical and practical margins of integrating teachers highlighted the challenge of attrition as a wicked issue that is characterized both as a problem (to be solved) and a challenge (to be taken up). Kelchtermans (2017) explicitly pointed to a network response to review factors associated with sociology, school management, financial policy, and labor markets while also pointing out that some level of exit is good to maintain a select and qualified workforce.

Measuring Readiness

The concept of readiness was explored in several studies over the past decade (Bickmore & Bickmore, 2010; Gerrevall, 2018; Hammerness & Matsko, 2012; Hagger et al., 2011; Pogodzinski, 2012; Ronfeldt & McQueen, 2017). In Gerrevall's (2018) three-year study of 100 individuals, respondents used the national standard as a place to start while also citing opinion in

nearly 50% of respondents. Nearly 36% of respondents also indicated they were doubtful the teachers were ready given their communication and initiative.

The Hammerness and Matsko (2012) case study used context-specific induction supports in an urban setting inside a Chicago public school as a measure of readiness. Context included racial, linguistic, economic, and social class boundaries. The induction model explicitly used in this study depicted a topology of phases in the development of high-quality instruction. The topology built on policy at the base with urban context and local context (geographical, district, and sociocultural), before focusing on the children, classroom, and school. These were not explicitly stated by district documents, but emerged through research that included interviews, focus groups, and document reviews. These layers offer a structure that could inform readiness specific to community context. The outcome could inform the induction model while shaping the process of information and support for a growing workforce of teachers. Hammerness and Matsko (2012) aptly stated that bringing intentional shape to the programs requires research to include context specific to the community and the implications to discuss targeted classroom initiatives as a school. Equally compelling was the suggestion that teachers leave not because of the community context but the relationships with colleagues. While undervalued in this study, it provided direction for further research to accurately measure readiness.

Pogodzinski (2012) conceptualized readiness with network connections made by the probationary teacher. This strengthened Hammerness and Matsko (2012) when considering access to a variety of resources with context. Pogodzinski (2012) rationalized that the teacher who develops more connections is investing in the network and potentially gaining access to richer resources. This is significant for leaders who associate consumable knowledge (social capital) with success. He takes a systemic approach to develop a framework for an induction

model. Pogodzinski (2012) developed the four network corners: social context, novice teacher characteristics, alignment to mentors, and frequency of interactions. The model approached readiness from a position that measures social capital using interviews and coding practices to capture perceptions overlooked by a survey.

Hagger et al. (2011) discovered relationships with colleagues may be another potential measure of readiness. Hagger et al. (2011) examined another mechanism of readiness with perceptions of expectations collected during the first year of teaching. Over the course of three years, activities used by probationary teachers were recorded. Hagger et al. (2011) found that teachers seeking contextual information increased in frequency while planning talk decreased with a second rise in teachers talking instructional strategy. Frequency of connections and content discussions provided additional insight to measures of readiness. They added the measurement of relational connections after the first year remained low, and the reason remained unclear. Just 5% of participants reported they gained advice from a source within the school and leaned more on their own. In 2012, Hagger et al. (2011) may have isolated an essential measure of readiness by associating leaving the profession with a weak internal network that may have contributed to low self-efficacy. They provided context between participants and their network, citing extreme differences as “tremendous defensiveness or feeling fully a part of the school, and help with becoming familiar with the school's system and protocols” (p. 399). Findings from Cooper and He (2012) supported another network measure to determine readiness. Students who participated in a teacher education program from the University of North Carolina, designed to examine their perceived role as a teacher, pointed out that the challenge is often made more challenging with such a small range in age between new teachers and the students.

Bickmore and Bickmore (2010) wanted to understand the structure of the school and its influence as a whole system. They studied the effectiveness and implementation of activities linked to the induction model. They focused on the perceptions of the faculty and staff bound to the school network. First, they defined an effective induction model as one that can meet the personal and professional needs of the probationary teacher. Using abductive analysis, they developed a topology of links associated with the induction model. This evaluation made it possible to determine elements that were implemented, while exposing the gaps if only partially experienced by some teachers or for a brief period. Tracking the topology using semi-structured interviews made it possible to collect mentors/groups (formal, informal, emergent), mechanisms, frequency, and success rates. The expanded data included perceptions that offered insight for further coding network needs, making identity development more accessible. As predicted, the collaborative structure had a positive impact on both personal and professional needs. Future research using this method could inform the induction purpose and process to intentionally link supports that interrupt predictors of teacher turnover.

The work of Ronfeldt and McQueen (2017) examined predictors of teacher turnover and found that teachers who participated in the induction model predicted less turnover. Statistically significant findings associated with support included attending a beginner's seminar, communicating with leadership, and having a mentor. After controlling for schools and characteristics (Carver-Thomas & Darling-Hammond, 2017, p. 24), each additional support further reduced attrition by 18% to 22% with the optimal number between four through six supports (p. 403). These findings offered a level of promise that validated isolating characteristics of an induction model that can predict greater readiness.

Mechanisms of Induction Support

Zembytska (2015) created a resource of practices in America that depicted an evolution of mentoring support from traditional, isolated, hierarchy, and individual to multiple interactions. Mentoring as a mechanism of support is particularly effective when combined with other components of an induction model such as reflective teaching practices, formative assessment, networking, administrative support, and job-embedded professional development (Ingersoll, 2012; Ronfeldt & McQueen, 2017). Essential to understanding the variation in a universal induction model is the decentralization of the U.S. education system, contributing to a disparity in the content, duration, and funding of programs. To adjust for this range in programming, induction program planners should target five emergent themes: mentoring, observation, discussion, feedback loops, and professional growth plans (Carver-Thomas & Darling-Hammond, 2017).

Mentors

The induction program designers should consider a framework that also supports the facilitation skills of the mentors (Dahlberg & Byars-Winston, 2019). Dahlberg and Byars-Winston (2019) illustrated the range in American programming by highlighting more than 50 definitions for mentoring found throughout the literature. Their work refined mentoring to two primary functions of support: psychosocial and career-building skills. They found that the mentor who supported, guided, and helped the mentee think critically, reflect, review progress, and examine decisions (prior and post) offered the greatest range of help to the mentee.

The U.S. Department of Education's induction manual emphasizes efficacy, confidence, and instruction as a conceptional framework that depicts the role of a mentor supported by the faculty in a variety of roles (Ed.gov, 2019). While a comparison of the mentor models is beyond

the scope of the induction manual, the faculty network is used to support four kinds of mentor models (p.11):

1. the broker who makes introductions possible;
2. the one-on-one who facilitates discussion and feedback;
3. the community design that invites discussion relevant to the new teacher; and
4. network by association that occurs when the new teacher has contact with the people in the mentor's network.

The models are offered as different pathways to diffuse information and practices to provide viable ways to connect new teachers to resources. Dahlberg and Byars-Winston (2019) presented the meso-model of mentoring to serve as the intermediate to the faculty.

The combination of the conceptual framework and the faculty meso-model provides specific, intermediary mentor actions to mitigate the challenges of the probationary teacher. Rincon-Gallardo and Fullan (2016) develop the mentor model further when they include behaviors of informal members of the school network. This meta-analysis of case studies suggests a school structure that possesses ambitious student learning outcomes, develops strong internal accountability through relationships, uses cycles of collaborative inquiry, enables frequent interactions to build connections outward, and secures adequate resources that will sustain the work. These models provide further insight about a faculty system that invests in faculty development with an emphasis on interactions among members to help locate resources.

Theoretically, mentors in the systems described by Rincon-Gallardo and Fullan (2016) are plentiful. The foundational principles of social learning are empowered by behaviors that try several strategies to develop self-efficacy. To begin, Bandura (1989) emphasized the value of vicarious learning to “abbreviate the acquisition process that is vital for survival and because

mistakes can produce costly, or even fatal consequences, the prospects of survival would be slim indeed if one had to rely solely on trial and error experience” (p. 21). This aligns with the mentor’s capacity to help look for solutions by describing what they observe before rehearsing it themselves, performing a single loop (task), or require that additional steps be taken to close a feedback loop. Grainger (2020) found less than 10% of students opted for face-to-face feedback; consequently, this study suggests it is unlikely feedback will happen without a systemic mechanism to have the new teacher engage with the content and a highly efficacious partner (Carver-Thomas & Darling-Hammond, 2017; Grainger, 2020).

To begin the journey of *becoming* a teacher, Allard and Doecke (2017) studied the use of narratives to understand the development of a teacher identity while balancing the management of a complex new setting and policy. Their close examination of language offered insights to those working with probationary teachers and how they might respond to their narratives. First, Allard and Doecke (2017) offered the use of first person to gain insight to the teacher's perception of status among other members to reveal how they feel about them. A well-versed mentor will also recognize that metaphors are an effective and commonly used linguistic device to simplify complex ideas (Schmitt, 2005). The metaphor symbolizes cultural influences that need more explanation. Third, an attentive mentor who listens will respond with questions that lead to interpretation and even co-construction. Arguably, teaching is highly relational, making the narrative a natural method for teacher development. Taking it further, the listener—be it a mentor or researcher—may find it useful to take these social contexts and mitigate the challenges of the first year by developing the teacher’s sense of control. By counting occurrences and contrasting events later, the mentor and mentee can take an even deeper analysis. Aptly stated, Allard and Doecke (2017) recognized the narrative can support identity work of the first few

years because it lends itself to improving awareness as the teacher encounters challenges and undergoes personal transformation.

Observation

Warren and Loes (2019) conducted a small study examining peer observation learning exercises. They discovered the application of this approach strengthened the mentor/mentee in education. Learning that occurs by watching others followed by reflection and discussion can lead to developing the skills needed to gain knowledge of new perspectives and behaviors. Said another way, the practice of observation permits rehearsal (vicariously) when writing is not an option. Furthermore, learning by observation can generate construction of behavioral patterns without risky and tedious trial and error (Bandura, 1989; 1997). This is important when time is limited, or the stakes are high.

The Warren and Loes (2019) study is transferrable as an induction model that employs a group. They had two student groups consisting of one control without observation training and the other with observation training. They were provided with the same negotiation exercise. Each group made a series of decisions with outcomes that progressively compounded with each decision. The group with training performed better initially and both groups improved with each trial. While this study was small, it offered a viable induction characteristic that could be customized to the context of the school and skill sets of the induction group. It had the capacity to measure growth over time and develop the processes of negotiation to improve observation and behaviors that can positively impact self-efficacy (Bandura, 1989; 1997). Arguably this method has the same underlying limitation of time and skill. Therefore, this approach may be used with less frequency and reserved for problems that are most relevant, have multiple outcomes, and are worthy of solving collectively.

Discussion

The studies of Schaefer and Clandinin (2018), Allard and Doecke (2017), Hammerness and Matsko (2012), and Neal (2013) are relevant and emphasize the mentor's ability to listen and isolate the response to the details within a story. Schaefer and Clandinin (2018) examined the identity formation of teachers during the early years as they *become* educators. The stories used in their study were taken from the personal and professional experiences of participants to understand what influenced probationary teachers to stay, shift schools, or leave the profession. Despite the study's lack of a clear conceptual framework, it carried a strong suggestion of social capital when they delineated knowledge as what we have (human) and knowledge for consumption (social); furthermore, discussion about socializing and negotiating context offered support, reflection, and rehearsal as methods to develop self-efficacy. The stories that emerged from this study used knowledge for consumption alongside a university course that engaged students in narrative inquiry. This provided students the opportunity to negotiate existing and new knowledge. Furthermore, the study provided insight as to how discussions should be constructed for meaningful negotiation of knowledge.

The use of personal experiences is valuable when the criteria include a topic, context, and social characteristics to evaluate first person (identity) and content (Norrick, 2013). First, the transfer of Schaefer and Clandinin's (2018) mindful activities about discussion (negotiation) to working knowledge offered an induction characteristic for the mentor to build meaningful content with the probationary teacher. Furthermore, Allard and Doecke's (2017) and Neal's (2013) reported mentor stories predicated on a vicarious purpose were an equally valuable form of discussion. Hammerness and Matsko's (2012) study expanded first-person content with a model that explicitly built on policy with urban and local context (geographical, district, and

sociocultural) before focusing on the children, classroom, and school. Hammerness and Matsko's (2012) study offered a systemic approach to adding context as content to a discussion that also provided a methodology to limit bias. Combining Neal's (2013), Hammerness and Matsko's (2012), and Allard Doecke's (2017) methods extends discussion and the mentor's role to co-narrator from a variety of perspectives. While members need to have equal access to the same general information, this method of discussion emphasizes form and function of the story more than the right answer. Furthermore, it offered another opportunity to rehearse before performing with rich context to explore the environment.

Feedback Loops

Feedback loops are a social mechanism used as a cognitive and metacognitive process that can also serve as interpersonal and intrapersonal support (Carless, 2019; Ford & Youngs, 2018; Mercader et al., 2020). They come as single (task feedback) and double (received, used, and resubmitted) loops, or spirals for more complex activities that require many iterations (Carless, 2019). Success with feedback loops is associated with routine, explicit rules, a common language, and behavioral expectations, and participants are more likely to internalize behaviors that positively influence self-efficacy (Ford & Youngs, 2018; Mercader et al., 2020).

Mercader et al. (2020) performed a comparative study using a quasi-experimental design to measure two different methods of feedback among teachers in a teacher education program. The model pertaining to teachers aligned with my research and provided empirical results not commonly found in the literature. The study followed students for two years and offered an extensive training to receive and give double loop feedback on a case study. This study further aligned with Bandura's social cognitive theory of self-efficacy (1997) when methods were rehearsed and reiterated three times to give and receive feedback. The same students received a

summary the second year and engaged in only single feedback loops. Mercader et al. (2020) discovered that students benefited from interpersonal and intrapersonal factors as well as cognitive and metacognitive process. While both impact self-efficacy, it was interpersonal factors that were most significant in accepting errors, improving self-esteem, and increasing faith in others. Although the data in this sample of 40 students is small, these findings support Bandura's (1997) claim that self-efficacy can be positively altered using single and double feedback loops. Mercader et al. (2020) and Ford and Youngs (2018) both contend that trust among participants was predicated on the interdependence and collective efficacy of the work. Ford and Youngs (2018) concluded that trust reduced the feeling of contrived relationships and proposed to *arrange collegiality* first to set up a more salient interaction with gradual release mechanisms (p. 436).

Algozzine et. al., (2016) extended the concept of arranging collegiality with feedback loops specific to problem-solving teams at a school interested in reducing the consistency gap between interventions while also measuring progress. They defined problem-solving as cyclical and goal-oriented, further aligning with the concept of a double or spiral feedback loop. Algozzine et. al. (2016) used the DORA II (decision, observation, recording, analysis) to consistently evaluate the outcomes of student interventions based on team agreement that used a systemic process with feedback. Therefore, feedback loops deserve further consideration as a social mechanism for probationary teachers when the process is combined with routine, guidelines, a common language, and behavioral expectations.

Growth Plans

Growth plans are commonly a procedural document used by school districts (Bliss & Wanless, 2018; Carver-Thomas & Darling-Hammond, 2017; Stefaniak, 2018). They consist of

independent observations, conferences, and other supervisory interactions with content-specific strategies and measures based on the individual and years' experience teaching (Carver-Thomas & Darling-Hammond, 2017). Conceptually, growth plans include action research and inquiry projects. Continuing contract teachers may have a growth plan, action research, or inquiry on file with the school indicating personal goals and planned professional development. However, the intention of the growth plan, associated with the induction model, is rooted in support, not evaluation for accountability. While accountability at the end of a cycle is valuable, it is a research-based standard to evaluate personal growth for probationary teachers that appears limited within the literature.

The search for growth plans was widened to include studies that examined a whole faculty's capacity, or readiness, for change to take elements and apply them to the induction model. Bliss and Wanless (2018) tested a self-reporting measure of teacher readiness to implement an evidence-based program. The research indicated five readiness themes including need, buy-in, resources, self-efficacy and collective efficacy for staff support. The themes and design of a self-reporting tool led to a critical finding. Bliss and Wanless (2018) discovered it was essential to include a framework to support the implementation process. Similarly, Stefaniak (2018) engaged in a case study of cognitive apprenticeships and provided further support when she wrote about frameworks in her finding that "can employ teaching a strong research agenda in a specific discipline that also emphasizes learning through guided study" (p. 45). While the development of whole school readiness tools and frameworks already exist, it is the growth plan for probationary teachers that has a valid, companion framework that is still limited in the literature.

Bressman et al. (2018) offered a unique slant on growth plans that begins in the first years and extends to continuing contract teachers with more than five years of experience. They suggested expanding mentoring to include continuing contract teachers, arguing “all teachers need time and space to reflect, set goals, and assess their own effectiveness” (p. 163). Bressman et al. (2018) collected perceptions of teachers to identify the preferred modality of mentoring and discovered that 11 of the 20 teachers interviewed were never formally mentored or they provided limited answers to preferred modality, process, and technical procedures. Worthwhile to mention, and perhaps the most compelling contribution of this study, is the Bressman et al. (2018) unstated finding of a potential underlying cause to the functionality of implementing and sustaining an induction model with fidelity. Nearly half of the teachers at this school were never mentored, making it difficult for them to become effective mentors without proper modeling and rehearsal. Not surprisingly, many participants in Bressman et al. (2018) were excited about the concept and eager to develop a plan that was tailored to them to address their questions, uncertainties, and professional needs. Despite being a small study of 20 participants and specific to one school, the study added to growth plans by illuminating a potential deficit among mentors. Therefore, growth plans that include a research-based framework that can also expand mentor training and foster discussions may provide more on the construct needed for the induction model to be implemented with fidelity throughout a school (Bliss & Wanless, 2018; Bressman et al., 2018).

Network Overview

The faculty that can network is vital to the induction model that seeks improvement (Donath et al., 2005; Scribner et al., 2007; Tschannen-Moran et al., 2000). As far back as twenty years ago Tschannen-Moran et al. (2000) began thinking about schools as learning organizations

and how they might develop collaborative strategies to *become smarter*. Their findings and subsequent strides remain relevant. Tschannen-Moran et al. (2000) examined two learning constructs at an exemplar school that demonstrated continuous progress. The discourse communities and cognitive apprenticeships informed a year-long, qualitative study designed to capture the mechanisms for improvement using the resources within the school. They discovered highly collaborative teachers, characterized as planners, organizers, researchers, instigators, and experimenters, positively impacted the process of thinking, increased engagement in debates, challenges, and managed conflicts with a heightened atmosphere of professionalism. Scribner et al. (2007) used a qualitative comparative study and discourse analysis to explore and inform collaborative interaction among school teams. They emphasized the leadership's role to manage team capacity to solve problems led to additional consideration for structure and social dynamics. From this study emerged the three constructs of purpose, autonomy, and discourse patterns continuously overseen by leadership. While these studies did not mention social capital directly, it characterized and embodied what Margaret Wheatley (2006) contends: To permit a living system to learn means it will use its own ability to self-organize and adapt, deepening the understanding of the organization and how individual connections influence the behaviors that lead to improvement.

Network Structure

The basic units of a network structure are the individuals (actors), teams and groups (clusters), or the whole faculty (network) to reflect a collection of relationships (Donath et al., 2005; Lin, 2001). The individual is represented with a node and commonly referred to as an actor. The relational links between actors make up a network of connections that include “friendship between individuals, communication patterns between departments, alliances, or

conflicts” (Borgatti & Ofem, 2019, p. 19) as well as discourse patterns including solicitation of critique and analysis, contextualizing and explanation, responding to feedback and contributing to knowledge base, and consensus building (Donath et al., 2005; Rincon-Gallardo & Fullan, 2016). Donath et al. (2005) asserts that these practices require higher-level thinking to synthesize information and transfer it to working knowledge. Rincon-Gallardo and Fullan (2016) identified several essential features of school networks with an emphasis on leadership. This meta-analysis provided that a school structure should possess ambitious student learning outcomes, develop strong internal accountability through relationships, use cycles of collaborative inquiry, and enable frequent interactions that include connecting (bridging) outward as well as securing adequate resources to sustain the work.

Whitcomb et al. (2017) explained the network’s structure as “predicated on a relational way of thinking in which individuals and groups are structured, embedded, and active social networks” (p. 53). Whitcomb et al. (2017) pointed out that the utility of this approach is to reveal areas of support to promote social interaction among actors to sustain the development of teaching, learning, and school knowledge. Borgatti and Ofem (2019) refined this further by categorizing networks into five basic types: similarities, social relations, mental relations (cognitive and affective), interactions, and informational flows. Therefore, the fundamental concept of a network offers a method to examine the work of Bandura’s (1977) social learning theory when the determinants of environment and behavior are influenced by the relationships composed of five basic structures of social opportunities to build the capital needed to positively alter self-efficacy. Lane and Sweeney (2018) discovered the utility of the network composed of weak ties were far-reaching and used to access resources while the stronger ties were affiliated

with esteemed individuals. While this esteemed title lacked specific definition, it aligns with Bandura's principle of persuasive feedback, suggesting both networks provide value.

Implication of Social Structure

The social structure of a network can influence the induction model by understanding where and how to activate the opportunity for resources in the network (Lin, 2001). The resources embedded within the structure are categorized as personal and social ties. The social ties that link individuals are bonds (similar) or bridges (dissimilar) between actors (Lin, 2001). The social ties are the social capital interactions that are expressive and maintain an actor's legitimacy in the network. According to Lin (2001), "personal resources for most individual actors are very limited [and] more likely, individual actors access resources through social ties" (p. 43). The human capital of one individual grows more quickly when combined with social ties to access a diverse network of knowledge. The first particularly important point for the induction model is to understand that probationary teachers are those who seek a position and legitimacy within the network. Furthermore, Lin (2001) assumes the motivation to maintain resources is the dominant force to prevent losing position in the network. If a probationary teacher must decide between pursuing resources or maintaining what they already have, they are inclined to maintain what is already achievable within their current social circle. Therefore, the second implication for the induction model is locating positions within the network to interact with dissimilar actors, or instrumental capital, to activate potential resources. Lin (2001) delineates between expressive and instrumental capital when he described, "the resource-poor partner needs to be concerned about the alters intention and ability to appropriate resources from them. Thus, both partners in a heterophilous (dissimilar) interaction have to make a greater effort in forging the interaction than those in a homophilous (similar) interaction" (p. 47). This adds meaning and urgency to

understand what social mechanisms within the network cultivate both sources of capital and lead to a variety of resources to preserve the probationary teacher's legitimacy and position within the network.

Conclusion

This chapter focused on the literature surrounding the essential domains of an induction model while informing social and network structure. As part of the discussion, the theoretical frameworks of Albert Bandura's social cognitive theory of self-efficacy and Nan Lin's (2001) social capital theory provided an overview of the tenets shared by both theories to guide the induction process. This chapter concluded with the basic concepts of network structure and social capital to understand the social phenomenon of self-control to grow efficacy when provided by the faculty network. Chapter 3 discusses the methods and procedures used to complete the research.

CHAPTER 3:

METHODOLOGY

According to Merriam and Tisdell (2016), “phenomenology is a study of people’s conscious experience of their social-world [with] an emphasis on experience and interpretation” (p. 26). My role as a public high school administrator establishes my interest in the continuous development of all the school’s stakeholders, but none more than the professional and supportive needs of a probationary teacher. This role provides me with the experience and position to influence induction practices. However, with all the responsibility and limited power to make systemic changes, I needed to select a conceptual framework that can accurately reflect the experiences of probationary teachers while also manage the experiences of faculty they rely on as resources of information, support, and innovation. Therefore, I proposed a phenomenological case study, using a site with a successful induction model, to capture the experiences of each teacher by using their stories and challenges to understand the utility of a faculty network. To understand the social phenomena among a group of teachers can be intimidating. A flexible road map with a variety of relationships and pathways was referred to as the faculty network throughout the study. Its purpose was to understand how the faculty provide access to knowledge for problem-solving and support (Carolan, 2014; Lin, 2001). The following sections discuss a detailed research design that includes site information, sources of data, instruments and data collection, data analysis, the limitations, and ethics of this approach.

Purpose of the Proposed Study

The purpose of this phenomenological case study is to develop a deeper understanding of what reduces attrition with an intentional induction model using the perceptions of three major groups: teachers, mentors, and administrators (Stake, 1995). The contextually rich community

data provided insight about a network structure and interactive behaviors that lead to a self-sufficient, efficacious workforce. The perceptions and insights collected from members with the case study network illuminate the actors, pathways, and behaviors used in this community to cultivate a workforce that can exchange information to innovate and provide support. The social interactions that link network members provided the context needed to learn how the faculty network invests in new members and provides access to available resources (Bandura, 1997; Borgatti & Ofem, 2019; Lin, 2001; Putnam, 1995). Concurrently, collecting insights from a bound group highlights the mechanisms and structural expectations surrounding tasks, skill sets, and the behaviors that develop social capital connections to remain competent, innovative, and healthy during the first years of teaching.

Research Questions and Design

A phenomenological case study provides a method for studying the social interactions of probationary teachers as they acquire the skills and competency needed from veteran teachers. The design uses a holistic approach to answer research questions from the perception of individuals to assess the responses among all three respondent categories.

This study sought to answer the following research questions:

1. How are embedded resources realized and mobilized?
2. What interactions between groups lead from perceived to actual capacity?

Site Information and Participants

Permission to study the induction model began with the selection of pseudonym School X, located in a rural community in Maine. Other formalities taken prior to the first visit included written permission from the superintendent and a letter of agreement from all the participants outlining their obligations and those of the researcher (Stake, 1995). Stake (1995) uses the term

participants to emphasize the importance of data selection. He contends, “selection of data sources can be left too much to chance. The researcher should have a connoisseur’s appetite for the best persons, place, and occasion” (p. 56). Therefore, the site selection for the case study included consideration of the program’s structure, the faculty network composition, and brevity of the probationary period.

When the Legislative Document 898: An Act to Provide for a Professional Wage and Support for New Educators (2019) is enacted by the state of Maine, schools will be obligated to operate within the criterion of this legislation. The criterion align with the research questions that sought to understand the induction program that reflects opportunity for feedback, discussion, observation, and growth planning using the faculty network to create a stable workforce (Carver-Thomas & Darling-Hammond (2017). LD 898 (2019) specifies:

1. the duties and responsibilities of the support and mentoring system in the preparation of a teacher support plan;
2. the description of the duties of the assigned educator responsible for the design and coordination of a teacher support plan;
3. the description of any current or planned linkages the support and mentoring system has or will have with department personnel; and
4. for teachers certified for less than five years, during each year of their probationary period, observations of classroom instruction for a minimum of four classes; and formative feedback and improvement conversations throughout the school year.

School X in Maine is described as a rural school community with 45 faculty, an administrative team, five to eight new teachers and the respective mentors. The district and school offer opportunities for teachers to access personal and professional needs using the

faculty network and an instructional model to team teach, engage in professional learning communities to exchange ideas, and a faculty council to gain information (Carver-Thomas & Darling-Hammond, 2017).

The study began with an introduction with the principal immediately following the University of New England's (UNE) Internal Review Board's (IRB) approval. I provided research questions, an explanation of how the study evolved, and why the school site was selected as an exemplar program (Stake, 1995). This interview provides an opportunity to be transparent and establish procedures for record keeping, recruitment, and confidentiality while providing resources to the host school including pseudonym name and interview questions for members who choose not to interview. Stake (1995) asserts, "a brief written description of the intended case study should be offered; usually, a couple of paragraphs will suffice, but extensive plans should be available upon request" (p. 57). During this time, expectations to anonymize and begin included arrangements for meeting, maintaining confidentiality of data and sources, participant sources, and the participant's agreement to review and validate descriptions from the interviews. Participants will come from a faculty and staff list and be bound to this site.

Identify Participants and Sources of Data

The identification of administrators, mentors, and probationary teachers that participated in the study relied on participants volunteering following a recruitment letter. The teachers who qualify as *new* had less than three years' experience, *continuing teachers* had three or more years' experience, and continuing teachers assigned to a new teacher by an administrator qualified as *mentors*. The criterion for the *administrator* was to have some oversight responsibility for the induction program. Documents mentioned during interviews were also collected and only used as resources to reference during analysis.

The primary sources of data came from questions (Appendix A) asked during semi-structured interviews and the ego-centric notes maintained by me. My ego-centric notes provided an informal way to track the network actors, formal and informal, to understand the relational information, the symbolic use of language, and modeled behavior (Bandura, 1997; Carolan, 2014). The interviews sought to capture the vicarious experiences of the participants and permit me to gather information about the faculty network and social learning norms associated with instrumental and expressive capital forms of exchange (Bandura, 1977; Dias-Lucy, 2017; Hammerness & Matsko, 2012; Lockton, 2019).

Some sources of data also came from short answer, checklist, and rating scales that were set up in questions to generate deeper context. The purpose of the scale and rank question was to obtain a metacognitive explanation of self-efficacy from the participants. This technique solicits their perceived capacity to accomplish a task at the onset of the induction process and simulates capacity at the end (Bandura, 1977). For example, the respondents could be asked to rate their perceived efficacy (magnitude, generality, strength) surrounding classroom management using a scale of 1 through 10. They respond with a number. The impact of this strategy is realized when the respondent explains what it would take to move themselves up the scale. The number is not as important as the response they provide to explain growth with rich, contextual details about their self-efficacy and the resources within the network to achieve the desired outcome (Heath & Heath, 2008).

Instrumentation and Data Collection Procedures

According to Stake (1995), the two principles of a case study are to collect description and use it for interpretation. The description of the participants' account included a balance between *ordinary* and *uniqueness* to draw fundamental meaning with respect to the case study

research questions that seek to use the aspects of the school's approach to invest in probationary teachers using the faculty network (Stake, 1995). This study used a heuristic approach that included semi-structured interviews as the primary sources of data and ego-centric notes maintained throughout the interview. Data collection procedures included:

1. obtaining willing participants and consent to interview;
2. scheduling time to collect the perceptions and vicarious experiences of participants to gain multiple points of view (Stake, 1995);
3. record and upload interviews for coding;
4. member checking the transcript following the interview; and
5. follow the theoretical frameworks of Albert Bandura's (1977, 1987, 1997) social cognitive theory of self-efficacy and Nan Lin's (2001) social capital theory to guide open-ended interview format.

All names were coded to protect individual identity, and the construction of the ego-centric notes supplement and support interpretations (Borgatti & Ofem, 2019). I oversaw data collection for approximately eight weeks to collect network interviews of all participants or until saturation was achieved.

Space and time to schedule semi-structured interviews began with emails and telephone calls if needed. The digital platform Zoom and telephone calls helped facilitate distance interviews that were scheduled when participants provided consent. The interview script, Appendix B, explains a verbatim dialogue transcription of the interview and was used as a source of data for coding later in the process. The consent form includes an interview protocol, to be explicit about the nature of the study, and how participant perceptions during the early interview

would be used. The consent form also outlines the opportunity to review the transcript data and permit a follow-up phone call to clarify questions before making any assertions about the case.

Semi-structured, Open-ended Interview

Questions were developed concerning the social phenomenon of integration to interpret the induction model and the network structure that supports social learning (Bandura, 2000). Overview questions informed characteristics of the induction model and used experiences to provide context to understand efficacy levels (Bandura, 1997; 2000), and the structure and position of faculty mentors revealed embedded network resources (Lin, 2001). The follow-up questions solicited participants' perceptions of pivotal events by characterizing the magnitude of the event, their strength to persevere, and the adaptation of their general skills while following Lin's (2001) model of social capital to understand location within the network to access and mobilize resources.

Questions were tested as a routine with the research affiliate and volunteers from individuals who were not members of the research site (Stake, 1995). For example, piloting a series of questions could begin with an interview technique that solicits a response that identifies and describes an event and follows with questions about the environment, competency level, and prior knowledge. Knowing when to use *carefully created probes* for coping strategy and perceived efficacy expectations required tuning the interview language to reflect questions the participant will understand while still answering the research questions (Stake, 1995, p. 65).

The interviews were recorded and transcribed verbatim for coding to interpret meaning of the leading issues (Saldana, 2016; Stake, 1995). The interview responses were coded for preconditions, formation of knowledge, and the return either gained or sustained (Lin, 2001). The coding process began immediately and these steps are explained further in the next section.

According to Stake (1995), “there is no particular moment when analysis begins” (p. 71), but it is “better to listen, take a few notes, and ask for clarification” during the interview phase (p. 66). These stages run concurrently through both theoretical frameworks and were used to deconstruct participant responses. First, the preconditions codes examined position in the hierarchy and diagnose self-efficacy early in the process (Bandura, 1997; Lin 2001). Second, the formation codes examined guided mastery mechanisms and connections (Thomas-Carver & Darling-Hammond, 2017). Third, return codes examine the returns gained or sustained and checked in again on self-efficacy (Bandura, 1997; Lin 2001). A reconstruction of the account followed the interview to create a facsimile of what the participant meant more than their exact words (Riessman, 2008; Saldana, 2016). This implies that a level of interpretation began immediately and continued throughout data collection. Therefore, I left seven to ten days to balance enough time between reconstruction and member checks with the participant to update the research notes and maintain *context* without losing *innuendo* (Stake, 1995). Ego-centric notes were maintained to mitigate the collection and analysis burden of the connections among members and to assist in the qualitative interpretation of context and association (Luxton & Sibicca, 2021). Luxton and Sibicca (2021) emphasized understanding the context and content of a network structure to interpret what quantitative analysis conceals in binary codes. They discovered a qualitative approach to understanding the social mechanisms that shape relationships, particularly patterns of collaboration and resource allocation. Qualitative social network analysis can provide a deeper understanding of the network *story*. A focus on the content of ties and relationships with interviews and content analysis can contextualize network measures to understand why and how different nodes in a network occupy their position (p. 164). The qualitative study can extract the different resources available and the response from the network. Interviews collected this

information and were used to look at groups within the network with respect to their roles. An online tool such as Pratley's Leader BoardX depicted a crude network to visualize as it materialized with each interview and as analysis evolved. This allowed me to visually depict the probationary teacher's network and balance the cognitive load to interpret context and adapt probing questions.

Data Analysis

According to Stake, (1995) "analysis means taking something apart" (p. 71) and "give meaning to the parts" (p. 71) to understand how all the parts are related. The process is iterative and begins immediately with first impressions and lasts until the final assertion (Stake, 1995). In this case study, categorical aggregation was used and informed by theoretical frameworks of Bandura's (2000) social learning of self-efficacy and Lin's (2001) social capital to conduct direct interpretation from the two primary data sources, semi-structured interviews, and ego-centric notes. Sequencing, categorizing, and tallying supportive impressions were needed as well as piecing *together isolated content* to reach a conclusion that may not be standardized or objective (Stake, 1995). The goal was not only to describe the *induction model* or the *faculty network*, but to make sense of how the induction model operates within the structure of the network to understand the phenomenon of self-efficacy (Stake, 1995).

Interviews began with consent and were recorded by a virtual meeting platform like Zoom. The first of three tracking sheets included the date, grade, gender, years' experience, time, and space to track member checking completion. A majority of the tracking is dedicated to a transcription of the interview using a software like Rev.com, research notes, and preliminary coding by software like Atlas.ti. Codes were assigned a symbol and used to identify relevant text depicting the tenets of the theoretical framework, content specific to research questions, and

emergent topics. A second sheet refined the symbolic categories using a line-by-line approach (Stake, 1995). This allowed patterns to emerge while maintaining the ability to trace contact to its origin. The perception data was analyzed and transferred to a third sheet to track sources of efficacy as either *induction* or *network* and by tenet of the efficacy theory. This table depicts total induction mentions and total faculty mentions by theoretical category. These tables informed assertions that align with research from the literary review while providing context to answer the research questions.

Semi-structured Interview

A phenomenological case study calls for semi-structured interviews to capture the human experience with individuals who have direct involvement with the induction model (Merriam & Tisdell, 2016). Participants answer background questions before leading into descriptions of vicarious experiences. Interview questions include a pragmatic approach to raise awareness of the induction process, collegial interactions, and utility of the network to understand what influences efficacy (Penuel et al., 2009). Ennis and West (2012) explored the asset-based community-level work in a study that began with a pre- and post-network assessment of structure and composition. The research team's direct work with the community revealed an emergent network when members were encouraged to discuss and dialogue changes in the community structure. Even when statistical measures were not available, the social network questions deepened understanding of the relationships that bond and bridge members. To begin, skills and competency, feelings, environmental factors, descriptions of their performance, and the coping strategies used during challenging times inform interpretations while providing room for unexpected content. Network actors will be recorded by me as they are named by participants,

providing additional context to understand how the structural, behavioral, and competency of the network contributes to the social phenomena of integration. This is covered in the next section.

Participant answers were refined for self-efficacy, outcome expectations, and network analysis using the tenets of each framework. The answers that describe awareness, vicarious modeling (observation, storytelling), verbal persuasion, and motivation were assigned efficacy codes. To distill outcome expectations, the respondent's answers require additional codes not limited to recognizing metaphors. Research analysis of metaphors is an effective tool to understand participant responses when they use this linguistic device to simplify and explain complex ideas (Jarzabkowski, 2014; Schmitt, 2005). All the codes discover and interpret the perceptions of outcome expectations held by the network. Furthermore, these codes were analyzed to identify portions of the interview that speak about the magnitude of the task, generality of mastery, and strength to persevere (Bandura, 1977, p.193).

Lin's (2001) social capital model provides analysis at three stages: the preconditions, the formation of social capital by means of the induction model, and the expected return. The preconditions begin with questions about the participant's (ego) understanding of the network. Lin's (2001) theory narrowly describes social capital as bound to a hierarchy and characterized by structure and one's position in the network (Lin, 2001). Therefore, questions solicited the participant's characterization of the structure and their perceived position in the network based on the alters in their social circle that serve as mentors from the induction model, colleagues, and the gatekeepers of the network.

Participants explored the formation stage of social capital by identifying personal events that they characterized as pivotal during their probationary development. Events may include induction model activities as well as any experience that occur with other faculty. Responses

revealed access and availability to the most valued resources and include follow-up questions to garner descriptions to clarify the coping strategies they used and the expected outcome.

Questions probed for the most resourceful interactions between probationary teachers and veteran alters to understand what characteristics of the induction model produced reciprocity among faculty members.

Finally, participants were asked to use the rating scale to evaluate their perception of expected return during the induction cycle. Participants rate the outcome of any given experience using a 10-point scale to associate personal self-efficacy with network stratification. This informs how probationary teachers, veteran teachers, administrators, and mentors perceive and balance bonds and bridges within the induction model to workforce stability. Lin asserts, “the relative frequency and intensity of instrumental (bridge) and expressive (bond) holds the key to determining the dynamics of stability” (Lin, 2001, p. 249) and different perceptions are of great interest.

Ego-centric Notes

The analysis of the ego’s network is maintained exclusively as notes to use as a resource to support or challenge conflicting reports. The alters mentioned by the ego participant during the interview may inform the structure of the faculty network, create additional codes, and reveal stratification patterns of successful scenarios (Bandura, 1977; Durland & Fredericks, 2005; Lin, 2001; Putnam, 1995). Durland and Fredericks (2005) offered clarity on the application of social network analysis as a methodology to improve organizational effectiveness. This form of analysis looks at relational data and offers a method to determine the value of the relation, the social context, the behaviors behind the relationship, and the function of the process. A research question might ask participants to name members with whom they work to reveal a cluster of

emerging leaders or a mechanism central to the process. Durland and Fredericks (2005) argued that social network analysis offers a systemic way of thinking about the parts with respect to the whole. The ego-centric notes follow a similar informal practice using pseudonyms to stratify expressive and instrumental social capital. Names are recorded and connected to interviews as their names continue to emerge. The vicarious stories of probationary moments invariably included actors from the network creating no additional work to recruit interviews. Maintaining the ego-centric notes captured valuable information to revisit later during analysis while having no expectation to code, analyze, and member check.

Limitations of the Research Design

I present the issue of trustworthiness to explore the limitations of case study. While this qualitative approach collects the information omitted by quantitative studies, the perspectives, the emotion, details, and nuances require careful consideration to mitigate the impact of dubious, contested, and key interpretations (Stake, 1995). Creswell and Creswell (2018) described limitations as weaknesses or problems associated with the study. This methodology created a great deal of data that requires sorting for meaning and assessing its value to the study. The time spent reconstructing the description and verifying accounts needed to emphasize responses that are relevant to the research questions (Johnson & Christenson, 2008). This raised the matter of triangulation. Stake (1995) asserted that triangulation helps delineate between uncontested and critical assertions that range from little effort to extra efforts to confirm. Therefore, a methodological approach is to triangulate the most essential data using a protocol for the most contested, member checking for dubious or confusing descriptions, or both for key interpretations (Stake, 1995). The limitations are explored in more detail specific to credibility, member checking, transferability, dependability, and confirmability.

Credibility

According to Bloomberg and Volpe (2016) credibility is aligning the perception of the participants with the researcher's portrayal. The triangulation protocol in this study used several strategies to validate dubious items in the field notes. First, the practice of coding items will occur within 24 through 48 hours of the interview. Stake (1995) proposed labeling items with the Greek symbol Δ *delta* to launch investigator, theory, or methodological triangulation (Creswell & Creswell, 2018; Stake, 1995). Second, triangulation begins and seeks to find the behavior occurring in several different settings before making any assertions (Stake, 1995). The method is reserved for the most essential data and includes reviewing documents, the framework, and if needed, a second opinion with the affiliate. Third, the affiliate in this study has a background in psychology and a strong command of the theoretical framework. This builds in reliable meaning behind interpretations that are more difficult to interpret (Merriam & Tisdell, 2016, p. 208). Finally, bracketing was used at the onset and throughout the collection and analysis process to articulate my role, bias, and beliefs in writing (Chan et al., 2013).

Member Checking

Case studies present a combination of perspectives that can cross roles and cloud meaning (Stake, 1995). This creates a limitation that requires clarity be obtained to develop the true meaning as it relates to the site. To mitigate this limitation, the routine procedure for data collection always includes member checking. All participants are permitted to review the transcript to make sure it is recorded accurately (Riessman, 2008).

Transferability

The results of this case study are drawn from factors specific to this site culture, language, and politics, limiting the transferability to the reader and their own experiences. Of

course, the reader may find details so familiar to their own experience, they add this case study to their collection of vicarious experiences and even draw associations. However, it would be an error in judgment to conclude any corollary connections. For example, the ego-centric notes used in this study rely on the perceptions of the participants interviewed. This study does not capture a complete network and nor is that the purpose of the case study. Therefore, to mitigate the limitation of case study, procedures are explained throughout, so the reader may choose to duplicate efforts at their site.

Dependability

The procedures stated and used in credibility and transferability will strengthen dependability. The coding process asked the affiliate to code several interviews to establish inter-reliability and accountability (Bloomberg & Volpe, 2016). Furthermore, documents provided by the host may be collected, but not coded, and used for reference if needed.

Confirmability

Confirmability in qualitative studies must remain reflexive while also tracking data collection back to a state of origin (Bloomberg & Volpe, 2016). Furthermore, the study is designed to be replicated, using common sources of data, and the theoretical frameworks to serve as guides. Therefore, the standard of confirmability is relatively high in this study using the tables listed in Appendix C.

Study Limitations

The descriptions, analysis of language, and contextual background uncover the underlying motivation to act not only motivated by a goal but “from the fact that people respond evaluatively to the behavior” (Bandura, 1977, p. 161). This captures the research questions and the perception of self and others within the faculty network. The social phenomenon of learning

for the probationary teacher is what drives a deeper understanding of the behavior motivated by self-efficacy and the expectation outcomes from the faculty. The characteristics of the induction model that combine these variables for the probationary teacher become important to solving problems, gaining information and support, and contributing to the research on teacher attrition.

Participant Rights and Ethical Concerns

The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research Belmont Report (1979) established principles of protection for participants. The fundamental, ethical guidelines include respect for persons, beneficence, and justice. Participation in this study was entirely voluntary. To show respect for participants they received the information sheet form outlining the study to inform their decision to participate. I obtained consent from every participant. Each participant had the right to stop the recording, interview, and even drop out of the study without warning or repercussion. To meet the standard of beneficence the study was assessed of risks and benefits by a review board to demonstrate it strived to do good for the participants. The concept of justice required careful selection of participants using equitable practices.

To balance the merit and ethics of the study meant weighing the cost of doing nothing at all versus employing this narrative study. To do nothing would sustain a steep trajectory of teacher attrition at the cost of a community, whereas the benefit of the study is it may reveal a new induction model and approach embedded in the advice network present in all schools. Furthermore, care was taken to safeguard data and participants who were made aware of all protections including how the data is stored and coded using APA (2010) guidelines.

Summary

The literary review emphasized how new and probationary teachers within the organization remain vulnerable when organizational knowledge and values are not meaningfully integrated during the induction model (Dias-Lucy, 2017; Garmston & Wellman, 1998; Ingersoll, 2012; Ronfeldt & McQueen, 2017). The study proposed to deepen the understanding of how work, personal, and professional conditions are supported with mechanisms that begin with an induction model extending to the faculty network. Examining the faculty network using the perception of new members enables the study to focus on an induction model the can access and activate social capital for probationary teachers to build connections and competency (Bandura, 1977; Carolan, 2014).

The methodology of phenomenological case study isolates the observations of the network from multiple perspectives. The experiences and perceptions of administrative, probationary, and mentor teachers provided context to understand the phenomenon of integration as a social experience reliant on the structure of the network. The epistemic and vicarious accounts of the respondents permitted a unique look at the characteristics of an induction model concurrently with efficacy, performance, and supports embedded in the network. This approach provided me with an inside look at an exemplar network to construct meaning using the theoretical frameworks of Lin's social capital (2001) and Bandura's self-efficacy (1997, 2000).

CHAPTER 4:

RESULTS/OUTCOMES

The purpose of this case study was to develop a deeper understanding of what intentional strategies during the formative years influenced the reduction in attrition among new teachers using the perceptions of three major groups: teachers, mentors, and administrators. The participants in this study worked together on site at School X as educators that qualified as *new* with less than three years' experience, *continuing teachers* with three or more years' experience, and continuing teachers assigned to a new teacher by an administrator as a *mentor*. This chapter presents the findings of the present study, which are categorized into themes and subthemes that were identified during the data analysis process. A review of the methodology employed in this study is provided below.

Brief Review of Methodology

Participants who met the criteria detailed previously in Chapter 3 were recruited and interviewed for this study. Participants were asked a set of interview questions specific to their years of experience to collect the data needed to answer the research questions. Interview questions focused on relationships formed within the faculty network to understand how the teacher network provided new teachers with access to information and support with the embedded mechanism needed to become effective problem solvers. Each participant had the opportunity to conduct a member check of his or her own transcript. Once member checks were completed, each transcript was entered into Atlas.ti for coding, organization, and interpretation. Four themes emerged from this process: Becoming an Educator, Critical Conversations, Faculty Network Mechanisms, Leader Ownership of the Network and Obstacles, and Professional Returns and Network Stability.

Each theme produced its own subthemes. Becoming an Educator included the subthemes (a) *Personal Background*; (b) *Prior Experiences*; and (c) *Mentors*. Critical Conversations included the subthemes (a) *Building Professional Assets*; and (b) *Peer-to-Peer Mentoring*. Faculty Network Mechanisms included the subthemes (a) *Network Map*; (b) *New Teacher Cohort*; (c) *Culture Climate Club*; (d) *Faculty Meetings*; (e) *Data Review Meetings*; (f) *Department and Professional Learning Teams*; (g) *Two Plus Two*; and (h) *Leadership and Capital Meetings*. Leader Ownership of the Network and Obstacles included the subtheme (a) *Ego and School Politics* and (b) *Bonds and Bridges*. Professional Returns and Network Stability included the subthemes (a) *Shared Responsibility*; (b) *Perceived Self-Efficacy*; (c) *Social Capital Acquisition*; (d) *Solution-Based Mindset*; and (e) *Reflection*. The following section presents the method of analysis, the results, and a summary.

Data Analysis

Study data was collected during 40-minute interviews with each participant. Once a member check was conducted, data was coded, organized, and interpreted by using social capital theory (Lin, 2001) and the social cognitive theory of self-efficacy (Bandura, 2000). The following section presents coding, organization, and interpretation of data.

Coding

Each transcript was member checked by the corresponding participant. Once the member checked transcripts were received, that document was converted into a Word document and imported into Atlas.ti. In Atlas.ti, each transcript was read prior to coding. Both social capital theory (Lin, 2000) and the social cognitive theory of self-efficacy (Bandura, 1977, 2000) concepts were used to guide the analysis. Once I established the codes, I reread the transcripts and coded the text to develop themes and subthemes (Appendix D).

Organization

After coding all the transcripts, the quotation report in Atlas.ti was used to organize the data. I created 30 heuristic codes to assist me in organizing the themes and subthemes that evolved through the coding process and established the prefixes (a) *preconditions*; (b) *formation*; (c) *social learning*; (d) *mechanisms*; and (e) *returns*. An additional code specific to metaphors was used to categorize structural or relational expressions. Quotation reports from transcripts were coded, organized, and presented in a logical manner.

Interpretation

After finalizing the organization of the networks, nodes, and quotations, I began to interpret the data. Social cognitive theory of self-efficacy (Bandura, 2000) and social capital theory (Lin, 2001) were used to guide the process of interpretation. First, the data was organized by compiling information regarding the participants' perceived self-efficacy with respect to career challenges, capacity, and strength to resolve problems, and the conditions specific to their development as teachers. The data was viewed again through the lens of social capital theory (Lin, 2001) to explore the context of the preconditions within the organization that lead to the formation and return of social capital. The data was then viewed through the tenets of social learning (Bandura, 1977) to understand the most salient forms of learning that influenced their self-efficacy. Select data required additional codes to understand the metaphors and symbolic use of language to describe modeled behavior, school structure, and personal development (Bandura, 1997; Carolan, 2016; Schmitt, 2005). By using both social capital theory (Lin, 2001) and the social cognition theory of self-efficacy (Bandura, 1977, 2000), I was able to minimize the biases discussed in Chapter 3 to focus on developing a theory-driven interpretation of the data.

Presentation of the Results

The following sections present the findings from each of the themes that emerged as organizing structures for the data: (a) Becoming an Educator, (b) Critical Conversations, (c) Faculty Network Mechanisms, (d) Leader Ownership of the Network and Obstacles, and (e) Professional Returns and Network Stability. The subthemes developed within each theme are also presented. As described in Chapter 3, each participant was offered to select his or her own pseudonym, and all references to participants in the sections below use pseudonyms selected by participants or assigned.

Becoming an Educator

All seven participants had earned at least a bachelor's degree at a university while four participants had a master's and one was dual certified. Each participant was asked to describe their background and role at School X. The participants were all employed with School X from one to seven years prior to data collection. Of the seven participants, three worked in a team in which their work involved creating, grading, and analyzing data related to student outcomes, communicating with families, and behavior modification plans. One participant was an administrator and former educator, two participants served as full-time mentors while managing several other roles (literacy coach, data coordinator, certification director), four participants were full-time teachers, and one teacher shared students among all seven teams.

Personal Background - Teaching is What I Know

All but one participant described the pursuit of education as a career choice linked to personal connection to someone in their immediate circle of contacts including a career change to mirror a spouse, following the pathway of a mother or father, or assuming the role of a colleague after several years of shadowing.

Mick

Mick had been working at District X for almost 32 years. He had a bachelor's degree in education from an in-state university with a concentration in mathematics and a master's degree in educational leadership. Mick described the work at School X as a puzzle and the people and programs within it "as the glue." Mick said, "I mean a secretary that knows how to work with people is so crucial. The goal of a good leadership team [and] a good mentoring process is to get teams better and get each team to be highly functional without moving teachers around. I think we have enough glue to the puzzle that kind of keep all our pieces together." When asked if he had utilized his degree in his current job, Mick explained: "Well, that depends on leadership and depends on collaboration; depends on school-wide goals, depends on what we're doing. You need some pretty good leadership to convince people this is an important conversation. I think a lot of times those [critical conversations] aren't in books."

Ella

Ella had worked at School X for the last four years. She obtained her bachelor's degree in English from a state university. Ella was an educator whose work included roles in public schools as a special education technician and secondary English before assuming her current role as literacy coach and lead mentor. When asked to describe her job, Ella said:

We [second lead mentor] divided [responsibility for] observations and formal meetings. It's a little tricky because as we know, when you're working with a mentor or mentee it's non-evaluative and what happens within those walls/conversations. The support given really shouldn't be going to admin at all. But what plays tricky for me is that I'm also the literacy coach. I have the dual perspective of needing to support them in the role as a

literacy coach and also needing to support them as their mentors, so definitely has played interesting at points with what information I can and can't necessarily share.

When asked how her experience has transferred to her roles, Ella explained:

I have an expertise [curriculum] and the other mentor has her expertise [data analysis].

And I am not as good at the analysis portion of the data [and will recommend], 'Why don't you work with Lauren on that' even though it might be my mentee. We really play off of each other, each other's strengths, and guide the new teachers to one another based off of their need.

Lauren

Lauren had been employed at School X for almost 15 years. She completed undergraduate work in anthropology and sociology before completing a teaching degree and master's in curriculum instruction at an out-of-state university. At School X, Lauren was a literacy coach for nearly 10 years and supported the local chapter of interns at the district level before assuming her current role as data coordinator and lead mentor. Lauren described her job in the following way:

But we try to put them [new teachers] on a team that has good support and give them a person in their department that is like your go-to for the department. I also run the [data] program here and I've mentored 30 plus teachers over the course of my years.

When asked how she had utilized her degree in this job, she explained with an anecdote and description:

What I found with literacy coaching was that I did a lot less coaching and a lot more kind of systems work in the school. I became the district test administrator, all sorts of things like that. I was running all the reading and math interventions at School X. I went to them

[leadership] and said I think you should hire a literacy coach and make me some sort of coordinator. I said I would like to be the intervention coordinator because I work on academic and behavioral interventions with kids and teachers. They changed my title and then ended up hiring a literacy coach to take that piece off my plate. [Now], we talk about those level threes and that's the principal, assistant principals, school psych, both guidance counselors, the district health coordinator, and we will discuss those kind of larger issue kids that are typically a family issue. And we try to put interventions in place that are outside of what the teachers are doing.

Candia

Candia had worked for School X for 3 years. She had completed a bachelor's degree in education from a state university. She went on to explain she taught locally as a special education technician because student teaching went by very quickly and she felt unprepared to take on a classroom of her own. When asked to describe her job, Candia said:

The first year I called my parents crying every single day because it was the hardest thing I've ever done. It was quite eye opening. Part of the reason we moved was because I didn't even know if I wanted to teach anymore. This has been so overwhelming and difficult. At least at School X there is a curriculum, so that was a much different experience.

Candia described how she had utilized this degree in her job by saying:

I think there are so many things that you experience, you have to experience firsthand. No amount of college courses or even student teaching can really prepare you for some of the things that come up. I think that's why we see a lot of first year teachers leave, unfortunately.

Gail

Gail was employed at School X and had been working there for two years. She graduated from a state university with a teaching certificate before pursuing a master's and second certification (English and mathematics). When asked to describe her job, Gail said:

I think of the tools that I use all the time, and what the teachers that I taught under use; kind of like, what would they have done type situation (especially with behavior management)? That's kind of where I really reflect a lot. I would say almost all of my teaching internship, I still think of on a daily basis.

Gail discussed how she transferred her student teaching and degrees in her current job as follows:

I make sure students know the rules ahead of time - know what the consequences look like, ahead of time. Kind of like a no-surprise-type teaching and clarity as well. One of the little things that I learned in student teaching was I finished almost all my sentences with, 'okay?' And she [mentor] told me, you're asking them a question. Don't ask them questions and lead with authority and say statements instead of questions.

Gail continued to use that vernacular throughout the interview despite acknowledging it in her response.

Doug

Doug was employed at School X for less than one year. He had a Bachelor of Arts in anthropology and geography at a state university and a certificate to teach. Doug explained his background as having "deep ties to education" in the following way, "There was a program I was in for all my schooling [grades 3-12]. And by the time I got to, I'd say middle school, I started to go down and help the younger groups, then in high school helped the middle schoolers, and then

got out of high school and one of my first jobs in education was working as a counselor. I've just always kind of been working with kids, and then just teaching what I know. And so that's kind of what drew me into education.” When asked if he had utilized his degree in his current job, Doug said:

I love what I studied in college, but not much of it’s applicable to seventh grade. It was an interesting process to reteach myself and definitely the perspective I have informs how I'm going to teach what I teach, but [I am] not really covering any of the same material that I studied in college. My education in the world of anthropology had to do with looking at racism through an anthropological lens in American history. And then the other side of it was largely ecological and studying environment. It's kind of funny being a seventh-grade social studies teacher now.

Leigh

Leigh was employed at School X for nine years. She was a special education teacher and conducted research toward a master’s in curriculum and concentration in after-school programming in an urban setting. Leigh described her calling to teach as “a turning point” that occurred when she served as a substitute teacher at a local school between semesters during her undergraduate work in journalism and graphic design. She told the following story:

I was subbing in a classroom and I was sitting with these two girls. They were twins and I was talking with them when suddenly, a bunch of people were standing in the doorway. [She recalled] ‘I don't know what's going on? What is the big deal?’ One woman was crying actually; [because], there were these two little girls that had been in school since kindergarten, and they had never spoken a word to another school adult. They were select mutes chatting away. And I feel like that was kind of a turning point for me.

She said the experience left her to wonder if she had a “gift with kids.” She consulted with her mother who was an educator herself; ultimately, she changed her university study to special education and instruction. She held positions in special education and English at schools for nearly 15 years.

All the participants had studied at different colleges throughout the northeast United States of America and went on to establish careers in education with a much different trajectory as demonstrated by how experiential knowledge that was transferred to the job. In discussing their educational journeys prior to commencing their careers, all participants described having some experiential, on-the-job learning and dialogue with colleagues, mentors, and family that helped them manage tasks when they encountered obstacles of magnitude. The following section describes these critical conversations.

Prior Experience

Two participants reported their journey to education started as children. Doug and Gail pointed to a parent and immediate family member modeling teaching as a fulfilling career. Doug complemented that with a unique personal experience that permitted him to work with children in a circus program and served as a student, mentor, and counselor. He described the experience:

I started with this group in third grade which was—is—a children's circus group. That's a program with a unique thing about it and why I bring it up—is it runs from third grade to 12th grade. There was a program I was in for all my schooling. I've worked as a circus counselor for the past three years in the summer. I've just always kind of been working with kids and just teaching what I know. And so that's kind of what drew me into education.

Gail shared a similar lineage that she traced as far back as her elementary years. Like Doug, she attributed her pathway to her aunt and uncle as third and fourth grade teachers. Her curiosity reached back to observations of teachers and inspired a pursuit to study professional learning communities during her internship and master's. She revealed more interest in the faculty network when she disclosed her experience with structural organization:

I went on to focus on PLCs and different ways that professional learning communities are organized in different schools. It's something that I think about from my own education all the time.

Candia described her prior experience as academic and a series of tests. She responded with a less traditional trajectory to slow her integration as she refined her skills using a series of positions with gradually more responsibility. She described a variety of teaching positions before she secured the job at School X.

I took a year to be an aide at the school where I student taught because I felt like my teaching experience went by very quickly. And I didn't feel quite as prepared to take on being in a classroom of my own at that point, so after that year, I ended up getting a full-time teaching position in school in [a remote location]. And it was at a very tiny school and a much different demographic where I taught as an ed. tech.

She reflected in her choice to teach as she compared learning to teaching. She described the contrast between what she thought about teaching to acting as teacher. She described that moment:

I find that people that go into the teaching profession often did really well academically. And you have all these people that are striving to do really well and be appreciated. Then

you see the scope of the job and realize that it's not possible [as imagined] there's some things you just have to do with mediocrity.

Mentors - Fixers and Floaters

Mentoring models are often left to local districts to design. A veteran teacher within the same department is often assigned as a formality to meet with the new teacher, but this does not always occur as intended. The essential component of a meaningful mentor is relationship. This is emphasized by all the participants as something they hope to deliver and receive. The visual metaphor of a puzzle initially suggested by Mick helped imagine the interlocking pieces that are missing for new teachers and how the mentor model at School X strives to assemble it for the class of 2021 and 2022 teachers. He described:

It's a grind. You got to stay on it. And you got to keep your priorities pretty visual and what you're doing. It can quickly go down a few notches if you don't stay with it.

The mentor model at School X prioritized visualizing the outside edge of the puzzle for new teachers before sorting the network into colors. Lauren and Ella take a heuristic approach to pull together the puzzle for Mick by engaging with each piece frequently before reporting back to the leadership team. They both have an office located close to a cluster of classrooms and they share an adjoining door. They allow teachers to have access to them and for problem-solving in real time. Lauren described:

I would consider us kind of like fixers and floaters in a school. We don't teach classes.

We are almost like quasi-administrators in a way and I am always on my cell phone. I'm part of the leadership team, which is comprised of core teachers, guidance, global teachers [electives], administration, and myself. That's the way we disseminate information and make some decisions. I have Google chats always going and people are

messaging us left and right with questions and issues. We are pretty much like immediate response to them.

Ella's description of the mentor work includes the whole network. She described having an open-door policy. She continued:

I think it is really important and sometimes means putting my work aside and having teachers come in here, whether they're a new teacher or a tenured teacher, and being able to shut my door and close my curtains to have those moments of vulnerability. And even if that means I have to work later at night, because I didn't get what I needed to do done. I think this school is about being approachable; building a foundation of trust.

When asked about the mentor program all participants confirmed emotional support was high, but all three participants revealed the topics in the group were limiting based on their needs and the environment was negative despite the efforts of the mentors. All three participants identified curriculum support as a need. Doug had this to say:

In terms of emotional support, I would say [it's] very high. I feel very supported. And I feel very backed up by the admin and the other faculty that I work with. Now in terms of continued professional development... I guess this is the way to put it. I don't feel like anyone is checking in on me. Like not even a little bit. For instance, I'm really behind on grading right now. That's something that I'm struggling to keep up with while also producing curriculum. It's a little nerve-wracking.

Gail also requested more curriculum development when asked about the mentoring program. In her response she described a better understanding of the whole network and what other subjects teach. She said:

I think adding in prof curricular development for a new teacher. I don't know what the other seventh grade teachers are teaching. I'm teaching ratios and proportions [and] in social studies, they're doing the civil rights movement. How can I make those two things connect? And I think that's what would help me be a better teacher if I had a better lay of the land.

Candia, now in her third year and no longer a member of the new teacher group, requested more structure to the visual plan implying a need to build connections still existed after two years. She stated:

I went through the new teacher program, but it would be nice to kind of see the whole scope and sequence that the seventh graders go through and kind of be able to just have a better general understanding of what their year is going to look like, with all of their teachers and not just for me in math. For me, what was more valuable was to get to know how people navigate the curriculum and family outreach in our school.

Leigh was the most veteran of the participants and took a long pause when asked how she described the school organization to a new teacher. She admitted, “the first year was pretty chaotic” and due to the complexity of the schedule. She recalled a recent conversation with a new teacher:

I was just talking with somebody about this because they were trying to figure out the schedule we have. Other people see it as odd but once you live it [that improves]. Here we have a waterfall schedule. It was really complicated trying to figure out where people were, at what time, and trying to find out who my go-to people were for support and help. I think also just feeling like everybody is pressed for time and trying to distill down exactly what it was that I needed for help and the go-to people for those certain things.

Critical Conversations

Each participant reported the importance of dialogue and conversation with an *expert, leader, mentor, new teacher cohort, team, or school family* while in their current position.

Critical conversations consisted of Building Professional Assets Using the Power of the Truth and a Tight-Knit Family. All participants retrieved and referenced more than one critical conversation to represent a source of knowledge that described a difficult task that led to a strategy to improve their self-efficacy. The experiences among participants were not all regarded the same. In the following sections the conversations within the network are described.

Building Professional Assets - Using the Power of the Truth

Learning in schools among children and adults is constructed in groups where common characteristics among individuals. This creates the opportunity to acquire knowledge by association in a trusting environment to discuss, debate, reenact, and exchange stories. The data suggested that each participant found this type of environment as they recognized their own perceived self-efficacy for tasks outside their individual knowledge-base. They identified people, places, and strategies to reduce the magnitude of the job when things were getting difficult. According to all participants, the most helpful discourse patterns described specific action or advice to reenact the information and increase self-efficacy.

The most veteran participants explained how they approached the network relationships and structure using critical conversations. For instance, Mick immediately acknowledged “I am not good at a lot of things” to emphasize how he relied on Ella and Lauren to support the new teachers. The current new teacher cohort of 10 teachers was split among them and they took time to observe, meet, and run scenarios together to find the right balance of verbal persuasion (feedback) based on their collective background in curriculum, instruction, data analysis, and

connections throughout the building. This permitted Mick to work on matters of supervision, evaluation, and using a reactive style. This style of leadership is based on an action that is familiar and previously used. He described:

I'm a leader that allows and almost begs people to get coverage and take care of your [family]. What do you need to do? Especially with COVID, we really hit the self-care button and drag out a table and pick something to vent about. Let's do something. Let's talk about solving it here.

Lauren described her experience with people that have not realized success due to very difficult situations. She described what she might say to Ella when wondering if they should be teaching. She said:

Are you sure that this is what you want to be doing? Because this doesn't seem to really fit your skill set?

She admitted she is direct and more proactive. She went on to say:

I see you more at an alternative school. I don't see you at a traditional school. Or, I see you teaching in the corporate world.

Ella reported responding with a vicarious tool to explore someone else's story and transfer that knowledge to their current situation. She referenced an article used with new teachers to facilitate a group discussion in the new teacher cohort meeting. The approach blends the proactive and reactive model, causing an increase in awareness while maintaining professional discourse boundaries. Her description of one article discussion follows:

The article is "Find Your Marigold: One essential rule for new teachers" by Jennifer Gonzalez. It's amazing, and we share it with our new teachers. It's about how a walnut [tree] is extremely toxic to the environment around it. We share that with the new

teachers in the very beginning. The idea is to build these relationships and to make sure you're focused on surrounding yourself with a marigold who is positive. Lauren and I spoke with leadership about strategically placing these new teachers, because sometimes we're placing them with some of our walnuts and they are not lasting as long as they should be. They go down that tunnel of being very negative.

All the newer participants retrieved and described the discourse pattern that occurred informally and frequently throughout the day. For instance, Doug provided:

You have this living, breathing sort of organism that is a classroom environment. And, prior to actually ever really being in a classroom and being in charge of such a system and being given advice, on things like 'don't call out students, try not to use that, negative punishment versus positive punishment' or some things along those lines. I remember being told a lot of don't do this or don't do that.

Doug described the discourse that matches his style of learning by saying:

I'd like to sit [in] on other classrooms right now. I would like to have other social studies teachers be sitting in on me, because it was the second half of my internship where I really got the attention when I had someone in the room saying you could have handled this situation a little bit differently. And that's kind of what I feel like I've had for the last four or five months. I'd say coming into this year, I was at maybe 40 or 50% of what I know now.

Like Doug, Gail turned to the teachers on her team. She described looking for the conversation in several different locations by saying:

We don't meet as often. As a new teacher, I would like to meet with my team every day. I would ask them all my questions. But with my department, I asked them what are you

doing? This is what I'm seeing? What do you recommend? I'm not shy about asking for help when I think it's needed. I usually go to my supervisors or my mentors and people who I know have the same students and are seeing the same things in their classrooms. I even talked to the teacher right next door to me all the time to see what she's doing.

Candia had more experience in the building and described her network of professional discourse as a close-knit community due to its small size (grades 6 and 7). She credited the success of their conversations to the feeling of family created by the experienced teachers and a shared teaching philosophy, the autonomy to develop her own teaching style, and bit of luck. She said:

We share ideas and we always have an exchange of knowledge happening—nobody is a gatekeeper of anything. I think in our school it honestly does vary from department to department. I happen to be lucky enough to be blessed with two fantastic teachers that I work with.

Leigh identified a critical conversation to the inconsistencies and changes that occurred frequently; specifically, “it can be really frustrating when a lot of things are changed, and they'll [administration] switch something up without getting feedback or say they're going to do something and then don't do it.” She used the metaphor of a soapbox when she provided truth and advice for teachers that leaned on her for support.

I think that one thing that I give for advice for a lot of our new teachers is that consistency is tough in our school and things aren't always followed through on. It can really wear a lot of new teachers because the rules seem to always be changing on them. And the piece of advice that I'll try to give most people who come in is to try to have a mission and have a soapbox that you want to stand on and have that be your structure so that you can be focused on.

She described this advice as a method for new teachers to find their role at the school. The soapbox permitted them to “keep your head down and just focus on that and not let those other bureaucratic things bother you.”

Peer to Peer Mentoring – In this School We Are a Tight-Knit Family

This model of peer mentoring organically emerges when relationships are prioritized and there is structure for frequent contact among members of the network. Mick acknowledged not all pathways lead to friendship, but at School X there are multiple modalities to find support. He stated:

Not everyone's going to be best friends here, but we have a very strong staff in terms of on-campus support and off-campus fun because the relationships have formed over a few years throughout this process. They like teaching together but they kind of like hanging out together, too.

He went on to describe how time and structure are built into the schedule to collaborate weekly with the teaching team, biweekly with a data team and departments, monthly with the new teacher cohort, and additional opportunities that include shadow walks with a colleague, and culture-climate activities hosted at faculty meetings, after school, and at the end of the year to build peer-to-peer connections.

At School X, all participants with less than three years of experience may not have had enough time to experience peer-to-peer benefits as demonstrated by their responses. Doug and Gail identified their team as stand-in mentors. Doug described his team as unique and relational. He said:

I'm the social studies teacher so the math, English Language Arts (ELA), and science teacher on my team at this point are kind of my go-to [people]. The math teacher has

taught social studies in the past. She was able to speak to that, but just in terms of bouncing ideas off for me.

When asked about stepping away from the team for curriculum support, he replied:

I'm a relationship-oriented person; it's going to be whoever I have a relationship with.

The other seventh grade social studies teachers in my building are quite deep down right now. And you know, understandably so [because of COVID].

Gail found a peer-to-peer mentor in a teacher next door in addition to mechanisms set up at School X. She described their interactions as limited to exchanges bound by students they share. She dismissed the value of her own mentoring capacity in the new teacher cohort as a second-year teacher when she said:

I enjoy talking with the new teachers. And I feel like I enjoy offering my unsolicited advice anywhere someone will take it. I seek out those teachers and talk with them about anything. They're probably just craving, you know, that normal school environment type relationships, but I don't really see myself as someone who people necessarily seek out to have mentor them in that type of light.

Her explanation went on to foreshadow the size of the faculty network understanding of all the parts when she said:

I don't feel like I've really had the opportunity to meet all of the staff in the school. And I don't find myself really communicating with people outside the math department or outside my co-teachers.

Leigh confirmed her awareness of peer-to-peer and beneficial collaborations remained high when she described where she goes for help to get something done. She said:

I feel like I am in touch with a lot of different people within the course of the day. If it's something special education-related probably a building coordinator first or if it's something bigger, than an assistant director or our director. And then if it's building-wide, probably our secretaries or principal or assistant principal, or if it has to do with a student or a certain team directly.

She demonstrated her understanding of the network and School X needs when she described how her unsolicited outreach to the new teacher cohort provided professional development on special education. She explained, “I just realized that probably would be helpful, especially just kind of pointing out how special education works. I don't know if general education teachers always understand.” However, her follow-up revealed longevity and strength might be related to two underlying network functions: reciprocity and reputation. When she was asked if she knew the vision and mission of her colleagues, she replied:

I think it would be really nice if we talked about it more. If people had an idea of what other people's visions were, yeah, it would be helpful. And I mean, for me my mission evolved over the years from what it is today. I think that's why I've stayed.

The next section explored the mechanisms for feedback, growth plans, discussions, and debates, while using the connections within the network as a source of brokerage.

Faculty Network and Mechanisms

All seven participants reported awareness of at least one of the eight network mechanisms described in this section. Each mechanism provided an opportunity to broker by group or team, assignment, association based on shared characteristics or acting alone. The four most frequently used network mechanisms were the teaching team lead by data meetings, new

teacher cohort meeting, and department meetings. These mechanisms are described in this section.

Network Map – The Intention Is That You Have That Structure

The network at School X worked continuously to create a community of teachers competent to meet and exchange information: monthly meetings for teachers with less than two years' experience, common planning time on co-curricular teams, biweekly data meetings, weekly department time, full faculty meetings, two-plus-two feedback mini-meetings, leadership meetings, and a culture club. A series of broker meetings linked mechanisms using discourse and apprenticeship. The apprenticeship model varied by team involvement and evolved from the team function focused on student interventions for academic and behavioral needs. The map that emerged was created with the input of all seven participants as they experienced or mentioned the mechanisms.

New Teacher Cohort – How Am I Doing in My First Year?

The group was composed of first- and second-year teachers that met monthly for a variety of reasons. Doug and Gail described the value of the broker by group revealed the wide breadth and scope of these meetings. As the youngest member of the group, it was evident feedback mattered to Doug when he said:

In the first couple weeks, it was really good to know that everybody was dealing with behaviors, and it was kind of another system to check myself against the terms of where am I? How am I doing in my first year?

Gail described meeting content met her needs when she said:

Formal learning how to put in grades and learning those type of things. It's more goal-setting than anything. Not a lot of time to talk with each other about actual classroom

experiences or things that we're struggling with. It's usually more with what we need to get done as new teachers making sure forms are up to date. And that we know how to use our behavior referral system or how to properly use our special education staff.

Whereas Candia transferred her previous teaching experience and knowledge from the meetings and suggested they served their function:

I went through the new teacher program, but I also at that point, have been teaching for several years. For example, looking at John Hattie studies [was something] I had done before. For me what was more valuable was to get to know how people navigate the curriculum or family outreach in our school in particular.

Ella, Lauren, and Leigh recalled a bus tour throughout the community and the impact. It added context to the school with first-person awareness of the level of poverty and circumstances faced by students. The context provided further opportunity for reenactment using the vicarious stories of the second-year teachers. However, the mechanism was dropped and replaced with guidance counselors serving as points of contact for this information. Leigh described the impact of the tour change:

When I talked to some new teachers, they hadn't had that experience, I think you can get kind of shell-shocked with some of the stories you hear and the families that you work with in our districts. Implementing that [bus tour] is really important. Making sure people know what and where kids are coming from and how to take that into account. And I think having the behavior or discipline really outlined clearly from day one, so that teachers understand what to do and how to deal with students and to get real support and advice on.

Culture and Climate Club – Find Your Marigold

This mechanism within the network was mentioned by only two participants. Ella and Lauren started the club after they introduced an article to the new teacher cohort several years prior to the pandemic. The article was the catalyst to transfer the critical conversation “Find Your Marigold” from advice to action. The group formed independently and used the logic of placement gardening to foster new teacher growth while limiting the toxicity located throughout the network. The club worked on improving the morale of the building and spanned the entire faculty network to remain inclusive. Ella described the group’s function as a series of staff events:

We focused on creating healthy opportunities for staff to get together. We did Minute to Win It activities with staff; we did kayaking, canoeing, outings for the staff, and we do an end of the year large party. At one of the staff members houses we do potluck, so we just find ways to really focus on making this place a great place. Those relationships and fostering that idea of family for the first-year teacher all the way through the 30th-year teacher.

While she described a garden variety of events, the limited mention of the group by participants revealed the limited access to and capacity of the mechanism during the pandemic.

Culture Climate Club

All the participants made cultural reference to the school climate and three returning participants shared positive experiences gained by participating in activities created by the culture club. In the subtheme Culture Climate Club, introduced in Chapter 4, I presented findings of a peer-to-peer mechanism designed to create informal opportunities within the network at faculty meetings, after school, and at the end of the year. Previous research demonstrated the

development of new teacher identity while integrating into a complex new setting required close examination of language and play to understand the interwoven networks of friendship, power, politics, and culture as well as the teacher's perception of status among other members (Allard & Doecke, 2017; Deal et al., 2009). In the current case study, Mick, Lauren, and Ella were motivated to maintain the inclusive atmosphere of the activities that included many outings designed to foster connections that span the network to break down political barriers. Several participants referenced the culture using metaphor. Previous research with metaphor analysis indicated it is possible to reconstruct participant thinking, language, and action patterns (Schmitt, 2005). One participant described the climate as a “dark tunnel” while another participant referred to a “hole” when he described the department as “deep down right now.” Most of the participants recalled a mentor meeting discussion about finding the “marigolds and walnuts” to describe how new teachers should look for faculty members that are helpful and stay away from the toxicity of the walnuts.

Faculty Meeting – The Human Part of the Job

This mechanism pulled the faculty network together weekly to provide a second iteration of the same information delivered over email using what Mick described as “the human part of the job.” Ella, Lauren, and Mick all acknowledged the purpose of this mechanism had shifted. Ella and Lauren explained the meetings were once formally used to review survey data or calibrate writing and workshop data, while Mick described the shift provided the network to renew association:

We hit the self-care button and sometimes 730 [faculty] meetings are just five minutes.

Other times, let's drag a table picks (something to vent about), or let's do something; let's talk about solving it there.

None of the other participations mentioned faculty meetings during their interview.

Data Review Meetings – A Real Mental Workout

The team meeting was a long-standing district standard, grades 6-12, while the data meeting was implemented within the last 10 years. Mick described these biweekly data meetings by group as “hard” and a “real mental workout” that limited time for relational stories. The meeting required everyone come prepared and ready to work for the full hour. He described the mental workout as a set of skills, a mindset, and actionable items that included a direct connection to the leadership team:

[We ask] how do you develop action items? Or who's going to contact home? Are we going to do a referral, or are we going to just talk to guidance? Who's going to be the timekeeper with this? I'm always pleased that administration goes [to these meetings].

There's always an admin there 95% of the time.

Only one of the four teaching participants mentioned the data meeting in their interview. Gail requested more of this time when she said, “I would always take more of it if I could, but I think that's the best way that I feel I'm being supported is when I get to talk with my other [team] teachers.” Doug, Gail, and Candia regarded the team as most valuable and attributed their success to the support to the members of their team. Doug explained his appreciation for his team and their influence:

If I ever got to the point of help from one of those colleagues, and they did point me in the direction at that point, I would feel obligated to kind of see that through. If people are going to offer to help and offer to be that solution, you got to take them up on it.

Leigh represented special education across the building and confirmed she did not attend team or data meetings.

Departments and Professional Learning Teams – Reduce the Siloed Effect of Departments

The purpose of the departmental time was explained as a mechanism to create focused learning teams by assignment to reduce the siloed effect of departments and with specific attention to development of a cohesive English and social studies curriculum. The Wednesday meeting time was used to support the work and permitted two departments to collaborate. Only one of the teaching participants mentioned this time positively, quite possibly due to content area since the other taught mathematics and reading.

Although Leigh's primary role was reading instruction, she discussed the benefit of her secondary role as Professional Learning Community (PLC) Leader afforded her more opportunity to work on the leadership team. The role of PLC leader provided her access to the current dialogue centered on discipline. This role, and seat at the table, was important to her given she mentioned student behaviors five separate times. Her comments suggested discipline and literacy were not receiving the same network attention. She described a deficit of two-way dialogue between teachers and the office as a contributing factor to behaviors. She said:

I've taught at schools that had restorative justice in it. You had a sense of completion, when there was a conflict, or something happened with a student in that school. I don't get that sense of resolution when something happens with a student unless I'm the one that engages them to solve the problem. We're never really called in when there's discipline issues to be a part of those conversations.

Candia found access to the PLC and literacy coach within the network due to years teaching with Ella and her dual role of department leader (biweekly) and lead mentor for two years prior. Although two of the network connections (department, lead mentor) appeared to be

the same for Doug he revealed his access remained limited. He described it as a “feeling” and alluded to needing more structure:

And while I might know that one of those two [department] people might have the right answer there's just a feeling about it, where I know that the people I'm comfortable with are the ones who are going to have my back. It's like being pulled into a tangent during the day, if that makes sense; and all of a sudden, we're talking about things that are unrelated.

Gail commented on this time and identified structure and formality among her colleagues in the mathematics department:

And as a team we meet formally every two weeks to talk about certain students and their behaviors. But aside from that, we don't have a formal setup like a formal PLC to talk with our teammates. It's either informally in the hallway when I see him or at lunch, when I can snag them almost every day.

None of the participants used the data coordinator role as a network connection to align the work in the mathematics department.

Two Plus Two – What I Observed and What I Wondered

This mechanism was described by Mick, Ella, and Lauren as a practice that predated the pandemic to supplement the formal supervision and evaluation process. All teachers within the network were encouraged to broker with a colleague outside their group. Teachers selected a colleague, observed their classroom, and followed up with a discussion to learn from one another through their stories of failures and successes on classroom management or curriculum. Only Candia commented on this mechanism since she was the only participant to experience the practice before it was tabled. Mick and Candia recalled the model and script similarly as “what I

observed” and “what I wonder,” but they diverged on the value of the network mechanism. Mick reported the process was “so much more powerful than anything I can give them.” While Candia appreciated the feedback from her colleagues that stayed for an extended time (more than 10 minutes) she provided further evidence of mixed network access when she described the experience:

It felt inauthentic sometimes because everybody knew it was a box you had to check off.

I would try to go see people like a science teacher, for example, or a math teacher—people not in my department doing my content. But it was sometimes hard for me to give them feedback because I don't know this person as well and I don't know their team makeup.

Candia’s response indicated the network was closed and influenced the potential of the mechanism. Leigh did not make any reference to this mechanism.

Leadership and Capital Meetings – Different Groups That Funnel Ideas

This team represented another node in the network where leadership, faculty, and staff members intersected by assignment. The literacy coach, data coordinator, lead mentors, core teachers, guidance director, global teachers, and administration met to design, decide, and disseminate information. Ella and Mick reported the recent focus was on student behavior but included building the master schedule annually. The process was reflective and often the outcome was a visual product. The current product was a flowchart that illustrated how to use the planning room and addressed student behavior to balance restorative practices and discipline. This visual product represented a network mechanism that included how to use the facility space, time, and student information. Mick described the process “as a work in progress” outlining a complex set of stages that included teacher meetings, family outreach, team protocols, and

overall wellness to understand the whole nature of the student. The visual product represented another effort to increase access and open the network. Only Leigh mentioned this mechanism when she described a new initiative called the “planning room” designed by this team. Her description followed:

The planning room can be used for students to finish an assignment or have a quiet place to work. It is also a place where students are sent when they're disrupting the learning of others or they're not in a place to learn. And a new part that they've just implemented is writing a letter home to their parents telling them why they were sent out of class. I haven't seen the form but there's a form I guess that they have to fill out. But I haven't seen one yet.

The other participants did not mention this mechanism and suggested they did not know who served on it, access to the group either remained relatively low, or the projects had not yet influenced the full network.

Leader Ownership of the Network and Obstacles

According to all participants, while the year presented challenges attributed to the pandemic, they recognized an internal system existed even if some people created tensions that were not productive to the work. The leadership team acknowledged and spoke openly about how they addressed the systemic implications of staff turnover, re-training strain, and network function.

Ego as School Politics - They Need to Work in the System

Mick remained vulnerable throughout the interview, admitting “we have some snags and we have a few hurdles and things like that. And even when they have conflict, we're big on solution-based thinking.” He described the systemic purpose of the faculty network beginning

with the school philosophy to emphasize the team-based concept. He pointed out ego as the first obstacle of the model when he added, “You can compare notes and compare successes and compare failures and reflect as long as your ego does not get in the way.” He acknowledged the supports embedded in the system were not the reason for the turnover:

If you leave here and you're not... it better not be because of lack of support, lack of admin support, and just not feeling good about working in this building. Those are answers that I really can't accept.

Lauren referenced the obstacle of “ego” as “school politics” and revealed the leadership’s team awareness of the challenge:

Sometimes the politics of a school and the teachers can get in the way. I want what's best for the teachers because that makes a happy school, but you can't have teachers that are derailing what the philosophy is at the school or what we want as a school.

Doug’s perspective indicated the depth and scope of the challenge extended to the new teachers. While he remained optimistic, he described a cohort meeting with disruptive signs of school politics:

Those meetings have become this dreaded once a month thing, where basically I'm going to hear a bunch of people complain, talk about how hard it is, and how awful the students are this year. And just how there's no time and it just goes on and on. For me, I would say some positive stuff [has come out of the meeting], but definitely some negative stuff that has not been super helpful.

Bonds and Bridges – Highly Functional Teams

Lauren, Ella, and Mick spoke knowledgeably about all the network mechanisms, and the other participants implied the connections that extended to the new teachers were not clear. Mick

described leaning into the network to “make sure your school can have successful collaboration, no matter who's around the table.” Ella recalled a time when she and Lauren spoke candidly about the challenge with Mick. She said:

[We] spoke with leadership about strategically placing these new teachers, because sometimes we're placing them with some of our walnuts and they are not lasting as long as they should be.

Mick described a more holistic approach to unite the network, the work, and goals required working directly with teams:

The goal is to have six strong teams, like almost having six A's on a report card. We don't want to have, you know, three A's and three C's. You want your kids to experience success no matter what team they're on. And if you have a struggling team, and you have a good leadership team or a good mentoring process, the goal is to get teams better and get each team to be highly functional without moving teachers around.

When asked what this looks like at School X he offered two answers:

Once in a while, it can be a bad student day, but I think quality teachers usually have self-reflection to kind of blame themselves and say, what did I do wrong?

And then he added:

The hard part is realizing no, I don't go to the teams that are working or fun there. Go to the teams where it's not working and be a leader there. Which is easier said than done. To put all that together, because there's a lot to it. The more teachers that have the skill set to be good collaborators, the quicker you're going to move the needle.

While Doug recognized the efforts of the leadership team when he said “they're [leadership] dealing with things that quite frankly, I want them to be dealing with,” he revealed his limited knowledge of the network, how it operates, and where he could go for support. He said:

There needs to be a redistribution of who does what in our school, just so that people in admin can have more time. I don't hold any ill will for my admin at all. There is definitely still that feeling of kind of floating and you know, not knowing if I'm doing the right thing. Yeah, it's almost like nobody knows what I'm supposed to be doing.

Gail, Ella, and Leigh confirmed the same sentiment. Gail said, “I don't find myself really communicating with people outside the math department or outside my co-teachers.” Ella expressed bonds within the department were strong, but the limited bridges to other groups resulted from network strain when she said:

These informal teachers [teams] that literally shelter and take on these teachers under their wing because they care about their kids, and they care about these people who want to do well. It does become a strain to constantly train someone new in their position.

Recall Leigh reported she did not attend data or team meetings, but she suggested her longevity was due to the bonds and bridges she developed to travel the network independently from her position. She acknowledged this was made possible with support from the administration. She provided evidence of this when she identified different resources to get work done as, “secretaries, teams, teachers, coordinators,” with the “support of the administration and research” to design a reading program where none existed before. She also used the bond with the mentors on the leadership team when she proposed and delivered professional development to the new teacher cohort as she saw a need to increase special education awareness.

The teams and mentors responded by leaning further into the network to address the final obstacle. The limited voice inherently placed on new teachers due to their limited bonds and bridges within the school network required mentor support. Ella described the mentor team as a “powerhouse” that used their connection to the admin team as a means of support for struggling teachers. Ella provided context when she said:

When you see the two of us walk into the principal's office, it's never typically pretty, but we are this powerhouse. [We asked], what are we going to do? How are we going to support him? When are we going to get these interviews started? We really do become a voice for them when, you know, they might not be comfortable going into that office themselves.

In these examples there was evidence of bridges and bonds for the new teachers with varying degrees of support based on placement. While the network provided seven different mechanisms to enter the network it was affiliation and influential connections that mattered among participants.

Professional Returns and Network Stability

During the interview process, participants' identities emerged as they each explored the preconditions of the self-efficacy domain. They were asked to describe personal experiences related to the magnitude of the job, prior experiences, and sources of strength. Each participant's journey as he or she cultivated an educator's identity shared similar characteristics that contributed to their self-efficacy. Leigh, Doug, Gail, and Candia each had an educator mentor from within their immediate or school family. Two participants expressed a curiosity for teaching and learning from an early age and while all three described the capacity to break down tasks to manage the responsibility.

Shared Responsibility – It's A Little Nerve-Racking

All participants mentioned challenges associated with grading, planning, and family outreach. All of them described the first time teaching as “overwhelming,” or “nerve-racking,” and “a lot of responsibility.” Doug and Gail attributed their ability to manage all the responsibilities associated with teaching to the connections formed within the school network. For Doug, he felt the support connected to his team as he developed the independence to operate on his own. He described the feeling as *appreciation* and identified his role as *learner*:

They are invested in me emotionally, but it is this weird sort of feeling. I'm 23 years old, it's just a little crazy—the degree of trust that everyone has around me. Maybe I've just proved myself in more ways than I realized or something.

Gail also attributed gaining her competence to her connections and rated them very strong among the department and her team. The frequency of meetings with colleagues who also shared the same students helped her reduce the size of tasks to share responsibilities. Doug recognized and valued the team planning time with a team of teachers to draft an email to parents. In that example the team broke down the task into smaller, more manageable projects to share among members. He reported in percentages:

If the other three teachers have something close to 28% each, and I'm left with the 6% a lot of times. It feels like I am doing less than that.

Candia shared the same experience and reflected as far back as her student teaching. She reflected and recognized years later, the family outreach and collegial observations during that time deserved equal attention with planning and instruction.

Perceived Self-Efficacy – The Hardest Thing I Have Ever Done

Each participant followed the magnitude of the job with a statement of determination. Doug described working for hours every night and depicted the job as “impossible” and described his progress as “totally failing.” However, he rationalized persevering as he thought about his answer. He said:

People did this for a really long time and we're successful with it. Even if it feels impossible now, you just do the best you can I guess and even if the job is too big, like you do it. Do you know what I mean? I'm totally failing in ways right now, but I think it's about not letting those things overwhelm you.

Doug provided further evidence of strength when he asked about the recorded interview. He was excited to save the transcript for future reflection:

I bet it will be pretty cool to look at this transcript a couple years from now and reflect on how I was feeling as a first-year teacher.

Gail demonstrated strength differently as she explored professional learning communities at School X. When asked about her role to develop this mechanism she replied with a solution that used a network hierarchy. She demonstrated multiple pathways when she described a solution:

I know if I were to go about that [adding PLC structure] I would probably discuss it with my team first; see who wants structure time and make sure I'm not forcing them to meetings they don't want to go to. But if we were all in agreement, I would probably bring it to my mentor and then probably the assistant principal to see what type or how accessible that would be. That is where I would start.

Candia found strength in the network and surrounded herself with support during difficult times. She described it as an “apprenticeship model” that permitted a new teacher to “spend a lot of

time watching and talking to other people to get support with planning.” The people she used were described as veteran teachers that assumed a “motherly” role. She described support mothers at both schools:

They were like mother hens to me. They were so nice. We shared the same group of kids and she had taught for forever. If the teacher at School X right now is my work mom, then she was like my work grandmother.

Candia placed the experience of the “work mothers” far above her college coursework. She said:

The college courses I took felt like they were in a vacuum a little bit because we were given a lot of instructional strategies, but sometimes it's just not realistic. And I really think people are in survival mode their first year. Nobody told me I would be operating in survival mode.

Social Capital Acquisition – Contact with Who They Need

The advice provided throughout this section was collected from four participants with tenure. All participants described an organic process that was highly relational and balanced with the individual’s motivation to seek help using the mechanisms embedded in the school. All but one of the participants spoke about the culture at School X and described it as a family.

Lauren recognized her role as lead mentor was limited and often required getting new teachers with teachers that understood the “nitty gritty of what they needed.” Like Candia, she referred to this as a “double mentor” and explained it evolved informally. Mick referred to the informality as “quietly developed relationships” and “indirect support” that was often initiated in the hallway, on duty, and among teachers that shared students. Ella provided more insight when she described it as a “foundation of trust.” She fostered this with her mentees with modeled behaviors she exhibited daily:

I think that's the foundation of the relationships that I tried to foster here, especially with the new teachers, is making sure they feel heard and that they can trust me, being able to shut my door and close my curtains and have moments of vulnerability. And even if that means I have to work later at night, because I didn't get done what I needed to do, but I think that's what this school is about is being approachable and you know, building a foundation of trust.

All tenured participants responded with resources from within the network and did not have to necessarily follow the hierarchy. Mick revealed connections were driven more by support than hierarchy when he described a hypothetical response to a bad day:

Hopefully there's at least two to four or five options that you have to go speak to someone you know before you just go home and never come back. That includes our counselors, me, doesn't matter. As long as you have two or three people that you can go to when life stinks, usually you can kind of battle through and we're all having a better day.

Solution-Based Mindset – What Are the Specific Action Items

All seven participants identified challenges and responded with a solution-based approach with admittedly less time this year to enact and discuss solutions as formally trained. The innovations mentioned by participants came most often in the form of verbal persuasion and enactment among team members. While verbal persuasion can also come in negative form, and all participants indicated it existed, they chose to pursue positive solutions. Recall Doug's feeling of obligation to accept help when advised by team members. Similarly, Candia spoke of a motherly mentor that provided bits of wisdom each night with a call. Gail described checking in with her team before pursuing more work on the professional learning community, and indicated her next step rested on their reaction.

In contrast, the tenured team members created the atmosphere of reflection and pursued enactment of solutions prior to practicing on their own. Doug described one team intervention that commonly began with reenactment between team members before using verbal persuasion with the student. He described how it worked:

On our team, it's really important for the kids to know that we are all on the same page.

When one of us says something to them about not getting into another student's space anymore, it's the team. It's all of us telling you.

Doug reflected on his example that he confirmed “occurred 3-4 times daily” with, “so how do we fix that? In general, like that's what my team is doing all day long.”

Reflection – Can I Survive on My Own

Mick provided evidence of a reflective culture at School X when he described sitting in a team meeting. Mick described hearing stories exchanged that compared successes and failures. He said:

The kind of reflection when you can say, why are these group of kids or why is this kid successful in [Teacher 1] classroom and I'm bombing with him or her? Is it the teaching style or the learning style? Or, is it the way I have my classroom set up or just a relationship? The four teachers can get together and collaborate on how things are working for their kids.

He went further to describe the individual teacher. He elaborated with “quality teachers usually have self-reflection and say, what did I do wrong?” He followed up with a series of questions:

1. Am I with the right age group?
2. Do I like what I do?
3. Do I have the support of colleagues when I need it?

And then,

4. Can I also survive on my own when I'm expected to?

Ella referred to the stages of reflection as “when magic happens.” She described it as a necessary component to supplement hiring teachers “who are so far from certification” and prone to making mistakes on the job. Candia spoke about one mentor that modeled calling her in the evenings to check in and hear how she managed that day. Candia projected a reflective mindset when she described a reflective conversation she had that day with a colleague:

I think the more we talk about how difficult it is right now and the more we normalize it, we can actually try to solve some of these problems. Because people are so frustrated and sad, especially when they get into the profession early on.

Perhaps Leigh embodied the element of reflection as a career that “evolved” over the years. Like the others, she had an appreciation for the support from the administration that permitted her to design the reading program with structure and research that supported her vision for all students learning to read.

The advice shared in this section described the return a teacher at School X could expect from the network when connections were used to deepen understanding. There was no withholding the truth about the good and bad implications of the network that may not share the same goal. The system attempted to put units of people together and relied on experiential learning to develop the complex skills required of new educators.

Summary

The purpose of this case study was to examine the perceived potential benefits of an induction period supported by the faculty network to influence a stable work force. Participants who met the criteria were interviewed, and each participant was asked specific questions

regarding his or her educational experience. Five themes emerged from this process: Becoming an Educator, Critical Conversations, Faculty Network Mechanisms, Leader Ownership, and Professional Returns and Network Stability. These themes produced subthemes as well. In Becoming and Educator, participants explained how long they worked at School X and gave a brief discussion about their careers and prior experiences. All participants with less than three years' experience reported an immediate family member influenced their career choice or the feeling of family at School X positively influenced perceived self-efficacy to persevere despite challenges. In Critical Conversations, some participants discussed the value of dialogue and conversations working with groups, by assignment, or with people in the network that shared similar characteristics. Participants described observing peers, working with co-curricular colleagues, and by assignment to explore the network when directed by leadership. In Network Structure and Mechanisms, participants recalled at least eight mechanisms and the different obstacles they encountered. Not one participant experienced all eight mechanisms and no two participants experienced the same obstacles. Instead, each participant experienced different obstacles during their educational journeys. In Professional Returns and Network Stability, each veteran participant described and modeled behavior to sustain a career in education. Participants explained that it was important to develop a solution-based mindset by reflecting and connecting with the colleagues to build social capital. The mechanism that embodied the most diverse collection of the network was named the Capital Team. The findings will be discussed relative to the literature in the following chapter.

CHAPTER 5:

CONCLUSION

In 2012 Ingersoll coined the phrase the *greening effect* to describe the trend among educators with more than 25% of members with less than five years' experience. The United States leads other high-achieving nations by nearly double with a 16% attrition rate (Carver-Thomas & Darling-Hammond, 2017). The growth rate demands an examination of the context surrounding the workforce environment and the factors leading to such an unstable workforce (Ingersoll, 2012). To effectively manage the turnover rate, schools have developed new teacher induction models that strive to reduce the psychological demands, negative social and organizational aspects, low developmental opportunities, and negative pupil aspects (Harmsen et al., 2018). Despite these efforts, many challenges remain, and there is an urgent need for research to examine the association between school characteristics and teacher turnover to isolate what can be done to positively mitigate attrition trends.

To address this important knowledge gap, I examined the stories of new and veteran educators who spoke about their social context of the community and school organization while adjusting to the profession, using the social capital theory (Lin, 2001) and social learning theory of self-efficacy (Bandura, 1977). This qualitative dissertation utilized a case study approach to capture the nuances and details of a school with existing systems for new teachers, existing faculty, and students.

The purpose of this case study was to develop a deeper understanding of what factors and interventions influence attrition among new teachers using the perceptions of three major groups: teachers, mentors, and administrators. Participants that met the criteria in Chapter 3 were interviewed. Interview questions focused on their roles within the organization, obstacles they

encountered, how they overcame the obstacle, and the impact on their efficacy as a teacher. Each participant had the opportunity to conduct a member check of his or her own transcript. Once the member check was completed, each transcript was imported into Atlas.ti for coding, organization, and interpretation. Five themes emerged from this process: Becoming an Educator, Critical Conversations, Faculty Network Mechanisms, Leader Ownership of the Network and Obstacles, and Professional Returns and Network Stability. In the next section, findings from the two research questions that underpinned this study were addressed. The findings are aligned with the literature and recommendations are offered for practice and future research.

Interpretation of Findings

This section discusses the main findings from this study relative to the study's research questions and literature.

Research Question One

To answer the first research question, "How are embedded resources realized and mobilized?" the links between individuals and groups were discussed in Chapter 4 under the themes of Faculty Network Mechanisms and Leader Ownership of the Network and Obstacles. I examined the network of professional conversations and who they relied on if they needed to get something done as detailed in Chapter 4. The following section discusses these findings relative to the literature. As will be described at the end of this section, social capital theory (Lin, 2001) was utilized to understand the experiences of new teachers during their formative years and experienced faculty and staff that oversaw their development.

Network Map

In the subtheme Faculty Network Mechanisms, presented in Chapter 4, I provided examples of how the network at School X worked continuously to create a network map of a

community of teachers competent to meet and exchange information. Previous research indicated that school systems that approached the acquisition of skills to become a teacher created a topology of resources that linked social context (race, linguistics, demographics, social class boundaries) and practices to inform policy and support for the whole child (Hammerness & Matsko, 2012; Gallavan, 2005; Reschly & Christenson, 2012; Smith & Sheridan, 2019; Pogodzinski, 2012). In the current study, School X created four primary frameworks: induction, professional discourse, embedded professional development, and building student assets to reduce risks. All participants experienced the mechanisms that supported these frameworks and included monthly meetings for teachers with less than three years' experience, common planning time on co-curricular teams, biweekly data meetings, weekly department time, full faculty meetings, two-plus-two feedback mini-meetings, leadership meetings, and a culture club. Ella described the origins of the culture climate group and how they introduce the network. She described it using the article "Find Your Marigold: One essential rule for new teachers" by Jennifer Gonzalez. The article described placement planting and emphasized the marigold protects and the walnut tree is toxic. This was significant for new members as they navigated the existing interwoven networks of friendship, power, politics, and culture. Understanding frameworks of sociology within network allows leaders to map out initiatives using the existing social capital (Deal et al., 2009; Lin, 2001).

Previous research has shown new teachers experienced higher success with network integration when their personal characteristics and identity are explored as well as the school identity and culture (Cooper & He, 2012; Schaffer & Clandinin; Scherff, 2008). In the current study, Lauren and Ella revealed more about the identity of the school when they introduced terminology to refer to people as *marigolds* and while limiting contact with the *walnuts*. Ella

described a walnut as, “extremely toxic to its environment around it. We share that with our new teachers, in the very beginning of their employment.” The primary functions of the mentor relationships are psychosocial and instrumental career building skills (Dahlberg & Byars-Winston, 2019). Using this logic, the mentors that support and guide, as well as help the mentee think critically, reflect, review progress, and examine decisions prior and post will offer the greatest degree of help to the mentee and are deemed marigolds at School X.

All participants expressed their teaching identity was influenced by a personal connection not affiliated with the school. Previous research by Ronfeldt and McQueen (2017) found a combination of seminar, leadership contact, and mentoring using four to six methods helped to combine prior experience to the current network. The strategies used to combine previous knowledge with the current network will be explored in research question two.

New Teacher Cohort

All participants in the current study had direct connection with the new teacher cohort. The subtheme New Teacher Cohort, introduced in Chapter 4, presented findings regarding the structure and course of the cohort to explore network connections for new teachers to broker with faculty as they were integrated into the school system (Baker-Doyle, 2014; Borgatti & Ofem, 2019). Prior research proposed the induction framework can establish a layer of the school’s topology (Pogodzinski, 2012). In this case study, School X performed as a learning organization using the four-corner structure to integrate new teachers by providing four to six different seminar style activities in the network and to broker with other teachers outside the cohort (Ronfeldt & McQueen, 2017). Candia described the peer observation two-plus-two as meaningful yet challenging. She said:

I would try to go see people like a science teacher, for example, or a math teacher; people not in my department doing my content. But it was sometimes hard for me to give them feedback because I don't know this person as well.

Candia described the phenomena of integration for her beginning with bonding to others with commonality by characteristics, experiences, and goals (Johnson & Christenson, 2008). The new teacher that developed more connections, or had connection to individuals with connections, was a strategic act at School X to invest in the network and secure resources for their new teachers (Hammerness & Matsko, 2012; Pogodzinski, 2012).

All participants mentioned at least one of the four corner structures in the interview. Each corner represented mentor alignment, social context, non-evaluative feedback, and peer observation (Carver-Thomas & Darling-Hammond, 2017; Hammerness & Matsko, 2012; Pogodzinski, 2012; Smith & Sheridan, 2019). The mentors provided the first corner when they aligned themselves daily with the new teacher's needs and operated as fixers and floaters. Lauren described her role of a fixer and floater as, "a quasi-administrator on my cell phone, Google chats, responding to messaging, questions and issues."

Both mentors had an extensive network and met the mentees needs by exposing them to their own network resources. Mick, Lauren, Ella, Leigh, and Candia recognized the second corner was recently replaced with a new mechanism. Participants spoke about a former community bus tour that provided valuable social context and exposure to the poverty and social class boundaries between families. It was replaced with a counselor presentation not mentioned by Doug or Gail. The third corner was mentioned by three participants overseeing the program and Gail was the only returning participant to the group. The corner represented brokerage by assignment to find examples of best practices within the network using peer-to-peer

observations. The practice was postponed due to the pandemic. The final corner provided informal feedback by the mentors and was mentioned by all participants.

Data Review and Team Meetings

The leadership team took responsibility for overseeing the discourse pattern within the network; while Leigh mentioned the data meeting in their interview, most of the teaching participants found the most support in the team meeting. The subtheme Data Review and Team Meetings, previously mentioned in Chapter 4, presented findings of structure and routine. One participant provided examples of how they navigated data meetings that were described as *real mental workouts* surrounding student data (grades, behavior, attendance) to develop timely interventions. Prior research indicated structure and routine using a goal-oriented tool can handle large volumes of data while limiting advice that lacks empirical evidence (Algozzine et al., 2016). The data review meeting used at School X was based on the Framework of Building Assets Reducing Risks (BARR) and occurred weekly to enable feedback loops to facilitate continuous dialogue with a student-centered approach (Jerabek, 2012). The meeting mechanisms provided explicit rules and expectations for behavior to internalize the group values until actions became more natural (Ford & Youngs, 2018). One leadership participant emphasized the meeting required preparation, protocols, and focused time on only related topics. Most of the teaching participants emphasized the value of the team meeting component, including common planning time and a structure to review student behaviors in a setting with structured feedback loops and routine created a shared language and opportunity to collaborate.

Department and Professional Learning Teams

Some of the participants expressed the meeting structure and informality of the meeting mechanism created a feeling of arranged collegiality. The subtheme Department and Professional

Learning Teams, previously mentioned in Chapter 4, presented findings regarding the work done during embedded professional development time among members of the same department. Previous research demonstrated trust was predicated on the interdependence and collective efficacy of the work with skilled facilitators to reduce the relationships that felt contrived (Ford & Youngs, 2018). In the current study, Candia revealed the work to combine curriculums in English and social studies provided purpose for the group and they valued the time to collaborate with colleagues in another department. In Doug's case, he had far fewer connections and was less compelled to work with the colleagues in this meeting despite their knowledge and expertise.

Two Plus Two

Only a few participants recalled connecting with colleagues outside their team and departments using a peer-to-peer observation mechanism. The subtheme Two Plus Two, introduced in Chapter 4, presented findings regarding the participants experience with the tool to gain knowledge of new perspectives and strategies. The mechanism also provided a connection between teams and opportunity to broker with many different perspectives and skill sets to solve similar problems. Prior research found an increase in network connectivity increased 'betweenness' among groups, while collecting dissimilar individuals created feedback loops with a diverse reserve of resources to understand the complexity of learning (Carless, 2019; Warren & Loes, 2019; Whitcomb et al., 2017). The mechanism produced mixed results. One participant reported it was difficult to provide feedback to colleagues while another participant reported the collegial feedback exceeded formal observation.

Leadership and Capital Meetings

Some of the participants served as representatives with the leadership team. The subtheme Leadership and Capital Meetings, introduced in Chapter 4, presented findings from a team composed of different departmental perspectives designed to examine how to use the facility space, time, and student information. A few participants mentioned the meeting mechanism and all the participants were connected to a representative. The meeting mechanism and visual products by the group allowed representatives in the network to map out initiatives and visually depict the potential social capital for new teachers. Prior research found new teachers gained effective and cognitive social capital with a combination of bonds and bridges when they maintained ego-centric maps to chart and evaluate the development of their own network (Fox & Wilson, 2015). Ella and Leigh spoke about a flow chart for a current discipline initiative describing connections, products, and student outcomes. According to Fox and Wilson (2015) a visual tool of the network can aide a new teacher when used partially through scheduled opportunities and independent support seeking. Neither of the mentors nor other participants mentioned using a network map to facilitate or evaluate the induction framework using network meeting mechanisms to build capacity.

Ego and School Politics

In the subtheme Leader Ownership and Obstacles, introduced in Chapter 4, I presented findings of political strain within the network at School X. Most of the participants referenced the politics of the network in a variety of social context that influenced the exchange of social capital. One participant described ego as a disruption in the meeting process limiting the comparison of notes, sharing successes, and failure. The disruption led to a closed network for another participant when they described a meeting as *dreaded* and provided them minimal social

capital gain due to complaining and blaming. Another participant associated new teacher longevity with strategic placement within the network to provide safe collegial spaces.

Previous research emphasized leadership as an essential feature of the network (Deal et al., 2009). The demands on educational leaders remained extensive. Leadership balanced student learning outcomes, developed strong internal accountability through relationships, and strived for continuous improvement through cycles of collaborative inquiry while they created structures, frequent interactions, and connections pointed outward to the community (Rincon-Gallardo & Fullan, 2016). Concurrently, previous research explored the erosion of social capital as the inability to establish group norms and work toward a shared objective due to privatization, family conflict, and busy schedules (Putnam, 1995). Another participant suggested erosion was connected to divergent philosophy and the act of *rerailing* the school mission. Previous research that examined personal experience, professional learning, and community, found relationships based on reciprocity, not hierarchy, influenced professional growth in social context (Simmonds & Dicks, 2018). One lead mentor recognized their dual role in the hierarchy created a dynamic that stretched their role beyond the traditional methods of matching mentees, holding meetings, and understanding organizational structure.

The term *family* was used by many participants to describe the same network. Previous research by Baker-Doyle (2014) explored the stories embedded in the network to uncover relationships and their influence on the formation of knowledge. The research of Baker-Doyle (2014) provided three principles:

1. the structure of the network can influence social capital;
2. the characteristics and resources of individuals in the network influence social capital;
3. patterns of behavior such as homophily exist in the network.

In this case study of School X, the principles made it possible to distill the term *family* as it relates to understanding position in the network and the influence of school politics. Lauren, Mick, and Ella held leadership or quasi-leadership positions without teaching assignments that provided greater mobility to move through the network structure and access to all teachers. Both mentors provided whole network support with an office among the classrooms and outside of the administrative suite. The individual human capital among four participants included master's degrees in leadership, curriculum and instruction with a concentration in special education, and many held secondary roles with expertise in data, literacy, and facilitation. Doug, Gail, Candia, and Leigh identified a much narrower network using people close in proximity as resources. This revealed a somewhat limited network connection to homophily group members as mentors. The individuals provided a central link for new teachers using their connections to the faculty network. While these characteristics suggest a homophily and heterophily network existed among participants, it is not certain what level of centrality optimized collaboration and performance (Glibkowski et al., 2014; Lin, 2001; Luxton & Sibicca, 2021).

Bonds and Bridges

The subtheme Bonds and Bridges, introduced in Chapter 4, presented findings of how the network composition and affiliation was viewed by participants. Doug and Mick viewed the network as an organism that was holistic and operated with all the members to create a cohesive experience for students and teachers. In Wheatley's (2006) book she contends the new science of leadership allows a living system to learn, using its own ability to self-organize and adapt. Only one of the three participants in a leadership role shared this point of view. Ella and Lauren introduced terminology that suggested some individuals have little to no human capital for exchange when they labeled them *walnuts*.

In previous educational research, Tschannen-Moran et al. (2000) began thinking about schools as learning organizations and how they develop collaborative strategies to *become smarter* by breaking learning into a discourse and cognitive apprenticeship model. In this case study, Mick was the most influential participant and consistently expressed building bridges with statements like:

Successful collaboration no matter who is around the table; the goal is to get teams better and get each team to be highly functional without moving teachers around; work with teams where it's not working and be a leader there.

In contrast, three participants with less than three years' experience viewed the network as a hierarchy reporting they would not pursue connections unless they were given permission or had support by a close bond or affiliate. Doug expressed *obligation* to bridge outside the team if directed by a member. Gail had extensive knowledge and experience with learning communities, and she admitted the bond with her team dictated her next step. Gail also expressed difficulty acknowledging a potential bridge in the network to improve the idea. Doug and Candia admitted to collaborating close to existing bonds established with the team or department. Previous research by Fox and Wilson (2015) distinguished between bonding and bridging to gain support and develop these relationships to isolate parts of the network and transactional ties partially through scheduled opportunities and support seeking. In this case study, Doug, Gail, Candia, and Leigh were in teaching positions and expressed a limited degree of movement within the network based on knowledge to exchange and affiliation. Doug was uncertain how responsibilities were distributed, and Leigh rarely attended Building Assets and Reducing Risks (BARR) and team meetings as the reading teacher. This suggested more intentional opportunities needed to be scheduled to develop the binds and bridges needed to increase support.

Research Question Two

The second research question was, “What interactions between groups lead from perceived to actual capacity?” The links and social exchanges between individuals and groups were discussed in Chapter 4 under the themes of Becoming and Educator, Critical Conversations, and Professional Returns and Network Stability. I examined the interactions between participants as detailed in Chapter 4. The following section discusses these findings relative to the literature. As will be described at the end of this section, the social cognitive theory of self-efficacy (Bandura, 1997) was utilized to understand the interactions that influenced the participant’s self-efficacy and evolution of becoming an educator. Each participant experienced magnitude, transferred knowledge, and found strength to persevere.

Becoming an Educator included the subthemes (a) *Teaching is What I Know*; (b) *Prior Experiences*; and (c) *Mentors as Fixers and Floaters*. Critical Conversations included the subthemes (a) *Building Professional Assets Using the Power of Truth*; and (b) *A Tight-Knit Family*. Professional Returns and Network Stability included the subthemes (a) *Shared Responsibility*; (b) *Strength and Determination*; (c) *Social Capital Acquisition*; (d) *Solution-Based Mindset*; and (e) *Reflection*.

Teaching is What I Know

The subtheme Teaching is What I Know, introduced in Chapter 4, presented findings of how the choice to teach was linked to an affiliation close to the participant was a common accord among participants. According to Johnson and Christenson, (2008) phenomenology presumes there is commonality among experiences and seeks to find that commonality. The four participants with teaching positions described their evolution of teaching as more personal in nature and influenced by individual people and experiences that transcended from childhood.

Doug recalled an adventure program and the influence it had on his decision to continue from participant, to counselor, and now teacher in a public school; another had family serve as their teachers during elementary years. Conversely, Leigh recalled a transformational moment in time that convinced her to pursue education when admittedly she had never explicitly considered it despite her mother's experience as a special educator.

The previous research examined the identity formation of teachers during the early years as they *become* educators and used their stories to explore commonality, the presence of identity formation, and social capital. The two prongs among studies included knowledge they possessed for exchange and knowledge needed for consumption to sustain in teaching (Allard & Doecke, 2017; Glibkowski et al., 2014; McAleese & Jennifer, 2019; Schaefer & Clandinin, 2018). The educators with less than three years of experience explored their identity further when asked to describe themselves and their role at the school. One participant viewed their undergraduate work of education of racism, ecology, and environment as relevant content for teaching by associating it to the social context of the classroom. Two other participants emphasized their identity was shaped by their knowledge of social context when they described course work in urban after-school programs and organizational structure of professional learning communities. The knowledge participants described represented a baseline of their human capital for exchange (Lin, 2001). The knowledge they needed will be explored further under the section Building Professional Assets and Using the Power of Truth.

The three experienced participants described their role at the school as agents of continuous improvement and employed eight identified social mechanisms to accomplish this work. Therefore, in this case study the epistemic narrative approach to close the gap between scholar and practitioner knowledge remains relevant. The narrative-informed approach attempts

to narrow the theory-practitioner gap that occurs when there is an emphasis on scholarly or practitioner knowledge to balance responsibility and agency (Glibkowski et al., 2014; Kelchtermans, 2017). Previous research has shown stories predicated on the purpose of gaining information, support, or innovation as a viable form of exchange (Lin, 2001; Neal, 2003). Furthermore, the capital story can uncover relationships and influence knowledge if formation is related to the topic and context, told in first person, and accompanied by useful information (Baker-Doyle, 2014).

Prior Experiences

The subtheme Prior Experiences, introduced in Chapter 4, presented findings of how pre-service models of student teaching impacted participants with less than three years' experience. Doug, Gail, and Candia shared a traditional student teaching experience with a mentor teacher and yearlong internship. Previous research with pre-service teachers revealed engagement with contextual information increased in frequency over the first three years while planning decreased and was replaced with significant strategy talk (Hagger et al., 2011). One participant with one year's experience indicated he gained the most insight in the second half of his internship and by the end of the experience he had only *40 through 50%* of what he knows now. Another participant with two years' experience indicated she thought of the lessons learned during the internship *daily*. The other participant with three years' experience described ending her internship feeling *unprepared* and recalled the experience as "the hardest thing I've ever done." She described her response included a step back from the classroom to serve as a special education support staff before gradually reentering the role as a classroom teacher. Additional research found single and double feedback loops were unlikely to happen without a systemic mechanism (Grainger, 2020; Stefaniak, 2018). The mechanisms available to the new teachers

during their internship was beyond the scope of this study. However, in this case study the combination of modeling, coaching, and scaffolding presented in the network mechanism of School X provided promise as an induction framework for the newest teachers to transfer and extend their pre-service learning.

Mentors as Fixers and Floaters

The subtheme Mentors as Fixers and Floaters, introduced in Chapter 4, presented findings of how mentor capacity emerged to mitigate the early-exit effect with a foundation of trust to create a safe and collegial network. All four participants experienced the teacher cohort group and Doug and Gail were still attending as Candia completed her second year. They met monthly to discuss an agenda set by mentors and mentees. The agenda included iterative items like single and double feedback loops, best practices based on research, and a reflective component to evaluate their journey month to month. Single feedback loops included transactional tasks; double feedback loops started in the cohort meetings and concluded with a post observation outside the group. Some group discussions included research in evidence-based instruction by John Hattie and supervision feedback loops by Kim Marshall.

Previous research explored experiences that led to early exit as unpleasant and negative emotions that created tension resulting from psychological demands, negative social and organizational aspects, low developmental opportunities, and negative pupil aspects (Harmsen et al., 2018). All five stresses were considered significant and strong predictors when bundled together. The stress of negative social and student aspect, low developmental opportunity, and psychological demands were identified by both active members when they described the frequent complaints by other teachers about the job, student behavior, and the negative atmosphere during these meetings despite the mentor's efforts. The participant with the least experience indicated

topics in the new teacher cohort group were limited based on his personal need of professional development and high in emotional support. He admitted struggling to keep up with grading while producing curriculum. Another participant described her need in the second year was more aligned with understanding of the whole network to find “go-to-people for certain things.”

Both mentors and Leigh acknowledged and attempted to reduce the stress. First, Leigh recalled the impact of the bus tour that previously took new teachers throughout the community. She explained the context and first-person knowledge of the poverty and circumstances faced by students provided her opportunity to understand the students that came to her class for support. She also modeled her own mentor capacity, although she never referred to herself this way, when she used her role in the network as a reading and special education teacher. Previous research on causes of the early exit from teaching pointed to one tenet as managing Individual Education Plans (IEP) (Scherff, 2008). Leigh recognized the IEP challenge and used her knowledge of the network at School X to develop and implement an annual presentation to the cohort.

Ella and Lauren shared all mentees to match each mentee’s needs and areas of expertise. Both described a capacity and shared purpose to have critical conversations. Literature on mentoring included many definitions with two primary functions of support: psychological and instrumental career building skills (Dahlberg & Byars-Winston, 2019). The mentor that supports and guides, as well as helps the mentee think critically, reflect, review progress, and examine decisions prior and post will offer the greatest degree of help to the mentee (Carver-Thomas & Darling-Hammond, 2017). Ella described her conversations and role as *open-door* and inclusive of the whole network, while Lauren conducted conversations that were more transactional and specific to individuals. This created passage for new teachers that needed different resources by using the network knowledge of these women. Previous research informed the induction process

that used a discourse and cognitive apprenticeship model predicated on pre-existing ties to create a network with access to instructional advice, support, and reflection (Hunt et al., 2012; Tschannen-Moran et al., 2000).

Both mentors disclosed they worked closely with leadership to strategically place new teachers with the greatest advantage of lasting by limiting the negative influences that existed in parts of the network. The mentors went further and developed a strategy to recognize good teaching. They used terminology to speak openly while leadership strived to balance the teaching teams. Previous research emphasized the complex relationship between measuring good teaching followed understanding the climate-used clues in dialogue to honor the sophistication behind teaching while grounding development in opportunities with colleagues to make sense of situations (Kelchtermans, 2017; Kinzler, 2021). The mentors employed the use of terminology and social identity in a short essay called “Find Your Marigold” by Jennifer Gonzalez. All mentees read and discussed the short essay that described the planting value of marigolds and toxicity of the walnut tree. The activity served as the conduit to revisit the network beyond the traditional dyad and prevent isolation with mismatched mentors.

Building Professional Assets and Using the Power of the Truth

All the participants reported the importance of dialogue and conversation with an *expert, leader, mentor, new teacher cohort, team, or school family* while in their current position. The subtheme Building Professional Assets and Using the Power of the Truth, introduced in Chapter 4, presented findings that pointed to trusted resources for critical feedback within the network using collective efficacy. All participants spoke about their own use of feedback and sources within the network to wrestle with large tasks and to persevere. Previous researchers who examined attrition identified routine and iterative problem-solving as central to their self-efficacy

and capacity to improve (Algozzine et al., 2016; Glazer, 2020). The mentors and leadership provided the framework with space monthly for reflection that started in the cohort and used a familiar tool presented as a spectrum, that spanned from surviving to thriving, in order to initiate the dialogue.

The U.S. Department of Education (2012) emphasized efficacy as a tenet of a conceptional framework that used a series of mentors characterized as brokers. The framework at School X provided collective efficacy with two mentors that were theoretically supported by the faculty in a variety of roles: making anyone in the network a broker. Participants identified three out of four prongs of collective efficacy used by the U.S. Department of Education (2012):

1. the broker who makes introductions possible;
2. the broker that facilitates one-on-one discussion and feedback;
3. the community design that invites discussion relevant to the new teacher;
4. network by association that occurs when the new teacher has contact with the people in the mentor's network.

Doug, Candia, and Gail identified the mentors as the broker who made introductions possible. They each added team members to mentors when they described brokers who offered the one-on-one to facilitate discussion and feedback. Lauren described a conversation she had with a former teacher one-on-one and how they explored teaching in an alternative setting. Ella also used her office to describe a more intimate setting to create trust, permit individuals to be more vulnerable, and welcome reflection. The third prong of collective efficacy was a community design that invited discussion. All the teachers that participated in the new cohort meetings identified the monthly meeting, but only some of it was relevant to the new teacher participants. One participant described reviewing John Hattie studies was redundant while

another participant requested more professional development relevant to classroom management. Research by Hagger et al. (2011) suggested this was likely due to mixed ability and experience levels combined with shifting needs between curriculum, social context, and strategy.

The final prong was a network approach to solve a problem and not one participant with less than three years identified a place outside the team they went to for help. Previous research with network analysis explored school structure and the process used by leadership to understand what structural elements needed to be reconfigured (Whitcomb et al., 2017). One participant reported he would feel obligated to follow through with a recommendation of a team member if they suggested and revealed value in understanding the network when he described redistributing responsibility to permit him more access to the leadership team. The research of Whitcomb et al., (2017) revealed that access to available resources relied on betweenness and ties to individuals that acted as change agents and network experts to develop advice-seeking networks for school improvement. Mick shared this conceptual model when he described “developing more collaborator skills” throughout the building to *move the needle*. However, the leadership team was unable to provide a conceptual map of who served on the Capital Team when requested because it did not exist.

A Tight-Knit Family

When process is iterative and purposeful it creates reciprocity of peer-to-peer mentoring, regardless of age and content knowledge (Simmonds & Dicks, 2018). The subtheme A Tight-Knit Family and Shared Responsibility, introduced in Chapter 4, presented findings that revealed a discourse pattern and feeling of family extended to all participants. Candia generalized the scope of the challenge when she surmised there was no amount of college course work to prepare her for the first year and she described her sources of support came in the form of work mothers

and grandmothers. Ella and Lauren provided more insight when they described their role in the family was to build a *foundation of trust* and to advocate for new teachers during difficult times. Doug and Gail were appreciative of their teams that carried the workload and Mick revealed his vision of family was driven by four to five different connections as support.

Shared Responsibility

Previous researchers pointed to network growth related to purpose, autonomy, and discourse patterns (Scribner et al., 2007; Scherff, 2008; Whitcomb et al., 2017; McAleese & Jennifer, 2019). The subtheme Shared Responsibility, introduced in Chapter 4, presented findings that the professional learning groups at School X were responsible for the cohesive family feeling. The Professional Learning Communities and Building Assets and Reducing Risks data teams trained staff with purpose, autonomy, and an iterative discourse pattern practiced by everyone in the network (Jerabek, 2012). All three initiatives were mentioned by multiple participants. They met frequently and shared the goal of reporting student progress following a guided discourse. The research of Daly et al., (2010) and Bressman et al., (2018) exploring autonomy in school networks found the diffusion of knowledge and logistics significantly impacted the school's progress when focused on goals.

In this case study, the literacy goal and data team at School X created a feeling of family and purpose among teams while it created weaker ties as individuals collaborated with their departments. Leigh used the common goal of reading instruction to collaborate with Ella and used her weak connection formed years earlier in the new teacher cohort to strengthen their connection. The concept of purpose added opportunity for Leigh to collaborate with the new teacher cohort. She capitalized on a weak connection to get closer to the school literacy goals by making the IEP more accessible. In another example, Doug described a team intervention that

started between team members before intervening with a student. The collaborative nature of team work created a feeling of family because he was linked to the team that shared a common purpose for the student. Also interesting was that his feeling of obligation to collaborate outside the team increased *if suggested* and provided another example of network autonomy to sustain the discourse pattern. The professional mechanism and activities that required frequent collaboration left opportunity for future reciprocity described as a feeling of family by participants (Bressman et al., 2018).

Strength and Determination

Bandura (1977) presented three dimensions of self-efficacy. He delineated ranking the magnitude of the task, extracting the generalities that transfer to other tasks, and the strength to persevere. These became the tenets used to predict how likely an individual is to succeed at a task. The subtheme Strength and Determination, introduced in Chapter 4, presented findings of an *I think I can* social environment. In the current case study, each participant with less than three years' experience demonstrated their self-efficacy as they described challenges and how they persevered. One participant described the job as *impossible, overwhelming*, and himself as *failing*. Moments later he demonstrated how he planned to transfer these experiences and how he will use his own stories from the transcript to reflect on the interview years from now. This not only implied he would still be teaching, but he planned to use the transcript as a vicarious reminder of his formative years. Another participant demonstrated their self-efficacy relied on verbal persuasion from her colleagues as she explained how she planned to share an idea for improving the professional learning groups. She described starting with the team and required their input and improvement before exploring the idea further with the administration. The third participant's efficacy emerged differently as she described an apprentice model that used

observation of reenactment with her colleagues. The veteran teaching participant demonstrated self-efficacy when she explained her arousal to design a reading program when none existed before using research and the autonomy afforded to her by the administration.

Social Capital Acquisition

Bandura (1977) presented social learning as originating from four primary sources: vicarious observation or story, verbal persuasion, rehearsal or re-enactment, arousal and motivation to act. Lin (2001) predicated the exchange of social capital was to gain knowledge for information, support, or innovation. The subtheme Social Capital Acquisition, introduced in Chapter 4, presented the conceptual framework of how the structure and mechanisms of School X created a social learning environment for new teachers. Previous sections explained the network function as a family that created a shared responsibility to collaborate on goals while it embedded the opportunity for new teachers to move along the spectrum of curriculum and context before moving to strategy talk (Hagger et al., 2011; Simmonds & Dicks, 2018; Whitcomb et al., 2017).

Participants identified some of the opportunities of acquisition at School X in the descriptions they provided to explain social capital acquisition. One mentor described access to information as getting the *nitty gritty of what they needed* from a *double mentor* in the network using any four of the primary sources. A second veteran participant identified a healthy number of support resources as four to five teachers to share their own vicarious experiences as sources of inspiration and obstacles to avoid. All three teaching participants with less than three years' experience, identified support at the team level. Participants had opportunity to rehearse and re-enact letters composed to parents, model interventions with students, or draft curriculum with

experienced educators. Sources of innovation and acquisition are discussed further in the next section.

Solution-Based Mindset

The subtheme Solution-Based Mindset, introduced in Chapter 4, continued the conceptual framework of how the structure and mechanisms of School X created the social learning environment specific to innovation. Previous research found the discovery of a group learning environment shifts when discourse patterns move from passive learning to one that is active and uses community context (Donath et al., 2005). In this case study there were several examples of a solution-based mindset with examples of negative discourse patterns. The Building Assets and Reducing Risks team met frequently and practiced an iterative discourse pattern to create timely solutions, while some of the new teachers in the cohort provided evidence of a group where the discourse was negative. One participant described these meetings as *dreaded* due to increased levels of complaining.

Previous research found the negative discourse informed a solution-based mindset (Donath et al., 2005; Bickmore & Bickmore, 2010). The discourse patterns that emerged described active learning as solicitation of critique, analysis, contextualizing, explanation, responding to feedback, contributing to knowledge base, and consensus building. In this case study, all seven categories existed in the network and were referenced by at least one participant. The cohort met monthly and included an iterative practice to solicit critique and analysis to reflect on the year using the spectrum Survive to Thrive. The participant that dreaded the meeting was listening to colleagues report out on the survival end of the spectrum. The contextualizing and explanation domain appeared throughout the network. Participants in the cohort were exposed to community context on the bus tour and in team meetings weekly. One

participant provided an extensive student background before describing the intervention developed by the team. Although feedback appeared limited this year, one participant referenced goal setting as another iterative practice at cohort meetings. Finally, both mentors highlighted the cultural context of the school and encouraged consensus building when they introduced “Find Your Marigold” early on at a cohort meeting and Culture Club throughout School X. The metaphor introduced the process of growing at School X as a garden with room for roots to spread and avoid the toxicity and shade of other plants. The utility of the metaphor allowed for open dialogue to practice higher-level thinking to synthesize information and transfer it to working knowledge when gaps were discovered among participants. A solution-based mindset existed at School X alongside all eight mechanisms to understand the process of learning.

Reflection

The act of raising questions and finding the answers is not limited to scholars and can become part of the school culture when presented during the early stages of induction (Glibkowski et al., 2014). The subtheme Reflection, introduced in Chapter 4, presented findings of a reflective approach taken with all teachers to raise discussion to an inquiry level. One leadership participant recalled a series of questions he used with the faculty. New teachers were asked baseline, yes and no questions to develop a deeper understanding of their issue while a more open-ended approach was taken with veteran teachers. Mick described quality teachers as individuals that take personal responsibility and search for corrective remedies independently. The youngest participant, Doug, exhibited a reflective mindset when he described his plan to go back and review the transcript. Ella described reflection as *magical* and a necessary step for recertification. However, the most succinct example of reflection and its value to teaching was provided by Leigh, the participant with the most years teaching. She described a career that

evolved and transformed her when she found purpose and the autonomy to design a reading program with the support of a wide breadth of colleagues. This statement embodies an action-oriented form of reflection that begins with the individual, who then seeks to engage with other members of the network to build upon new insights. In this case study, the data supports a reflective mindset from members at all stages of their career and various responsibilities.

Implications

This study utilized the conceptual framework of social capital theory (Lin, 2001) and social cognitive theory of self-efficacy (Bandura, 1977). The conceptual framework was utilized to understand how the structural mechanisms at School X created a social learning environment for the newest members with less than three years' experience. The results from this study may influence other schools to integrate similar induction programs designed to permit new members opportunity to exchange knowledge with returning members to build social capital before they must find resources independently. Furthermore, educational leadership is more reliant on distributed responsibility to meet all the needs of a diminishing workforce (Senge, 1996; Kotter, 2012). This study examined an induction framework with many entry points into the existing network to create learning with embedded opportunities for veteran teachers to serve as leaders by example. All the participants identified the cohort and teams as well-established entry to the network.

The results from this study may influence faculty to become more active in the induction process and serve as more than a dyad mentor. Senge (1996) believed there existed three kinds of teacher leader roles in the learning organization. In this case study the focus was on the entire network serving as leaders by example: offering experience and credibility; acting as experimenters within the internal network to build community; and serving as 'seed-carriers' that

moved freely throughout the organization and without bounds to the organizational chart. The results indicated the mentor design at School X played an important role in assisting the new teachers with access to information, support, and some problem-solving by discussing the politics and developing ties to the faculty. As an information and support system, all participants ranked the cohort experience as positive and responsive. Concurrently, all participants found the activities were not always reflective of their current need, sometimes redundant, and limited to the contact with two mentors. Participants rarely traveled outside their teams and expressed a desire for more knowledge about their colleagues specific to the scope and sequence of curriculum, individual goals, and distribution of responsibilities.

Transformative leadership is necessary because the workforce of educators demands we raise self-efficacy among educators to stabilize and reverse attrition (Carver-Thomas & Darling-Hammond, 2017). Self-efficacy in this context focused on the educational experiences of four teachers and how they persevered. The results from this study may bring awareness of how to measure and create social learning opportunities to positively alter self-efficacy. Each participant experienced at least one of the eight mechanisms used at School X to create a social learning environment and combat the obstacles mentioned in Chapter 4 including staff turnover, re-training strain, and network function. The experiences captured by some of the participants may assist school leaders to recognize and prevent low levels of self-efficacy by designing intentional activities to help new teachers persevere.

Recommendations for Practice

Findings from this study suggest that it is important to provide new teachers with access to other highly efficacious individuals within the network using gradual release to develop many weak ties for them to revisit as their needs dictate (Bandura, 1977; Simmonds & Dicks, 2018).

First, new hires and program directors should provide a safe and unbiased learning environment that saves equal time for logistics and meaningful reflection. Previous research demonstrated that purpose, autonomy, and discourse created feelings of obligation (Bressman et al., 2018; Daly et al., 2010; Scribner et al., 2007; Scherff, 2008; Whitcomb et al., 2017). Some participants in this study expressed their frustration in the cohort and within the network because of negative discourse or uncertainty of where in the network to turn for help. Autonomy without direction toward the best practices was not helpful to the motivated individual.

Additionally, induction programs should encourage new teachers to continuously explore the network to create asset-based community level work (Bliss & Wanless, 2018; Ennis & West, 2012). The pragmatic approach to revisit each teacher's developing network each month can provide a focus on process to understand the collective community efficacy. Furthermore, using a snowball effect of connecting ties established by other teachers can distribute the work across the network and expose new teachers to individuals that share characteristics that are similar and dissimilar (Borgatti & Ofem, 2019). By locating dissimilar teachers, the new teacher increases resources not intuitively pursued and facilitates instrumental learning while expanding their working knowledge (Lin, 2001).

Finally, feedback used with new teachers should come frequently in single and double feedback loops (Carver-Thomas & Darling-Hammond, 2017). The double feedback loop adds an instructive component for new teachers to reenact and explore complex topics, while they also continuously develop single feedback loops using the snowball technique to develop weak ties (Mercader et al., 2020). The activities developed by cohort leaders for double feedback loops can significantly impact self-efficacy when designed to break down large tasks and transfer prior experience while following Bandura's social learning domains. Scenarios that are relevant and

hold potentially disastrous outcomes should require participants to engage with context in a safe setting using instructed feedback by mentors and colleagues. All three participants that mentioned redundant cohort meetings might find their knowledge could be used to help sort out a complex issue or identify a flaw in their own thinking before it manifests in the classroom with disastrous effect. The findings from this study described a structure and process to bring together the faculty to work on complex problems while valuing the input of all members regardless of years teaching and content. It is key for everyone to understand the importance of knowing the network function to add stability to the workforce.

Recommendations for Future Research

Based on the results of this study, the following further research is recommended:

- This study was conducted in one state at one school and the results are therefore not representative of all induction programs. Future research should include an examination of induction programs from a variety of schools and other states.
- There is a scarcity of network analysis as a leadership tool. The leadership team spoke about strategically planning placement of new teachers; yet, participants of the leadership team could only produce a hierarchy chart. There was no network diagram to aide them in their strategic placement. A process diagram that included the school frameworks, supporting research, and visual depiction of discourse patterns could emphasize opportunities for autonomy and discourse patterns. Future research should focus on methods for school leaders to visually depict and understand the school network.
- The school faculty and network have potential to mitigate the attrition among new educators. Results from this study indicated the human capital in the faculty network is required to address all the complexity and sophistication of teaching. The dyad model of

mentoring is not enough to provide cohesive support. Future research should be conducted to explore embedded professional development delivered by all veteran faculty to the new teacher cohort in groups and individually.

- The measurement of self-efficacy provides a method to monitor new teacher development for early intervention. Results from this study indicated that raising awareness of collective efficacy had a multifaceted impact on School X. Some participants referred to the faculty as a tight-knit family, while others described appreciation for their team. Future research should examine the culture and climate at schools as it relates to efficacy by delineating characteristics of the highly efficacious teachers based on how they perceive large tasks and use their prior knowledge to isolate measures of strength to persevere.

Conclusion

It is essential that educators and university systems across the United States reflect on their process to integrate new teachers to collectively reduce the attrition rate among new teachers. Nationally, attrition trends increase as local budgets remain restrictive. Previous literature has focused on program development, but none have provided a self-guided measure as widely cited as efficacy and network support. This study represents an important and original contribution to knowledge on the topic by focusing on a school that constructed a structure and iterative process to integrate their new teachers into the faculty network. This study's insights provide lessons from an exemplar that is motivated to continue improving.

The goal of this case study was to examine how embedded resources are realized and mobilized by new teachers and what interactions between groups lead from perceived to actual capacity. A conceptual framework guided the development of the study and the interpretation of

data from participant transcripts. The five themes that emerged from the interpretation of the data provided valuable insights into the structure and social learning environments to integrate new teachers. The results from this study demonstrate a new strategy for educational leaders to mitigate attrition among new teachers by using the conceptual framework and the resources embedded in the faculty.

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APPENDIX A: INTERVIEW PROTOCOL AND QUESTIONS

Hello! My name is Kimberly Stephens. I am a doctoral candidate from the University of New England. I am here to learn about the phenomena of social learning to advance induction using a variety of faculty perspectives as resources during the onboarding period. Thank you for taking the time to talk with me today. The purpose of this interview is to learn about the characteristics of a faculty network within an induction program for new teachers. There are no right or wrong answers, or desirable or undesirable answers. I would like you to feel comfortable saying what you think and how you really feel. I will be recording our conversation since it is hard for me to write down everything while simultaneously carrying an attentive conversation with you. Your identity and responses will remain confidential. Only myself and my faculty advisors will be aware of your answers—the purpose of that is only so that we know whom to contact should we have further follow-up questions after this interview.

During this interview, you will be asked to tell me about your experiences. You will reflect upon your early years as a teacher and your role (formal and informal) in the induction program if you hold one. I will ask you to think about how you typically work with colleagues in the building that are on a continuing contract as well teachers new to the building. I want to emphasize, there are no right or wrong answers. Please be as honest as you can to help me to understand how new teachers gain access to the faculty network. Remember that the information you provide will remain confidential and used only for research concerning this case study used to help new teachers. Thank you so much for your time.

APPENDIX B: INTERVIEW SCRIPT

Researcher: Hello, I am KIMBERLY STEPHENS, and I will be conducting today's interview.

First, thank you for agreeing to participate. I appreciate it very much. Today, we will cover about 25 questions, and I anticipate our discussion lasting no more than 45-60 minutes.

Researcher: Are there any questions?

Researcher: I would like to remind you that you have provided a consent form to participate.

Are there any questions or concerns with respect to that document?

Researcher: This interview will be recorded. If at any time you feel uncomfortable you can end the interview. Just let me know, and we will stop. Also, you do not have to answer any questions you do not want to. Just let me know that you prefer not to answer, and we will move to the next questions. If no questions or concerns, we will proceed.

Researcher: OK, question one...

Researcher: (At the conclusion) OK, that concludes tonight's interview. I appreciate your participation. In the coming days, I will transcribe the text and provide you a transcription of the interview. Please review the document for accuracy and clarity. Let me know if there are answers that are unclear or inaccurate. Or let me know it is a true and accurate transcription of what was discussed. Again, thank you very much for your participation.

Demographic Information

Interviewer: _____

Interviewee: _____

Date: _____

Location: _____

Time of Interview: _____

Gender: _____

Age range: _____

Years of Teaching Experience including this year: _____

Years of Mentoring Experience including this year: _____

General Education Subject(s) Taught: _____

Highest Degree Earned: _____

Certification: _____

Ask for permission to record the interview: Part of the interview process includes audio recording, so the data may be reviewed. Do you give consent to be audio-recorded during this interview session?

Review the purpose of the study: This purpose of the study is to explore and understand how the faculty network invests in new teachers to positively alter the phenomena of self-efficacy among new teachers.

NEW TEACHER QUESTIONS:

1. Describe your background in education and current position.
2. Describe the orientation process for new teachers at this school.

3. What formal and informal methods of orientation have you experienced throughout the year?
4. In your opinion and within this structure, what are the most pressing concerns you have as a new teacher?
 - a. What portion of the orientation process are valuable to you?
 - b. What portions of the faculty network are most valuable to you?
5. Tell me about a time when you were compelled to consult on a problem with your assigned mentor?
 - a. What were the circumstances and conditions at the time?
 - b. How large was the perceived difficulty of the task?
 - c. How long did you work at the task?
 - d. How did you manage any disparity in the feedback?
6. Think about another time you consulted with someone other than your assigned mentor.
 - a. How familiar was the resource with the task?
 - b. What was their level of expertise?
 - c. What made them credible to you?
 - d. How did you manage any disparity in the feedback?
7. Describe the organizational structure of the school as you understand the different work groups.
 - a. Where do you find the most salient sources of feedback?
 - b. What content does this group work on?
 - c. What kind of access do you have to the group?
8. Overall, what would you say is the school's greatest resource for new teachers?

9. On a scale of 1-10, how much does the faculty invest in new teachers? Ten being the high end of the scale and one representing the low end.
 - a. What might make the number go up?
 - b. What conclusion(s) can you reach?

MENTOR and CONTINUING CONTRACT TEACHER QUESTIONS:

1. Describe your background in education and current position.
2. Describe the organizational structure of the school for someone unfamiliar with all the work groups.
3. What formal and informal role do you play with the work groups here? And the new teachers throughout the year?
4. How did you become involved in the teacher work groups that you belong to?
 - a. How do you prepare a new teacher to find comparable opportunities to share information, innovate, or provide collegial support?
 - b. Where else do you see this in the organization? And, what did you personally need to feel prepared to pursue these work groups?
5. Tell me about a time when you were compelled to consult on a problem with a work group colleague?
 - a. What were the circumstances and conditions at the time?
 - b. How large was the perceived difficulty of the task?
 - c. How long did you work at the task?
 - d. How might this outcome alter your approach with new teachers?
6. Describe the orientation to the school and faculty network for new teachers as you know it.

7. In your opinion, what are the most pressing concerns that new teachers express to colleagues?
8. Overall, what would you say is the school's greatest resource for new teachers?
 - a. As a colleague, how do you provide access to this resource for individuals that need it?
9. On a scale of 1-10, how much does the faculty invest in new teachers? Ten being the high end of the scale and one representing the low end.
 - a. What might make the number go up?
 - b. What conclusion(s) can you reach?

ADMINISTRATOR QUESTIONS:

1. Describe your background in education and current position.
2. How would you describe the organizational structure of the school for someone unfamiliar with all the work groups?
3. How is the faculty and work groups within it designed to communicate and share their knowledge?
4. In your opinion and within this structure, what are the most pressing concerns that new teachers express?
5. Describe the orientation to the school and faculty workgroups at this school for new teachers.
6. Explain what skills and supportive strategies you have observed being used by faculty to integrate new teachers.
7. Overall, what would you say is the school's greatest resource?
 - a. As an administrator, how do you provide new teachers access to this resource?

- b. What conclusion(s) can you reach?
- 8. On a scale of 1-10, how much does the faculty invest in new teachers? Ten being the high end of the scale and one representing the low end.
 - a. What might make the number go up?
 - b. What conclusion(s) can you reach?

APPENDIX C: PARTICIPANT TABLE

Participant	Years at School X	Background	Primary Role	Secondary Role
Mick	15	Master's in Educational Leadership, concentration in mathematics	Administration	Principal
Lauren	15	Master's in Curriculum & Instruction, concentration in academic interventions	Lead Mentor	Data Coordinator
Leigh	9	Master's in Curriculum, concentration in special education	Teacher, special education	Professional Learning Community Leader
Ella	4	Bachelor's in English, concentration in literacy coaching	Lead Mentor	Literacy Coach
Candia	3	Bachelor's in English, experience in special education	Teacher, English	Team 7 white
Gail	2	Master's in Curriculum, dual certification in English and mathematics	Teacher, mathematics	Team 6 gold
Doug	1	Bachelor's Anthropology and Geography, state certified to teach	Teacher, social studies	Team 6 white

APPENDIX D: CODING SCHEME

Theme(s)	Code	Sub-Code	Example
Becoming an Educator	Measures of Readiness or Perceived self-efficacy	Magnitude	Size of the task with respect to 'survive on my own when I am expected to'
		Prior experience	Transferrable skills from a prior experience
		Strength	Stamina to complete the task
	Social Capital Precondition	Efficacious	describes people who are quick to take advantage of structural opportunities and figure out ways to circumvent institutional and cultural constraints
		Human capital	content knowledge possessed by the individual including education and authority
		Position & identity	Position in the school hierarchy and their role
	Social Learning	Enactment	To practice and discuss prior to demonstration
		Discussions	To engage in work with others that share a common goal
		Verbal persuasion	Feedback that compels someone to act in a certain manner (negative and positive)
		Arousal	An event, individual, or association that creates motivation to act
		Vicarious	Exchange stories to spread knowledge using someone else's experience
Faculty Network Mechanisms	Social Capital Formation	Broker – assignment	Affiliation by work assignment to complete a task with a common goal (Hetero)
		Broker – association	Affiliation and work based on proximity or many shared characteristics (Homo)
		Broker – independent	There is no affiliation to any other member of the network (Isolate)
	Mechanisms	Feedback loops	A construct to improve product and process when people engage in discourse and complex thinking with one another
		Growth plan	A procedural document composed of independent observations, conferences, and other supervisory interactions with content specific strategies and measures that vary based on the individual and years' experience teaching
		Induction cohort	a formal and informal method of professional development designed for the probationary teacher
		Mentors	A mutually beneficial collaboration between two teachers
		Discussion (data & scenario)	A form of collegial interaction and communication. Conceptualization of collaborative discussions include mentoring to professional learning communities that are structured and reoccurring
Professional Returns	Social Capital Returns	Systems Implications	Outcome of putting a unit of people together (ego, politics, derailment, fixers, mothering, and floaters)
		Context	Using connections and primary sources of information to deepen understanding
		Shared goals	Pursuing the same outcome
		Complex skill	Skills and moves gained by experience not taught in isolation
		Information	Procedural and logistical details that may be new to the individual
		Support	Connections in the network that can offer teaching and learning assistance
		Innovation	Connections in the network design and create solutions together