A Qualitative Case Study to Explore the *Intern as Teacher* Model in South Georgia

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Abstract

There is a teacher shortage in South Georgia school districts inhibiting the hiring of teachers for many subject areas. School districts are partnering with universities to identify teacher candidates who can serve as the teacher of record in their districts during their final semester or year of teacher preparation through the *intern as teacher* model. The purpose of this study was to explore what constitutes success in the *intern as teacher* model for interns participating in a paid internship during their final semester of undergraduate education through a complex adaptive systems theoretical framework.

Research has not been conducted on the *intern as teacher* model in Georgia although there was an abundance of research on alternative preparation models and residency programs. Addressing the gap in literature to consider mentoring models through the complex adaptive system (CAS) lens (Janssen, van Vuuren, & de Jong, 2016; Jones & Corner, 2012), this study employed a case study approach bounded by South Georgia school districts using the *intern as teacher* model. Participants included three interns and three mentors from public universities in South Georgia. Additionally, there were three P-12 district personnel and seven university personnel. Data were collected using focus group interviews, individual interviews, and document collection.

This study extended the literature by looking at an innovative approach to recruiting interns to school districts facing teacher shortages in South Georgia. The findings from this study produced evidence illustrating to harness complexity with the model, decision-makers should not adapt the original intent of the *intern as teacher* model too much because this will cause the system to change considerably.

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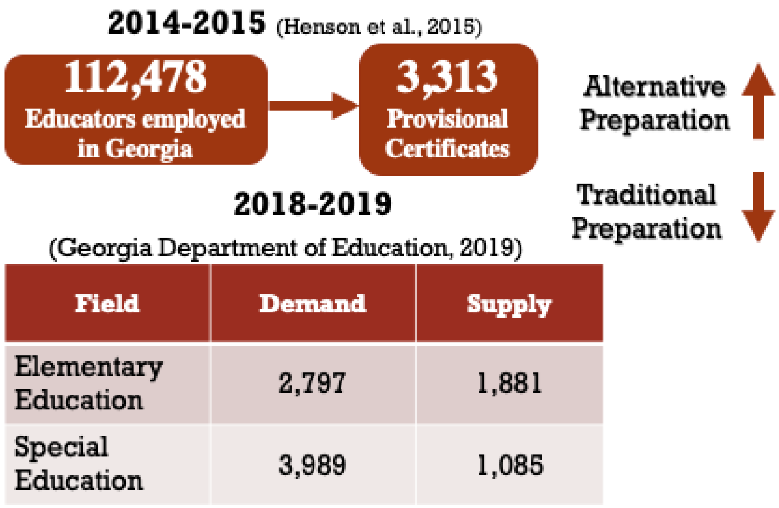
CHAPTER I

INTRODUCTION

In this study I examine teacher candidate support when teacher preparation programs use a model of student teaching referred to as, "*intern as teacher*," with pre-service teachers in their final year of undergraduate teacher education preparation. Proponents of the model contend it will be one of several attempts to address the teacher shortage crisis currently existing in the state of Georgia (Biek & Sarton, 2019; Huss & Harkins, 2013). In 2016, there were 112,478 educators of which 3,313 were employed as teachers on provisional certificates (Percy, 2016). McKillip and Farrie (2019) reported over 10,000 teachers left public school teaching in Georgia between the 2017-2018 and 2018-2019 school year. This teacher shortage is plagued by a decline in the production of teachers across the state (Henson, Stephens, Hall, & McCampbell, 2015). The Georgia Professional Standards Commission (GaPSC) is the program approval agency for teacher certification in Georgia (Georgia Professional Standards Commission, 2016a). As described in the GaPSC 2015 report, hiring in Georgia during the 2014-2015 school year replaced only 70 percent of the teachers who left the workforce (Henson et al., 2015). Georgia is not alone in the teacher shortage~~,~~ as similar results show 50 percent of new teachers across the United States leave the profession (Parfitt & Rose, 2018). In the *2015 Georgia Public P-12 Teacher Workforce report*, Henson, Stephens, Hall and McCampbell (2015) noted 6,873 teachers completed a certification program from Georgia's traditional educator preparation providers in 2011. There was a decline in 2013 reflecting only 5,421 completers. In 2016, the Georgia Department of Education calculated 6,233 new teachers have been hired, higher than the number of completers in 2013 (Tio, 2018).

Alternative programs to certification are a means districts can utilize to increase diversity in the workforce and address the shortage in available teacher candidates (National Education Association, 2019; Woods, 2016). Alternative teacher certification routes exist to support districts with hiring needs and prepare individuals lacking certification. These models do not always prepare enough teachers for school districts (Henson et al., 2015) nor do alternative route teachers have teaching experience prior to employment (Georgia Professional Standards Commission, 2009). To assist Georgia school districts with flexibility in hiring noncertified educators, school districts can request waivers as part of their human resource management (Griffin & McGuire, 2019). Figure 1 shows how the decrease in traditional preparation number have resulted in an increased demand of alternative preparation programs. Numerous researchers have examined alternative teacher preparation routes to determine what makes an effective route to teacher certification (Chiero, Tracz, Marshall, Torgerson, & Beare, 2012; National Education Association, 2019).


2014-2015 (Henson et al., 2015)
112,478 Educators employed in Georgia
3,313 Provisional Certificates
Alternative Preparation
Traditional Preparation
2018-2019
(Georgia Department of Education, 2019)

Field	Demand	Supply
Elementary Education	2,797	1,881
Special Education	3,989	1,085

Figure 1. Comparison of the demands of high needs areas in Georgia resulting in an increase in alternative preparation program participants.

Policymakers have used research to determine what makes a successful alternative certification program and identified important elements such as candidate selection procedures and "sufficient and relevant training and coursework prior to the assignment of participants to full-time teaching" (National Education Association, 2019, para. 5). Chiero, Tracz, Marshall, Torgerson, and Beare (2012) examined the effectiveness of three routes to teacher certification and found employers did not perceive a significant difference among teachers prepared in various programs. Teachers who participated in the CalStateTEACH program felt better prepared compared to traditionally prepared teacher candidates and interns. Similar to the CalState TEACH program, the Teach for America (TFA) programs recruit candidates holding a bachelor's degree to earn teaching certification upon the promise of working in high-needs schools for two years (Rappaport, Somers, & Granito, 2019). The CalStateTEACH program produced teachers who felt better prepared to teach whereas the National Education Association (2019) found teachers prepared through TFA left the profession within three years. Rather than receiving training during their first year of teaching, TFA candidates received intensive training during a summer institute program (Rappaport et al., 2019). Conversely, Huss and Harkins (2013) reported 33 of 34 teacher candidates, prepared through an alternative student teaching model at the University of West Georgia in 2008, remained in the profession and were still teaching in 2013. The National Center for Education Statistics conducted a longitudinal study tracking data of teacher retention (Gray, Taie, & O'Rear, 2015). A higher percentage of teachers who received mentoring during their first year remained in the profession longer across all five years. Woods (2016) found certification program preparation did not impact whether teachers remained in the field, but rather the support new teachers received, once hired, was key to teacher retention. Chiero et al. (2012) suggested researchers determine specific features of alternative certification programs that supported teacher preparation.

States are beginning to adopt models allowing them to hire undergraduate teacher education candidates to fill teaching vacancies while ensuring employees know how to teach (Arizona Department of Education, 2017; Carlson, 2018). The Arizona Department of Education adopted a certificate for undergraduate education students to complete their final semester of student teaching as a paid intern (Carlson, 2018). Other states have an Intern Teaching Certificate, but prospective teachers must hold a bachelor's degree or higher (Pennsylvania Department of Education, 2012; Texas Education Agency, 2019). Arizona is one of the first states to implement an intern teaching certificate at the undergraduate level (Carlson, 2018). The state of Georgia has a waiver for school districts to request undergraduate education teacher candidates serve as the teacher of record (Georgia Professional Standards Commission, 2009).

Dr. Mack Bullard, Director of Strategic Talent Management for his district, named one model currently used in Georgia as the *intern as teacher* model, but there appeared to be a lack of research about this model other than reports presented by faculty from universities who have interns as participants. The *intern as teacher* model places a salaried teacher candidate in a classroom as the teacher of record while completing their final year of studies (Biek & Sartin, 2019; Huss & Harkins, 2013). The model provides a mentor for each candidate for 50 percent of the day. Districts have leeway to determine what mentors do for the remaining 50 percent of the day, but Bibb County and Griffin-Spaulding County assign one mentor to two different intern candidates to split their time.

As demonstrated in the forthcoming literature review, effective mentoring processes and models provide support for teacher candidates as well as new teachers. These processes allow teacher candidates to develop self-efficacy which is an essential characteristic for teachers (Clark, Byrnes & Sudweeks, 2015). Researchers have illustrated how to support student teachers in various student teaching models (Beutel, Crosswell, Willis, Spooner-Lane, Curtis, & Churchward, 2017; Garza, Reynosa, Werner, Duchaine, & Harter, 2019) and how to develop their self-efficacy (Crichton & Gil, 2015; Moulding, Stewart, & Dunmeyer, 2014). Mentoring new teachers has been researched to include considerations for induction programs (Dougherty, & Sirinides, 2017; Garcia & Weiss, 2019; Ingersoll, National Council on Teacher Quality, 2013) and were linked to school climate and culture (Center on Great Teachers and Leaders, 2019; Cohen & Thapa, 2017; Gruenert & Whitaker, 2019; Payne, 2018; The Center on School Turnaround, 2017). What has not been considered is whether mentoring is a complex adaptive system (Janssen, van Vuuren, & de Jong, 2016; Jones & Corner, 2012). Researchers Axelrod and Cohen (2000) described a complex adaptive system (CAS) as:

> **agents**, of a variety of **types**, us[ing] their **strategies**, in patterned **interaction**, with each other and with **artifacts**. **Performance measures** on the resulting events drive the **selection** of agents and/or strategies through processes of error-prone **copying** and **recombination**, thus changing the frequencies of the types within the **system.** (p. 154)

While Axelrod and Cohen (2000) do not specifically discuss mentoring in their research, research on mentoring has been traditionally researched through a linear lens where research is either conducted through the lens of the mentor or the mentee (Janssen et al., 2016).

In the aforementioned paragraph, Axelrod and Cohen (2000) defined a CAS and bolded terms that work together to outline the necessary components of a CAS. Because of the importance of each term, a brief description of each helps gain an understanding of how a CAS is defined and used in the study.

Agents are individuals who use a variety of methods to work together with other agents in a specific location. In this study, the agents are mentor teachers, interns, individuals within a K-12 setting, and other unknown individuals explored through research. The strategies or agents sharing something in common within a CAS are known as types. The study will determine the different types within the *intern as teacher* model. Interactions are the contact between types within a system (i.e., that could include a K-12 school, classroom, school district and/or university). When agents use resources within a given location to elicit a response these are known as artifacts. This study will investigate resources used within the K-12 setting, classroom, school district and university and how agents use them to determine what are defined as artifacts.

Axelrod and Cohen (2000) acknowledged performance measures to be a difficult term to describe however, they determined performance measures are used by and defined by agents within a system. Agents themselves determine whether to modify a performance measure; likewise, agents determine whether to apply a performance measure. As the definition of a CAS has illustrated, performance measures drive "the selection of agents and/or strategies" (Axelrod & Cohen, 2000, p. 154). Selection in a CAS is a complex term used to describe how one can harness complexity. Selection in a CAS has two approaches: "selecting at the level of entire agents and selecting at the level of strategies" (Axelrod & Cohen, 2000, p. 118).

In a CAS, two processes, copying and recombination, define the selection of agents and/or strategies. Copying within a CAS is more than the traditional biological approach of reproducing something in its exact form. Within a CAS, more abstract forms of copying may occur through the selection and copying of processes. As with any method of copying, there is the possibility of copying with error that results in a new type (i.e., strategy or agent). Copies made with errors provide variety within a system. Copying with errors occurs when the selection or copying of processes is copied with a type of mutation because it is not copying exactly as the original source (Axelrod & Cohen, 2000). Axelrod and Cohen (2000) used the example of how viruses are copied with mutations and have slightly different variations of the original virus. In the *intern as teacher* model, copying with error may be the strategies mentor teachers use to mentor teacher candidates. The mentor teachers were trained to use a specific mentoring strategy, but when they change it because they disagree with a research-based strategy they are introducing mutations to the original strategy. Recombination describes new "mechanisms that can both create new types and change relative frequencies" by taking parts of agents and/or strategies and combining them into a novel variation. Recombination mechanisms are likely to occur in complex adaptive systems (Axelrod & Cohen, 2000). Recombination occurs when mechanisms are implemented "to leverage performance criteria in their creation of the new agents or strategies because they draw parts of the new agent or strategy from those that are already succeeding" (Axlerod & Cohen, 2000, p. 43) rather than from random mechanisms not shown to be successful. Recombination may occur in the *intern as teacher* model when strategies or agents already successful are used with research-based practices in the new *intern as teacher* model to provide criteria for success to the system. Axelrod and Cohen (2000) cautioned readers there should be a balance between copying and variety by determining "what should interact with what, and when?" (p. 151). Finally, systems are known as the interacting parts, agents, strategies, artifacts, and factors.

While Axelrod and Cohen (2000) did not specifically discuss mentoring in their research, mentoring research was performed through a linear lens where research was conducted either through the lens of the mentor or the mentee (Jones & Corner, 2012). Mentoring research was conducted in a way to see how mentors and/or mentees acted upon a system. Research through a linear lens tends to view the processes within the mentoring relationship rather than seeing how interactions are dynamic and changing in response to the complex system (Jones & Cohen, 2012). In the CAS model, research may show how the mentors and mentees understand the system they are working within and respond to the system to create change through interactions, strategies, and measurements of success (Jones & Corner, 2012).

Problem Statement

With the decline of teacher production in Georgia, districts are turning to alternative preparation routes (Georgia Professional Standards Commission, 2009) while universities are struggling to recruit candidates into teacher preparation programs (Henson et al., 2015). The *intern as teacher* model may provide an alternative solution in ensuring teachers are prepared through a traditional program while providing them the added benefit of a salary during student teaching (Huss & Harkins, 2013). Before fully turning to this alternative model for undergraduate teacher candidates, essential is to determine how to define success within the *intern as teacher* model to ensure overall benefits for intern teachers, mentor teachers, and stakeholders.

The traditional route of initial teacher preparation requires teacher candidates to complete a minimum of one semester of student teaching (Georgia Professional Standards Commission, 2020). During the student teaching semester, teacher candidates are paired with a mentor teacher who has a minimum of three years' experience in the area of certification the candidate is seeking. During a traditional student teaching experience, the candidate works closely with a mentor teacher as the mentor guides them and models for them while eventually allowing the teacher candidate to take over full responsibility of the class. However, with the teacher shortage in Georgia and Arizona, student teachers are being asked to fill vacant teaching positions without the support of a full-time mentor teacher (Arizona Department of Education, 2017; Biek & Sarton, 2019; Carlson, 2018; Huss & Harkins, 2013). This new concept, recently known as the *intern* *as teacher* model in Georgia, has given school districts the flexibility to accept student teachers who do not yet hold full certification. There is limited research available on this new model, yet school districts are requesting university partners allow them to hire these novice student teachers as the teacher of record (Biek & Sarton, 2019; Huss & Harkins, 2013).

With the novelty of this new model, imperative is to consider what defines success for these *interns as teachers*. There is research accounting for the types of internships available to traditional initial certification programs as well as research about alternative certification programs (Chiero et al., 2012; National Education Association, 2019). Mentoring pre-service teachers has been widely researched to determine what mentor teachers should do when working with student teachers (Beutel et al., 2017; Morrissey & Nolan, 2015). Researchers have found mentoring pre-service students is a complex process with many interacting factors. Purposeful mentorship allows the mentor teacher and student-teacher to engage in conversations about planning, teaching, and learning (Ambrosetti, 2014). Opportunities given to student teachers may include observing effective mentors and participating in discussions about why the mentors use specific teaching models. Missing from the research is this new idea of a traditional initial certification program using a form of alternative preparation without the candidate holding a bachelor's degree or higher. Questions exist such as: What guidelines are the school districts following? Are they promoting the use of a mentor teacher and to what degree? What strategies are the mentor teachers, who are not working in the classroom full-time with the intern, using? What are the interactions occurring during the internship between mentor teachers and interns? These are all questions one would hope to determine through a qualitative case study. Therefore, this study intends to extend the research conversation to determine types of strategies used by Georgia school district personnel, how participants in the *intern as teacher* model interact within a CAS, and the performance criteria applied to the process.

Purpose of the Study

The purpose of this study was to explore what constitutes success for interns in the *intern as teacher* model during the last semester of undergraduate education through a paid student teaching experience in South Georgia. Determining success is an important concept in Axelrod and Cohen's (2000) framework because when one understands how success is measured within a CAS, users are able to take advantage of their understanding of a CAS and change or adapt it to meet the needs of the organization. When one works within a CAS, important is to understand which mechanisms are currently being used, which ones need to be copied or recombined, and what needs to be destroyed (or eliminated) from the system. Axelrod and Cohen (2000) showed to make changes within a CAS, measures of success should be defined. The *intern as teacher* model is a new concept in Georgia and without understanding how the agents work within the system and use strategies to make it successful, the *intern as teacher* model may not be successful down the line. Furthermore, when stakeholders need to determine whether to implement the model at their institution, they need to understand what made the model successful in order to copy or recombine their current practices.

To explore what constitutes success in the *intern as teacher* model, this study begins by exploring four factors: (1) variation, (2) selection, (3) interaction, and (4) performance measures. Each of the four factors were described earlier to highlight the bolded terminology in Axelrod and Cohen's (2000) definition within their CAS framework. Building upon the existing literature surrounding intern teacher certification (Arizona Department of Education, 2017; Biek & Sarton, 2019; Carlson, 2018; Huss & Harkins, 2013) and mentoring (Janssen et al., 2016; Jones & Corner, 2012; Morrissey & Nolan, 2015), the research-based evidence can assist in determining if this process is beneficial for candidates and districts in Georgia. Although no formal research on an *intern as teacher* model has been located, literature about residency models and alternative certification existed (Chiero et al., 2012; National Education Association, 2019). News article written by Grand Canyon University in Arizona describing their partnership with the Arizona Department of Education also were found (Carlson, 2018). The Arizona Department of Education (2017) implemented a policy to allow undergraduate teacher candidates to apply for an intern certificate to allow them to teach as the teacher of record. This new policy is similar to the *intern as teacher* model, but more research should be performed to determine the impact of the intern certificate and P-12 students. Reports by Biek and Sarton (2019) and Huss and Harkins (2013) showed how Middle Georgia State University and the University of West Georgia were partnering with local school districts implementing the *intern as teacher* model, but as of this report they have not published any articles about the process. Conversely, research on mentoring has expounded the need to consider how mentoring is viewed as a complex adaptive system with many factors impacting the system (Janssen et al., 2016; Jones & Corner, 2012). Morrissey and Nolan's (2015) research discussed the differences in mentoring processes and where there were many models used without consistency across teacher preparation programs. There were also many types of mentoring found within the research including educative mentoring (Daly & Milton, 2017) and mentoring frameworks (Garza et al., 2019). This dissertation study highlights components of mentoring within a complex adaptive system to include in the *intern as teacher* model before and during the paid internship.

Research Questions

The goal of this case study is to answer the central question, "What constitutes success for interns in the *intern as teacher* model in South Georgia?" Additional questions for the research include:

1. What decisions must be considered when implementing the *intern as teacher* model in a school district?
2. Do districts and universities have the time and resources to invest in the intern?
3. How do school districts and EPPs harness complexity within the model?

The research problem seeks to explore the interactions between agents, during a paid student teaching experience, and to identify artifacts and strategies the agents feel help the model become successful. As Axelrod and Cohen (2000) described in their framework, a CAS included the core concepts of variation, selection, interaction, and performance measures. A CAS must include a variety of agents within a system selecting strategies and artifacts when interacting with other agents or environments (Axelrod & Cohen, 2000). When determining if a system is successful, organizations should determine measurement criterion used within the system. Determining performance criteria allows organizations to leverage the components working well or to adapt other factors to improve the system (Axelrod & Cohen, 2000). The research questions and connection to the CAS are discussed further in the theoretical section of this chapter.

Significance of the Study

Supporting student teachers and interns is a process where mentors and mentees interact with one another regularly and help build the perceptions student teachers have about their ability to teach. When mentors implement specific models and processes of mentoring, they meet the intern where they are and allow the intern to become a co-learner in the mentoring process (Beutel et al., 2017). Interacting with one another and developing the intern's professional knowledge is influenced by environmental factors, individual-level factors, and interaction styles (Kram & Higgens, 2008a; Janssen et al., 2016; Jones & Corner, 2012). In line with Axelrod and Cohen's (2000) definition of complex adaptive systems, I contend the *intern as teacher* model is a form of a CAS. Studying the *intern as teacher* model can provide information to school districts and teacher preparation programs to inform them about the processes supporting mentors and interns along with the measurement criteria to determine success within the model.

As previously discussed, current mentoring research had primarily focused on the processes used by mentor teachers (Kram & Higgens, 2008a; Janssen et al., 2016; Jones & Corner, 2012) or the perceptions student teachers have of themselves (Clark et al., 2015; Spooner, Flowers, Lambert, & Algozzine, 2008). This research was typically linear and did not consider the complexity of the enter system within which mentors and student teachers are interacting. Utilizing a CAS framework, created by Axelrod and Cohen (2000), allows current research to consider how the *intern as teacher* model is a complex adaptive system where agents use a variety of strategies and artifacts within their interactions. Identifying what constitutes success in the *intern as teacher* model is important because there are many factors potentially impacting a model and make it unsuccessful or successful. Researching the factors involved in a CAS model can help future stakeholders understand the types of interactions important within a system, the strategies used within the system, and how the variety within a system enriches the environment. The CAS model also allows users to identify the expected performance measures within the model to leverage to allow the *intern as teacher* model to be successful.

Theoretical Framework

The CAS framework was chosen to explore the case study *intern as teacher* because of the research completed by Janssen, van Vuuren, and de Jong (2016) and Jones and Corner (2012) who described a need for considering how mentoring was a complex adaptive system. The framework provided by Axelrod and Cohen (2000) offered many research questions for organizational leaders and future researchers to use when beginning studies in CAS.

A central research question was created in anticipation of what to expect from the outcome of a CAS analysis using the theoretical model. The case study research question is: What constitutes success for interns in the *intern as teacher* model in South Georgia? This question focuses on the four core concepts outlined in the theoretical model (see Figure 2). Three subquestions, based upon the theoretical model identified earlier, explore the interaction and relationship between agents, strategies, artifacts, and more.

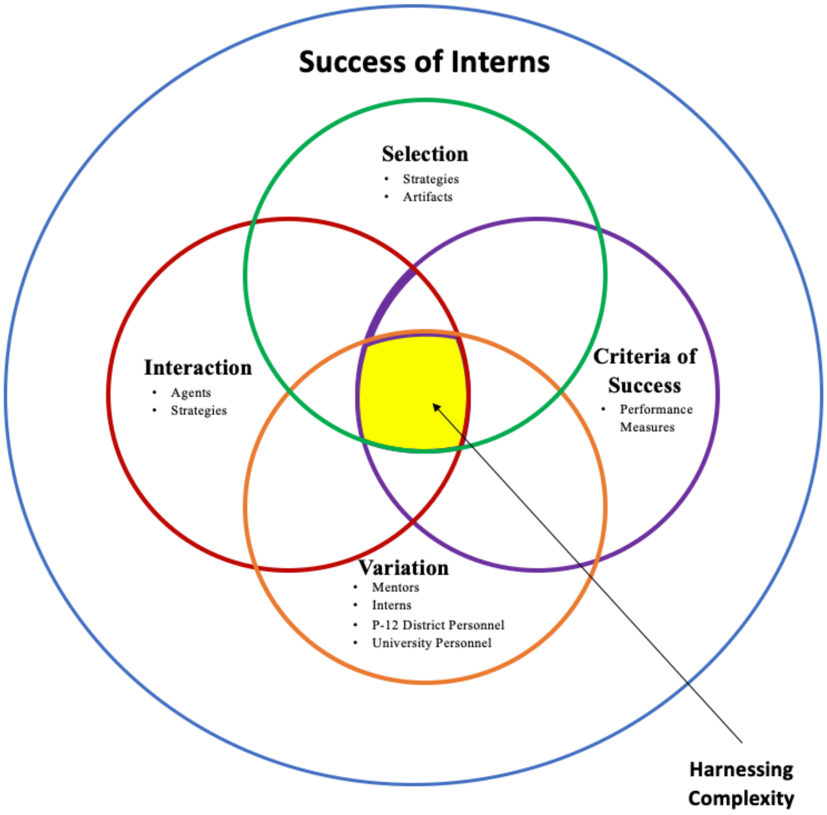

Success of Interns
Selection
• Strategies
• Artifacts
Interaction
• Agents
• Strategies
Criteria of Success
• Performance Measures
Variation
• Mentors
• Interns
• P-12 District Personnel
• University Personnel
Harnessing Complexity

Figure 2. Theoretical framework for the *intern as teacher* model inspired by Axelrod and Cohen (2000).

Figure 2 was created considering the CAS framework described by Axelrod and Cohen (2000) and aligned to this study. Axelrod and Cohen (2000) acknowledged although their framework was outlined in individual sections within their book, *Harnessing Complexity: Organizational Implications of a Scientific Frontier,* complex adaptive systems work together with many moving parts. As shown in the figure, the individual factors within selection, interaction, variation, and criteria of success will be studied to determine how school districts can "harness complexity" within the system. Harnessing complexity means "deliberately changing the structure of a system in order to increase some measure of performance, and to do so by exploiting an understanding that the system itself is complex" (Axelrod & Cohen, 2000, p. 9).

The framework provided by Axelrod and Cohen (2000) offered many research questions for organizational leaders and future researchers to use when beginning studies in CAS. Their questions were adapted to help explore this study's research questions. Table 1 shows the alignment between the original questions proposed by Axelrod and Cohen (2000), the adapted exploratory questions for further exploration during interviews with participants, and the alignment with the four factors shown in Figure 2. The questions shown in Table 1 were not used as the research questions for this study but were used to form the research questions and structure the interview questions for the data collection process. To show the alignment between this study's research questions and each of the factors described in Figure 2 and Table 1, a discussion of how the connection between the research questions and the study is necessary.

Table 1

Adapted Exploratory Research Questions from Axelrod and Cohen's (2000) Framework

Exploratory Question	Questions proposed by Axelrod and Cohen (2000, pp. 154-155) and Adapted for the study	Alignment to the framework	Alignment to research questions
1	**Original**: What are the populations of agents in the system? In particular, who can copy strategies from whom? **Adapted**: What are the populations of agents (mentor teachers, interns, individuals within a K-12 setting, and other unknown individuals) who have the capacity to interact within their school or school district with other individuals in the system? In particular, who can copy methods used in the school or school district (strategies) from whom?	**Variation**: exploring the populations of agents within the K-12 setting where mentors and interns are working	Subquestion 1 Subquestion 3
2	**Original**: What are the strategies, agents, and artifacts in the system? What are the ideas, rules of thumb, routines, and norms that agents on as they act? What are the tools or resources that they rely on? **Adapted**: What are the methods (strategies) used in the classroom, school, or district? Who are the agents with the capacity to interact within their school or school district with other agents? What are the resources (artifacts) within a given location used by agents in the system? What are the ideas, rules of thumb, routines, and norms agents rely on as they act? What are the tools or resources upon which individuals who have the capacity to interact within their school or school district with other individuals rely?	**Variation**: identifying the strategies, agents, and artifacts in the system **Interaction**: selection occurs by the variety and interactions of agents within the system	**Variation:** Subquestion 1 Subquestion 3 **Interaction:** Subquestion 1 Subquestion 2 Subquestion 3

3	**Original:** What are the patterns of interaction among types? Are some agents following others? Are there agents, or signals, that should be followed? **Adapted:** What are the patterns of interaction among methods used in the classroom, school, or district or agents that exhibit something in common (types)? Are some agents following others? Are there individuals, or signals, that should be followed?	**Interaction:** identifies the patterns of interaction among types, who is following whom, and pinpoint which agents, or signals, should be followed to implement the required changes necessary in the *intern as teacher* model	Subquestion 1 Subquestion 3
4	**Original** : What interventions would change the patterns of interaction (in ways that are likely to be useful to the system as a whole; to you, as the designer; or to you, as one of the agents?) Are there physical of conceptual neighborhoods of interaction that need help in forming, or that deserve to be disrupted? **Adapted**: Are there physical or conceptual neighborhoods of interaction needing help in forming or deserving to be disrupted (or changed from its current practice)?	**Interaction**: focuses on determining where there may be weaknesses or strengths in the *intern as teacher* model that inhibit its success and changes that may need to recommended	Subquestion 1 Subquestion 3
5	**Original** : Is selection acting upon agents or upon strategies? Or is the system a hybrid, with selection at both levels? **Adapted**: Is selection acting upon agents who have the capacity to interact within their school or school district with other agents or methods used in the classroom, school, or district? Is the system a hybrid with selection at both levels?	**Selection**: helps identify how selection takes place (i.e., upon agents or strategies)	Subquestion 1 Subquestion 3

6	**Original** : What criteria of success does the system use to select the types that become more (or less) common over time? Are there multiple criteria within the population? Is selection done by many agents, or only by a few? Do performance measures make systematic mistakes in attributing credit? **Adapted**: What criteria of success does the system use to select the agents that exhibit something in common to become more (or less) common over time? Are there multiple criteria within the population? Is selection done by many individuals who have the capacity to interact within their school or school district with other individuals or only by a few? Do performance measures make systematic mistakes in attributing credit?	**Criteria of Success**: specific criteria the district uses to determine success of the model	Subquestion 1 Subquestion 2 Subquestion 3

Research subquestion 1, *What decisions must be considered when implementing the intern as teacher model in a school district?*, addresses variation, interaction, selection, and criteria of success in a CAS. Variation refers to the agents in a system; therefore, there will be a variety of decisions made regarding the *intern as teacher* model. In the "Harnessing Complexity" model, Axelrod and Cohen (2000) considered what was "the right balance between variety and uniformity" (p. 32) through the major mechanisms affecting balance in the system. These mechanisms include the types of agents in a system and copying mechanisms used in a school or school district. This consideration is important when considering the decisions made about the implementation of the *intern as teacher* model. Building on the variety within the system, there will be many interactions simultaneously occurring by mentors, interns, and decision makers. Selection will build upon variety and interaction when decisions occur regarding which mentor teachers to use, hiring interns, and the processes implemented by the districts to make the model successful. Criteria of success will be identified by decision makers and refined throughout the study. Research Question 1 therefore aligns with the exploratory questions 1, 2, 3, 5, and 6 in Table 1 and will be further discussed throughout this dissertation.

Research Question 2, *Do districts and universities have the time and resources to invest in the intern?,* addresses variation, interaction, selection, and performance criteria. This subquestion aligns with a CAS because it will show the variety of ways districts are approaching the *intern as teacher* model through the selection of mentors, interns, mentoring approaches, and resources they provide to the model. This study will seek to determine what is required, if anything, to invest in the *intern as teacher* model and what the benefits of investing will highlight for future implementation. Illustrated in Table 1, variation is explored for this question by looking at the types of strategies, agents, and artifacts districts may need to invest in to help the model be successful. Axelrod and Cohen (2000) recognized in their model there are physical or conceptual neighborhoods of interaction that may or may not deserve changing from its current practice. There are also decisions to be made about the selection of the factors to use; therefore, selection requires consideration because of the variation in factors within the individual system. Performance criteria is explored and considers the factors of interaction, selection, and variation. The performance criteria will also help to answer what districts use to determine performance criteria within the model. The exploratory questions in Table 1, linked to research subquestion 2 include questions 2, 4, and 6.

Research Question 3, *How do school districts and EPPs harness complexity within the model?*, will be answered upon an interpretation of the data and a discussion of the themes and inferences in forthcoming chapters. As shown in Figure 2, harnessing complexity requires an analysis of each of the factors in a CAS to understand the *intern as teacher* model and to assess the effectiveness of the processes to determine changes to benefit the *intern as teacher* model. The exploratory questions shown in Table 1 all work together to help identify specific elements within this study to build an argument for how schools and districts can harness complexity within the model.

Bringing all of the subquestions together allows one to answer the overarching question, *What constitutes success for interns in the intern as teacher model in South Georgia?*. This study will describe how the *intern as teacher* model works as a complex adaptive system and implications determined for the model as described in Chapter VI.

Summary of Methodology

This study employed a case study approach allowing for “an in-depth description and analysis of a bounded system” (Merriam & Tisdell, 2016, p. 37). In line with Yin’s definition (as cited by Merriam & Tisdell, 2016), case studies allow researchers to investigate a bounded study where the phenomenon’s variables are unable to be isolated from the context. The definition of case studies provided by Merriam and Tisdell (2016) is used throughout the study rather than Yin’s framework. Having similarities between the descriptions, there is one striking difference between the two definitions. Yin’s (Merriam & Tisdell, 2016) framework suggested researchers minimize their interactions with subjects to reduce researcher bias (Harrison, Birks, Franklin, & Mills, 2017). Although Yin's (Merriam & Tisdell, 2016) subjectivity and focus on replication of social science studies are intriguing, Merriam and Tisdell's approach is more flexible for this research. This case study uses Merriam and Tisdell's (2016) approach to research the bounded system where interns and mentor teachers participate during the *intern as teacher* model in South Georgia to determine what constitutes success for interns.

Maximum variation sampling is appropriate for the research because it will help identify common themes and outcomes prevalent in the *intern as teacher* model in South Georgia. This type of sampling yields "high-quality, detailed descriptions of each case . . . documenting uniqueness, and . . . important shared patterns that cut across cases" (Patton, 1990, p. 172). Although maximum variation sampling does not necessarily yield generalizable findings (Patton, 1990), it allows unique program information to be provided to those interested in implementing the program in South Georgia.

Delimitations

Some delimitations can affect the study. Delimitations are the boundaries within which a study occur and are controlled by the researcher (Locke, Spirduso, & Silverman, 2014). The delimitations for the study include the following: population sample, intern characteristics, geographic location of the study, and the *intern as teacher* model.

The population sample was chosen based on conversations with other South Georgia colleges and universities to identify student teachers completing an *intern as teacher* model with their university. The study only includes teacher candidates in a university considered in the location of Macon or South. A description of the location is given in the methods section of this dissertation. Geographic location limited to a location of Macon or south limited the sample size and units of analysis in the study. However, the case study approach allowed me to gain in-depth information on a few cases to provide information to others considering the use of the *intern as teacher* model in south Georgia. Although this sample size could be considered to the limit the amount of reliable data, the methods described in Chapter 3 ensure rich data was collected.

Interns are defined as teacher candidates enrolled in an undergraduate education program, identified as teachers of record for classrooms, and receiving pay during their final semester or year working toward initial certification (Biek & Sartin, 2019; Huss & Harkins, 2013). The *intern as teacher* model requires the intern to be paid for their services as a teacher of record in a P-12 school district and assigned a mentor teacher by the district. Identifying paid interns in undergraduate studies is a limitation to this study because there are few interns in Georgia being paid during student teaching. However, the purpose of this research was to determine what constitutes success in the *intern as teacher* model; therefore, necessary was to limit the study to paid interns. There may be consequences to researching paid interns. For example, mentor teachers may not be receptive to mentoring a paid intern because of their beliefs. Some mentors may draw from personal bias and believe student teachers should not receive pay. Another consequence could be interns may not be as honest with their answers for fear of retaliation from the school district. Pertinent is to put the mentors and interns into comfortable situations where they understand their responses to questions and observations are kept confidential. Important is to also provide them with the purpose of the study where they take ownership for the research and know they are helping to provide information to allow stakeholders to make more informed decisions later.

Assumptions

The methods of this study were controlled by a qualitative case study methodology. Researchers utilizing a qualitative methodology "assume reality is subjective and multiple as seen by participants in their study" (Simon, 2011, para. 1). Therefore, this study was limited to the perceptions of the participants and not the researcher's perceptions. Data collection included interviews and document collection. This study relied on honest and open answers from the participants. Participants were assured their anonymity and confidentiality of participation in the study.

Selection bias was a potential threat to the study because I interviewed intact groups of mentors and interns. Selection bias occurs when there are differences in groups potentially influencing the research before research begins (Ary, Jacobs, Irvine, & Walker, 2018). I communicated with other universities and school systems to identify potential candidates. Candidates had to meet the requirements outlined in the methods section of this dissertation, but the candidates were matched with their mentors before the research began by their university and/or school district liaisons. Therefore, currently paired mentors and interns bind this study.

The experimenter effects are unintentional effects a researcher has on research (Ary et al., 2018). Researchers bring certain assumptions, backgrounds, and prior knowledge with them when conducting research known as *bias* (Creswell & Creswell, 2018). My previous role as the Field and Clinical Experiences Director posed a potential bias because I know the candidates employed in the *intern as teacher* model for my university. I may have indirect relationships with the interns due to my previous work with them during field experience seminars. As a former mentor teacher who hosted candidates in my classroom, I have empathy for the teachers who are in the mentor role. Consideration was given as to how my current and past experiences can influence the study and ensure I do not allow those experiences to affect my interpretation of the data. Working closely with school districts who are using the model, I provided advice on how the district should form the model selected for use in years past. I remained aware of this information so I did not inadvertently influence the participants by giving them the knowledge I possess on what I believe should be occurring.

Another area of bias I considered was my observance of issues between the mentor teacher and intern leading me to make suggestions to them. I relied on the judgment of the university supervisor, who was not part of the study, to handle those tough situations. My passion surrounding the work with mentor teachers and interns posed a potential bias because I could be inclined to interpret data in a way that made the mentors or interns "look better" on paper than it appeared in the research. Because of my enthusiasm for the topic, I believe this did not pose a threat. I genuinely wanted to find out what was happening and how to eventually improve upon the processes.

Definition of Terms

There are a variety of definitions used throughout research to explain terms associated with mentoring, student teaching, and complex adaptive systems. For the purposes of this study, the following words and definitions are used:

Interns: Teacher candidates enrolled in an undergraduate education program, identified as teachers of record for classrooms, and receiving pay during their final semester or year working toward initial certification (Biek & Sartin, 2019; Huss & Harkins, 2013).

Mentor teachers: Certified teachers working with interns on a part-time basis. Mentor teachers may teach 50 percent of the day in the classroom with interns, teach in a separate classroom, or have a role as an instructional coach in the school (Biek & Sartin, 2019; Huss & Harkins, 2013).

Complex adaptive system (CAS): Agents, of a variety of types, use their strategies, in patterned interaction, with each other and with artifacts. Performance measures on the resulting events drive the selection of agents and/or strategies through processes of error-prone copying and recombination, thus changing the frequencies of the types within the system (Axelrod & Cohen, 2000, p. 154).

Agents: Individuals who have the capability to interact within their location with other agents by using a variety of methods. Agents impact the world through their interactions with other agents and information they possess (Axelrod & Cohen, 2000).

Strategies: Methods used by agents depending on a given situation that may change as the agents within the location change (Axelrod & Cohen, 2000).

Artifacts: Resources within a given location used by agents to elicit a response based on how it is used by the agent (Axelrod & Cohen, 2000).

Types: Strategies or agents in a CAS that exhibit something in common (Axelrod & Cohen, 2000).

Interactions: Contact between types within a system (Axelrod & Cohen, 2000).

Summary

Chapter 1 of this study consisted of an introduction to the problem, followed by the statement of the problem, the purpose of the study, research questions, significance of the study, the theoretical framework, summary of methodology, delimitations, and definitions of terms. There is a teacher shortage in South Georgia school districts inhibiting the hiring of teachers for many subject areas. School districts are partnering with universities in identifying teacher candidates who can serve as the teacher of record in their districts during their semester or year of teacher preparation. To address the needs presented by school districts and ensure a successful model is implemented for both the school district and interns, the purpose of this study is to explore what constitutes success in the *intern as teacher* model for interns participating in a paid internship during their final semester of undergraduate education through a complex adaptive systems theoretical framework. Chapter 2 provides a summary of the literature showing how the theoretical framework extends the research on mentoring protégés. The chapter further conceptualizes the research on mentoring processes drawing upon research on induction supports, school climate and culture, and the previously mentioned factors to develop a full contextual understanding of this proposal's research questions and support the intended research design. This helps connect research through the lens of a CAS framework.

CHAPTER II

LITERATURE REVIEW

Literature reviews help researchers to develop an understanding of the breadth and scope of a particular research problem (Roberts & Hyatt, 2018). Understanding the connections between the history of a particular problem and what has been researched helps researchers to become experts in their topic and develop the theoretical or conceptual framework to guide the study (Roberts & Hyatt, 2018). This literature review is organized in five sections. The first section reviews research on the teacher shortage in Georgia and decisions districts make regarding hiring teachers. The second section reviews literature on effective mentoring processes and models. The third section reviews research on teacher induction programs. The fourth section reviews the literature on the theories considered for the study followed by the final section reviewing the theoretical model for this study.

Georgia Teacher Shortage

Georgia has reached a time when there are not enough teachers being prepared to meet the needs of all schools. Therefore, there are teacher shortages in many fields (Georgia Department of Education, 2019; McVey & Trinidad, 2019), although a recent study conducted by McVey and Trinidad (2019) showed researchers in the field of teacher retention may not have described a true picture in the teacher shortage. Georgia was highlighted as a state with true shortages in specific fields. Certification fields in Georgia, where researchers show a high demand, included the areas of foreign language, special education, mathematics, and science (McVey & Trinidad, 2019). Likewise, McVey and Trinidad (2019) found teachers in rural districts, Title 1 districts, and areas serving predominately minority students were the hardest to staff in all areas. Districts may receive Title 1 designations if the district shows "at least 35 percent of the children are from low-income families; i.e., the 35-percent rule . . . [and] the poverty level must be 40% or above" (Georgia Department of Education, 2018, pp. 6-7). Many school districts in South Georgia meet one or more of the designations given by McVey and Trinidad (2019) and struggle to fill positions with quality educators. With an inability to hire teachers in South Georgia, school districts are requesting universities allow their student teachers to act as the teacher of record during their last semester or two semesters of undergraduate preparation (Biek & Sarton, 2019; Huss & Harkins, 2013).

School districts have the option to hire teachers without certification and allow them to complete the Georgia Teacher Alternative Preparation Program (GaTAPP) while working on a waiver (Georgia Professional Standards Commission, 2009). McKillip and Farrie (2019) reported alternatively certified educator employment has risen since 2013 from 13% to almost 25% of new teacher hires (p. 2). It was found school districts with a majority of low-income and Black student populations were likely to have educators with alternative certification compared to wealthier districts with a majority White population. The percentage in low income and Black populations presented nearly 38% of newly hired teachers having alternative certification in Georgia. Researchers also found school districts serving the low income and majority Black populations had comparable salaries with slight differences to wealthier and majority White districts but struggled to retain teachers. They also found teachers new to the field holding alternative certification were more likely to leave the profession.

The Georgia Department of Education (GaDOE) offers school system flexibility to allow districts options and “focus on the academic achievement of students instead of statutory and regulation compliance” (Griffin & McGuire, 2019, p. 1). In 2015 school districts were required to notify the GaDOE of their intentions of staying as a Title 20 (no waivers) district, charter system or strategic waiver district (Griffin & McGuire, 2019). Although there are many options for waivers in a school district, Griffin and McGuire (2019) found not all waivers are utilized by school districts. However, waivers for human resources and financial flexibility are most often used, including waivers for teacher certification. Griffin and McGuire (2019) found 92% of survey respondents utilized waivers for certification requirements where they were hired teachers who had “subject matter expertise rather than utilizing long-term substitutes or certified teachers lacking content knowledge” (p. 12). Researchers found there was a range in how districts utilized their waivers including limited usage where some districts only utilized certification waivers when teachers were working toward certification and extensive usage where districts used them without regard to progress toward certification (Griffin & McGuire, 2019). The only area where certification was not waived was in the special education field. No matter the type of waiver utilized by school districts, both in charter and strategic waivers systems, the ultimate goal of the usage is to increase student achievement. Therefore, school districts are held accountable for their waiver usage and must align the waivers towards academic achievement (Griffin & McGuire, 2019).

According to the Georgia Professional Standards Commission (GaPSC) Certification Division, there are 6,872 teacher candidates in the pipeline for Georgia (J. Fethe, personal communication, February 7, 2020). Of the 6,872 teacher candidates registered with the GaPSC, 2,134 are enrolled in 14 teacher preparation programs serving South Georgia. Those 14 teacher preparation programs are located in the following cities: Albany, Americus, Brunswick, Columbus, Fort Valley, LaGrange, Macon, Savannah, Statesboro, Thomasville, Tifton, and Valdosta. Although the numbers for teacher candidates in the Georgia pipeline appear to be large, the data includes information for individuals who enrolled in a traditional teacher preparation program and have not withdrawn from the education program (J. Fethe, personal communication, February 7, 2020). Therefore, the data includes teacher candidates beginning September 1, 2015 who (1) are currently enrolled and completing their education degree or (2) failed to complete an education program but did not withdraw from the program. Compounded by this issue are the number of students enrolled in specific education programs. As McVey and Trinidad (2019) stated, the majority of teacher candidates are enrolled in elementary education programs with fewer candidates going into the high-needs areas of math, science, and special education.

Where traditional teacher education programs in Georgia are competing with online degree programs, there is a decline in the number of candidates produced each year (Tio, 2018). The GaDoE keeps reports of teachers produced by institution on the Teacher Pipeline Database. The site shows the supply and demand of teachers in Georgia, reported in 2018, cautioning users the data only represents the number of teachers who went on to teach in Georgia (Georgia Department of Education, 2019). The

GaDoE also stated numbers are listed twice for some users such as those the GaDoE could not identify and which certification they had (i.e., completed program in Elementary Education but teaching in Special Education); therefore, they were counted in both categories (Georgia Department of Education, 2019). The site includes data for the number of candidates produced by teacher preparation programs compared to the number of teachers a school district needed. In the state of Georgia, there is a staggering number of teachers needed in all fields including elementary education (Georgia Department of Education, 2019). The Georgia Department of Education (2019) showed a need for 2,797 elementary teachers compared to the supply of 1,881 teachers across all providers in the state. Special education fields needed 3,989 teachers with only a supply of 1,085. Contradicting McVey and Trinidad's (2019) study which showed foreign language as a high demand, the Georgia statewide data showed the only field supplying more than the needed supply was world languages with 98 supplied and 20 demanded.

An example of teacher supply and demand for the Southwest Georgia P-20, including Albany State, Georgia Southwestern State University, Southwest Georgia RESA, Thomas University, and Valdosta State University, is illustrated below in Table 2. The districts included within the table include the districts considered part of the Southwest Georgia P-20 and include the following counties:

> Baker, Ben Hill, Berrien, Brooks, Calhoun, Chattahoochee, Clay, Colquitt, Cook, Crisp, Decatur, Dooly, Dougherty, Early, Echols, Grady, Irwin, Lanier, Lee, Lowndes, Macon, Marion, Miller, Mitchell, Quitman, Randolph, Schley, Seminole, Stewart, Sumter, Talbot, Taylor, Terrell, Thomas, Tift, Turner,

Webster, Worth, Pelham City, Thomasville City, and Valdosta City (Georgia Professional Standards Commission, n.d.).

As shown in Table 2, there is an overabundance of elementary teachers produced aligning with the research by McVey and Trinidad (2019), while there are high shortages in special education, English-language arts, and CTAE. Although the numbers for math and science are not as high, the supply is lower than the demand in those areas.

Table 2

Illustration of the Supply and Demand for the Southwest Georgia P-20 School Districts

Content Area for District	Supply	Demand
Elementary	124	37
Special Education	75	186
ELA	49	194
Social Studies	48	57
Science	42	76
Math	38	76
CTAE	20	153
Health/PE	20	46
Fine Arts	13	26
World Languages	3	0
ESOL	1	1

Effective Mentoring Processes and Models

Mentoring models and processes were frequently examined through the literature. Morrissey and Nolan (2015) produced a thematic analysis of early childhood mentoring programs in Victoria, Australia. Although the research reviewed programs in Australia, themes were concurrent with literature across the world. Australian researchers determined mentors used a variety of mentoring methods with new teachers to include phone calls, emails, and face-to-face meetings. Authors noted some schools implemented an appraisal/supervisory model, whereas others worked within a community of practice. Morrissey and Nolan (2015) described a community of practice as mentoring practices serving a different purpose than the traditional school-based mentoring programs (i.e., mentoring outside of the workplace). Beutel, Crosswell, Willis, Spooner-Lane, Curtis, and Churchward (2017) found some schools did not implement mentoring practices, while others fell along a continuum of mentoring approaches. Schools varied in their use of top-down approaches that included prescribed mentoring plans, and others included collaboratively created programs. Like the findings by Morrissey and Nolan (2015), the authors found some systems had mentoring coordinators and teams (Beutel et al., 2017). Mentoring processes were also identified to include components of "drive-by" mentoring, where mentors spoke with mentees informally as time allowed (Beutel et al., 2017; Morrissey & Nolan, 2015). Daly and Milton (2017) found educative mentoring was a beneficial model of mentoring not discussed by previously mentioned researchers. Educative mentoring is a practice allowing new teachers, in collaboration with a mentor, to critically examine their practices and question the best way to approach a problem rather than immediately trying to fix it (Daly & Milton, 2017). Educative mentoring could support the development of mentees by using a social dimension of learning within a professional community (Daly & Milton, 2017).

One method of mentoring pre-service teachers by a group of researchers was a mentoring framework built upon a variety of mentoring paradigms in teacher residency programs (Garza et al., 2019). The authors proposed there are constant interactions within their framework occurring between mentors and mentees allowing each to grow and develop through the process. The framework showed how pairs could move toward a transformative mentoring model by outlining the specific things mentors and mentees should do throughout the process. Whereas Daly and Milton (2017) focused primarily on the social connectedness of mentees within a learning community, Garza, Reynosa, Werner, Duchaine, and Harter's (2019) framework expanded beyond social connectedness to include ways to "develop pedagogically, psychosocially, and professionally" (Garza et al., 2019, p. 13). The awareness each person had about their roles and responsibilities was one of the factors described by Garza et al. (2019).

Mentoring Factors

Researchers identified many factors considered within the complex mentoring system, but researchers continued to focus research through a linear lens rather than considering the interplay between mentoring relationships and the organizational context (Janssen et al., 2016). The factors studied through a linear lens included relationships, mentor training, mentor efforts, behaviors, communication, time constraints, and support (Ambrosetti, 2014; Baker & Milner, 2006; Bentley, Workman, & Overby, 2017; Beutel et al., 2017; Crichton & Gil, 2015; Graves, 2010; Janssen et al., 2016; Street, 2004). Teacher candidate self-efficacy was linked to each of the aforementioned factors in addition to the factor of time constraints in mentoring. However, studies have not demonstrated how those factors contributed to the success of a complex adaptive system (Janssen et al., 2016; Jones & Corner, 2012). Before describing the gaps in research related to mentoring and complex adaptive systems, a review of the studies on the factors is necessary.

Relationships

Relationships are the driving force in developing an individual's self-efficacy (Clark et al., 2015; Coleman, 1988; Kram & Higgens, 2008b). Documented instances of an unwilling or unknowledgeable mentor, known as negative formal mentoring, were shown to impact the relationships between mentors and mentees (Hamlin & Sage, 2011). Whereas negative formal mentoring affected relationships and mentoring dynamics, Garza and colleagues' (2019) framework outlined specific things each of the partners can do to support mentor-mentee relationship building. They proposed respecting the mentee's ideas while also building the concept of teamwork to allow the mentor and mentee to learn from and with one another. Dialogue journals and reflective-centered conversations were also found to help in the process of developing relationships and opening the lines of communication between mentors and mentees (Beutel et al., 2017; Crichton & Gil, 2015; Graves, 2010). Similarly, Ambrosetti (2014) situated mentoring as a reflective activity and suggested mentors must have the ability to consider their attitudes and practices toward mentoring.

Along the same lines in building relationships lies the concept of understanding the dynamics between individuals. Dynamics include characteristics of how mentor teachers and student teachers interact with one another as well as the support mentor teachers provide to student teachers. In some instances, mentor teachers do not lead an active role in the development of a teacher candidate (Dee, 2012). In others, the mentor teacher is, indeed, part of the team with teacher candidates (Baker & Milner, 2006; Gallo-Fox & Scantlebury, 2015; Goodwin, Roegman, & Reagan, 2016). There are a variety of ways mentor teachers interact with student teachers during traditional student teaching experiences. Some mentor teachers engaged in helping student teachers learn about the processes involved in teaching (Baker & Milner, 2006; Goodwin et al., 2016). When mentors engaged in the mentoring process, they benefited by receiving a type of professional development (Gallo-Fox & Scantlebury, 2015; Trevethan & Sandretto, 2017). Trust, willingness to collaborate, attitudes toward teaching and learning, and the communication between individuals all impact the dynamics between mentors and mentees (Bentley et al., 2017; Garza et al., 2019; Hamlin & Sage, 2011; Street, 2004).

Building relationships and having positive dynamics between individuals is the cornerstone of building the self-esteem of mentees as evidenced in the literature around mentee self-efficacy (Clark et al., 2015; Spooner et al., 2008). Perceptions, related to self-efficacy, impacted how interns perceived their teaching abilities at the end of a program compared to student teachers in traditional placements. Although the interns in Clark, Byrnes, and Sudweeks (2015) study were not traditional undergraduate students, the researchers found traditional student teachers had higher perceptions of their abilities than interns. Clark and colleagues (2015) implied without proper mentor support, interns would not develop at the same rate in self-efficacy as student teachers. Spooner, Flowers, Lambert, and Algozzine's (2008) findings contradicted Clark et al.'s (2015) conclusions because they did not find a difference between the types of internships nor the adverse relation of teaching perceptions.

Mentor Training

Training mentor teachers received during the time they participated in mentoring teacher candidates varied widely in the literature (Ambrosetti, 2014; Beutel et al., 2017; Callahan, 2016; Hoffman, Wetzel, Maloch, Greeter, Taylor, DeJulio, & Vlach, 2015; Janssen et al., 2016; O'brien & Forde, 2011). Mentor training, as outlined in the literature, requires a commitment from teacher preparation programs to provide mentors with clear, measurable goals to train and assess student teacher growth (Callahan, 2016).

One disservice to the profession is when there is a lack of training for mentor teachers and they fail to improve teacher preparation (Hoffman et al., 2015). Although training is lacking in many teacher preparation programs, where training is provided it appears to be very program-specific training for mentors providing them with limited support (Ambrosetti, 2014). With the wide variety of student teaching and field experiences for teacher candidates, mentors were often left to figure out how to mentor on their own (Hoffman et al., 2015). For example, Hoffman and colleagues (2015) found mentors who were not provided adequate training often resorted to mentor in the ways they were guided during their preparation studies. Mentoring based on the personal experiences of mentors often led to mentors training teacher candidates at the social level of fitting in with colleagues rather than challenging them where they could grow as educators (Hoffman et al., 2015). O’brien and Forde (2011) found teachers who possessed mentoring potential would benefit from training and grow into highly skilled mentors. However, those teachers were not provided with the skills and training needed.

Several researchers identified elements of mentor training to improve upon practices in the field (Ambrosetti, 2014; Beutel et al., 2017; Callahan, 2016; Hoffman et al., 2015; Janssen et al., 2016). Ambrosetti (2014) interviewed mentor teachers participating in a mentor program about what they needed in order to be successful. The authors found mentors needed a clear understanding of the various roles they would be required to fill during the mentorship. Mentors noted they needed a greater awareness of how relationships exist within the mentor-mentee dyad to change their practices. Having this awareness would allow them to engage in a shared understanding of the roles and expectations of both the mentor and mentee. They also acknowledged a need to have specific information about the teacher preparation program requirements and the ability to attend in-service trainings provided by the programs. Similarly to Ambrosetti's (2014) research, Janssen et al. (2016) found in-depth studies of mentoring was needed to gain an understanding of "the circumstances of and processes within . . . various dyads . . . [to] provide insight into how these mentoring processes influence their context" (p. 511). Beutel et al. (2017) described a developmental approach to mentor training illustrating how mentoring conversations required continuous and ongoing development where the mentor learned how to develop skills to lead mentees toward "reflection, dialog and criticality" (p. 167).

Support for Student Teachers

Throughout the literature, researchers used a variety of terms to describe what is known as support for student teachers. Terms used in lieu of support included recognizing and meeting the needs of student teachers (Aderibigbe, Gray, & Colucci-Gray, 2018; Callahan, 2016; Street, 2004), collaborative inquiry and encouragement (Beutel et al., 2017; Hudson & Hudson, 2018; Street, 2004), and frequent opportunities to receive feedback (Aderibigbe et al., 2018; Callahan, 2016; Street, 2004). Instances of a lack of support were also discussed in the literature (Aderibigbe et al., 2018). For example, non-collaborative mentoring contributed to a lack of support where mentors were unwilling to establish relationships with mentees. However, student teachers often would not engage in collaborative relationships because of their perception teachers needed to work alone.

Mentor Efforts

One study focused on student teachers' perceptions of the degree of effort mentors were putting into the mentoring process, and it affected student teachers' perceived developmental support in mentoring (Lejonberg, Sandvik, Solhaug, & Christophersen, 2018). The authors found a strong relationship between the two factors and found a strong correlation between effort and the perceived mentor's self-development orientation. Lejonberg and colleagues' (2018) research illustrated the importance of the mentor's effort but cautioned readers to consider effort is not necessarily the same as efficient and effective mentoring. The authors also found their results showed the mentor's self-development orientation or lack thereof could inhibit shared practices of innovation and investigation as a team.

Behaviors

Upon reviewing literature in coaching and mentoring student teachers, the topic of behaviors came into the conversation as the ways mentors and students act or react in a situation. Parsloe and Leedham (2009) explained behaviors one can observe in a mentoring situation. These behaviors included concepts of listening, working together weekly, interpreting verbal and visual messages, body positioning, and eye contact. In a coaching (or mentoring) situation, the way each person interprets behaviors can either impede the relationship or help a student teacher grow in their professional learning. The authors identified three types of listening skills each individual needs in a relationship: peripheral, apparent, and active. Peripheral listening occurs when one is listening to a speaker but also paying attention to other conversations or sounds in the room at the same time. Apparent listening is a behavior where a person appears to be listening but is not concentrating on the conversation. A more effective listening strategy is active listening.

Parsloe and Leedham (2009) described active listening as one requiring listeners to be aware of many factors in a conversation such as the tone a message is delivered, words used by the speaker to establish context, concentrating on what is being said, being mindful of the body language, and summarizing what the speaker stated. When mentors use active, or effective listening strategies they are demonstrating their ability to work with their mentee. In line with active listening, mentors should also include time for effective conversations to take place by working with their mentees on a weekly basis in sessions less than 75 minutes. The authors suggested setting aside an hour a week or month to engage in conversations. Another component of active listening is paying attention to visual and verbal messages to ensure prejudices are guarded and the speaker's message is clearly heard and understood. Acknowledging body language, or visual messages, allows individuals to trust the listener. Parsloe and Leedham (2009) estimated approximately 55% of messages are given through body language alone. Additionally, eye contact establishes trust between both a mentor and mentee. The authors estimated "acceptable eye contact is usually in the area of 60-70 percent during the course of a conversation" (p. 147). Mentors should be aware of a measure lower than 60-70% because it may inform them of whether the mentee trusts them or is being dishonest. One last factor Parsloe and Leedham (2009) considered were the positioning of desks during conversation. How individuals position themselves during conversations, either with barriers or without, notes whether individuals have a relationship exhibiting "openness, trust and harmony" (p. 147). The authors cautioned mentors to consider whether the desks create a barrier harboring a competitive or defensive position between the mentor and mentee.

Communication

As stated by Parsloe and Leedham (2009), “the success of coaching and mentoring depends largely on the quality of communication between the people involved” (p. 123). Researchers throughout the literature discussed communication because of its core existence in the mentoring relationship. Many researchers described strategies for how to establish communication and the types of skills mentors and mentees needed for a successful relationship and conversation (Boreen, 2009; Parsloe & Leedham, 2009). Researchers found strategies such as questioning (Boreen, 2009; Parsloe & Leedham, 2009; Steinmann, 2017) and planned discussions (Parsloe & Leedham, 2009; Steinmann, 2017) were essential to opening the line of communication. Other researchers, however, found even with pairs who appeared to be communicating, there was a question about what they were really talking about and if it was related to the teaching process (Boreen, 2009; Goodwin et al., 2016). Some mentors and mentees veered toward discussing personal issues occurring outside the classroom potentially reflecting an unprofessional relationship (Boreen, 2009) or cause a breakdown in communication (Parsloe & Leedham, 2009). In other instances, dialogue journals were used to communicate in lieu of face-to-face conversations (Graves, 2010).

Whereas there were negative instances of the lack of communication or minimal communication, as previously stated, questioning was one of the most effective strategies. Researchers found types of effective questioning techniques included: reflective, awareness-raising, justifying, hypothetical, probing, checking (Parsloe & Leedham, 2009), open-ended (Boreen, 2009; Parsloe & Leedham, 2009), and encouraging questioning (Boreen, 2009). Reflective, open-ended, and awareness-raising questions allow mentees to reflect on their experiences in the classroom and analyze situations more effectively rather than becoming defensive when a mentor asked, “What happened?” (Boreen, 2009; Parsloe & Leedham, 2009). Examples of awareness questioning included, “How did it feel when you were doing that?”, “What do you imagine it would look like if you did it differently?”, and “What can you do to lift the performance still further?” (Parsloe & Leedham, 2009, p. 157). Justifying questions allow mentees to state reasons for their decisions or for possible problems in a given situation (Parsloe & Leedham, 2009). Hypothetical questions allow mentors to determine how mentees respond to particular situations and promote ideas for future teaching strategies (Parsloe & Leedham, 2009). The authors introduced probing questions as a way to allow mentors to gain more information the mentee did not previously state. Checking questions allows mentors to rephrase what they think they are hearing the mentee say and check for their own understanding of a situation. Different from Parsloe and Leedham (2009) who focused on ways the mentor could question mentees, Boreen (2009) suggested encouraging student teachers to ask questions. By encouraging student teachers to ask questions, it showed student teachers it was appropriate to ask questions they have about the procedural and theoretical aspects of teaching and student learning.

The second effective strategy to encourage communication included planned discussions. Planned discussions are intentional conversations to engage mentors and mentees allowing them “to break through to new levels of understanding and insight on specific topics” (Steinmann, 2017, pp. 31-32). Parsloe and Leedham (2009) described effective conversations as those including a “focus, structure and, especially, good time management” (p. 14). They suggested mentors provide an agenda to the mentee and encourage them to take notes during the conversation. The authors also noted technology could reinforce communication when a physical meeting could not take place.

Time constraints

The concept of time and time constraints was mentioned throughout research to show barriers and needs for effective mentoring practices (Ambrosetti, 2014; Callahan, 2016; Garza et al., 2019; Sayeski & Paulsen, 2012; Street, 2004). A common theme about time surfaced in the discussions about setting aside time to mentor. Researchers found new and pre-service teachers needed the time spent with mentors to receive feedback from mentors, time to reflect on their abilities to teach, and time to prepare for teaching. Similarly, Street (2004) argued school districts and teacher preparation programs needed to help mentors find the time to work with their mentees to "negotiate participation and identify needs as the newcomers struggle to join the professional educational community as full participants" (pp. 22-23). Facilitative mentoring, posited by Sayeski and Paulsen (2012), promoted the use of time to reflect on teaching. One study conducted by Callahan (2016) found retired teachers had more time to provide feedback to new teachers and suggested school districts find a way to incorporate retired educators into their new teacher mentor programs. Another positive method for providing more time was found in the cases where pre-service teachers spent a year in the classroom with their mentors (Garza et al., 2019). Their study suggested mentors who worked with residency teacher candidates had more time to provide culturally responsive methods for new teachers because they were able to use a variety of mentoring methods over a considerable length of time. Both Callahan (2016) and Garza et al. (2019)

suggested the extended internships allowed pre-service teachers the benefit of mentoring from an experienced educator who had the time to work with their mentees.

Teacher Induction Programs

Teacher induction programs are worth mentioning because of how *interns as teachers* are hired. Interns are hired as school district employees; therefore, they are essentially first year teachers for the school district. Teacher induction has been used in the United States since the early 1980s (Reitman & Karge, 2019). However, researchers have determined there were differences between how induction was used in the earliest forms compared to today. In the early 1980s, new teachers were rarely assigned a mentor teacher (Reitman & Karge, 2019) whereas today induction programs vary greatly between states and districts (Ingersoll, 2012). Teacher induction is defined as "a process—a comprehensive, coherent, and sustained professional development process—that is organized by a school district to train, support, and retain new teachers and seamlessly progresses them into a lifelong learning program" (Wong, 2004). Teacher retention is at the backbone of teacher induction with the growing teacher shortage as described earlier in this literature review.

Early Studies

Ingersoll and Smith (2004) studied surveys of teachers from the National Center for Education Statistics' (NCES) from 1999-2000 and primarily data form their follow-up survey for 2000-2001. Ingersoll and Smith (2004) found "about two-thirds of beginning teachers said that they worked closely with a mentor . . . [including] large proportions of beginning teachers reported they participated in the various group and collective induction activities [Ingersoll and Smith] examined" (p. 34). With efforts placed by national and state policy makers, Ingersoll (2012) noted an increase in the number of induction programs for first year teachers “from about 50% in 1990 to 91% by 2008” (p. 50). However, the report was limited to data from the 2007-2008 school year which was the most recent data at the time. His data showed the most common forms of induction support included supportive communication with administrators and department chairs and ongoing feedback from a mentor teacher. The least common forms of induction support include having common planning times and collaboration with teachers in the same subject. While Ingersoll and Smith (2004) found induction supports had an effect on teacher retention, the types of supports provided to new teachers had greater effects when activities were packaged together. These activities included having a mentor teacher, frequent communication with administrators, “plus others, such as participation in a seminar for beginning teachers, common planning time with other teachers in the same subject, a reduced course load, and assistance from a classroom aide” (Ingersoll, 2012, p. 50).

Since Ingersoll and Smith’s (2004) study, there was an uptick in the research conducted on teacher induction from 2004-2012 (Mitchell, Howard, Meetze-Hall, Hendrick, & Sandlin, 2017). Podolsky, Kini, Darling-Hammond and Bishop (2019) analyzed the NCES surveys of new teachers for the 2008 versus 2012 school years. Like Ingersoll (2012), they found there were more programs available to new teachers, but there was variability in the programs (Podolsky, Kini, Darling-Hammond, & Bishop, 2019). Furthermore, not all new teachers received comprehensive induction support effective in teacher retention and effectiveness. Podolsky et al. (2019) found “between 2008 and 2012, during the Great Recession, every element of induction programs – from mentoring to seminars to common planning time – became less prevalent across the country" (p. 30).

One study conducted by Glazerman, Isenberg, Dolfin, Bleeker, Johnson, Grider, and Jacobus (2010) found teacher induction programs did not have a significant effect on student achievement or teacher retention. They conducted a randomized experiment in schools without a comprehensive induction program. The study began in 2004 and continued for over two years. Using the U.S. Department of Education's Institute of Education Services department to support the research, they contracted with Mathematica Policy Research to conduct the large-scale research. They studied teachers who were provided either one year or two-year induction programs in their treatment groups. Glazerman et al.'s (2010) report contradicts the findings of Ingersoll and Smith (2004) who reported comprehensive induction support helped retain teachers.

Statewide Induction Programs

In 2009, President Obama implemented the Race to the Top (RTT) Initiative to help low performing states and districts receive funding to close the achievement gap of students (Boser, 2012). The RTT Initiative outlined four goals:

- Adopting more rigorous standards and assessments,
- Recruiting, evaluating, and retaining highly effective teachers and principals,
- Turning around low-performing schools,
- Building data systems that measure student success. (Boser, 2012, p. 1)

Georgia was awarded $400 million during Phase II of the initiative. The GaDOE announced grant opportunities for school districts in Georgia and partnered with 26 districts through this process (Georgia Department of Education, 2020a). Their overall goal aligned with the mission of the RTT initiative and districts competed for grant money aligned with the four goals outlined by President Obama.

During 2011-2012 the GaDOE, in partnership with the GaPSC, worked on guidance to help districts produce an effective induction program to support the Georgia Race to the Top Initiative (Georgia Department of Education, 2020c). Although induction support guidance was provided to Georgia districts, they were not required to offer such a program (National Council on Teacher Quality, 2013). The only districts required to implement an induction program were those identified as Race to the Top (RTTT) districts (National Council on Teacher Quality, 2013).

Georgia is not alone in its lack of requirement for induction programs, as Garcia and Weiss (2019) found the majority of teachers had access to an induction program and assigned a mentor, but not all. Their findings showed “72.7 percent of teachers participated in a teacher induction program, and 79.9 percent were assigned a master or mentor teacher” (Garcia & Weiss, 2019, p. 12). Garcia and Weiss’s (2019) research aligned with Ingersoll and Smith’s (2004) findings where only about 80% of teachers reported to participate in induction programs.

North Carolina won $400 million in the RTT Initiative and allocated $7.7 million to create the New Teacher Support Program (Bastian & Marks, 2017). Similar to Georgia, North Carolina targeted their lowest performing schools for the induction program. They partnered with the North Carolina University System to create the university-based program. Unlike Georgia’s requirement of districts being mandated to participate in the induction program if they received RTTT funding, North Carolina’s induction program was optional. Furthermore, the New Teacher Support Program

(NTSS) did not replace district induction programs or other RTTT initiatives. Bastian and Marks (2017) acknowledged the components of the NTSS were not new to induction, but they believed the program stood out in other areas. NTSS was an innovative program because it was a statewide induction program offered to the lowest performing school districts with professional development provided by university faculty to all novice teachers regardless of where they were initially prepared (Bastian & Marks, 2017, p. 8). In 2019, the Governor's Office of Student Achievement implemented a Teacher Academy in collaboration with RESA offices (Governor's School Leadership Academy, 2019a). The goal of the Teacher Academy was to help induction level teachers "to design and deliver high-quality and effective instruction that engages students with state and local curricula and standards" (Governor's School Leadership Academy, 2019a, p. 1). To date, there has not been any published research on the effectiveness of the Governor's School Leadership Academy program (K. Wyler, personal communication, February 1, 2021). Although Georgia does not yet have research on the retention of new teachers through this program, Bastian and Marks (2017) found evidence showing the statewide, university-led induction program in North Carolina was successful in helping to retain teachers. However, they did not find significant performance differences between NTSP and comparison sample teachers. Bastian and Marks (2017) concluded the regions providing more intensive support to novice teachers in North Carolina in the form of coaching visits "were positively associated with teacher value-added in mathematics and secondary grades and teacher retention" (p. 29) in the elementary and middle grades areas compared to secondary education results. Researchers theorized this was because either the program did not meet the unique needs of secondary based educators or the coaching and professional development quality was lower for these teachers (Bastian and Marks, 2017). The authors acknowledged there was potential for universities to partner with lower performing school districts and districts lacking necessary resources to implement appropriate induction programs.

Factors of a comprehensive induction program

Researchers found a comprehensive induction program to include elements of support from an array of individuals in the school, mentoring, professional development, reduced class sizes and course loads, and common planning time with teachers of same subjects (Ingersoll & Smith, 2004; Ingersoll, 2012; Reitman & Karge, 2019; Wong, 2004). As previously described in this literature review, there are varying reports of whether induction programs help retain teachers; however, evidence shows the additional supports provided to teachers may impact their professional development beyond their initial preparation. Although Georgia does not require induction programs, consideration of the factors of an induction program as it relates to this dissertation study is important.

Support from other professionals. Support for an induction program in Georgia comes from a variety of entities to include educator preparation programs, Regional Educational Service Agencies (RESA), the GaDOE, administrators from the district level down to the school level, and mentors (Georgia Department of Education, 2020c). Wong (2004) stated, “educators need to realize that people crave connection” (p. 50). Wong (2004) described collaboration as a way to help educators connect with one another. Reitman and Karge (2019) reported teachers cited individual relationships as indicators of supportive processes helping them during their induction phase of teaching. Specifically, they “mentioned the personal assistance they received in setting up their classrooms, in-class observations and support, frequent e-mail messages, and the 24/7 hot-line. The 24/7 hot-line was a 24-hour phone line participants were able to call at any time to get support" (Reitman & Karge, 2019). Participants in Reitman and Karge's (2019) also received support from a partnership between a university and several school districts. They reported the "features of support enhanced each participant's individual teaching and, according to their self-reflection and self-perceptions, were critical to the teachers' longevity in the field of teaching" (Reitman & Karge, 2019, p. 15).

Although support is shown to assist new teachers with gaining knowledge about their roles and responsibilities in the school building, there are studies showing teachers do not always feel supported. Garcia and Weiss (2019) reported "less than half of the teachers report feeling fully supported by the school administration, their colleagues, or the community in general" (p. 22). Researchers found about half the teachers reported they felt supported by school leadership, but they did not see cooperative effort by their colleagues. Garcia and Weiss (2019) also found teachers did not feel they were being heard when it comes to school policy and their classrooms. Each of these findings are directly aligned with negative perceptions of school climate and culture.

Mentoring. Comprehensive induction programs also include elements of mentoring. Mentoring should come in the form of teachers who teacher similar grades and subjects (Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Georgia's induction guidance stated "the mentors will be recruited and selected based on established mentor guidance" (Georgia Department of Education, 2020c, p. 15). Sutcher, Darling-Hammond, and Carver-Thomas (2016) defined job-alike teachers as "a mentor teacher in the same subject area [and] common planning time with teachers in the same subject” (p. 6). Reitman and Karge (2019) found mentors who were accessible, positive, and spent time with new teachers made an impact on the new teacher’s perception of their professional competence.

In Georgia, mentor definitions differ between state policy and requirements held for higher education teacher preparation programs. State policy defines mentor teachers as “a peer who has a Teacher Support Specialist (TSS) certificate endorsement issued by the Professional Standards Commission (PSC) and who has been chosen by a selection committee to provide assistance and guidance to assigned protégé teachers” (Georgia Department of Education, 1997, September 3). This rule, implemented by the State Board of Education, is still in effect although the Teacher Support Specialist certificate has changed to the Teacher Support and Coaching Endorsement (Georgia Professional Standards Commission, 2016b). The GaPSC is the educator certification organization in Georgia and defines mentor teachers holding TSC endorsements as “highly committed to supporting the personal growth of the induction phase protégé. The mentor provides guidance, shares knowledge and experiences, and supports the induction phase protégé in making a positive impact on student growth and achievement” (Georgia Professional Standards Commission, 2016b). Rule 505-3-.105 defines the guidelines for the mentor teachers working with pre-service candidates seeking initial certification in Georgia. Mentor teachers should have a minimum of three years in a teaching, service, or leadership role and hold renewable Professional Level Certification in the content area the candidate is seeking (Georgia Professional Standards Commission, 2020). The GaPSC goes further to outline requirements of districts who hold waiver certification policies and states the mentor teacher must hold a clearance certificate. Educational preparation programs must provide a partnership agreement outlining the

> training, evaluation, and ongoing support for B/P-12 supervisors and shall clearly delineate qualifications and selection criteria mutually agreed upon by the EPP and B/P-12 partner. The Partnership Agreement shall also include a principal or employer attestation assuring educators selected for supervision of residencies/internships are the best qualified and have received an annual summative performance evaluation rating of proficient/satisfactory or higher for the most recent year of experience. (Georgia Professional Standards Commission, 2020, p. 16)

A review of the New Teacher Center (NTC) guidelines did not specifically define mentor teachers but included qualities of rigorous mentor selection based on qualities of an effective mentor. These qualities include "evidence of outstanding teaching practice, strong intra- and inter-personal skills, experience with adult learners, respect of peers, current knowledge of professional development" (New Teacher Center, 2016, p. 1).

Professional development. Professional development is a component of a comprehensive induction program. Garcia and Weiss (2019) stated, "to ensure that both early supports and ongoing professional development fulfill their intended missions, they need to be adequate, sustained, and meaningful to teachers" (p. 31). Previously introduced was an initiative from the Georgia Governor's office, Teacher Academy, where a partnership between school districts and RESAs provided support to new teachers. Participants in the Teacher Academy were given virtual and face-to-face support and coaching to help them make connections in their classrooms using what they learned in teacher preparation programs and professional development sessions (Governor's School Leadership Academy, 2019a). The program experience included a description stating:

> During the face-to-face sessions, participating teachers will have the opportunity to engage with other induction-level teachers to connect theory and research with their practice; to explore and apply high-leverage strategies; and to develop effective and efficient systems of instruction to increase their impact on student achievement. The onsite coaching sessions will provide teachers with individualized support and non-evaluative feedback. (Governor's School Leadership Academy, 2019a, p. 1)

This description aligned with job-embedded practices and the inclusion of professional development. Induction phase teachers participated in four sessions and were provided feedback from an on-site coach (Governor's School Leadership Academy, 2019a; Governor's School Leadership Academy, 2019b). Similar to the role RESA has in induction support in Georgia, Reitman and Karge (2019) studied an induction program comprised of university faculty mentors. The university faculty mentors provided five years of support to new teachers through on-site visits and seminars tailored to the needs of the new teachers. Reitman and Karge (2019) found 100% of the new teachers who went through the program were still teaching between five and 16 years.

Caution was given to administrators to ensure new teachers have time to implement what they learn in professional development workshops and seminars. New teachers are working to begin applying what they learned during teacher preparation programs to their practice and need additional time to learn how to implement the processes. Garcia and Weiss (2019) found teachers do not get enough time to implement what they learned during professional development. They found only 37.1 percent of new teachers were released for programs supporting beginning teachers and only 10.7 percent received a reduced teaching load. Removing the extra duties and committees from the new teacher's schedule would also ensure they had time to work with their mentor teacher and to collaborate with job-alike teachers. On the contrary, Reitman and Karge (2019) found teachers described the opportunities they had to implement strategies they learned in their classroom because their professional learning was aligned with what they were doing in their classroom.

School Climate and Culture

School climate and culture have been researched for decades to help school leaders lead. Although school culture and climate are often used synonymously, they have very different meanings (Gruenert & Whitaker, 2019). The Center on School Turnaround and Improvement (CSTI) provides research-based and systematic improvement supports to school districts in the United States. As part of the research for CSTI, The Center on School Turnaround (2017) published a framework outlining critical practices to assist states, districts, and schools in successful school turnaround. One of the four domains included a section on culture shift and helps leaders to determine their school culture. As a companion to the four domains, the Center on Great Teachers and Leaders (2019) developed a rubric to assist leaders to consider school culture through the lens of mentoring and induction support. The purpose of this review is to provide a brief overview of school climate and culture and consider how the mentoring and induction frameworks fit within the element of school culture.

School Climate

In a report by the U.S. Department of Justice, Payne (2018) acknowledged school climate has many definitions and have not been agreed upon by researchers. Cohen and Thapa (2017) reported there is national confusion over what school climate and reform processes meant. The Every Child Succeeds Act (ESSA) requires states to have one metric of “non-academic” success (Cohen & Thapa, 2017); therefore more attention was placed on school climate. The National School Climate Center (NSCC) developed standards and assessments for defining and measuring school climate. NSCC defined school climate as “the character and quality of school life shared by the patterns of students', parents' and school personnel's experience of norms, goals, values, interpersonal relationships, teaching and learning practices, and organizational structures (National School Climate Council, 2007). Likewise, Payne (2018) recommended policy makers define school climate as one “emphasiz[ing] trusting and supportive relationships among all members of the school community, common goals and norms, and increasing collaboration and involvement within the school community” (p. 19). The Center on School Turnaround (2017) defined a positive school climate as one “reflect[ing] a supportive and fulfilling environment, learning conditions that meet the needs of all students, people sure of their roles and relationships in student learning, and a culture that values trust, respect, and high expectations” (p. 25). Each of these definitions highlight what Gruenert and Whitaker (2019) defined as the attitude of an organization: “an indicator of how things are; it’s the way most people feel on a normal day” (p. 15).

School climate is how people feel and linked to how all people in the school perceive the climate (Manvell, 2012). Climate can be felt through the relationships each of the individuals have with each other and how they treat one another (Manvell, 2012). Schools have the charge to create positive school climates, but there are many questions about the climate remaining. Cohen & Thapa (2017) found "over three quarters of building and district leaders, as well as school climate coordinators, reported that they wanted clarification about how school climate improvement is similar and also different from behaviorally informed improvement efforts" (p. 101). Although schools are using the definition of school climate described by NSCC, there are mandates for school behavior reform from the U.S. Department of Education (USDoE) causing confusion for educators and leaders (Cohen & Thapa, 2017). The USDoE requires a top-down system of behavioral supports which are extrinsically motivated behaviors whereas the definition of school climate refers to helping students learn intrinsic motivation (Cohen & Thapa, 2017).

Considering Manvell's (2012) description of how climate is felt by people within a school, one should consider how relationship building is taught to children. Manvell (2012) stated "intrinsic motivation fueled by positive beliefs and values leads to strong character [and] should be the foundation of everything we do with the children in our schools" (p. 110). Related to Manvell's (2012) idea is a description by Devaney and Berg (2016) who stated the hallmarks of a positive school climate to include "perceptions of emotional and physical safety, support, inclusiveness, respect, challenge, and engagement" (p. 1). Their report focused on the social and emotional learning (SEL) to provide a context for how it related to school climate for all individuals in a school. Likewise, the NSCC illuminated social emotional learning in standard two stating, "the school community sets policies specifically promoting (a) the development and sustainability of social, emotional, ethical, civic and intellectual skills, knowledge, dispositions and engagement" (Center for Social and Emotional Education, 2009, p. 3).

School Culture

School culture, reported to be an organization's personality (Gruenert, 2008) has many definitions. Deal and Peterson (2016) defined school culture as the "unwritten rules and traditions, customs, and expectations" (p. 7). Culture is not something you have but something you are (Gruenert & Whitaker, 2019). Leaders are challenged to ensure a school culture exists but cautioned when they enter into a leadership position to move slowly when deciding to change a culture (Center on Great Teachers and Leaders, 2019; Deal and Peterson, 2016; Gruenert & Whitaker, 2019; Kaplan & Owings, 2013; Muhammad, 2018). They must first consider the elements of trust, communication, building capacity and accountability (Muhammad, 2018). Although these elements will be discussed individually, they are built together as a foundation for school culture.

Building trust. A culture of trust included allowing teachers to take instructional risks, value innovation by leaders listening to new teachers, allowing veteran teachers to try ideas presented by new teachers, and providing mentors who collaborated with other teachers (Center on School Turnaround Leaders, 2017, pp. 3-4). Gruenert and Whitaker (2019) recommended building trust within the school community through the stories told by the organization. Rather than operating on a deficit thinking mindset, trust is built through positive interactions and relationships. Muhammad (2018) found individuals most resistant to change were those who lacked trust in their leaders. To establish trust, leaders should encompass a vision of "we" when discussing the future plans of the school, establish celebrations for student and teacher achievements, lead in a humble way, respect the opinions of all teachers, and make good on their word (Muhammad, 2018). Leaders should build confidence in their leadership by demonstrating a commitment to personal growth, gaining an understanding of the history and processes of the school, and leading others in professional growth (Muhammad, 2018). The Center on Great Teachers and Leaders (2019) found to build trust is to "establish clear communication and leadership structures: create clear roles and processes for communication and decision-making across and between teachers, mentors, and administrators" (p. 2-5). They found establishing clear communication and structures would help administrators evaluate their commitments and ensure responsibilities were equally distributed. Culture Shift in the Center on School Turnaround's (2017) framework also addressed roles and responsibilities. Authors of the framework stated, "A positive school climate reflects . . . people sure of their roles and relationships in student learning, and a culture that values trust, respect, and high expectations" (The Center on School Turnaround, 2017).

Having communication. Communicating with staff the rationale behind decisions and change is important for those teachers who need to know "why" (Muhammad, 2018). Muhammad (2018) stated, "when leaders start to clearly articulate rationale and fulfill their staff members' need to understand, they can quickly move . . . to new levels of productivity in [their] school culture" (p. 105). Communication is the building block for trust and can pave the way for school culture (Gruenert & Whitaker, 2019; Kaplan & Owings, 2013). Gruenert and Whitaker (2019) stated,

> collaboration is how we convince the culture that what we choose to do next will be OK, even if it strays from tradition. Collaboration is the conversation that lets

> new ideas find purpose and builds collective efficacy to support a better future. (p. 66)

Leading schools toward the value of collaboration takes time to implement and is not a quick fix (Gruenert & Whitaker, 2019). One way to move toward collaboration is through a shared mission and vision (Deal & Peterson, 2016; Muhammad, 2018). Communicating the mission and vision allows leaders to “guide from the front, showing the way” (Kaplan & Owings, 2013). It provides the way for teachers to take instructional risks necessary for a positive school culture (Center on Great Teachers and Leaders, 2019; Deal & Peterson, 2016; Gruenert & Whitaker, 2019; Kaplan & Owings, 2013). When teachers are aware of the mission and vision of the school, they will work toward a common goal of moving their students to higher learning by being creative in their delivery of instruction.

Leaders also build communication with teachers when they listen to new teachers (Center on Great Teachers and Leaders, 2019; Kaplan & Owings, 2013). Not only does listening to new teachers and teachers in general open a line of communication, but it also communicates to the staff the leader is reliable (Kaplan & Owings, 2013). Reliability builds trust.

Building capacity. Building capacity means proper preparation and incremental implementation of change (Muhammad, 2018). Put another way, building capacity is “helping teachers to acquire the skills and attitudes to learn new and more effective ways of thinking and acting” (Kaplan & Owings, 2013). Muhammad (2018) found teachers would be less resistant to change when leaders provided them with the professional development necessary to prepare them for issues they face. Professional development also allows teachers to be in a psychologically safe school culture (Kaplan & Owings, 2013). Psychologically safe school cultures allow teachers to work together in collaboration, problem solve together, and have a purpose (Kaplan & Owings, 2013). Building professional learning communities is one-way leaders can create a psychologically safe school culture while building capacity (Kaplan & Owings, 2013; Muhammad, 2018). Learning communities help teachers to be more innovative and allow them to take instructional risks associated with their professional development (Center on Great Teachers and Leaders, 2019; Kaplan & Owings, 2013). They also help teachers to begin seeing students in the whole school as everyone's children, not just one teacher's children because the teachers worked together to create the most effective instructional practices for the children (Kaplan & Owings, 2013).

Having accountability. Accountability of all teachers is a building block of school culture. Muhammad (2018) described holding the teachers who were resistant to change accountable by strict monitoring. Kaplan and Owings (2013) described accountability as "accepting individual and collective accountability for increasing [teachers'] achievement" (p. 131). Kaplan and Owings (2013) described accountability as a method to allow teachers to develop autonomy because it "enables more teachers to develop their own informal authority and display leadership in areas that affect teaching and learning" (p. 131). Deal and Peterson (2016) described accountability through the lens of school reform. Mandates from the federal government such as No Child Left Behind and Every Student Succeeds Act have increased accountability for schools, but Deal and Peterson (2016) argue it has also "sterilize[d] schools of the symbolic forms and acts that help culture survive and thrive" (p. 102). While accountability from federal governments may take away some of the culture of a school, leaders can work toward other forms of accountability. As described earlier, leaders who help teachers to develop autonomy and work together collaboratively can help to keep one another accountable for the learning of all students.

Discussion of Climate and Culture

Climate was described as a small part of the overall school culture (Gruenert, 2008; Deal & Peterson, 2016). Therefore, the work done within a school has to complement both the climate and culture. Leaders are tasked with determining the parts of a climate and culture to begin working on in schools to ensure they are making positive strides for people in the school socially, emotionally, and mentally. As referenced earlier, there were several frameworks written to help school leaders consider the culture of their building (Center on Great Teachers and Leaders, 2019; The Center on School Turnaround, 2017). The frameworks were also written to address how schools would work with new teachers and mentors in induction programs. Although the climate was not directly stated in the frameworks, we now know the climate is also an important component to building the culture outlined by researchers.

Competing Theories

Considering the theories potentially influencing the study is necessary. As previously described, the study seeks to explore what constitutes success for interns in the *intern as teacher* model during the last semester of undergraduate education through a paid student teaching experience in South Georgia. The chosen theory must describe factors to help one define success in a mentorship program. Researchers described pre-service candidate mentoring through a variety of lens to include the sociocultural perspective and social learning theories (Gonzalez-DeHass & Willems, 2012; Vygotsky, 1986). In relation to social learning theories, two other theories were considered: social capital (Coleman, 1988) and developmental networks (Kram & Higgens, 2008b). Consideration of competing theories potentially influencing the conceptual framework is pertinent. Therefore, each theory will be discussed as competing theories for this study.

Developmental Networks

Kram and Higgens' (2008a) developmental network model consists of four concepts to include the following: "the developmental network itself, the developmental relationships that make up an individual's developmental network, the diversity of the developmental network, and the strength of the developmental relationships" (p. 268). The model differs from a traditional mentor model because it is a group of individuals, chosen by the mentee, for specific functions to meet the needs of the mentee (Kram & Higgens, 2008a). The developmental model considers the individuals within the network to be "co-learners sharing knowledge" (Kram & Higgens, 2008b). The model consists of the core dimensions of "network diversity and developmental relationship strength" (Kram & Higgens, 2008a), where each of the dimensions is interrelated. The developmental network structures and the consequences or implications of each structure on the mentee's career change, personal learning, organizational commitment, and work satisfaction were illustrated in the model (Kram & Higgens, 2008a). The authors identified critical factors within the model to include emotional competence of the mentee, work environment factors, individual-level factors, interaction styles, perceived power, and the "protégé's orientation toward career development" (Kram & Higgens, 2008a, p. 276).

One area of criticism for networking theories is researchers tend to omit content ties within research using the theory and focus more on the structure of the network (Labianca, Mehra, Halgin, Brass, and Borgatti, 2014, p. 8). Another criticism mentioned about networking theories is the tendency to ignore dynamics because it is a static concept (Watts, as cited by Labianca et al., 2014, p. 16). Although there are criticisms for networking theories, the model for mentoring is accepted throughout the research as evidenced in over 2,000 articles published on the topic and accepted for publication in peer reviewed journals and books.

Social Capital Theory

Two leading researchers, Pierre Bourdieu and James Coleman, attributed to social capital theory. Social relations between individuals and the benefits achieved through interactions construct the link between social capital theory and the idea of capital (Coleman, 1988; Rogosic & Baranovic, 2016). Coleman’s (1988) theory of social capital described how relationships were the center of capital and linked “financial capital, physical capital, and human capital” (p. 188) with social theory. Furthermore, he identified three forms of social capital including "obligations and expectations, [dependent upon] trustworthiness of the social environment, information-flow capability of the social structure, and norms accompanied by sanctions” (p. 119). Bourdieu’s social capital theory differs from Coleman’s by implying economic capital results from social and cultural capital created by an individual’s actions or determined by social status (Rogosic & Baranovic, 2016). Both Coleman and Bourdieu described family factors contributing to social capital, but Coleman extended his theory to include others outside the family rooted in relationships (Coleman, 1988; Rogosic & Baranovic, 2016).

Claridge (2018) described the criticisms of social capital because of “its ambiguity and variability” (para. 2). The main criticism concerning researchers was the belief social capital was not a theory, nor was it social or capital (Claridge, 2018). Social capital has many dimensions and applications where economics do not believe capital is social, and sociologists disagree capital should be included with social (Claridge, 2018). Many researchers only looked at one component of how social capital related to a study because of the complexity of the theory (Claridge, 2018). Another criticism by Claridge (2018) indicated individuals do not understand how the dimensions of the theory are related and may not include other dimensions important for their study grounded in social capital. Researchers tend to simplify their ideas or make broad generalizations based on the theory or quantify the factors, but the essence of how social capital power is explained is lost in the process (Claridge, 2018).

Sociocultural Perspective

Lev Vygotsky’s (1986) sociocultural perspective, specifically the zone of proximal development, illustrated children learn within their developmental level of readiness. In Vygotsky’s study he determined children could not merely imitate what they saw adults do, but, given time within their development level with increasingly more complicated problems, the child could master the skill. The zone of proximal development shifts as the child becomes able to handle tasks once required with the assistance of a teacher to an independent level. As the child is successful, the zone is slightly increased.

Social constructivism, identified by Vygotsky, “emphasizes the belief that knowledge is constructed when individuals interact socially and talk about shared tasks or dilemmas" (Gonzalez-DeHass & Willems, 2012, p. 75). Learners are able to discuss information to develop a shared understanding of information from a variety of viewpoints. When learners are given the opportunity to co-construct ideas, they begin to relate to one another and build new knowledge (Gonzalez-DeHass & Willems, 2012).

Social Learning Theory

Albert Bandura added to the behaviorist learning theories by introducing the social learning theory, later renamed the social cognitive theory (McLeod, 2016). Social learning theorists contended learning developed through observation of others in conjunction with "attention, retention, motor reproduction, and motivation" (Kretchmar, 2017). Reciprocal causation in Bandura's theory outlines the importance in human functioning interacting with personal factors, behavior, and the environment (Gonzalez-DeHass & Willems, 2012).

Personal factors are considered those elements affecting individuals separately and influencing their self-confidence and behaviors towards meeting personal goals and expectations (Gonzalez-DeHass & Willems, 2012). Personal factors directly impact behavior factors (i.e., the ways individuals interact with and respond to their environment). Environmental factors influence an individual's behavior and include "the advice and feedback we are offered . . . and the societal rules and consequences that we live within" (Gonzalez-DeHass & Willems, 2012). One aspect of Bandura's social cognitive theory considers self-efficacy. Bandura's (2018) research shows people must have the belief they can see results. He published the Big Five Trait theory and the social cognitive theory to explain better how there are multi-domains to explain how self-efficacy develops in an individual (Bandura, 2018).

Complex Adaptive Systems Framework

Janssen et al. (2016) reviewed research on informal mentoring in an effort to evaluate past mentoring research. They identified two components relevant to human relationships: (1) social networks influence relationships, including temporal influences and (2) individuals have “relational or affiliative motives to form relationships” (p. 499). The authors noted a gap in needs-perspective research where both the mentor and protégé’s perspectives are taken into consideration. They also noted researchers did not consider the multiple processes undertaken within the mentoring relationship. The authors suggested researchers consider alternative methods of researching mentoring such as those evolving from the process approach of mentoring. These findings suggested considering alternative constructionist research designs. The authors also challenged researchers to consider “illuminat[ing] the processes that form the basis of developmental changes . . . [suggesting] that researchers adopt need-perspectives (e.g. SDT [self-determination theory]) in their conceptualizations of underlying mechanisms, in addition to social exchange paradigms” (p. 511).

Complex adaptive systems (CAS), rooted in complexity theory, and historically used to describe natural systems is beginning to be applied to social systems (Axelrod & Cohen, 2000; Jones & Corner, 2012). Jones and Corner (2012) acknowledged in their research there are many terminologies used to describe a CAS and their defining features. They explored definitions and terminology used by researchers such as Klara Palmberg, Mary Uhl-Bien, and Russ Marion. Palmberg (2009) defined a CAS as “a set of interdependent agents forming an integrated whole, where an agent may be a person or an organization” (p. 484). In their attempt to apply the CAS approach to mentoring, Jones and Corner (2012) focused on the concepts of complexity dynamics and enabling conditions originally presented by Uhl-Bien and Marion (2009). Complexity dynamics included the key processes of "self-organization, emergence, and bonding" (Jones & Corner, 2012, p. 393). Enabling conditions "include the presence of dynamic interaction, interdependence between agents, heterogeneity in the system, and tension" ((Jones & Corner, 2012, p. 393). One argument suggested mentoring was a CAS because of the complex relationships existing between mentors and protégés (Jones & Corner, 2012). In a CAS, those complex relationships exist within "a wider (multi) systematic context" (Jones & Corner, 2012, p. 400) because the concept of relationships cannot exist in isolation. The system impacts factors within a system. However, their research only gave future researchers information on how the CAS lens may apply to mentoring and left the research to others. Jones and Corner's (2012) research aligns with the ideas presented by Janssen and colleagues (2016) who acknowledged the need for "new theoretical models . . . to reflect and explain emergent practice, hence the applicability of drawing on the complexity-informed CAS lens" (p. 396).

Inferences for Forthcoming Study

The next section will discuss how each of the competing theories are related to the study. The three theories not chosen for the study included developmental network (Kram & Higgens, 2008a; Kram & Higgens, 2008b), sociocultural perspective (Vygotsky, 1986), and social learning (Bandura, 2018; Gonzalez-DeHass & Willems, 2012). Inferences will be made about the linkage between the research problem, questions, and potential use as a theoretical framework. The summary will also draw readers' attention to why each of the theories are not the best fit and how the chosen theory works best for the study.

The developmental network model (Kram & Higgens, 2008a) included several components that could apply to the research. The model emphasized the importance of relationships and interaction styles linked to exploratory questions two and three. They are linked to these two exploratory questions because of the connection between agents (i.e., mentor teachers and student teachers) and interaction styles (i.e., patterns of interaction). Kram and Higgens' (2008a) network structure also accounted for organizational commitment, tied to the mentor teachers' training and the support they give the student teachers (i.e., selection of strategies). The network model includes considerations for emotional competence of individuals, tied to perceptions of teaching abilities. The developmental networking model was not chosen for the study because it does not provide an avenue for determining how success is defined in the *intern as teacher* model.

Social constructivism was chosen as a possible theoretical framework because Vygotsky's (1986) research was cited in articles discussing mentoring student teachers. Vygotsky's social constructivism theory is linked to one of the exploratory questions and the overall concept of mentoring student teachers. The student teachers' perception of teaching ability is linked to the idea of self-efficacy and the need for an opportunity to co-construct meaning and discuss aspects of their learning and their pupils' learning. The co-construction of meaning and discussion of student learning could be considered as part of exploratory question three (i.e., patterns of interaction), but it does not lead one to an understanding of the "types" as defined in Chapter 1. Mentoring is also a form of a strategy (i.e., addressed in research question two). Using Vygotsky's theory, one would conclude student teachers would need more than modeling to be successful. However, Vygotsky's studies primarily focused on studies with children and in his theory, does not allow one to gather information on the types of interaction styles, selection of criteria for measuring success, or how those factors contribute to the *intern as teacher* model as a whole.

In Bandura's theory, human function interacts with each of the factors. Personal factors can be linked to selection because Bandura's theory shows how they affect each individual toward meeting personal goals. The environment influences an individual's behavior and how they define success. Although the social learning theory may apply to the study, research evidence suggests the factors may have already been adequately defined and his theory does not address the big picture question of the research: How is success defined in the *intern as teacher* model? The social learning theory is also primarily related to the research with students in K-12 schools.

Jones and Corner (2012) referenced a need for studying mentoring through a CAS lens several years prior to the literature review conducted by Janssen et al. (2016), but it appears researchers have not met the call for considering alternative methods for researching mentoring as exhibited throughout this literature review. A review of CAS and a framework proposed by Axelrod and Cohen (2000) will conceptualize the methods and theoretical lens for the study.

Theoretical Framework

In their book, *Harnessing Complexity: Organizational Implications of a Scientific Frontier*, Axelrod and Cohen (2000) distinguished their framework approach through the lens of CAS with two subtleties in their use of the phrase “complex adaptive system”. Like traditional views of CAS previously described, Axelrod and Cohen (2000) included the concept of agents in their framework. Agents are defined as strategies or agents in a CAS exhibiting something in common (Axelrod & Cohen, 2000). Axelrod and Cohen (2000), however, do not require the agents are successful in their adaptations but are using actions potentially leading to improvement. The researchers described the second subtlety of their CAS as one where the whole CAS is not necessarily adapting, whereas parts are adapting. There is alignment in Axelrod and Cohen’s (2000) CAS where the general ideas of traditional CAS research show “adaptive tension with a CAS is important because it provides the pressure on the system to adjust to its environment and to be innovative and creative” (Jones & Corner, 2012, p. 394). To consider new possibilities in CAS research, Axelrod and Cohen’s (2000) framework focused on how to approach variation, interaction, and selection within systems to define criteria of success.

Variation, as described by Axelrod and Cohen (2000), “provides the raw material for adaptation . . . we begin by assuming that the agents are not all the same . . . the *variety* within a population is a central requirement for adaptation” (p. 32). Through variation, there are different types of observable agents. The authors explained the ability to analyze the variety in sources is combined by the agents and artifacts in a system. Variety is based on how systems “create, destroy, and modify types” (Axelrod & Cohen, 2000, p. 38). Variation relates to the study because the agents (i.e., mentor teachers and student teachers) will have observable characteristics and behaviors to show how they may adapt in the *intern as teacher* model. This literature review outlined mentoring factors aligning with variation. Relationships between mentor teachers and student teachers have observable characteristics and behaviors such as communication, the amount of support provided by mentor teachers, efforts given by each party, and listening skills.

Four conditions outline ways to determine whether to encourage variety within a system (Axelrod & Cohen, 2000). The authors stated "if you are in an ideal situation where you are sure your current approach to a problem is the best that is possible, and you do not think the problem is going to change, then any exploratory deviation from it should be avoided" (Axelrod & Cohen, 2000, p. 50). Determining if the problem satisfies some conditions in which exploration is valuable is worth examination because the *intern as teacher* model is a new concept in Georgia. Axelrod and Cohen's (2000) approach for considering exploring conditions included

- problems that are long-term or widespread;
- problems that provide fast, reliable feedback;
- problems with low risk of catastrophe from exploration; and
- problems that have looming disaster (pp. 50-52).

In an effort to justify the potential need for exploring Axelrod and Cohen's (2000) conditions through the research problem, problems are worth exploring if the problem has the potential to be "long-term or widespread" (p. 50). One must determine if improvement within the system could impact other areas of the organization or outside organizations. In the context of the *intern as teacher* model it will be beneficial to determine if this model is worth exploring based on the shortage of teachers in Georgia and the need for school districts to fill vacant positions with undergraduate teacher candidates. Although the second consideration, "problems that provide fast, reliable feedback" (p. 51) may not initially sound like it applies to the research question, it bears worthy of exploring because, as Axelrod and Cohen (2000) stated, "companies that can learn quickly about consumer reactions can afford to explore more of the space of possible products" (p. 51). Although Axelrod and Cohen's (2000) explanation was linked to business, it has the potential to apply to supporting preservice teachers in the study. For example, will using this CAS lens allow school districts (i.e., consumer reactions) to explore more of the space of possible supports (i.e., possible products)? The third consideration, "problems with low risk of catastrophe from exploration" (p. 51) applies to the current study because the *intern as teacher* model is in its infancy (i.e., only a few cases are being used across Georgia at this time). If policy makers have information before implementing a widespread policy or as the only choice for teacher preparation programs preparing teachers, it allows a safe place for exploring the potential benefits of the program without risk of a widespread implementation that may fail at large costs to school districts (i.e., student success and higher teacher attrition). The final consideration, "problems that have looming disasters" (p. 52), is linked to the previous consideration because prematurely implementing a model not worthwhile to school districts could lead to disaster.

In their framework, Axelrod and Cohen (2000) implied interaction is an essential component because agents interact with systems and artifacts while introducing patterns that shape events. Interaction is directly related to the previously described variation and types within the system because interaction patterns bring a CAS alive and "provide the opportunity for the spreading and recombining of types that are important in creating (and destroying) variety" (Axelrod & Cohen, 2000, p. 63). The authors acknowledged there are few tools available “to understand the effects that flow from nonuniform patterns of interaction” (p. 63). The authors give three concepts they believe are useful to understand interactions: proximity, activation, and space (Axelrod & Cohen, 2000). Proximity defines the way individuals interact with each other within a CAS. Proximity includes factors such as physical proximity, group hierarchies, membership in groups, and friendships. Axelrod and Cohen (2000) said the ways people come to interact with each other are changeable and may also be different within each organization. The interactions of individuals will occur through activation when individuals within a system activate a process. These processes may occur at one time or a different time but are within a sequence. Space affects the interactions between individuals. Space is both conceptual and physical. An example of a conceptual space is an organizational chart, depending on the location of an individual on the chart, will determine the number of interactions they experience. Likewise, physical space, allows for more interactions when individuals are in the same location. Whereas, virtual spaces such as phone calls and text messages would cause different interactions. Understanding each of the concepts will be beneficial later to determine how interaction works between mentors, proteges, strategies, and artifacts.

One method to achieve selection within a CAS without waiting for natural selection to occur throughout an entire system is to consider “there is the possibility of selecting strategies rather than whole agents” (Axelrod & Cohen, 2000, p. 118). The authors acknowledged there needs to be a systematic approach when choosing whether to intervene at the whole or individual level. An evaluative model helps to “retain effective adaptations" and "amplify the success" (Axelrod & Cohen, 2000, p. 118) within a CAS. The criteria for evaluative models included four components:

- defining criteria of success,
- determining whether selection is at the level of agents or strategies,
- attributing credit for success and failure, and
- creating new agents or strategies. (Axelrod & Cohen, 2000, pp. 118-119)

Each of the criteria will be explored as evidenced in the aforementioned research questions. In order to create a process or help destroy one, designers need to ask specific questions to understand "how copies are made, and how destruction happens, for the agents and strategies in the systems they work with" (Axelrod & Cohen, 2000, p. 148). Having this knowledge will give designers specific details on how CAS works in the *intern as teacher* model.

Summary and Conclusions

Ideas for future research related to the study were described throughout the literature. Garza and colleagues (2019) recommended specific mentoring paradigms used to influence a mentee's development. In accordance, Moulding, Stewart, and Dunmeyer (2014) aligned with Garza et al.'s (2019) research because they suggested a need for understanding the contributions of specific elements of quality mentoring during student teaching. Garza et al. (2019) suggested researchers determine which paradigms are more effective at differing stages of mentee development. Likewise, Morrisey and Nolan (2015) specified one should identify beginning teachers' needs. While researchers suggested a need to enhance research about the mentoring models, Ambrosetti (2014) communicated a need to understand how mentor training may impact mentoring practices for both mentors and mentees. Similarly, Beutel et al. (2017) expounded on a need for determining how to overcome barriers of implementing mentoring at the school level.

Although the *intern as teacher* model is a new concept in Georgia, mentoring teacher candidates is not. There is abundant literature discussing various mentor models, processes of mentoring, and the dynamics between a mentor and teacher candidate. There appear to be gaps in the research on whether the *intern as teacher* model will be worthwhile for school districts making the study of *intern as teacher* intriguing and worth studying. Therefore, these processes and factors are worthy of further study because available research consistently shows mentoring models, relationships, and dynamics impact pre-service teacher development. Utilizing a CAS framework will allow the research questions to illuminate the factors contributing to success in the *intern as teacher* model.

I propose the *intern as teacher* model is indeed a complex adaptive system with a variety of agents interacting within the complex system of a school. The study will highlight the strategies and artifacts the agents within the system choose and how they make those decisions. Within the CAS framework, criteria of success should highlight the performance measures used by the agents in the CAS when they select strategies and artifacts to implement in the classroom. The interaction between each of the factors will suggest how one can define success in the *intern as teacher* model. In the forthcoming chapter, I will outline the research methodology, research questions, data collection procedures, data analysis procedures, and human participants and ethics precautions.

CHAPTER III

METHODOLOGY

With a decline in teacher production in the United States, school districts search for alternative certification routes for prospective teachers (Georgia Professional Standards Commission, 2009). More specifically, some districts in Georgia and Arizona are hiring undergraduate teacher candidates during their final years of study to help offset the teacher shortage with individuals who have knowledge of teaching rather than using solely alternative certification routes (Biek & Sartin, 2019; Carlson, 2018; Huss & Harkins, 2013). A complex adaptive systems (CAS) framework guided this study to define what success is within the *intern as teacher* model to ensure overall benefits for everyone.

Research Design and Rationale

This study employed a case study approach developed by Merriam and Tisdell's (2016) description of case studies allowing researchers to investigate a bounded study where the phenomenon's variables cannot be isolated from their context. As described by Merriam and Tisdell (2016), case studies are a study of a bounded system where one seeks to understand a phenomenon occurring during a specific time. The *intern as teacher* model is a new concept in South Georgia with few school districts using them (Biek & Sarton, 2019; Huss & Harkins, 2013). Therefore, the research was bounded by a particular place, South Georgia school districts, using a particular program: the *intern as teacher* model. The unit of analysis for this case study studied one particular subset of individuals employed in South Georgia school districts as an intern student teacher. Merriam and Tisdell (2016) gave an example of a study not considered a case study. They stated one way to assess if the study would be considered a case study was "to ask how finite the data collection would be; that is, whether there is a limit to the number of people involved who could be interviewed or a finite time for observations" (Merriam & Tisdell, 2016, p. 39). As shown through the literature review in Chapter 2, an indefinite number of participants is not true for this research because many school districts have yet to begin using the *intern as teacher* model. Therefore, a case study approach was most appropriate for this study because it allowed an in-depth description and analysis of a bounded system in South Georgia.

The case study approach allows for an in-depth analysis of one or "multiple bounded systems (cases) over time, through detailed, in-depth data collection involving *multiple sources of information* (e.g., focus groups, interviews, and documents)" (Merriam & Tisdell, 2016, p. 40). For an in-depth study, I used Axelrod and Cohen's (2000) "Harnessing Complexity" model to explore the *intern as teacher* model. The CAS framework was chosen to explore the case study because of the research completed by Janssen et al. (2016) and Jones and Corner (2012) who described a need for considering how mentoring was a complex adaptive system. As described in Chapter 1 and illustrated by Figure 2, this study considered the factors of variation, selection, interaction, and criteria of success within a CAS framework for the *intern as teacher* model to determine what constitutes success for interns.

In the following sections, I describe details of the data collection methods and include *multiple sources of information*. This case study also includes multiple bounded systems (cases) through a review of *interns as teachers* in South Georgia. A description of the participants and research settings describes the requirements for participation in the study. Appendix A provides an overview of the research design. The study begins with the identification of the cases in South Georgia, followed by participant selection, and then data collection. The remainder of this section outlines how I conducted the case study and ensured the credibility and validity of the study.

Research Questions

For this study, qualitative methods help address the central question for this study: What constitutes success for interns in the *intern as teacher* model in South Georgia? To define success, I explored additional questions:

1. What decisions must be considered when implementing the *intern as teacher* model in a school district?
2. Do districts and universities have the time and resources to invest in the intern?
3. How do school districts and EPPs harness complexity within the model?

Participants and Research Setting

This study included several steps to select an appropriate participant sample best representing the population. First, I discuss the background information relating to the population. I then followed with a discussion of the research participants and site selection.

Georgia Teacher Population Background

Purposeful sampling requires researchers to understand the background of the population to "achieve representativeness or typicality of the settings, individuals, or activities selected" (Maxwell, 2005, p. 235). The following section describes the statistics found for the Georgia teacher population to assist in understanding the types of participants potentially useful to study. Considerations for the sample include the number of teachers hired in Georgia, the gender and ethnicity of the population, and the number of candidates prepared in Georgia teacher preparation institutions.

The GaDOE calculated 6,233 new teachers hired in the 2016-2017 school year (Tio, 2018). Of this number, institutions outside of Georgia prepared 30.4%. The gender of the new hires was 79% female and 21% male. The ethnicity of new hires was 52.6% white, 16.9% Hispanic, and 22% black. Of the new hires, 63.4% held bachelor's degrees as their highest degree earned. Table 3 shows the percentage of new teachers hired in Georgia. As illustrated by Tio (2018) in her report, early childhood education provided the highest percentage of new hires while secondary accounted for the lowest percentage. As discussed previously in Chapter 2, McVey and Trinidad (2019) found a teacher shortage in the areas of special education, English-language arts, and Career, Technical, and Agricultural Education (CTAE). The information reported in Table 3 only shows the number of newly certified teachers in Georgia during 2016-2017 and does not discuss the teacher shortage for each certification area.

Table 3

Percentage of New Teacher Hires (Initial Certification) in Georgia During 2016-2017 (Tio, 2018)

Certification Area	Percentage of New Hires in Georgia
Early childhood	35.7%
Special Education	19%
Gift Certification	2.6%
Foreign Language	2.8%
Middle Grades	15.3%
Secondary ***Note: Range between all content areas***	4.9%-7.9%

Georgia has 70 teacher preparation institutions with Baccalaureate initial teacher certification programs approved by the GaPSC (Georgia Professional Standards Commission, n.d). Of those programs, the study focuses on the 14 colleges located in Macon and further south. Chapter 2 of this study outlined the specific teacher preparation programs identified for potential participation in the study. The following section describes the demographic background of teacher candidates enrolled in the 14 teacher preparation programs.

Demographic data was compiled by contacting the Georgia Professional Standards Commission (GaPSC) and requesting open records for the candidates enrolled by institution (J. Fethe, personal communications, February 7, 2020). In Georgia, there were 1,257 males and 5,615 females enrolled in an initial educator preparation program (EPP) for the state of Georgia. The data was requested to ensure considerations for identifying participants within the study were similar to new hires in Georgia. Table 4 outlines the demographics of candidates enrolled in an EPP for the state of Georgia. The data show the percentage of enrollees by race/ethnicity compared to all enrollees in Georgia. Among the 14 EPPs there were 2,134 candidates enrolled. As shown in Table

4, females account for 81.7% of the total whereas 18.3% account for male enrollees. The most significant percentage for the state accounts for white females with 58.5% and white males with 13.2%.

Table 4

Demographics of Candidates Enrolled in an EPP in the State of Georgia

Race/Ethnicity	Enrollees	%	Male Enrollees	%	Female Enrollees	%
Asian	142	.021	23	.003	119	.017
Black	1033	.150	188	.027	845	.123
Hispanic or Latino (any race)	421	.061	67	.010	354	.051
Multiple races	143	.021	27	.004	116	.017
Native American	10	.001	0	0	10	.001
Native Hawaiian or Pacific Islander	2	.0003	0	0	2	.0003
No response	192	.028	45	.007	147	.0002
White	4,929	.717	907	.132	4,022	.585
Total Enrollees	6,872	--	1,257	.183	5,615	.817

Table 5 outlines the demographic of candidates in the 14 identified institutions. The table shows the percentage of enrollees by race/ethnicity compared to all enrollees in the 14 institutions. Like the state of Georgia, females account for 81.2% of the population whereas males account for 18.8% of the population. Also similar to the state of Georgia, white females account for 57.2% and white males account for 13.9%.

Table 5

Enrollees in the 14 South Georgia Institutions by Race/Ethnicity

Race/Ethnicity	Enrollees	%	Male Enrollees	%	Female Enrollees	%
Asian	11	.005	3	.001	8	.004
Black	433	.203	77	.036	356	.167
Hispanic or Latino (any race)	75	.035	11	.005	64	.029
Multiple races	45	.021	9	.004	36	.017
Native American	7	.003	0	0	7	.003
Native Hawaiian or Pacific Islander	0		0	0	1	.0004
No response	43	.020	4	.002	39	.018
White	1,519	.712	297	.139	1,222	.572
Total Enrollees	2,134		401	.188	1,733	.812

Georgia Teacher Shortages

Considering where teacher shortages exist helps determine which interns to study. This case study includes a small sample size; therefore, important is to systematically choose the participants to sample (Maxwell, 2005). In Chapter 2, a discussion of the teacher shortages illustrated the fields impacted in Georgia. McVey and Trinidad (2019) found the majority of candidates enrolled in elementary education programs with fewer candidates choosing to specialize in special education. A teacher shortage in Georgia exists in special education, math and science (Georgia Department of Education, 2019; McVey & Trinidad, 2019), but there is still a high demand for elementary education teachers (Georgia Department of Education, 2019).

In qualitative studies, generalizability differs from quantitative research because "the value of qualitative research lies in the particular description and themes developed in the context of a specific site" (Creswell & Creswell, 2018, p. 202). However, a case study does allow some generalizability when several cases are explored and used to generalize findings across studies (Creswell & Creswell, 2018). To help understand the phenomenon of the *intern as teacher* model, including participants with backgrounds similar to the certification areas considered as teacher shortages in Georgia is important. Maxwell (2005) said one goal of purposeful selection was "to adequately capture the heterogeneity in the population . . . to ensure that the conclusions adequately represent the entire *range* of variation, rather than only the typical member or some 'average' subset of this range" (p. 89). Therefore, important is to choose participants to represent "individuals or settings that represent the most important possible variations on these dimensions" (Maxwell, 2005, pp. 89-90). Ensuring participant selection is heterogeneous will allow school districts to understand how those interns can benefit from the model and how the individuals within the system are best supported. Including participants with backgrounds similar to the teacher shortage areas, specifically elementary education, special education, and secondary education programs, allow the research to apply to other school districts in South Georgia.

Participant and Site Selection

Participant selection is important for case studies because the researcher needs to make sure they have the best selection of participants to "understand the problem and the research questions" (Creswell & Creswell, 2018, p. 185). Although qualitative researchers do not necessarily use random or convenience sampling, important is to consider the people, settings, and activities when choosing participants (Maxwell, 2005). The deliberate selection, or purposeful selection, made in qualitative research allows researchers to gather "information that can't be gotten as well from other choices . . . provid[ing] you with the information that you need in order to answer your research questions is the most important consideration" (Maxwell, 2005, p. 88). Joseph Maxwell (2005) stated samples include "people . . . settings, events, and processes" (p. 87) to control for bias. Diversity in participant selection is based on the people and settings for this dissertation setting. Therefore, diversity includes the racial background of individuals, gender identity, school district placement, and the programs of study for Georgia certification. However, Maxwell reminded researchers the samples they initially identify might change as they gain more information about the population.

Patton (1990) specified researchers must initially state an intended sample size to justify the processes of beginning a research study. Creswell (2007) suggested including approximately five cases to build the study. Therefore, I started by attempting to identify five to nine cases to account for the potential withdrawal of participants from the original research. The cases allow for an in-depth study providing rich information on the *intern as teacher* model in South Georgia (Patton, 1990). Two individuals (i.e., mentor teacher and intern) defined a case for this research. The number of cases to include in the study was considered when writing the research proposal to gain an understanding of the current situation. While developing the proposal, I spoke with field directors and university faculty using the *intern as teacher* model during the 2019-2020 school year to determine baseline data. At Middle Georgia State University (MGA), there were two interns in Bibb County (S. Mitchell, personal communication, October 24, 2019).

Georgia Southwestern State University (GSW) had one intern for the fall 2019 semester and five during the spring 2020 semester. Columbus State University (CSU) used the model, but this researcher did not determine the exact number (J. Partridge, personal communication, October 21, 2019). At the time of the proposal, it appeared possible to find a minimum of five to nine cases for future research, especially if school districts continued to learn about the possibility of hiring interns as teachers. Therefore, this study was initially limited to participants completing an *intern as teacher* model in South Georgia through an undergraduate teacher education program. The study was limited to intern participants who met the following criteria:

- Placed in a school district located in Macon or further south.
- Completed a traditional undergraduate education degree.
- Employed by the school district for a minimum of one semester.
- Employed in a position for which they are working toward certification.
- Paired with a mentor teacher in the same building.
- Willing and available to participate in the study.

Figure 3 shows university locations in South Georgia identified by a star. The study is limited to finding participants within the circled area on the map.

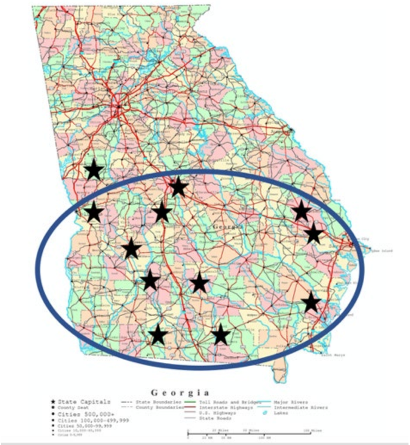


Figure 3. Area of participant recruitment for *Intern as Teacher* study. Map image retrieved and adapted from http://www.yellowmaps.com/map/georgia-printable-map-434.htm

Identifying the participants required contact with Georgia Field Directors. I was a member of the Georgia Field Directors Association and an active board member for the association. As part of this group, I established relationships with many of the directors across the state. Therefore, I was able to discuss my research with the field directors and find out if they were using the *intern as teacher* model. I composed an email explaining the purpose of my study and asked each field director to forward the email to candidates participating in the i*ntern as teacher* model (See Appendix B). Interested intern teachers completed a Qualtrics participation form (Appendix C) that outlined the study and obtained contact information. Initially, seven interns completed the form showing interest in the study. To ensure the identified individual providing the information was not a third party, I contacted participants by email to introduce myself and followed up with phone calls. I spoke directly with four interns and left three voice mails for the remaining interns. Three emails were sent during a three-week period, yet I was unable to speak with three interns. Speaking with the interns on the phone allowed potential participants to ask questions before attending an orientation meeting. I requested interns to forward my invitation email to their mentor teachers and asked them to respond to a Doodle poll to determine the best time for an orientation.

After identifying participants, I contacted the prospective interns and mentor teachers via email with an invitation to set up orientation meetings (see Appendix D). During the spring of 2020, school districts moved to online instruction due to the COVID-19 pandemic (Georgia Executive Order No. 03.14.20.01, March 14, 2020). As the pandemic continued during this study, I conducted the orientations via virtual meetings. The goal of having an in-person orientation, including virtual, was to gain the trust of participants. Gaining trust is the first key to ensuring participants are willing to be open and honest with researchers (Maxwell, 2005). Salmons (2015) outlined considerations for conducting online interview questions applied to studies. She encouraged researchers to consider their stance as either an insider or an outsider. She noted researchers conducting online interviews have to determine how their status as an insider versus an outsider would affect the relationships they build with their participants. Establishing relationships in an online environment for the orientation required me to consider how to build trust with the prospective participants. One way to build trust with the participants was to email them and introduce myself before meeting online. I told them about my role in the field of education. I also informed them how the research related to their experiences as mentor, preservice teacher, or administrator. For those *interns as teachers* enrolled at my institution, I can have both an insider and outsider perspective. The insider perspective in this research proposal does not apply to the immersion of the researcher as an actor (Stake, 1995), but rather one immersed in the experiences of teacher candidates at my institution (Van de Ven, 2007). As Hesse-Biber and Leavy (2008) described, I have to use my abilities to be reflexive without biasing the study. However, being an insider in the previous role of field director can be useful as the teacher candidates may be less hesitant to work with me because of the prior relationship and concerns of power. I considered the teacher candidates might serve to help bridge the relationship between the mentors and myself. This allowed the use of an online environment to benefit the research process. Whether or not the participants are familiar with me as a researcher, there are ways to build trust in an online environment. Salmons (2012) stated, "whether inside, outside, or somewhere in the middle, the researcher needs to clearly state a position and provide a rationale for how that position serves the study" (p. 18). As an outsider, I know the types of experiences mentors and teacher candidates experience. I was honest with the participants and explained the value of their participation in the research.

Qualitative research also seeks to understand a phenomenon and therefore, essential participants are willing to freely discuss with researchers what is occurring in the setting (Krueger & Casey, 2015). Of the seven interested interns, four attended research orientations; however, the orientations ended up on four separate days. Two interns logged into the orientation through Google Meets and two participants preferred telephone orientations. The orientation for this study introduced participants to the research study, described potential risks of the research, and explained the benefits of participating. After the initial four orientation sessions, I emailed the PowerPoint shared during the meeting outlining the study and requirements for participation so the interns could share the information with their mentor teacher. I gave participants time to consider whether they and their mentors were willing to participate. One intern teacher was unable to get their mentor teacher's participation. The intern and her mentor were working remotely due to COVID-19 and eventually decided not to continue. The remaining three mentor teachers agreed to participate in the study.

Goals for Participant Sample

The initial goal of the participant sample for this research was to include mentor and intern participants with the approximate demographic status and certification in the areas of teacher shortages of new teacher hires in Georgia. One caveat considered was the realization some subgroups may not be represented in the *intern as teacher* model in South Georgia due to the available hiring pool of interns. One method to collect diversity data for participant selection is to ask participants to complete a brief demographic survey. As participants may consider demographic questions as personal information, a survey is the best way to collect the data for participant selection purposes. Hughes, Camden, and Yangchen's (2016) research guided the development of the survey questions for this study. The authors acknowledged researchers needed to collect demographic data to determine if participants represented the population intended to study. They guided researchers through the development of writing questions that represented changes in how individuals identified with gender. For example, in this study the gender identity question was left open-ended because of gender fluidity. The ethnicity question acknowledge the multiple ways individuals considered race and ethnicity. A Qualtrics survey, emailed to participants after the initial meeting, collected the demographic information (see Appendix E). The survey questions for this study requested information on age, gender identification, ethnicity, primary language, education level, and membership in outside organizations for each participant. I requested all participants complete a Qualtrics demographics form, but only two participants completed the form. Demographic information was collected on the remaining intern teachers during virtual interview sessions.

As Maxwell (2005) reminded researchers, the intended samples initially identified may change as they gained more information about the population, and occurred in this study. After I identified mentor and intern participants and began the data collection phase, it became apparent more information was needed from key decision-makers in the processes involved with the *intern as teacher* model. When participants began describing other individuals within their university and districts who were making decisions regarding their placements and experiences, I knew I needed to add additional participants. Several participants identified specific individuals they worked directly with who could better answer some of the interview questions. Other participants acknowledged other universities involved in the *intern as teacher* model, and created a snowball effect of identifying additional participants. After gaining permission from the Valdosta State's IRB committee to amend my study (Appendix Q), I emailed participants from the districts where my initial participants were employed or attended college. Additional participants were considered when it became important to understand how the *intern as teacher* model began.

Actual Participants

This study included sixteen participants. The initially defined mentors and interns included two white mentor teachers and one black mentor teacher, two white intern teachers and one black intern teacher. The interns were attending a University System of Georgia public university in South Georgia. The universities ranged in size from the smallest enrollment of 2,950 and the largest at 8,307 students. The intern teachers were all seeking certification in their respective degree areas and teaching in a subject aligned with their future certification area. They were all undergraduate education students seeking a degree in the Bachelors of Science in Education. Two interns were in an Elementary Education program and one candidate was in a Middle Grades Math and Science program. All three mentor teachers have a specialist degree in education although the type of degree varies by participant. Their years of teaching range from sixteen to thirty years.

The remaining participants were from P-12 district personnel and universities. There were three P-12 district personnel from the central office interviewed from three districts. These individuals all worked as either Assistant Superintendents or Human Resource Directors. For this study, university personnel were faculty or staff members and worked closely with the *intern as teacher* model. The university personnel included one Dean of Education, one Associate Dean of Education, one education Department Chair, two Field and Clinical Experiences directors, one university mentor teacher, and one director in the education department. Table 6 shows an overview of participants along with the pseudonym given to them for purposes of anonymity. One participant provided consent to use his given name because he was the one who implemented the initial *intern as teacher* model in his district. I utilized care to obtain written permission to use his name (Appendix F) and keep his district location unknown. Participants are listed in order of District and University as presented in Chapters four and five.

Table 6

Overview of Research Participants' Pseudonyms, Title, Location, and Type of Interview

Pseudonym	Title	Location	Type of Interview
Dr. Mack Bullard*	P-12 Administrator	District A	Individual interview
Ms. Franklin	P-12 District Personnel	District B	Individual interview
Mrs. Taylor	Mentor	District C	Focus group 1
Allison	Intern	District C; University 1	Focus group 1
Mrs. Westbrook	University Staff	University 1	Individual interview
Mr. Russell	University Staff	University 1	Individual interview
Dr. Berry	University Faculty	University 2	Focus group 2
Ms. Roberts	University Staff	University 2	Focus group 2
Mr. Davis	P-12 Administrator	District D	Individual interview
Mrs. Cross	Mentor	District D	Focus group 3
Sarah	Intern	District D; University 3	Focus group 3
Dr. Adams	University Faculty	University 3	Individual interview
Mrs. Green	Mentor	District E	Focus group 4
Tonya	Intern	District E; University 4	Focus group 4
Dr. Pace	University Faculty	University 4	Individual interview
Dr. Matthews	University Staff	University 4	Individual interview

*Note: Dr. Mack Bullard gave permission to use his true name via email
(see Appendix F).

Instruments for Data Collection

In preparation for this study, I considered the types of data needed to conduct the study. Considering the theoretical framework previously discussed, focus group and individual interviews would allow me to gain an understanding of what participants were thinking, feeling, and how they react to specific questions or situations (Merriam & Tisdell, 2016). Important also to consider were the experiences of the agents (i.e., mentors, teachers, P-12 district administrators, and university personnel). As previously described in Chapter 1, Axelrod and Cohen (2000) suggested specific questions to consider when using the CAS framework. The questions lend themselves to semi-structured focus groups and individual interviews. Researchers use protocols in qualitative research to ask questions and record responses (Creswell & Creswell, 2018); therefore, Appendix G illustrates the initial type of questions aligned with the exploratory questions identified from the CAS framework, and described in Chapter 1, to focus on variation, selection, interaction, and criteria of performance. I was interested in the mentor teachers' and interns' experiences in the *intern as teacher* model. I also wanted to know how they selected strategies and artifacts during the internship. After gaining insight into the experiences of interns and mentors, I needed to gain an understanding of the decisions made regarding their experiences by decision-makers within the school district and universities.

Focus Group Questions

I used recommendations from Kruegar and Casey (2015) to create the focus group interview protocol. Considerations for focus group protocol included consideration for the wording of questions, readability of questions, and categories of questions. First, the questions should be clear and do not include academic jargon participants may not understand. In the case study, the academic jargon may include the words "*intern as teacher,*" not yet a widely used term. To avoid misrepresenting this new term, important is to rely on the language of intern student teacher. The questions should also be easy to read to ensure the moderator does not have trouble reading the questions or causes them to stumble over the wording. Focus group questions are usually open-ended to allow for "explanations, descriptions, or illustrations" (Krueger & Casey, 2015, p. 1330). Kruegar and Casey (2015) also stated questions should be "one-dimensional . . . " (p. 330). One-dimensional questions make assumptions all participants have the same perception of certain words or concepts. Krueger and Casey (2015) designed five categories of questions to help the focus group session flow into a conversational tone. These categories included “opening, introductory, transition, key, and ending” (p. 355). Appendix H outlines the protocol for focus groups including those five categories. Appendix G outlines the questions used in this study and aligned to the categories of questioning outlined by Krueger and Casey (2015).

Questions for the focus group protocol were developed for various purposes. As Krueger and Casey (2015) described, the purpose of the opening question “is to get everyone to talk early in the discussion . . . [and] is easy to answer . . . quickly” (p. 367). Participants who do not participate early in the discussion are less likely to participate later in the session; therefore, the moderator must include everyone early in the focus group interview (Krueger & Casey, 2015). Opening questions should not “highlight power or status differences among participants . . . because some people may simply defer to others in the group who they feel are older, wiser, more experienced, or whatever” (p. 374). To ensure I did not intentionally introduce power or status differences to the focus group, the first question in the study simply asked participants for a brief introduction of themselves.

Introductory questions allowed me, the moderator, to introduce the topic to the participants. These questions help participants begin thinking about how they contribute to the discussion and the research study (Krueger & Casey, 2015). The introductory questions for this study included questions about the mentor and intern experiences in student teaching and internships. The questions allowed mentors and interns to reflect on their experiences while also allowing me to gain a sense of how those experiences may influence their responses later.

Transition questions allowed me to link the introductory questions to the key questions of the research study (Krueger & Casey, 2015). For this study, transition questions include vocabulary associated with the *intern as teacher* model and mentoring. I asked participants what they thought of when they heard specific words such as mentor, *intern as teacher*, and strategies. Each of these words is key to this study and allowed me to gain an understanding of how these meanings may play into the conversations of focus group participants. These questions also helped prepare participants for the key questions of the focus group interviews.

Key questions are those questions researchers want to study and use to drive the analysis (Krueger & Casey, 2015). Moderators usually identify four to six questions as their key questions. Appendix G outlines the key questions used during focus group interviews. These questions required me to allow participants sufficient time to answer the questions and discuss among themselves (Krueger & Casey, 2015). I also used probes during these discussions to allow for a deeper discussion of the question.

Ending questions allow moderators to wrap up the focus group session (Krueger & Casey, 2015). These questions require participants "to reflect back on previous comments, and are critical to analysis" (Chapter 3, Section 2, para. 11). Krueger and Casey (2015) provided three types of valuable ending questions: (1) all things considered question, (2) summary question, and (3) final question. The all things considered question helps the moderator determine the final position of participants on critical areas of concern" (Chapter 3, Section 2, para. 13). For this research study, the all things considered question helped illustrate what participants believe was most important in the *intern as teacher* model. This question allowed an interpretation of "conflicting comments and assign weight to what is said" (Krueger & Casey, 2015, Chapter 3, Section 2, para. 13). The summary question allowed participants to clarify anything from the discussion and allowed me to determine if I adequately summarized the discussion. Krueger and Casey (2015) described the final question as an insurance question "to ensure that critical aspects have not been overlooked" (Chapter 3, Section 2, para. 15). I provided an overview of the purpose of the study and then asked participants if I missed anything in the interviews based on the purpose of the study. The final question for this study considered two factors: (1) the first focus group conducted and (2) later focus group sessions. Each focus group has the same final question, but the first session included a final question that helped me as I moved on to future sessions. It asked the participants to advise how I could improve future sessions (Krueger & Casey, 2015).

Alignment of focus group questions and research questions. The discussion on how I created the focus group interview protocol allowed for considerations from Kruegar and Casey's (2015) protocol development. I developed this protocol by considering the exploratory questions from Axelrod and Cohen's (2000) framework before beginning the research. Aligning the protocol to the factors in their framework allowed for an exploration of the *intern as teacher* model. The questions allowed me to consider complex factors within the model as I proposed the model was a complex adaptive system. Considering the factors of variation, strategies, agents, and interactions through my research questions would allow me to determine how mentors and interns selected and used strategies in the model. As shown in Appendix G, each question was aligned to these factors, allowing me to explore the variation within the system and interactions.

Highlighted in the transition questions section, I asked participants about specific phrases such as mentor teacher, intern as teacher, strategies, and interactions to begin learning how they defined and used the terms in their setting. Understanding the terms, *mentor teacher* and *intern as teacher*, would offer evidence of the variation in individuals within the system as well as variation in how they used the terms in each district. Understanding how they defined and understood the terms helped to understand the variation in the term across districts as well as learn about how they were selecting *strategies* to use within the model or their classroom. The term *interactions* allowed for an understanding of who the interns and mentors were interacting with daily as well as learn how they chose with whom they interacted. Addressed in the key questions section, I sought to build on the mentor's and intern's experiences in the *intern as teacher* model. I built upon the previously defined terms to learn more about the interactions, selection, and variation within the system. The ending questions allowed them to ask questions, clarify my summarization of the interview, and provide additional insight into the program they felt was important for the research goal.

Individual Interview Questions

After analyzing the data from the focus group interview with mentors and interns, I created the individual interview questions. I varied the questions for the participants based on their background in P-12 education (see Appendix I) and higher education (see Appendix J). Based on the focus group interviews, I knew each entity made different decisions; therefore, I sought to understand how and why decisions were made at each level. I created the questions in the same way as the focus group interviews with introductory questions, transition questions, key questions, and ending questions. Each of the individual interview questions aligned with the factors addressed in Axelrod and Cohen's (2000) framework: (1) variation, (2) selection, (3) interaction, and (4) criteria for performance. The questions allowed me to probe more deeply into the participants' responses from the focus group sessions. These interviews also served as an opportunity to request information not answered during focus group sessions but important to the research study.

Seeking to understand the context of the *intern as teacher* model at the district level, I asked participants to describe their role, the number of interns who completed an internship, and partners they worked with for internships. These questions highlighted the variation across districts and introduced the individuals in the model with whom they interacted. Key questions to understand the model included gaining insight into their goals for implementing the program, processes undertaken and decisions. The key questions helped to address Research Questions 1, 2, and 3. Ending questions for the interviews allowed participants to provide advice to others who may consider implementing the *intern as teacher* model in the future while also providing additional information not collected through with the interview questions. Because all the questions aligned with Axelrod and Cohen's (2000) framework, the questions would allow me to analyze the data to gain insight into the study's primary research question, "What constitutes success for interns in the *intern as teacher* model in South Georgia?"

Data Collection Methods

The primary instrument for data collection was interviewing through focus groups and individual interviews. I collected documents from school districts and universities to triangulate data. The following section describes how I conducted focus group interviews and individual interviews, followed by discussing how I collected documents.

Focus Group Interviews

I planned to interview mentors and interns together. My proposal initially considered focus group interviews would allow participants to provide insight to individuals wishing to implement an *intern as teacher* model in a school district. Focus groups allow participants to incorporate conversational tones with one another while the moderator, me in this case, becomes less of a focal point (Kruegar & Casey, 2015). These sessions would help me learn about the participants and their situations while providing unique information about their world (Merriam & Tisdell, 2016). Krueger and Casey (2015) recommended focus groups for noncommercial topics include five to eight participants. To account for the recommendation of Krueger and Casey (2015), I initially limited each focus group to three mentor-intern pairs, thus totaling six participants per session. However, when I sent dates to mentor and intern pairs, there appeared to be hesitation on the part of the participants. One mentor-intern pair agreed to participate with other pairs, but the other two pairs did not attend the session. Rather than canceling the session, I went ahead with the interview using the questions originally designed for a focus group. This same pattern arose again when a second pair agreed to an interview, but the final pair did not attend. Therefore, the original plan of having focus groups with six participants did not occur.

As stated earlier, there was a large demographic region where participants worked. Therefore, best was to conduct virtual focus groups utilizing Google Meets technology to ensure participants did not travel long distances to a specific site. I asked each pair of mentor teacher and intern to sit in front of the camera side-by-side with one another. However, this occurred in only one session. In the other two sessions, the mentor and intern logged into the session on two different computers. The focus group sessions lasted approximately 75 minutes contributing to approximately 225 minutes of interview data. I conducted the focus group sessions and recorded the groups using both a handheld audio recorder and the built-in screen recorder on the computer. Previously shown on Table 6 was the alignment of participants who participated in each focus group.

Individual Interviews

An analysis of focus group interviews allows the identification of the participants to conduct individual follow-up interviews from the original focus group interview pool. However, due to the nature of a qualitative case study, the data collection and analysis process guides the number of participants who receive individual interviews (Taylor, Bogdan, & Devault, 2016). Morgan (1997) described how to conduct individual interviews before or after focus group sessions. Individual interviews conducted after focus groups allow researchers to gather more in-depth information about topics not well explored during focus groups (Morgan, 1997). I conducted individual interviews with the number of participants required to answer any lingering questions not answered during focus group interviews. I interviewed Field and Clinical Experiences Directors, Assistant Superintendents, Principals, and Directors of the program to ensure multiple sources of information and support the validity of the data. The follow-up interviews were one-on-

one through a semi-structured interview process except for one interview conducted with two individuals who worked together at a university. These two individuals requested to interview together. There were seven individual interviews and one paired interview. Each interview lasted for approximately 45 minutes. The interviews provided approximately 360 minutes of data. I conducted the interviews in a virtual platform similar to the one used during focus groups and recorded them on an audio recorder and a screen recorder from the computer. Previously shown on Table 6 was the alignment of participants of participants who participated in individual interviews.

Document Collection

To ensure I could triangulate data and learn more about the *intern as teacher* model, I requested key decision-makers to provide me with documents they provided their stakeholders. Although documents do not always "afford a continuity of unfolding events in the kind of detail that the theorist requires" (Glaser & Strauss, 1967, p. 182), document analysis afforded the ability to verify some of the findings in this study. I used Merriam and Tisdell's (2016) thought that documents used in the process of "building categories and theoretical constructs in the first place, they then become evidence in support of findings" (p. 181). The documents I collected included memorandums of understanding, intern commitment forms, *intern as teacher* policies, student teaching handbooks, and mentor teacher handbooks. In the forthcoming chapter, I provide a table with the types of documents I collected and a summary (see Table 7). Approximately half the participants provided documents to me. I was able to secure the remaining documents online via publicly published documents on district and university websites. I used the documents to validate statements in focus groups and individual interviews.

Data Analysis Procedures

The research of Saldana (2016) primarily informed my data analysis. I chose to use (1) data organization, (2) analytic memos, (3) codifying and categorizing, and "themeing." I also used guidelines from other researchers (Creswell & Creswell, 2018; Merriam & Tisdell, 2016), helping to guide the analysis process and described throughout this section.

I began by uploading audio files to an online transcription service called Otter.ai. The software transcribed the audio files. I listened to each interview and made corrections to each transcription. I uploaded each transcription into MAXQDA. MAXQDA is a software package allowing qualitative researchers to collect, transcribe, organize, analyze, visualize, and publish research (VERBI Software, 2019). I read each source of data through one time and then read again while making notations in the margins of MAXQDA.

Creswell and Creswell (2018) outlined an overview of the data analysis process to include the first step of organizing the data by scanning documents and typing field notes. Coding is the process where researchers ask questions of the data and make notations (Creswell & Creswell, 2018; Merriam & Tisdell, 2016). The initial coding process was *open coding* and required me to be open-minded for anything potentially relevant to the exploratory questions (Merriam & Tisdell, 2016). Codes can include "a repeat of the exact word(s) of the participant, your words, or a concept from the literature" (Merriam & Tisdell, 2016, p. 205). Open coding of the data also incorporated process coding and in vivo coding. *Process coding* requires one to identify words suggesting action (Saldana, 2016). Saldana (2016) noted process coding allows one to see the processes of human action and how codes are interwoven with other dynamics of time by reviewing action words ending in *–ing*. *In vivo* coding uses the participant's actual words in interviews to help understand a participant’s experiences, culture, and behaviors (Saldana, 2016). In this research study, the first cycle data process began by looking at the transcriptions from focus group interviews. To begin the coding, exploratory questions one and two became the focus as I watched the interviews and read the transcriptions. I continued to code by going through each document individually and determining codes. I continued this process with the remaining exploratory questions.

After completing the first cycle coding, I used code mapping to organize and assemble the codes to prepare for the second cycle analysis (Saldana, 2016). Code mapping helps researchers ensure credibility and trustworthiness in the qualitative analysis process (Saldana, 2016). Code mapping requires researchers to progress from the full set of codes to a list of categories, and finally, the central themes or concepts for the study (Saldana, 2016). I tried to use MAXQDA to assist with this process, but the program was quite overwhelming to learn. Therefore, I used the analysis feature called “compare cases and groups” within the program. This feature allowed me to view portions of coded transcripts by code and participant. I activated the codes I was interested in determining relationships between and made three document groups: mentor and intern, P-12 district personnel, and university faculty and staff. I read through the coded text and sorted them into categories. After the initial formation of categories, I reorganized codes into fewer categories. Appendix K shows an example of the initial code reduction before I began categorizing and recoding. I will go into the process of coding further in Chapter 5. I formed a new list of category names based on the organization of the codes and represented the properties, processes, and dimensions of the data themes (Saldana, 2016).

During the second cycle coding process, I used *focused coding* to help illuminate the themes and concepts for the research (Saldana, 2016). Focused coding allows researchers to develop "categories without the distracted attention at this time to their properties and dimensions" (Saldana, 2016, p. 240). It allows researchers to use their first cycle codes to recode the data "across other participants' data to assess comparability and transferability" (Saldana, 2016, p. 243). Appendix L shows an example of how I was beginning to reorganize the initial codes into categories and themes. As with first cycle coding, analytic memos served to reflect on the recoded data and identify themes to work toward explaining the research. Data analysis was an ongoing process for this study. The processes described earlier occurred multiple times throughout the research process to ensure data saturation.

After I analyzed each piece of data, I wrote an analytic memo to assist in analyzing themes. Saldana (2016) described memos to reflect on the codes identified during the coding process. Memos allow researchers to get their initial thoughts onto paper and explain what they think is happening. Saldana (2016) said memos did not have use academic language, but researchers should give the memos headings and dates to see the progression of thoughts over time. There are many ways to include analytic memos in qualitative research. Saldana (2016) included guidelines to consider while writing memos while reflecting on the data. These guidelines are not written out entirely in this dissertation, but I referred to *The Coding Manual for Qualitative Researchers* on pages 44-53 for guidance from Saldana (2016).

Writing analytic memos served as the audit trail for my study with a detailed log of my data collection process, interpretations of my notes, and how I derived categories (Merriam & Tisdell, 2016). After each focus group interview and individual interview analysis, I wrote memos to document ideas about codes and my data analysis as it came to mind specifically to reflect on the collected data (Saldana, 2016). Initially I kept each analytic memo in the MAXQDA software package and kept a backup copy on my computer. After each stage of the process, I printed the memos and placed them in a three-ring binder. This process allowed me to add typed or handwritten memos to my research throughout the process. The journal entries included a date and a title relevant to the potential codes or themes in the research. I used these memos to identify codes better suited for data (Saldana, 2016).

The data analysis procedures identified above ensured I generated credible and sufficiently in-depth answers for the study because the techniques chosen are appropriate for case studies. Case studies require an analysis of the themes arising to explain the issue's complexity (Creswell, 2007). Each of the coding methods described above allowed me to find themes occurring in the data. Using memos, themes in the data emerged based upon my interpretations using research obtained during the literature review and my personal experiences as a previous field director.

Threats to Validity

As with any research, there is a potential threat during the process of reporting the data. I considered validity threats that may affect my research design and threaten interpretation. Researchers must address trustworthiness in qualitative research to ensure the study is credible and reliable (Merriam & Tisdell, 2016). The research ensures credibility and reliability through the process of respondent validation, adequate engagement in data collection, and an audit trail.

Credibility

Credibility helps researchers determine if the data collected matches the reality of the situation (Merriam & Tisdell, 2016). Credibility in qualitative research requires researchers to show how they used data to understand the participants' construction of reality (Merriam & Tisdell, 2016). One way to do this is to triangulate data by using multiple sources of data and data collection methods to determine the themes occurring throughout the research process. While writing this dissertation, I used focus groups, individual interviews, document collection, and analytic memos through the process of triangulation to increase the credibility and trustworthiness of the study.

Triangulation refers to how a researcher uses multiple data collection methods to verify findings among each type of data at different points in time (Merriam & Tisdell, 2016). The data collection section previously described what data I collected during each of the data collection phases. While I collected data, I implemented coding cycles to ensure data saturation occurred. The data analysis section describes the coding methods used and describes a minimum of two coding cycles to potentially reach data saturation. The identified themes from the data analysis can help provide answers to the question of what constitutes success for interns in the *intern as teacher* model (Creswell & Creswell, 2018). The combination of data collected during the research process allows for an in-depth study providing rich information on the *intern as teacher* model in South Georgia (Patton, 1990) and creates triangulation of data to ensure validity.

Respondent Validation

Respondent validation is a process where the preliminary data and conclusions are given to the participants to review and provide feedback (Merriam & Tisdell, 2016). This process allows respondents to determine if they can recognize their experiences through my interpretation. Respondent validation is an ongoing process as data is collected through focus groups and individual interviews. Participants were provided with the first week's data analysis and encouraged to provide me feedback. Their feedback was used to revise the initial data interpretation from the focus group sessions as appropriate or to explain why those conclusions were made (Merriam & Tisdell, 2016). Ary, Jacobs, Irvine, and Walker (2018) described the history effect between the beginning of research and the conclusion. I gave respondents time to respond to initial interpretations and provide clues about what may have been going on during interviews influencing their responses later in focus groups to account for the history effect. Participant feedback can provide insight to help with my final interpretations.

Adequate Engagement

Adequate engagement in the data analysis process ensures data is collected and interpreted until saturation (Merriam & Tisdell, 2016). Saturation occurs when researchers "begin to see or hear the same things over and over again, and no new information surfaces as you collect more data" (p. 248). Although hard to know how many cases eventually lead to saturation of data, essential is to analyze data while simultaneously collecting data as displayed in Appendix A (Merriam & Tisdell, 2016). After each data collection point, I analyzed the data and made initial interpretations in the margins of notes and transcriptions. In addition to looking for common themes, data that support alternative explanations are performed (Creswell & Creswell, 2018; Merriam &

Tisdell, 2016). I verified these alternative explanations by reviewing the CAS framework and research identified in the literature review.

Audit Trail

Qualitative researchers must ensure others have access to the data and methods used to develop themes and conclusions for their final research report (Merriam & Tisdell, 2016). One way to do this is through an audit trail. As described in the data analysis section and identified in Appendix A, I wrote analytic memos to reflect the codes I identified during the coding process. The analytic memos serve to document how the research progressed from each stage of the process.

Ethical Procedures

Following Valdosta State University's protocols for ensuring ethical practices and protecting human subjects, I submitted my study to the Institutional Review Board (IRB) before beginning the study. To ensure ethical practices were part of my study, I was transparent about the purpose of my study. I read a consent for participation (Appendix M) to all participants before beginning the interviews. I assured participants they did not have to answer any questions they were not comfortable answering and could withdraw from the study at any time. I informed participants their identification would be kept confidential by using pseudonyms and I would be the only person who would know their direct identity. I also used pseudonyms for locations, school districts, universities and any other identifying information which could be traced directly to the source. I kept my notes, video-recorded focus groups and individual interviews, transcriptions, and research on a locked computer for the duration of the study.

Summary

In this chapter, I provided an outline of the methodology used for this study. This study uses a case study approach to study the *intern as teacher* model. A discussion of the participants and research setting was described, along with how each person was selected. The data collection procedures outline how I collected each piece of data from the focus group interviews, individual interviews, and documentation. The method of analyzing the data includes coding methods prescribed by Saldano (2016) and included consideration for ensuring validity and reliability for the study. Chapter 4 begins with an introduction to the results of the study. Chapter 4 will serve to introduce participants, their pseudonyms, and their locations. Chapter 4 also provides stories of how each institution began planning for and implementing the *intern as teacher* model along with key decisions they considered.

CHAPTER IV

FINDINGS

The purpose of this study was to explore what constitutes success for interns in the *intern as teacher* model during the last semester of undergraduate education through a paid student teaching experience in South Georgia. In Chapter I, I described how the study would potentially extend the research conversation beyond looking at mentoring from only one lens: the mentor's or the mentee's. Jones and Corner (2012) challenged researchers to consider mentoring as a complex adaptive system within itself. During the original proposal for this study, the research questions used to explore the *intern as teacher* model were based on Axelrod and Cohen's (2000) *Harnessing Complexity* Framework. The original questions were used to identify specific questions to ask participants and helped me understand how the model was a Complex Adaptive System (CAS). When I began the data collection phase, other questions began to surface about the *intern as teacher* model. What occurred was the outcome of a slightly different study than initially proposed, but one that would ultimately allow future users of the model to benefit from system's complexity.

Exploration into the mentoring process brought up elements within this new system more worthy of exploration. What remained steadfast throughout the research study was a look at the types of strategies used within the model, but not necessarily by the mentor and intern. I looked at how the mentors and interns interacted but extended the lens to the P-12 district-level administrators and university faculty interactions.

Through the study, I investigated how performance criteria were applied to implementing the *intern as teacher* model and gained an understanding of the intern's abilities in the model. What changed was the types of data collected and a revision of research questions. This study continued to investigate the overarching research question: *What constitutes success in the intern as teacher model in South Georgia?* However, the original subquestions changed as new questions formed during the data collection phase. Therefore, the findings addressed the following research subquestions:

1. What decisions must be considered when implementing the *intern as teacher* model in a school district?
2. Do districts and universities have the time and resources to invest in the intern?
3. How do school districts and EPPs harness complexity within the model?

Chapter IV begins by providing an overview of the participants and pseudonyms used for their names and locations. A review of the methodology shown in Chapter III is provided. The majority of Chapter IV focuses on vignettes of the counties and universities studied to provide context to the research findings discussed in Chapter V.

Participants

The participants of this study were mentor teachers, intern teachers, P-12 administrators, and Education Preparation Program (EPP) staff. Participants were initially identified through contacts with Field and Clinical Directors in South Georgia. This study included mentor and intern pairs, P-12 district administrators, and university faculty and staff. Initially, I identified interns by contacting university Field and Clinical Directors. Interns interested in participating in the study completed a Qualtrics survey to allow the collection of contact information. Once identified, I invited interns and their mentors to participate in focus groups. During focus groups, it became apparent the study needed to include participants from the P-12 districts and universities to gain an understanding of the decision-making processes in the *intern as teacher* model. As discussed in Chapter 3 and outlined in Table 6, I interviewed three mentor teachers, three interns, three P-12 district personnel, and seven university faculty and staff.

Data Collection

Data were collected utilizing focus group interviews, individual interviews and document collection. Mentors and interns were interviewed together in a virtual platform. During the interviews, participants mentioned other individuals important to the *intern as teacher* model and required me to reach out for interviews with P-12 administrators and university faculty and staff. This snowball effect of participant selection allowed me to gather additional interviews and documents pertaining to the model. After interviews with mentors and interns, I reached out to their respective universities and requested interviews with university faculty and staff identified as decision-makers. These individuals then mentioned their partners in the process, and I attempted to interview the identified P-12 administrators. One mentor and intern pair specifically mentioned another district without interns and mentors participating in the study; however, the district decision-makers were interviewed to gain background information on how they implemented the program.

I requested documents from participants for information they sent to their partners. Although some did not directly send the information, I found they published documentation directly on their websites, allowing me to review documents such as

Clinical handbooks, job announcements, and internship commitment documentation. Table 7 shows an overview of the documents collected for analysis and triangulation. Included in Table 7 is a summary of the document, along with how I obtained it. I took care not to publish the exact source of information for documents, although I kept copies of each document to ensure anonymity.

Table 7

Document Collection Overview

Document	Source	Summary
Intern job description	Public record on District A's website	Public document shared by the district with a description of the intern teacher, qualifications, and estimated salary
Master Teacher job description	Public record on District A's website	Public document shared by the district with a description of the master teacher, qualifications, and acknowledgment of a teaching supplement
2019 Annual Report	Public record on District B's website	Public document shared by the district with a description of the number of schools in the district, student achievement at a glance, and ethnicity data
FY 21 District B Teacher Salary Schedule	Public record on District B's website	Public document shared by the district outlining the teacher salary schedule
Intern Contingency Contract	Email from Mr. Russell forwarded with permission from District C	Contract outlining responsibilities of the intern and the job guarantee information
Agreement for Paid Student Teaching	Provided by University 3	Overview of intern qualifications, partner school system responsibilities, assessment of interns, and requirements for interns who struggle
District D and University 1 Memorandum of Understanding	Provided by University 3	Documentation of the Internship qualifications along with other district and university agreements for their partnership
Student teaching handbook	Provided by University 3	Overview of intern qualifications, partner school system responsibilities, assessment of interns, and requirements for interns who struggle. The handbook also included an overview of student teaching responsibilities.
Cooperating Teacher Handbook	Public record on University 4's website	Student teacher and mentor responsibilities
Student teaching handbook	Public record on University 4's website	Student teacher responsibilities

Vignettes

To best frame the study, including vignettes of each District and university in this study is necessary. The *intern as teacher* model is a new model introduced to P-20 institutions in Georgia. This study began as an investigation into what I thought would show how success for interns within the school was defined. I assumed the investigation would lead to stories of how individuals interacted within a school to help the intern or how the intern would copy mechanisms used by the mentor. Instead, I found a different story. The story became complex when I began looking at the individual programs operated by school districts and universities. Before considering how the themes developed and applied to the study, learning about the context of the research locations is important; therefore, the vignettes show how each institution has implemented the program and specific processes. The following sections are organized first by district stories and followed by university stories.

District Stories

This section describes the processes taken by both counties and universities. This section is divided by district because only one university approached a school district to implement the program and all the counties described below included participants who could speak to the nature of how the program started in the district.

District A

Dr. Mack Bullard introduced the *intern as teacher* model in 2017. He spent eight months working with his district and university partners to develop his vision. As the Director of Strategic Talent Management, Dr. Bullard was in charge of identifying and recruiting, in his words, “high quality candidates for certified and classified positions throughout the school district." As the director, he found the high-quality candidates he needed were few, and the competition for those candidates was fierce. He also knew there were schools in his district classified as high needs schools and those schools were harder to staff due to the demographics and socio-economic status of the school. He knew those students deserved the highest quality teachers but needed a way to recruit teachers. Dr. Bullard's experience working in a Georgia educator preparation program for four years allowed him to know the quality of teacher candidates produced in Georgia. Using this knowledge, he began talking to individuals in the University System of Georgia and the Department of Education to recruit teacher candidates before their graduation with an undergraduate degree. Dr. Bullard's words below describe what he envisioned for recruiting the highest quality candidate and co-developing those candidates to be even stronger.

> But what I envisioned is that this college student, we eventually landed on senior, but this high performing college student will be in that classroom, they would be in front of the students, they would be doing all of the new innovative strategies that they had been learning. I mean, as they learned it, they'd be able to come and put it into practice right into their classroom and right at the back of the classroom, they'd have a model teacher, on-site watching them every day, and coaching them along the way. When they got stuck, that model teacher can be there to say, 'I got you,' and then just switch roles and pivot to the front of the classroom and just take over right there. What a teachable moment for the intern! That's what I envisioned.

Dr. Bullard implemented the program during Fall 2018 in the district he was employed at the time, known for the remainder of this study as District A. Planning for the program began Fall 2017 through a backwards design plan of inviting their university partners, the Department of Education, and a University System of Georgia representative to a meeting. They met monthly at the district's college and career academy. When he introduced the program to these stakeholders, Dr. Bullard explained,

> Listen, we're going to pay 'em. We're going to give them our master teacher . . . but we want you to give us your best. People who are truly ready to move on when ready. Okay? So, they promised, and we worked hand-in-hand . . . and they developed their own screening criteria at their college. We didn't tell them how to screen. We just told them what we needed to have in order to hire them: They had to work for us, they had to pass the GACEs, they had to have the background check done and they had to have the recommendation of the college . . . We had to place them in the content area that they were being certified. We would provide them with a master teacher in their classroom, working with them every day to coach, model, mentor, [and] co-develop. We provide them all of the benefits that a full-time educator would be eligible for, including a year into TRS before they even graduated.

The team worked together to create job descriptions for the intern and master teacher. They also created marketing materials to help explain how the internship would work and how it looked. The PowerPoint Dr. Bullard created was used to explain the process to stakeholders while other material was given to universities to share with teacher candidates. Dr. Bullard knew he needed to communicate well about the program to principals and needed their support. To do this, he brought a group of principals together and explained the process using the materials the team created. Dr. Bullard knew by doing this he would be able to show principals why they should hire an intern who was competing with veteran teachers for a position in their school.

The *intern as teacher* program in District A began with four interns. The interns were two Master of Arts in Teaching (MAT) candidates and two Bachelor of Science in Education candidates. Although the MAT candidates could apply for a regular teaching position under the district's strategic waiver, they decided to try the internship program first. The job description provided by District A considered both graduate and undergraduate teacher candidates for the internship to ensure they received a master teacher and all the supports included in the program. Figure 4 shows a model of the *intern as teacher* in District A.

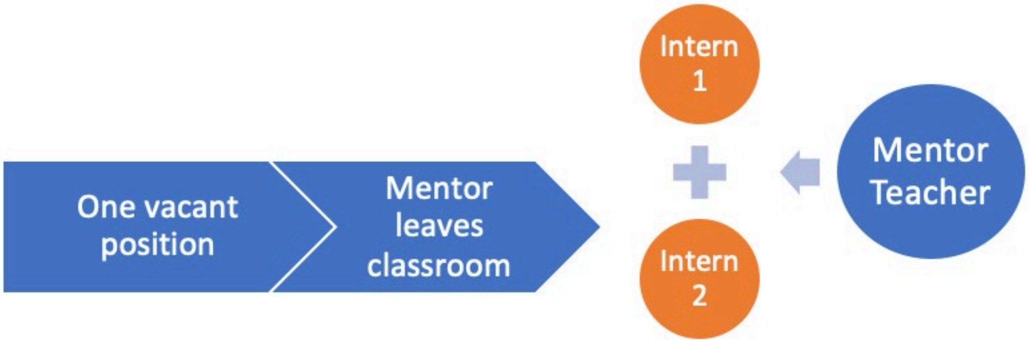


Figure 4. Mentor model in District A.

To provide interns with mentorship, Dr. Bullard described how they would implement the program:

> You have these vacant classrooms. If you have one vacant classroom in a school, you can fill two vacancies (the one vacant classroom and the master teacher's classroom) with a set of interns utilizing one salary from the one classroom . . . I

> transfer the [master teacher] out of his/her classroom and that becomes the room for one intern and then I have a vacancy that I get to fill with another intern. That one master teacher is supporting this intern and this one.

Teachers wanting to mentor interns as teachers were required to go through a hiring process with District A. Participating mentors received a stipend each year for three years. The team created a job description outlining the roles and responsibilities of the master teacher. Master teachers would mentor two candidates each year, modeling and coaching the interns. Dr. Bullard explained the process:

> We paid them a stipend because we knew it was extra work, and we knew it was extra responsibility, but it was our way to develop teacher leaders and actually compensate the teacher leadership because we had a pathway for promotion and for career growth. We had a career ladder, but it took you out of the classroom . . . I said, ‘why can't I keep a teacher who wants to be a teacher in the classroom, if that's where she wants to be and her have an avenue to step up in salary and prestige as well?’ So, we developed that teacher ladder . . . We developed them, because I really was trying to create a career ladder that kept great teachers in the classroom if they wanted to stay. All of them didn't want to become administrators. They didn't all want to become assistant principals. And we could, we could grow that teacher leadership role and then they could go back and get the certification for it.

Another consideration for the *intern as teacher* program was how they would complete their final coursework when utilizing undergraduate teacher candidates. The model required a yearlong internship with seniors who would traditionally have one more semester of coursework. Dr. Bullard did not tell colleges how to handle the coursework, but as part of the initial planning team, they considered how the interns would complete their courses without leaving the classroom during the day. Dr. Bullard's background in Human Resources and teaching at a university allowed him to understand the types of experiences candidates were exposed to in college. Part of a candidate's coursework is to go into schools, observe teachers, and practice teaching. By talking with an individual at the GaDOE, Dr. Bullard knew colleges were moving into a yearlong placement during their senior year although those experiences might look different based on the university. Because candidates already had various experiences and each of their semesters built on one another, he believed they were ready to take on the internship without completing all their senior year coursework. He believed colleges could be flexible with the final block of coursework candidates needed to complete to allow them to participate in a yearlong internship without taking courses during the traditional college day. However, he found one college might offer evening classes for candidates; others did not. He wanted colleges to consider how they could offer coursework in an alternative format, "either online or independent study, or in the evening."

District A guaranteed jobs to teacher candidates who completed the program. Dr. Bullard described two situations where they had two MAT students working in the *intern as teacher* program who decided halfway through the first semester they wanted to remain in the district. The interns requested to be changed from the intern role to a full teacher role because they had degrees but lacked appropriate certification. Dr. Bullard said one candidate came to him and said, "Dr. Bullard, can I just take the job? I love it. Can I just? I have a degree." Dr. Bullard and the principal discussed the situation and decided to hire the candidate on their strategic waiver because the intern had a four-year degree. The candidate must continue working toward his certification in the MAT program but became a full-time teacher. The second intern to transition to a full-time teaching role in the middle of the year was a candidate who had out-of-state certification but was working toward certification in Georgia. Beginning with the internship allowed the candidate to know he wanted to teach in District A. Although both candidates transitioned into the role of a full-time teacher and District A "lost" two interns, Dr. Bullard continued to provide them with the supports of the intern program. Dr. Bullard said,

> I still supported them. I still did my observations, I still came in and gave them feedback. Their mentor still supported them and observed, modeled, coached them. They still had the trappings of being an intern, but they truly transitioned mid-semester from intern to teacher because they just wanted the job.

When asked if the district retained the interns after graduation, Dr. Bullard confirmed, "kept every one of them" except for one candidate who "had a dream of teaching on the beach." Dr. Bullard said, "I couldn't give her a beach. I could [not] give her a beach. But everybody else is still here and they're still in the school where they interned."

The *intern as teacher* program is now being implemented in District B and District C. The districts are using Dr. Bullard's work to mimic his original ideas. The vignettes for District B and C pertain to how each began to use the *intern as teacher* model in their districts as described by program's developers in the respective district.

District B

Administrators from District B began planning implementation beginning Fall 2019. Ms. Franklin initially heard about the program during a Georgia Association of School Personnel Administrators (GASPA) professional development meeting. During Dr. Bullard's interview, he mentioned how the administrators in District B approached him for advice on how to begin the program in their district. Ms. Franklin explained her district administrators considered the program because of their teacher shortage and the need to recruit in an innovative format. She said:

> knowing that this might be a great idea for our district came from our need to hire teachers. As you know, we are under a national teacher shortage. Our programs in our colleges, our enrollment, is down everywhere. And so this sounded like a great opportunity for us to utilize those pre-service teachers who are being trained any way to take the job. Could we give them a stipend? I mean, yeah! Offer them the support? Yeah, we'll find a way!

Ms. Franklin and District B's Assistant Superintendent developed a proposal to present to the district leadership team regarding how they would address the intern program. After they pitched the idea to the leadership team, they contacted their university partners to determine interest. Ms. Franklin explained to their university representatives "how it will work, how it could benefit the college and how it could benefit us."

District B's *intern as teacher* program is open to any teacher candidate who applies for the program, but their respective university must sign a memorandum of understanding (MOU) outlining the university, intern, and school district responsibilities. District B modeled their MOU after the one used by Dr. Mack Bullard but was specific to the needs of District B and their university partners' needs. Ms. Franklin discussed how each university MOU might be slightly different because of the individual needs of a university, "but they don't change too much because we have . . . the standards of our program and how we want to run the program. So typically, everyone's is pretty much the same." District B's MOU also included information about "what to do if a student is sick, how do we handle substitutes if they can't come, and allowing them flexibility to take their classes because they do have a few classes in the evening."

After co-creating the MOU with each university, Ms. Franklin went to her university partner schools and spoke with interns to inform them about their model. She outlined the expectations of the program and informed them where they should apply. Ms. Franklin explained District B kept a job opening for the *intern as teacher* program on their district website. After candidates applied for the program, Ms. Franklin sent their resumes to the principals, who determined the candidates to interview.

District B modeled their program after Dr. Bullard's program; therefore, each university determined intern qualifications. On the district website, the job description limits candidates to those enrolled in an early childhood education (P-5) program. Although it was not as common, District B allowed candidates to apply for the internship even if they were in their final semester of undergraduate work. They had two instances of this occurrence in their program. When the candidates graduated, Ms. Franklin explained they were no longer paid the intern stipend and converted to the role of a full-time teacher in the district, "and they will no longer get the stipend. They will get a salary." Typically, most of their candidates worked the entire year as a paid intern enrolled in an undergraduate teacher education program.

The *intern as teacher* model in District B used the model of two interns assigned to one mentor teacher as described by Dr. Bullard. Although District B was following the changes made by District A for requirements of master teachers in their district, District B identified one open position at a respective school and then found a mentor teacher at the school who held the Teacher Support and Coaching (TSC) endorsement to host the intern. All mentor names were provided to the Assistant Superintendent of Teaching and Learning and approved.

Like District A, the mentor was taken out of their classroom to support two interns in the building (see Figure 4). The classroom where the mentor previously worked was assigned to one intern for the year, and the classroom where the vacancy existed was given to the second intern. Ms. Franklin explained,

> What they do is pull a teacher from a classroom, and I put an intern there. Then I put an intern in the actual vacancy they had. That's how I get the intern. We're not paying for another allotment. Essentially, we're still just paying for that one vacancy we had and paying that mentor teacher, [the mentor] keeps their same salary. But it evens out if you understand what I just said. We pull somebody out of a position and put an intern in there, and then put an intern in the actual empty position. Those two $15,000 stipends are still equaling just that one vacancy, and we're still paying that teacher the salary that they were getting. That's why for us, the mentor has to be in that building where the interns are going to go.

Unlike District A, mentor teachers were not guaranteed the mentoring position for three years. They went into the process understanding that this could be for only one year depending on the need of the school. If the school did not require additional interns the following year, mentor teachers went back into the classroom.

Issues that initially arose with the implementation included the coursework of teacher candidates. Like the initial coursework concerns of District A, District B administrators did not require interns to have all coursework completed. For consideration in the district program, candidates should be enrolled as a senior planning to student teach during the current school year. The district worked with universities to ensure teacher candidates could complete the remaining coursework during the evenings rather than during the school day. Teacher candidates were not eligible for the program in their district if the coursework could not be completed after school hours. Ms. Franklin acknowledged interns were still enrolled as students and had some courses to take. Like District A, District B internship participation required universities to consider how interns could change their course scheduling to evening or weekend coursework. Typically, interns completed all required courses except for their student teaching courses during the fall semester.

District B was using the *intern as teacher* model as a way to recruit teachers into the district by providing them with the full support of a mentor teacher during their internship. The district has 37 schools, and there is always a need for teachers. Teacher retention increased between 2017 and 2019 from 78% to 85% in District B. During the first two years of the *intern as teacher* program, twelve interns completed their residency with approximately 97% remaining in the district. District B agreed to a contingency contract with each intern participating in the program. The contingency contract meant successful completion of the internship provided interns with a contract within the district, but not necessarily at the school they interned. Remaining at the internship site was based on the needs of the school. After their internship, interns applied for a position in the district as certified teachers and interviewed with principals. Ms. Franklin assisted the interns in finding a job in the district by reaching out to principals and recommending the interns for a position. They did not have a problem providing a position to interns who wished to remain in the district.

District C

A third district implemented the *intern as teacher* model described by Dr. Bullard and Ms. Franklin, but from the guidance of a university partner. During this research project, I found District C's story when I interviewed an intern and mentor pair working in a "university implemented" *intern as teacher* model. The university partners, mentor, and intern told District C's story.

University 1 implemented the *intern as teacher* program during the 2019-2020 school year as a pilot program. Their ultimate goal was to assist District C with its hiring needs. The Dean of Education heard about the program and brought the information back to her faculty. Reflecting on the process, Mrs. Westbrook recalled, "this was the Dean's special project. It was something that she had seen during one of her visits to other universities and one of her initiatives." With their close relationship and strong partnership through their Partner School Network, the university faculty approached the school district on a pilot basis with their elementary education undergraduate program. They worked with District C to co-develop the program and considered how they would choose the mentor teacher and the schools to place candidates.

In District C, there are 36 schools with several high needs' schools in schools "where they typically really, really need teachers." The district administrators' stipulations for the program included their involvement in hiring the mentor and for the college to use one of their harder-to-staff schools. The university agreed to use the schools by saying, "you pick areas where you think there's the greatest need of teachers and where a lot of our new students, our first-year teachers, typically get jobs." They also discussed the grade levels to place candidates. The university and district administrators made a joint decision to place candidates in grades kindergarten through second grade because those levels were not high stakes testing grades. Mr. Russell said, "We needed to not have them, for lack of a better term, worry about the test scores at this point." University 1 staff also placed interns in the same grade level although they are willing to place candidates in two different grade levels if the need arose in the future. Although the current model worked, University 1 faculty are willing to discuss candidates in the upper grades if needed.

To qualify for the *intern as teacher* model at University 1, potential interns went through an application process with the university. Administrators outlined the qualification requirements for the district in an intern agreement form for interns to sign agreeing to their stipulations. A committee of faculty and the university mentor reviewed the applications, checked teacher candidate GPAs, interviewed interns, and chose the candidates to participate. Unlike District A's requirement of passing all the GACE certification tests before beginning the internship, District C required interns to make reasonable progress toward those assessments during their two semesters of employment.

University 1's mentor teacher was involved in the process of hiring interns for years one and two. Confirming Mrs. Westbrook's description of hiring interns, Mrs. Taylor, who served as one of the mentor teachers, said they found four eligible candidates based on recommendations from professors during the first year of the program. They changed the process for year two where they went through the committee described by Mrs. Westbrook. After interviewing candidates, the committee scaled the program down to two interns and one mentor for year two. Mrs. Westbrook said the reasoning was "because we only had two students who were really ready to do that this year."

The *intern as teacher* model in District C utilized the two intern and one mentor model described by Dr. Bullard. During year one, the university had four interns and two mentors. University C's interns and mentors worked in two elementary schools. Each school hosted two interns and one mentor. Mrs. Taylor explained each school was one of the lowest-performing schools in the district and were assisted by the state department. There were many people in the building helping to raise the students' achievement including academic coaches, state department instructional coaches, and administrators.

Expanding on Mrs. Taylor's description and showing how they changed the model from year one to year two, Mrs. Westbrook described what the model looked like for the 2020-2021 year (see Figure 5). University 1 faculty and staff decided to move the internship site to one of their district professional development schools. They only had one mentor teacher who spent half her time daily with each intern. Mrs. Westbrook stated the interns had adjoining rooms and the mentor was able to move between the two intern classrooms. University 1 staff worked with the school administrators to ensure neither the interns nor mentor had afternoon duties allowing them to plan for the following day together and any other upcoming meetings such as parent conferences.

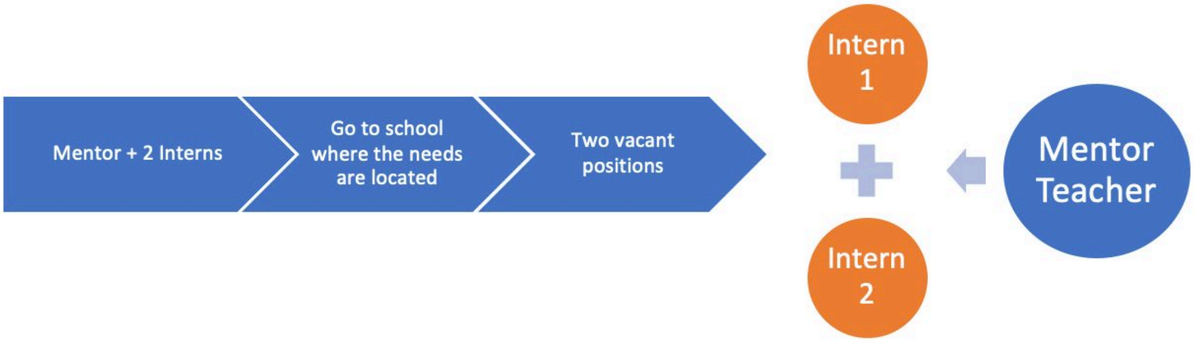


Figure 5. Mentoring model and district needs for District C.

Supporting Mrs. Westbrook's description of the physical set-up of the classrooms, the intern and mentor described their classroom:

> **Mrs. Taylor:** I've got to be able and flexible to kind of go back and forth and help where I'm needed. I can identify areas that I need to give more help in and less help and the interns are both different. They both have their own needs. And so, you know, me just being able to bounce back and forth and do what I can. Physically the setup has to work. This year has worked really nice because our rooms are connected by like, a little space.
>
> **Allison:** I could probably show her (moving camera around to show room) You can probably see . . . Again, this is my room over here. Oh, right there, then this is a hallway. Then this is [other intern's] room. Oh, right here. This is [other intern's], the lights off. The other intern is right there so she's just like, in the middle.
>
> **Mrs. Taylor:** In the middle. And so last year, they had two rooms. They didn't connect. They put me, because I needed somewhere to put my stuff and you

> know, have a space. I was down the hall in a classroom. It just was hard. For me it just didn't work out very well. This helps because I'm right there. We're connected, basically.
>
> **Allison:** It's good because she is, she's in like, my room and she hears when [another intern] kid's having a meltdown. Like she's right there, like she can just walk through it and you know, help handle it.

Whereas District A and B decided to hire mentor teachers who worked in the building where the teacher shortages existed, University 1 staff worked with the district to hire mentor teachers to work solely with their program. The mentors could be teachers they pulled out a classroom or academic coaches working outside the classroom, but they were not using the same model as Counties A and B to identify mentors. University 1 staff also provided the support of a mentor from the college. They had a supervising staff member in the elementary education program who was very involved in the *intern as teacher* model.

During the first year of the program, interns took their final semester of courses during the summer before their internship started. During the summer, candidates did not have field experiences; therefore, the faculty had students implement the field activities during their fall block internship. Elementary education candidates also took a math course during the fall block and met two afternoons a week for two hours each day. During the first two months of the internship, candidates did not have much time to focus on their classroom and discipline was high. Candidates were overwhelmed trying to finish their assignments and write lesson plans. Faculty worked with the candidates and everyone made it through the fall semester.

Year two, changes were made to accommodate the interns and allowed them to focus on their classrooms during the fall semester. Interns completed classes and assignments for block three during the summer semester. Due to the COVID-19 pandemic, classes were virtual, but students worked with their internship school for virtual summer school. The virtual setting allowed them to finish the assignments with their virtual students before beginning an internship. Completing the courses and assignments during the summer allowed interns to concentrate on their classes. Interns did not have to focus on anything during the fall semester other than their classroom and students. Mrs. Taylor said,

> They got all their classes done in the summer. They didn't have to go to class this fall. They don't do anything with them [University 1] right now. Now they will student teach in the spring and we're waiting to kind of see what that's gonna look like because they don't have edTPA and so that's what I was familiar with. University 1 will have their own student teaching thing. But yeah, it's been a lot better, as busy as it has been. It could have been a whole lot busier. It's been a lot better, much more successful. So we are, we're doing better.

University 1 staff and District C administrators agreed to allow interns to remain in their schools after the internship. Mrs. Taylor stated, “they [all District C graduates] have a job guarantee [not just interns].” Interns are guaranteed a job if they complete their internship. They remained for one year in the school they completed their internship. However, the district moved one candidate to another school due to the needs of the district. Mrs. Westbrook said the graduate was fluent in Spanish and the district needed her in a school with their largest Spanish population. Mrs. Westbrook remained in contact with the graduate and said she was flourishing.

District D

A rural district in South Georgia, District D, implemented the *intern as teacher* model in their district after hearing how other districts were using interns to help fill teacher shortages. They were in their first year of the program when this research project was being conducted and hired two interns for their final semester of student teaching. Both interns planned to graduate in December 2020. The district did not usually have teacher shortages but found themselves in a bind with two mathematics positions: one middle school and one high school. Mr. Davis described their reasoning,

> Now we could have hired somebody. But you're talking a high school course, and another one, probably an advanced middle school course. And just somebody probably isn't going to do very well with the content in that case, or this case.

Mr. Davis heard about the *intern as teacher* model through various meetings he attended, such as the P-20 collaboratives. When they realized other districts were paying student teachers to be the teacher of record, he thought it would work well for District D. He believed

> if we're willing to pay somebody and they're willing to earn money while doing their student teaching, we're probably going to get the pick of the litter, so to speak, as far as two teachers go, and it's kind of a way for us to entice some of those that are maybe a little bit better than others to come in. That's not to say . . . that's the only reason we did it, it certainly wasn't. But that didn't hurt.

District D initiated their *intern as teacher* program with one of their university partners. Mr. Davis and University 3 have a long-standing partnership. District D had a history of hiring University 3 graduates, and the district administrators were pleased with the quality of candidates produced. Therefore, considering the internship during times of teacher shortages intrigued them. Mr. Davis explained “in the last five years, we've had more openings than not had openings. You know, just as a whole country, our working population is getting older, and starting to retirement.”

The process began when the principal contacted Mr. Davis and informed him they were struggling to fill a position. They discussed the option of an internship. Mr. Davis contacted University 3 and discussed how the internship worked. Mr. Davis explained University 3’s process where they contacted eligible candidates and requested their resumes. He said, “I think University 3 said 24-hour turnaround time just to show their interest . . . give that back to us, the school interviews however many that they have and then choose somebody.” District D interviewed the eligible candidates and decided the candidate to hire for the internship.

District D based intern qualifications for the program on the relationship they have with University 3. They trusted the university to provide them with interns who would work well in the program. At the time of the interview, Mr. Davis did not explicitly state the intern qualifications other than stating,

> Our relationship with University 3 and the folks at University 3 is such that there's a lot of trust there. We can trust that that the person that we're getting is qualified, and probably, no, almost definitely a quality individual, and I think University 3 knows that when they come here, we're going to get them ready. And if we can, if

> they do a good job and we can hire ‘em, we're gonna hire ‘em and even if we can't, they'll go somewhere else, probably, and there'll be well prepared.

Mr. Davis acknowledged they are still working on the details of the program because they were in year one of the program. As the process unfolds, Mr. Davis understands they will have discussions among District D administrators to consider how many interns they will use in the future. They need to consider if this will be a regular occurrence for the district or only used in situations of greatest need.

District D’s *intern as teacher* model partners one or two mentors with each intern (see Figure 6). They communicated with University 3 to determine what their expectations were for how to pair mentors and interns. University 3 expects the district to assign a mentor to candidates, but the mentor did not have to be in the same classroom as the intern. They needed to be available to the candidate for planning and mentoring.

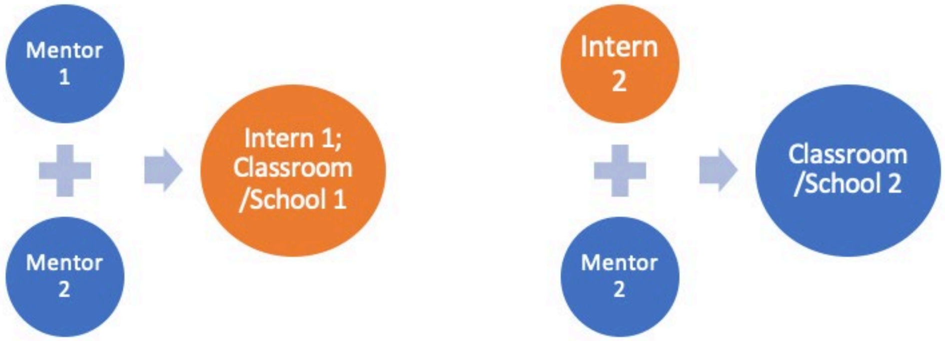


Figure 6. Mentoring model in District D.

Mr. Davis and District D made sure to provide interns with a mentor throughout the day in the same classroom. Mr. Davis’ said,

> I really believe, my preference is always going to be, especially at the beginning, to have that mentor teacher actually maybe even, you know, teach a class or two for

> them for a little while, but it's just like the regular student teaching, you have a mentor teacher in there, teaching their class, modeling for them, and then they end up taking over the class . . . but we try to make sure that there's a mentor teacher, or teachers, that are sharing it thatare there to help the student teacher end well.

The primary qualification for mentors was their experience, although the school district considered other factors. Mr. Davis described the qualifications from the school district's perspective. Because this was a new process for them, they asked a couple of retired teachers who had come back to the system part-time to consider working in the program. They identified two retired teachers at the high school level and one at the middle school level. Although they used retired teachers for their first year, they were not sure they would use only that model. Mr. Davis said, "If you do it inside of a school without, you know, without bringing someone else in, it makes it a little tougher to do a proper mentor simply because that persons got to teach a full-time schedule, too. So, when do you find time for the mentoring to take place?" As previously mentioned, Mr. Davis and District D were considering hiring another intern for the spring semester due to an opening mid-year. That school was considering using a person in the building to support the intern and having one of their 49% administrators support the candidate (see Figure 7).

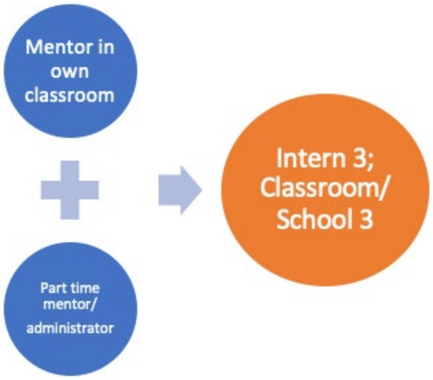

Mentor in own classroom
Part time mentor/ administrator
Intern 3; Classroom/ School 3

Figure 7. Additional mentoring model in District D.

Coursework completion by interns in District D had not been an issue. District D relied on the college to determine whether an intern could participate in the program without having completed all coursework. They did not require anything outside of what the college required for eligibility to student teach. District D has a trusting relationship with University 3 and knows the quality of candidates they produce. If another institution approaches them about an internship, they may ask more questions regarding the intern's qualifications because of the lack of partnership.

Mr. Davis did not go into the specifics about a job guarantee at the end of the program. However, he alluded several times to hiring the interns during the interview. Mr. Davis acknowledged District D was very new in this process and still learning. When asked how Mr. Davis would define success, he equated success to whether the principal would hire the individual for a full-time position. He said, "Success for us comes down to, is the principal of the school willing to hire that person? You know, if that principal feels strongly enough about that intern, that the principal says, I want to hire this person." However, he did not want principals to feel like they have no other options. If a principal were deciding to hire the individual because they have no other options for spring semester, that would not be an option for Mr. Davis.

Both interns for Fall 2020 graduated in December and were offered positions by their principals for the spring semester. One graduate will work full-time at the middle school, and the other will work part-time. The principal at the high school decided for the part-time hire because of a personal situation occurring for the secondary high school graduate. Mr. Davis stated, "one [principal], they worked out a halftime schedule for that person so that they can take part [after graduation]. I mean, they worked it out because they really want the kid; they really do." If that candidate wants to come back for the fall 2021 semester as a full-time teacher, they will allow him to do so.

Candidates eligible to student teach during the fall semester are good candidates for an internship in District D. They have an advantage for being offered a job in the spring. District D tends to have the majority of its job openings during the fall because fewer teachers leave halfway through the year. Using a fall intern is "a great model for us," said Mr. Davis.

District E

Another rural district in South Georgia utilized the *intern as teacher* model, but differently than Dr. Bullard's model and more similar to District D. Their model was found during the recruitment process of identifying interns and mentors to interview. An intern-mentor pair and their cooperating university faculty described District E's model.

University 4 implemented the *intern as teacher* model with District E during 2020-2021 after the district contacted them for two internship placements. University 4 faculty saw a benefit to offering student teachers a paid placement while also considering the benefit a candidate trained in education could offer. Not only would there be a benefit for the system, but the experience would benefit their candidates. Initially, Dr. Mack Bullard spoke with the university faculty about the benefits of the model and helped them determine how to begin the program. At first, some faculty members were against the internship model because they felt the students were not ready to be classroom teachers. The faculty were concerned about the incomplete coursework. They believed candidates needed support from the university. The faculty initially agreed to allow one candidate to participate in the model with District A.

To qualify for an internship, University 4 considered candidates' GPA, GACE scores, and previous teaching experiences. Candidates needed to have an interest in participating in a paid internship. Dr. Pace explained, "we only considered it for certain candidates; everybody was not considered. So only our stronger candidates were even considered." The university faculty implemented a live simulator experience into their program to prepare candidates for their field experiences. The faculty reviewed the simulator experiences to determine how well candidates may perform in the classroom. Faculty reviewed how candidates handled discipline, planning, and other requirements of their teaching experiences in simulation experiences.

Although University 4 would work with any district to implement the *intern as teacher* model, they had only worked with District A and District E. Dr. Pace explained each district they worked with might have a slightly different model depending on the district's needs. She explained University 4 was small as were most of their districts. As a rural university, if they chose not to work with the *intern as teacher* model, it could place their partners in a difficult situation of not having qualified teachers. Dr. Pace stated, “they're small districts, and I would prefer them have an almost certified teacher, then nobody or a sub with no experience and things like that. We are willing to work with any district who is reaching out for our students.” Another district reached out to them during the fall semester, but they could not determine how the district would implement the model or if the district determined to implement it that year.

When they discussed the program with each district partner, they assessed the supports provided to the teacher candidates. They required a certified teacher to serve as the mentor teacher. They also wanted to ensure their teacher candidates would receive the full benefits of being a teacher such as attending meetings and having access to the resources given to teachers. As stated previously, University 4 acknowledged their model may be different with each of their rural school district partners. District E’s school principal initiated the partnership with University 4. At the time, the two interns were assigned to the school as traditional student teachers and were present in the building during the spring semester for their final block courses and yearlong experience. The principal informed the university a teacher was taking leave and needed someone to take over the class. They requested the university allow them to consider their candidates for the position.

District E’s model provided one mentor to each intern in the program. The mentor teachers worked in the classroom with the interns but provided them with more opportunities to act as the teacher of record, more quickly, than the traditional student teaching experiences provided (see Figure 8).

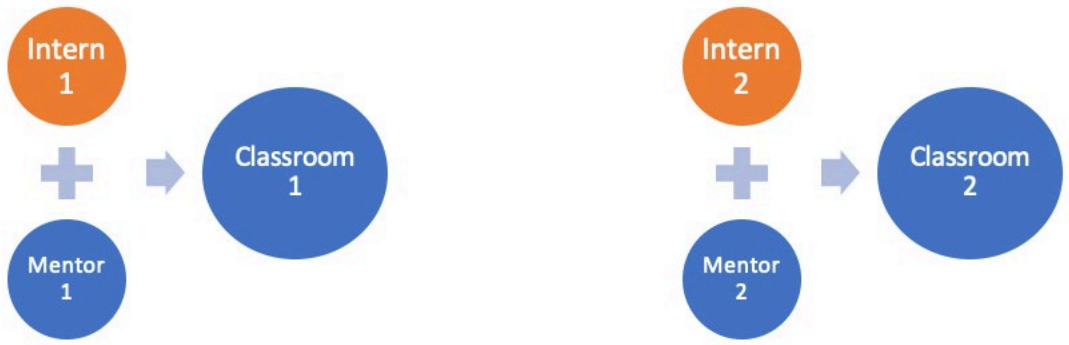


Figure 8. Model of mentoring in District E.

Dr. Matthews described the difference between the mentor of a traditional student teacher and an intern. Rather than telling the intern what may happen in the classroom, the mentor models specific things the intern should do. For example, Dr. Matthews gave an example, "as a teacher of record, as an intern, this is how you communicate with the parents, and this is how often you communicate with parents, midpoint, beginning, and you know, so the information is the same, but it's a different spin to it." Mrs. Green said it was important for her to work with her intern to help her learn how to build relationships, collaborate with other teachers, and make decisions together as a team. She explained District E's model placed her in the classroom with her intern, Tonya. Tonya saw Mrs. Green modeling teacher expectations, but Tonya also developed her own way of teaching at the same time. Mrs. Green said, "I want to be a support, but I know, at some point, I got to let her experience every aspect from the beginning to the end for her to really learn every aspect of it because you learn by doing."

Dr. Matthews found at times the interns felt like their mentors required them to do more than was required by the university. She reassured her interns and reminded them the mentors were there to push them beyond a traditional student teaching role. The mentor needed to know the interns could handle the classroom if they were not in the classroom for some time. However, Dr. Matthews also helped interns understand the mentor was there to rescue them when they needed support.

When candidates began the internship through University 4's program, they had completed their coursework except for student teaching requirements. They were still enrolled in their student teaching course and met weekly with their class and university supervisor. During their class, they debriefed with faculty, talked about their experiences, and worked on any assignments. In the past, the edTPA process was the primary focus of the course; however, edTPA is no longer a requirement in Georgia. At the time of this dissertation research, University 4 had not replaced edTPA requirements with another assignment. Tonya said she turned in lesson plans, narratives, and other papers to her university supervisor. Mrs. Green did not believe interns needed many assignments outside the internship because "it wouldn't be fair to give a whole lot like they do outside of, you know, because sometimes teaching, you have to take it home with you." She explained how she and Tonya split the tasks of the extra classroom work to get it done faster. However, she also wanted Tonya to understand teachers did not always have an extra person in the classroom to help with the tasks.

Although neither university participant commented on whether the district had a job guarantee policy for interns, Dr. Matthews confirmed the two interns would teach at the school in January after graduation. I asked Mrs. Green whether Tonya would have a job after she graduated. Mrs. Green confirmed Tonya would have her classroom. Mrs. Green was not sure how District E administrators would work it out but confirmed the principal had discussed the possibility they would allow Tonya to keep the current classroom and move Mrs. Green to a different classroom. Mrs. Green referenced the current situation of COVID and assumed there would be more students returning to face-to-face learning in January 2021 and would require the administrators to consider the need for another classroom. Due to the pandemic, the district limited classroom sizes to no more than eleven students at a time. The district divided students into two cohorts, morning and afternoon, to keep class sizes small. Therefore, Mrs. Green said, “so once kids come back, then we gonna need additional teachers. Either I will take the new students, or she will take the new students coming in, but most likely, I'm thinking they'll probably let me.”

University Stories

Two other universities were identified as using the *intern as teacher* model in South Georgia. Each of the universities partner with multiple districts and used the models described by Dr. Mack Bullard or Counties D and E. The university decision-makers interviewed for this research share their stories.

University 2

University 2 works with urban and rural school districts. At the time of this research, they had three candidates employed in the *intern as teacher* model with two districts. University 2 worked with District A and B in previous years along with two other districts. Although they primarily used the model described by Dr. Bullard, they described one instance of the one intern and one mentor model. Dr. Berry, University 2 faculty member, attended an interest meeting with District A administrators to learn about their program although they knew the district would be too far to send their candidates unless they had candidates living nearby. When they began considering the process, they thought it was a great opportunity for their candidates and would provide them with pay during student teaching and other experiences the traditional student teacher would not receive. Dr. Berry reflected on reasons why the program intrigued her by stating:

> Oftentimes, we realize even in our own teaching, that when we were subs or when we had these other experiences, it really emulated better, or it kind of, I guess, emulated better what it was to be a first year teacher, but now you are acting in this role, but with all of the support. Whereas it's a big difference, and I don't know why, but there's a difference between being a student and an intern and you feel a level of comfort, saying, I don't know. It's something about when you turn on that first-year teacher's hat, you feel like you have to know it all. So we thought this would give them the time to earn the money, get all the support they need, and really start to kind of perfect those skills that they needed.

After they heard about the program from District A, they considered how they could begin the process with their local district partners. Less than a year later, a district partner, District B, implemented the program and worked with University 2 to gather interest from their candidates. As previously stated, Ms. Franklin implemented the model in their district by having discussions with Dr. Mack Bullard. Therefore, they presented the two interns and one mentor model to candidates at University 2.

As the participants at University 2 were working out the details of the internship, they considered the qualifications required for their candidates to participate. They followed the guidelines outlined by Dr. Bullard who previously said he gave the universities autonomy to determine those guidelines as long as they were in line with the other requirements of the district. Candidates for the internship at University 2 needed a

3.0 or higher grade point average (GPA) along with a grade of A in the following courses: concepts of classroom management, literacy assessment, and both field classes during their junior year. Candidates also needed a recommendation from their professors.

Along with the basic guidelines outlined at University 2, participants described intern characteristics. They found interns needed to be strong and reliable candidates. They noted interns did not have to be the top candidate to be successful. Although faculty may be tempted to place a candidate who had life situations causing them to appear to need the money, they cautioned those interns might struggle in the internship. Participants at University 2 found the candidates who had a lot going on in their lives often struggled to turn in assignments on time, needed more reminders from faculty, and more support throughout the process. Ms. Roberts said, “really the candidate who's not already having so many struggles in life, this isn't like that lifeline, okay, well, good, get paid. You know (laughs), it really does add so much. So much.”

School-level principals were the ones who primarily initiated the process of hiring interns from University 2. Principals set up the internship at their schools and committed to providing a mentor teacher. After the principal or district contact announced the internship to University 2 faculty and staff, Ms. Roberts contacted teacher candidates to submit applications of intent. They used the application of intent to determine the candidates qualified for the program. The application also helped University 2 track candidate information. University 2 faculty reviewed the applications and submitted the names of qualified candidates to the administrators who would interview them and decide whom to hire.

University 2 partnered with four districts to implement the *intern as teacher* model. Although their primary goal was to implement the model described by Dr. Bullard, they used more than one type of model depending on the school's needs. Models used by the districts ranged from one mentor assigned to one intern, one mentor assigned to two interns, and one mentor assigned to three interns (see Figure 9).

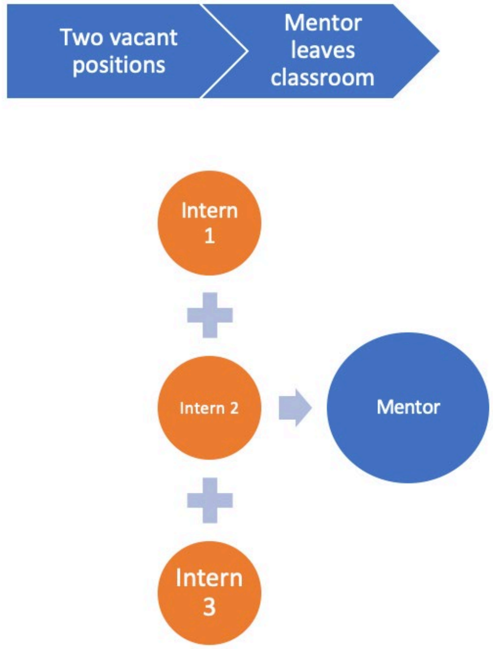


Figure 9. Mentoring model in an urban district depicting how two vacant positions were filled with two interns and one mentor teacher.

They also had a situation in one district where they implemented two different models with three interns. Not all teacher candidates were initially hired. This past year, Ms. Roberts explained how one of their partners decided not to use the program due to the COVID-19 pandemic. The district used the program yearly but paused for the fall 2020 semester. Another district looked for three interns, and more than three applied. Ms. Roberts explained the university had to choose only three during that time. However, another district decided to implement the program and had a delayed hiring process. Although there was interest from candidates, the district had to determine how they could implement the model with more candidates. Ultimately, the district decided to hire three candidates. They provided two interns with one mentor and provided the third intern a different mentor (see Figure 10).

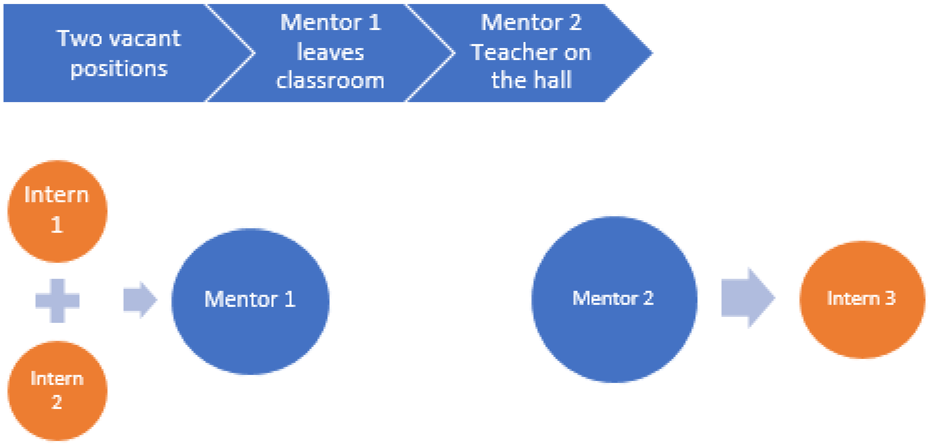


Figure 10. Mentoring model in a rural district depicting how three vacant positions were filled with three interns and two mentor teachers.

During the year District B assigned three interns to one mentor (see Figure 9) because of the school's needs at the time. The school did not have as many people to help with the process and had six new teachers in the grade level where interns were assigned. The mentor assisted the other new teachers, fill in as a substitute when teachers were absent or had parent meetings to attend. Although the interns understood the situation, "everybody said they appreciate, I mean even the interns understood, they're like, well, you know, when she's doing this, it helps all of us. But you know, we may need more time."

In one rural district, they initially implemented the *intern as teacher* model similarly to Dr. Bullard's model during the first year of their partnership. The second year the district slightly changed the model because they had another opening in the school. This school assigned two interns to one mentor and paired the third intern with an academic coach (see Figure 11).

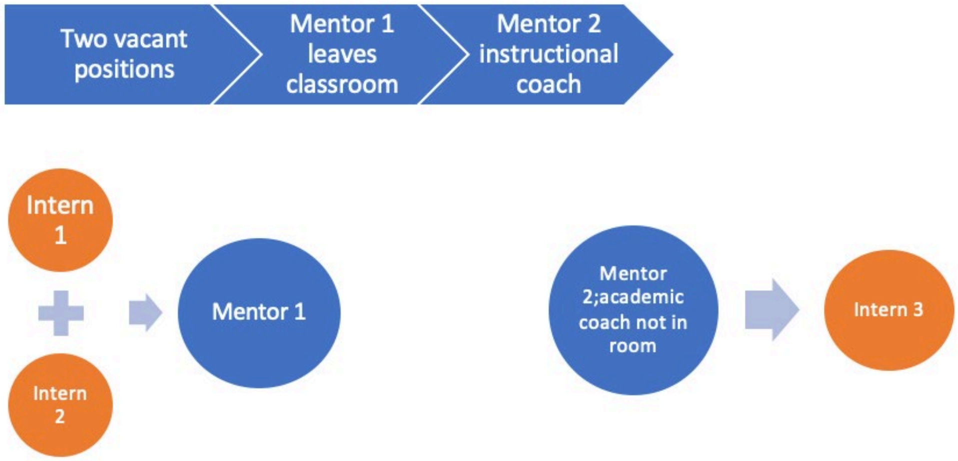

Two vacant positions
Mentor 1 leaves classroom
Mentor 2 instructional coach
Intern 1
Intern 2
Mentor 1
Mentor 2;academic coach not in room
Intern 3

Figure 11. Mentoring model in Rural District depicting how two vacant positions were filled with two interns and two mentor teachers.

Another district they worked with hired one intern and said they would use a variety of individuals to mentor the candidate. They planned to support the intern through the instructional coach, assistant principal, and their RESA partners. However, Dr. Berry explained, “I think because of their limited resource, even though they talked about all those, I think when it all played out, the truth of the matter is the [intern] really was more so treated like a first-year teacher.” They had another district state they would provide resources similar to this district and truly support the candidate. However, this district was an outlier to this process and had much support from the superintendent, who was very involved at the school level.

Mentor teachers were identified at the district and school level primarily by school principals. School-level principals were the primary individuals identifying mentor teachers. Although Dr. Berry did not go into other details about the qualifications of mentor teachers, Ms. Franklin from District B previously outlined the requirements of mentor teachers. As mentioned earlier, universities and counties worked together to co-create the MOU and outlined the requirements and responsibilities of the process. Participants described their role in supporting interns through the participation of university supervisors.

Interns enrolled in the *intern as teacher* model at University 2 were taking courses during their fall semester if they planned to student teach during the following spring. To accommodate their district partners and the *intern as teacher* model, University 2 faculty and staff considered how to help interns get the fall courses they needed during alternative times rather than the traditional university schedule. Dr. Berry explained,

> We have a full-time daytime program, and we have an evening program. So in some cases, we were able to move them. We have an online weekend now . . . We were able to move them into the evening cohort. So they then drop down to the evening if there was, if we did not have a corresponding evening class they could go into, then they were a class of three and we taught their classes or we allow them to kind of you know, we did it more kind of the professor in some cases especially when we started off with just the three the professors would just . . . teach them on the side, find another time to meet them, go to their classroom, or they would come to the professor and finish the coursework. When we had the eight or nine the next year, by then I think we had the evening track, they could fall into or if not at least they were a cohort of nine. We even thought about making some classes online for all of our candidates to free up some of that time.

The university staff realized candidates struggled to complete their coursework while also working as full-time teachers. They adjusted deadlines and accommodated student course schedules as needed. Removing those barriers helped support their candidates. The faculty were flexible enough to consider what the interns were doing in their classroom and made changes to help them. One of the changes they implemented including changing due dates for assignments to the weekend to provide interns with extra time to work when they were off. They also considered their entire curriculum and how changes could be made for all teacher candidates to allow them to frontload the curriculum to:

> ensure by second session of their senior one block that they were through with all classes, but we did that for everyone. So we made some changes for interns but what we wanted to do was, let's think about how do we make those changes for everyone so if they desire to participate, now we are alleviating some of that stress of how that coursework looks, and we make sure that they're prepared for that.

The university faculty worked with interns to determine necessary assignments and those they could adjust to fit what the intern was already doing in the classroom. Interns learned how to advocate for themselves because the university faculty did not always know what was being done in the classroom. They assigned work as they traditionally would assign. Faculty learned “most of the time they [interns] were doing above and beyond what the assignment asked.” Most of the faculty were receptive to making the changes to coursework. Many times, they did not realize what interns were required to do by the school district. The faculty found they had not thought about the school district’s requirements and could justify their changes for the intern assignments.

Interns who worked through University 2’s partnerships were guaranteed a job. Dr. Berry and Ms. Roberts did not specifically state the districts providing the internship, but their partners guaranteed a position or first right to refusal in all partnerships. Some districts wanted interns to sign a contract commitment to the district, but Dr. Berry said, “I think everyone says it's not legal. You can't make them sign that they have to stay there.”

Although candidates had job guarantees, some interns may have what the university deems as concerns. However, administrators in the schools observed candidates and provided feedback to the universities using their knowledge of first-year teachers. Although the college may have concerns, some administrators understand it to be the same issues as all first-year teachers.

University 3

University 3 was a rural college in South Georgia partnered with more than nineteen districts. They had ten candidates who completed the *intern as teacher* model through approximately five districts. Two candidates were completing their internships with District D. Dr. Adams, Dean of the College Education, was interviewed as a decision-maker for the university and implementation of the *intern as teacher* model for University 3. She explained there were multiple reasons the university decided to allow their candidates to participate in an internship. First, their region had a teacher shortage communicated to them by their superintendents. Superintendents and other district personnel sent requests for teachers every semester because they needed teachers. Second, the dean acknowledged the internship provided candidates with experience. After considering the requests of their partners, University 3 decided to “jump on board, if you will, and start down that route.”

The university began planning the process during Fall 2018 after superintendents made requests to allow their teacher candidates to participate. Dr. Adams and the clinical director wrote a proposal for the university's provost and president to review. They started with these administrators because they needed the support of upper administration to back them if something occurred during the internship. They wanted to ensure they were equitable towards all teacher candidates at the university. Dr. Adams sometimes found a school district would have a student teacher in place and would look toward hiring the candidate without considering the other teacher candidates not in their school. This process concerned Dr. Adams because she knew some student teachers had placements in a district outside of their preference due to factors beyond the university's control. Dr. Adams wanted to ensure any teacher candidate who was interested in working within a district had the opportunity to go through the interview process for an internship when available.

The document created by University 3 faculty and staff outlined the intern qualifications, partner school system responsibilities, assessment of interns, and requirements for interns who struggle. University 3 collaborated with over nineteen school districts and allowed any of those partners to participate in the program. They did not generally allow school districts to participate who are not in their partner school network. However, they made allowances for a district to partner with the university if they needed interns.

When a school district expressed a need, they communicated the need to the university staff. The university's policy was to contact all eligible candidates for the internship. The clinical director and district partner discussed the district's needs and then sent an email to all eligible candidates. Interested candidates had 24 hours to respond to the request by submitting their resumes to the clinical director. The resumes were compiled and forwarded to the school district personnel who made the request. The school then determined the candidate to hire, if any.

Intern qualifications for participation in the program were connected to their eligibility to student teach. The goal was to be equitable to all students in the education program. The qualifications for paid student teaching were listed on the MOU and in the student teaching handbook. The policy for determining eligibility was described and aligned with the internship qualifications document. Candidates were eligible for an internship “if they finish their coursework, so they're eligible for student teaching and if they were on a PIP, it's closed. I'm not remembering if we have anything in there about GPA, but I think we left it just solely as they're eligible to student teach.” However, Dr. Adams said:

> and so that sounds great in theory, but I think there's some students that just aren't ready. Especially I would say now, because not only are they doing their internship, but there is so much change and challenge right now that some of them are in over their heads, and I would probably say most of them would be on a normal semester. But I just think we have to find a way to still be equitable, but selective. Ultimately, we want them to be successful, their representation of University 3 and our program.

As stated earlier, University 3 did not follow the exact model of the *intern as teacher* model implemented by Dr. Mack Bullard in District A. Therefore, the experiences of interns in their program varied across schools. Like University 2, they used the model meeting the needs of their partners. Each district decided the type of model they would implement and provided the support of a mentor teacher. Some districts used retired teachers as described by Mr. Davis in District D. Interns from University 3, except for those who went to District D, were typically in their classroom with the mentor teacher in another classroom or in the role of instructional coach. School districts were required to provide a mentor to interns participating through University 3. The school district representatives chose mentors under the guidance of communication with the university. The university requested mentors be available to meet after school, before school, or during other planning times to work with interns.

The university's policy outlined the guidelines for how districts should provide a mentor. Although the guidelines were not specific regarding years of experience, the document stated:

> The school administrator in which the paid student teaching will be completed must appoint an on-stie, school-based mentor who will support the candidate throughout the term. The mentor will be identified by name and grade level, and the reasons for his or her assignment as mentor will be listed on the Agreement for Paid Student Teaching.

The requirements for mentor teacher expectations included support such as providing day-to-day assistance, observing the intern, and communicating with them. Dr. Adams explained, "I know we send that to the administration. I don't know that if it's more than just an email, but I know that statement is sent every time."

Interns participating in University 3's program were typically in the final semester of their program and different from Dr. Bullard's original model. Interns were expected to have all coursework completed prior to beginning their internship. The faculty advisor, clinical director, program faculty, and the dean determined whether a candidate was eligible to begin an internship. Dr. Adams acknowledged the coursework expectations were outlined this way for no particular reason than, “we require that for all of our candidates, regardless if they're an intern or a student teacher.” As outlined in the university’s policy, school districts provided interns with time to attend seminars outlined on the student teaching calendar. The university requested districts to determine how they would handle substitute teachers on seminar days.

University supervisors were also assigned to the intern. University supervisors were the liaison between the school district and the university. They used the same form of supervision as provided to the traditional student teacher. Supervision included observing the interns, communicating with mentor teachers, and grading assignments. University supervisors conducted a minimum of two observations of student teachers. If they determined a candidate was not making progress, they initiated a professional development plan and included the Dean of Education, Director of Field and Clinical Experiences, mentor teacher, and intern in the process. The intern’s continuation in the education program was left to the university; the school district determined whether to continue employment.

Whereas University 1, along with the counties, described job guarantees, pay and benefits, University 3 did not discuss those concepts. The Agreement for Paid Student Teaching document mentioned the paid student teaching component but did not specifically outline how interns would be paid.

Summary

This chapter presented the context to the study on the *intern as teacher* model through the stories of school district mentors, interns, administrators and university personnel. The participants illustrated several variations of how the school districts implemented a version of the *intern as teacher* model. Consideration for how to hire interns was explained. Districts reached out to university partners and initiated the process. Although methods varied, the school districts made the final decision on which interns to hire. This practice ensured the hiring procedure was equitable for all teacher candidates at the university. All school districts placed interns into positions they could not hire a full-time teacher; however, the variation occurred between types of mentoring models. Where Dr. Bullard's original intent was to hire two interns to share one mentor teacher for 50 percent of the day, two districts hired full-time mentors to support the intern. Districts had to make many decisions regarding how they would provide resources for the program and pay interns. Two participants, one university and one school district participant, described providing long-term substitute pay for their interns, while the third intern received a stipend and TRS benefits. In the next chapter, the themes discovered through the analysis of the findings provide rich, thick descriptions from the findings of this case study. The themes provide an understanding of the data and help answer the research questions of this dissertation.

CHAPTER V

FINDINGS CONTINUED

This study explored what constituted success in the *intern as teacher* model during the last semester or year of undergraduate education through a paid student teaching experience in South Georgia. The research questions guided what type of data to collect. The central question of this study asked: What constitutes success in the *intern as teacher* model in South Georgia? Additional questions for the research included:

1. What decisions must be considered when implementing the *intern as teacher* model in a school district?
2. Do districts and universities have the time and resources to invest in the intern?
3. How do school districts and EPPs harness complexity within the model?

This study was guided by a case study approach using Axelrod and Cohen's (2000) theoretical model of harnessing complexity in a complex adaptive system. Chapter I outlined the teacher shortage in South Georgia inhibiting the hiring of teachers for subject areas including math, science, special education, and elementary education. With the shortage of available teachers to hire, districts began hiring teachers using alternative preparation programs to certify candidates. They also reached out to universities to hire undergraduate teacher education students in their last semester or year of preparation. Chapter II provided a literature review outlining the research conducted on teacher shortages, mentoring teacher candidates, and supports provided to first-year teachers. Chapter II built on the theoretical model of Axelrod and Cohen (2000) to show how mentoring models are complex adaptive systems. Chapter III discussed the process of data collection and introduced how I would collect the data. Chapter IV introduced the case study participants and provided specific contextual information about the implementation of the *intern as teacher* model for the individual institution. In this chapter, I first present how I analyzed the data to determine the themes. I will then present the themes I discovered while analyzing interviews from three pairs of mentors and interns, three P-12 district administrators, and seven university faculty and staff.

Data Analysis

Chapter 3 described how I analyzed the data by first transcribing focus group interviews and individual interviews. Saldana (2016) suggested “starting with a combination of . . . basic coding methods as a ‘generic’ approach to your data and analysis, but remain open to changing them if they are not generating substantive discoveries” (p. 73). Saldana’s suggestion allowed me to incorporate the processes of open coding (Merriam & Tisdell, 2016) followed by process coding and in vivo coding during the first cycle coding process (Saldana, 2016). Before I began second cycle coding, I incorporated code mapping. Code mapping allows researchers to reorganize codes into categories around the themes before beginning the second cycle of coding (Saldana, 2016). The second cycle coding process incorporated focused coding. Saldana (2016) suggested researchers write analytic memos to assist in the analysis of themes. Writing the analytic memos allowed me to consider how I coded each transcript and draw upon the data for the next transcript. Chapter 3 provided the specific strategies I used for analyzing the data. The following sections outline the specific information I obtained during the first and second cycle coding.

First Cycle Coding

I began by individually coding the focus group interviews with these open coding. Open coding allowed me to consider the theoretical framework of Axelrod and Cohen (2000) and the exploratory questions I generated for use during the interviews. After I coded each focus group interview, I wrote an analytic memo to reflect on my coding processes and capture what I thought to add to the data analysis. After coding the individual focus group interviews, I used in vivo coding to consider the participants' exact words and capture processes and behaviors in the *intern as teacher* model. Appendix N provides an example of the first cycle codes.

I continued considering the focus group interview questions and the exploratory questions I created using Axelrod and Cohen's (2000) theoretical model across all the data. This allowed me to merge some of the initial codes into groups of similar characteristics. After analyzing the data during the first cycle coding process, I identified 1,361 codes.

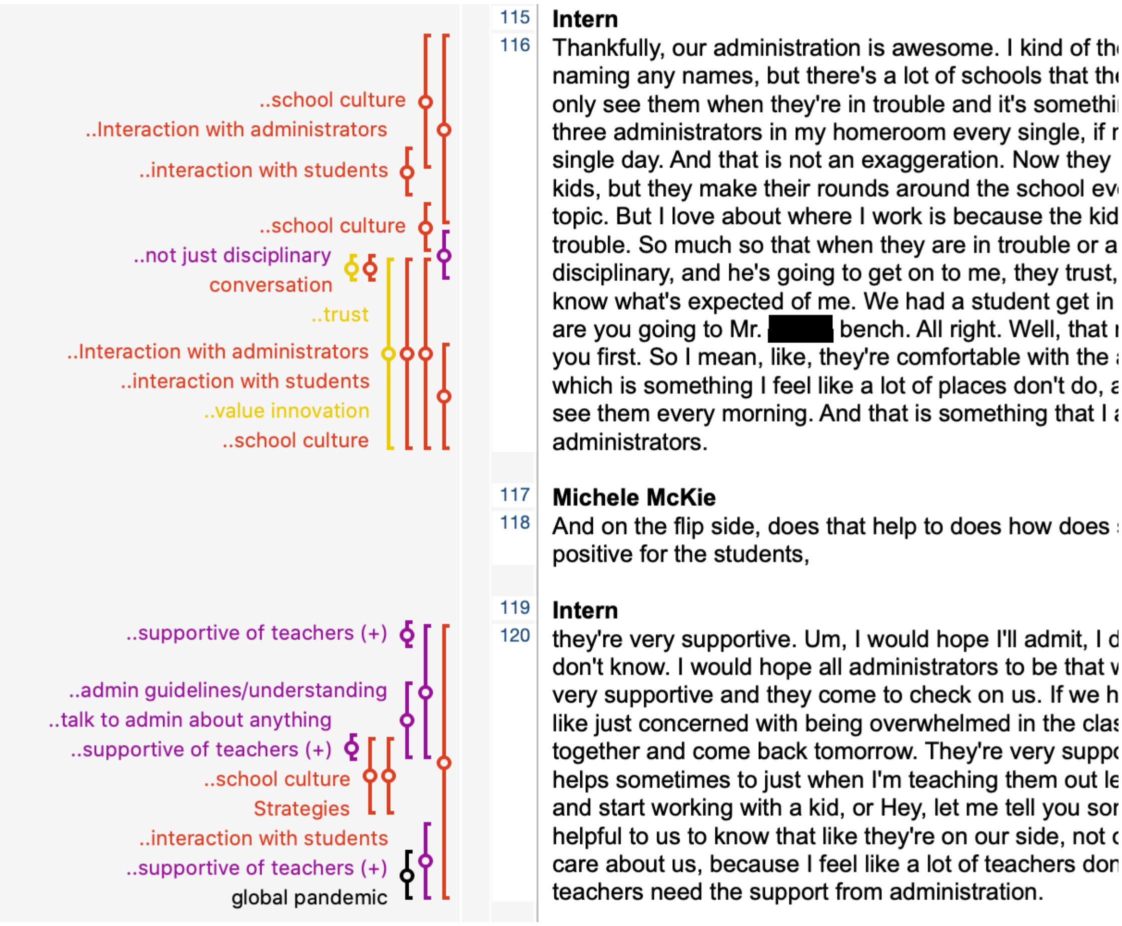
Writing analytic memos helped me determine new questions forming from this research. It was also evident researching the *intern as teacher* model was more complex than just determining what was going on at the school level. There were other considerations outside the school affecting the system. Axelrod and Cohen (2000) used the term *harnessing complexity* to show how organizations can change "the structure of a system in order to increase some measure of performance, and to do so by exploiting an understanding that the system is complex . . . us[ing] our knowledge of complexity to do better" (p. 9). Therefore, changing the research questions for this study to begin understanding what was going on at the school level and the university and district level was important. As I worked through the focus group interview transcripts, additional questions became more meaningful to explore. These questions are now the focus of this study and described throughout this dissertation.

After completing the individual interviews with decision-makers at the P-12 district and university level, I coded the individual interviews in the same process used with focus groups first. Then, I recoded the focus group interview transcripts and individual interview transcripts using the new research questions. As I continued writing analytic memos, themes began emerging across the data.

The next phase of the data analysis process required me to consider how to construct categories from the data. Using Saldana's (2016) method of transition coding allowed me to begin transitioning from first cycle coding to second cycle coding. Post-coding transitions allow researchers to reanalyze their data and construct categories to focus the study better (Saldana, 2016, p. 212). I used the process of code mapping to transition from the first cycle to the second cycle coding. Code mapping helps to "enhance[e] the credibility and trustworthiness – not to mention the organization – of your observations as analysis proceeds toward and progresses during second cycle coding" (Saldana, 2016, p. 218). I reviewed the codes from the first cycle coding and began looking at potential categories of data across all transcripts. From the initial list of 1,361 codes, I began noticing similarities between codes I could merge. After merging the codes, I reviewed the list again and identified 27 categories. Not all codes fit into those categories, but I kept them throughout the analysis process until I developed all the themes. Appendix O shows how the categories began to explain the data better. In those categories, there were 813 codes in the project. After completing the code mapping process, I conducted second cycle coding.

Second Cycle Coding

The goal of second cycle coding is "to develop a sense of categorical, thematic, conceptual, and/or theoretical organization from your array of first cycle codes" (Saldana, 2016, p. 234). I used focused coding to begin recoding the data and initial categories. Focused coding "categorizes coded data based on thematic or conceptual similarity" (Saldana, 2016, p. 235). Focused coding allowed me to consider the codes used most frequently and which codes made the most analytical sense for the data (Saldana, 2016). Using MAXQDA, I began organizing the codes in the codebook. I identified categories and placed the remaining codes under related categories. Appendix P shows an example of how I organized the codes in MAXQDA during the second cycle coding process. To help determine categories, I looked at each transcript to determine similarities and differences between codes. Identifying the similarities and differences between codes allowed me to recode the data based on the category. Figure 12 is an example of how I organized the codes by themes for the Focus Group 1 transcript in MAXQDA.


..school culture
..Interaction with administrators
..interaction with students
..school culture
..not just disciplinary
conversation
..trust
..Interaction with administrators
..interaction with students
..value innovation
..school culture
..supportive of teachers (+)
..admin guidelines/understanding
..talk to admin about anything
..supportive of teachers (+)
..school culture
Strategies
..interaction with students
..supportive of teachers (+)
global pandemic

Intern
Thankfully, our administration is awesome. I kind of th
naming any names, but there's a lot of schools that th
only see them when they're in trouble and it's somethi
three administrators in my homeroom every single, if
single day. And that is not an exaggeration. Now they
kids, but they make their rounds around the school ev
topic. But I love about where I work is because the kid
trouble. So much so that when they are in trouble or a
disciplinary, and he's going to get on to me, they trust,
know what's expected of me. We had a student get in
are you going to Mr. [redacted] bench. All right. Well, that
you first. So I mean, like, they're comfortable with the
which is something I feel like a lot of places don't do,
see them every morning. And that is something that I
administrators.

Michele McKie
And on the flip side, does that help to does how does
positive for the students,

Intern
they're very supportive. Um, I would hope I'll admit, I d
don't know. I would hope all administrators to be that
very supportive and they come to check on us. If we h
like just concerned with being overwhelmed in the clas
together and come back tomorrow. They're very supp
helps sometimes to just when I'm teaching them out l
and start working with a kid, or Hey, let me tell you so
helpful to us to know that like they're on our side, not
care about us, because I feel like a lot of teachers do
teachers need the support from administration.

Figure 12. Focus group one.

Throughout this process, I wrote memos to consider how the codes related to the categories and how themes were developing. The memos assisted me in formulating the forthcoming discussion of themes.

Study Themes

During the analysis of the data, I discovered five themes to answer the research questions. This section provides the data aligned with the themes discussed in the forthcoming chapter. The themes are primarily grouped in order to the relationship of the research questions for this study. Care was taken not to place them directly under the research questions for this chapter as some of the themes relate to multiple research questions.

Theme 1: Transitioning from Intern to Teacher

When I analyzed the data, it became apparent through the conversations with mentors and interns, other individuals within the system were influencing the decisions regarding the *intern as teacher* model. Interns identified themselves as teachers, and the system used them to fill teacher shortages within the system. While intern teachers in this study were not officially considered induction teachers because they have not earned their certification, they are working as first-year teachers. The Georgia Department of Education defines induction teachers as “any teacher who has been hired into a new permanent position in any Georgia school . . . [and] considered to be ‘induction phase’ until they successfully complete the district induction program” (Georgia Department of Education, 2020c, p. 9).

The theme of *transitioning from intern to teacher* came out during interviews across all participants in the study. Table 8 shows the number of participants whose words were coded under the category of *transitioning from intern to teacher*.

Table 8

Number of Participants' Words Coded in the Theme: Transitioning from Intern to Teacher

Subthemes	Interns	Mentors	P-12 Administrators	University Decision-Makers
pre-support to induction year	0	0	2	2
Induction Support	1	2	1	3
preparing classroom to be interns at graduation	1	2	0	0
help transition from intern to teacher in district	0	0	2	1
overwhelming for new teachers in general	0	0	1	1
retaining teachers	0	0	0	1

When universities worked with school districts to make placements for their interns, they considered supportive processes. Although induction support is also a form of supportive processes, it warrants consideration because these processes may or may not be in place when the intern transitions from a college student to a full-fledged teacher. During the data analysis, it was apparent universities were looking for pre-induction supports for their interns. Pre-induction supportive processes for interns included quality district mentorship, university mentorship, and a program coordinator. Each of these supports are described further in the discussion for Theme 4. This section only describes university and district personnel’s observations of what occurred as undergraduate teacher candidates transitioned into their new role as teacher.

As Dr. Matthews described below, interns are transitioning from undergraduate teacher candidates to teachers of records. She acknowledged consideration of supports through decisions stakeholders made when they considered implementing the program:

> But, we need to know what are you going to do? We need to know. We don't want you to want our teacher, our candidate, just to fill a classroom. Well how are you going to provide support to this student to make the transition into a certified teacher? So that's very key to us.

Universities are also aware interns need the experience to learn how to manage their first year in the classroom. Dr. Berry said,

> Every first-year teacher’s also having issues. Trust the process that it's just going to work itself out. Because those issues that we saw did work themselves out, just like they will with the first-year teacher. Every day is not going to be rosy, they're still going to have their crying moments. They're still going to have so let's let them work through that. So let's not coddle them so much that we you know, don't allow them to have that experience.

Several university and P-12 district personnel acknowledged new teachers are often overwhelmed. Interns are working through the experience of being first-year teachers before they graduate. Dr. Bullard said, “I had some tears from some of them. They say that we just, I go in my classes now and my friends have no, when I talk to them, they just have no idea how far ahead of them I am.” Other times, interns told Dr. Bullard, “my kids need so much. I don't feel like I know enough. And am I ready to do this?" He acknowledged their feelings and told them, "of course we all feel that way as a new teacher." Dr. Matthews had conversations with new teachers over the years. She described their feelings, "the person was very excited but then they got there, they actually become overwhelmed by the pressure of teaching. Overwhelmed."

Mentors in the process knew their role was to prepare interns for their first year. Mrs. Cross and her intern, Sarah, began the role of transitioning into her classroom from the first day. Sarah explained they worked out a co-teaching situation where they shared the room, but she was primarily in charge of instruction from day one. She said,

> Because when she's not there anymore, it doesn't need to be a middle school, 13-year-old behavior issue of "Who is this woman telling me what to do?" There doesn't need to be like a strange transition of "now Miss [Sarah] as a teacher". Well, what happened to Ms. [Cross]? And so we've kind of fostered that from the beginning. And that's been something that I think we've worked really well together to do.

Sarah's mentor followed up with supports she planned to provide after Sarah transitioned into a full-time teacher. She said, "When I start back at my halftime position, I'm still going to be coming into her room two to three days a week, answering questions, helping her, whatever."

Mrs. Westbrook also showed supports their candidates received after graduation. Although she did not share how the school district supported them, she gave an overview of the university supports after graduation. Similar to Mrs. Cross's example of support, Mrs. Westbrook continues to meet with University 1's graduates. She explained,

> It became my project as well, and I just felt we developed a really, really close relationship. We still text back and forth. We still zoom with all four of us to check on everybody, you know, about once every six weeks at least, so we are the five of us, well, the six of us counting the mentor teacher, developed a really strong bond during that. And that was really, that was one of the perks that came out of it that I didn't know would come out.

School district personnel described how the *intern as teacher* program helped interns transition to becoming new teachers. Mentors supported interns, but they also exposed them to the district protocols and policies throughout the internship. Mr. Davis from District C acknowledged the importance of providing interns with access to Intern and Teacher Keys Evaluations. He said,

> And the principals actually use the teacher keys for them, even though it may not be put in the platform. They go, we ask them to go through the same motions that they do their regular classroom teachers because we want them to get an understanding of how that process works. That's all a part of the experience and what helps them get ready for the next year.

Mr. Davis also described how interns learned how to access Infinite Campus and the Teacher and Leader Support and Development (TLSD) platform. He described the importance of this experience:

> I think they've been able to utilize that some and become more familiar with it. And I think again, that's going to help them when they you know, when they do become a full time teacher, it's gonna help them that that's something that’s

> already old hat to them, that's something they've already dealt with something they already know how to access. So that's not, that's not something new.

One negative example came out of the conversation from the university's perspective. In one situation, an urban district, their interns were struggling. The district placed three interns with one mentor teacher. When the university began investigating, they found the mentor teacher assigned to their students was also supporting several other first and second year teachers. This was an example of how the district attempted to provide induction support. Dr. Berry explained,

> Another thing that was kind of the hiccup there was, I think most of the teachers in that grade level where they placed them, they were all new, or at least one year in. So when we talk about that teacher being pulled, I think part of it was she, the mentor, she's now supporting all six of these people versus just our three. And everybody said they appreciate I mean, the interns, understood, they're like, "Well, you know, when she's doing this, it helps all of us."

Summary. As shown through the discussion for Theme 1, teacher candidates experienced a range of emotions when transitioning from intern to teacher, and mentors acknowledged the need to be there for them. Decision-makers involved in the program made decisions to support them. University decision-makers did not want interns to fill a vacancy. They acknowledged the need for quality district and university mentorship. They understood interns were overwhelmed. Through the supports provided by the university and district, interns had someone to turn to who could help them manage feelings of whether they were ready to take the classroom on by themselves. District decision-makers knew interns needed to learn the district policies and procedures, and mentors would support them through the process. Districts not providing these supports potentially set up the intern to learn independently, contradicting the research describing effective induction practices presented in Chapter 2.

Theme 2: School Culture

Using the ideas presented in Chapter 2 about promoting positive school culture, the data showed positive school culture as it related to the *intern as teacher* model. Positive school culture related to how administrators treated interns and mentors, their presence in the school, their ability to understand and relate to the interns and mentors, and the trust of their teachers. Each P-12 mentor and intern acknowledged ideas supporting a positive school climate related to the *intern as teacher* model. Table 9 below shows comments made by mentors and interns as it related to the definition of a positive school climate defined by the Center on Great Teachers and Leaders (2019).

Table 9

Positive School Climate

Role in mentoring and induction: School Culture	**First Cycle Codes**
Understanding of roles and responsibilities	Supportive of teachers Not just disciplinary Talk to admin about anything Administrators ensuring program goes well
Take instructional risks	Admin guidelines/understanding Interaction with administrators Interns still learning Intern autonomy
Value innovation by leaders listening to new teachers	School needs to embrace the program Embraced intern program Mutual process School culture Interaction with administrators Communication Conversation Trust

	Administrators ensuring program goes well New experience in school for intern
Allowing teachers to try ideas presented by new teachers	How to teach
Providing mentors who collaborated with other teachers	Interaction with teachers Mentor helping other teachers plan Shared decision making Shared tasks

When Dr. Bullard implemented the model in District A, he encouraged school principals to consider how they wanted to brand their school within the *intern as teacher* model. As previously mentioned in Chapter 4, Dr. Bullard's idea stemmed from having vacancies in harder-to-staff schools. He knew the district needed a way to recruit and retain interns; therefore, he told his principals,

> This is your chance to brand your school in such a way that it creates a pipeline from this university, because what happens with this intern will get recorded back to that college of education. And you will now have a through line. You will always have somebody in your school from that university, but you must brand yourself now. And brand yourself well, because if you brand yourself poorly, then you will cut off yourself. They won't come because of you.

Dr. Bullard's words set the tone for his school administrators to guide the culture he wanted to create. The following sections break down school culture and climate (Center on Great Teachers and Leaders, 2019). By breaking down the components of school culture and climate, the data illustrate examples of each component.

Understanding of roles and responsibilities. Participants in this study provided evidence showing they felt supported by their administrators through their roles and responsibilities. They also showed examples of how administrators were still learning what the various roles in the *intern as teacher* program were.

Sarah, an intern in District D, said she appreciated it when an administrator noticed she was having difficulty getting a mathematical concept across to a student. The administrator used his mathematics teaching background to show the intern a new strategy. Sarah explained:

> They're very supportive. I feel like I can talk to him about anything. And it helps sometimes to just when I'm teaching them our lesson to see somebody come in there and sit down and start working with a kid, or "Hey, let me tell you something real quick. Let me show him this." That is so helpful to us to know that like they're on our side. Not only do they care about the kids, they really do care about us, because I feel like a lot of teachers don't get that. And now more than ever is a time that teachers need the support from administration.

One experience was shared where the expectations for interns were much higher than the mentor felt should be expected. Although the school embraced the program and supported interns, the school administrators did not yet understand the exact roles of the interns in the program. Mrs. Taylor explained:

> You have to understand that these students are not certified teachers. They have not student taught; they are a year ahead. But not with as much experience so you can't sit there and drill them, you know, it's just different. Like, they're still learning things and we kind of ran into that last year where they were expecting them to be like all the other teachers and have known all this stuff. And we're like, no, no, no, they're still learning as they go, you got to give them some grace.

Some principals may be learning about the various roles of the *intern as teacher* program. Mrs. Green explained how the process began initially with understanding her role in the classroom. She said, “my principal, she told me just like a general thing and then later on she came back, she said, ‘make sure you give her the responsibility now. Don't you know?’ Me? I don't know what they really mean.” Mrs. Cross had an experience where she had to inform the administration what Sarah’s role was in the program. She explained to them how Sarah was supposed to be treated like the teacher of record. She said,

> My school didn't really understand that. And after about a week of them coming to me for everything I finally went to my administrator and said, ‘Look, if we need to have a meeting with [University 3] or whatever, we need to get on the same page. [Sarah’s] an intern, but it's different than your traditional student teaching, like y'all are training her to be hired as soon as she graduates. And this is to prepare her for it.’ And they were like, ‘Oh, we just didn't understand that, you know, no, that's fine. That's fine’.

Take instructional risks and try new teaching ideas. Interns found through interning they could try approaches to teaching they may not have otherwise done during a traditional student teaching experience. Administrators who implemented and accepted interns showed their support of the program and aligned with The Center on Great Teachers and Leaders (2019) rubrics. Sarah and Allison both described interning in a light-hearted way by using the terms “thrown to the wolves” and “thrown into this.” Sarah said,

> I have learned more and more just being kind of thrown, not thrown to the wolves. I'm not thrown to the wolves. But this being my student teaching semester having to figure it out. Also, it's been easier for me to figure out what works best for me instead of student teaching and watching what works best for someone else.

Allison described her experience similarly to Sarah:

> I've only been in a few classrooms and I've only taught a few lessons. You know, in the classrooms, like it's been more a lot of observing; not as much teaching. So then when you're thrown into this, which is good, because to me, the best way to learn is to be thrown into it. But when you're thrown into this, like the first day of school, the kids come in and look at you like, 'okay, Teacher, what are we going to do?' Like they think you're awesome.

Whether they initially felt like they were thrown to wolves or not, interns and mentors elaborated on how they were able to take instructional risks. Instructional risk-taking under the tutelage of the mentor allowed them to grow. Mrs. Green noted,

> You know, I mean, the best way to learn is actually doing it. Make your mistakes, because you're gonna make some mistakes along the way. I mean, we all do and even after you have taught a year you still gonna probably make some more. It's the learning process and don't beat yourself up about it. Just okay, that didn't go too well. So let's try something else . . . she gets to see what I do and see how I do it and, and develop her own way of doing it, you know, while she actually have me there with her.

Value innovation by leaders listening to new teachers. A common theme of listening to interns and teachers arose supporting a positive school culture. Overwhelmingly, interns and teachers discussed how administrators from the district and school offices listened to candidates. Two P-12 administrators also elaborated on communication with interns. Ms. Franklin, District B, said interns could come to her if they had concerns about their experiences in the school. She did note one change she hoped to implement would be to "build out more time for communicating with the interns about their needs all throughout the year" not just stressful times for interns. Sarah said, "I can sit down and have a conversation with them [admin]. I know what's expected of me."

Communication and listening to teachers was not the only aspect of a school climate. When administrators valued innovation, it showed through their listening skills. Dr. Bullard described a situation where an intern struggled with creating lessons her students related to, and it caused behavior management concerns. Rather than immediately telling the intern what she was doing wrong, he listened and helped her through the process. He described the situation,

> She was in a school that was high-performing when she was growing up. She had never worked or been in a low-performing school before. So she was just, first of all, shocked that the students were so far behind coming to school. She just didn't know how she was going to do it. She just didn't know how. She didn't think she had the capacity to catch them up. And, you know, the behaviors were manifesting because she created lessons that she thought they were just going to gravitate to, because she created it. But she had to learn that it had to be engaging

> and that it had to be relevant to them. She had to use multiple strategies to keep them engaged and she just had to learn all of that.

Another thread coming out of valuing innovation was how administrators embraced the *intern as teacher* model. The model was a new form of developing teachers and required them to be accepting of the program. University 1 worked with three different schools over two years. The district chose two of the schools, and the university chose the third through collaboration with principals. Mrs. Westbrook said:

> I think this has to be a program where everybody wants to be a part of it. So that's why I said I think we will choose from now on because we have principals in our advisory community that are always like, 'Pick me Pick me, I want to do it.' And those are the ones that we work so well with. Obviously, because it's a mutual process for both of us and while I think the other two administrators were excited, they did not choose [to participate]. And when you feel like you have you had made that choice, you have thought about it, and you have made that choice, it makes a difference.

Mrs. Taylor from District C said the administration ensured other people in the building were aware of the new program and how it would function. She said, "We Zoomed, and we met with the Paras a few times to just make sure that they understood, you know, we're all here. We're not throwing everybody into this, and we're gonna make it work. I think that has helped a lot." Allison contributed, "we met with the grade level before school even started, and kind of give them a rundown of what this was, what to expect from us."

Providing mentors who collaborated with other teachers. Mrs. Green from District E described the importance of working with other teachers. She explained it was the job of the entire school to work together to improve learning for all students. As a mentor, she is modeling the expectations of a school culture shift for Tonya. Mrs. Green's description below represented the interviews with mentors:

> We do a lot of collaborative, that's one of our big things that the state is really requiring us to do is that collaboration and just having collective efficacy in the school when it comes down to planning for our students, because we realize that it's not just a third grade class or a fourth grade class. It's the whole school and we have to work as a unit to be successful . . . It's important to even connect with our principals and our coaches, my parents, to make sure we got their support in, they have our support in what they need to help their child at home.

Mrs. Green further showed how she and Tonya worked together to complete the tasks required of teachers. Working together, she said, "both of us, we have been blessed in that area, because we could kind of tag team a task and get it done much faster so we don't have to take it home."

In District D, Mrs. Cross not only mentors her intern, but she also assists the other teachers. Having taught for 30 years, teachers in the building asked for her help. For example, the other math teacher who works in eighth grade had only taught in the accelerated program for two years. Mrs. Cross explained, "[Teacher] has asked me a lot because I taught the accelerated before I left. And this is only her second year doing it. So she'll say, 'Do you remember when . . . '." Not only does Mrs. Cross collaborate with [Teacher] but Sarah does, too. Mrs. Cross stated, "[Sarah] does the lesson planning, but she and [Teacher] share that responsibility.” Other examples of shared tasks at the school level included using pacing guides, writing lesson plans, and sharing resources. Although interns and teachers had the autonomy to implement specific strategies in their classrooms, they initially worked together to consider the requirements in the curriculum. Mrs. Taylor’s description below showed what was exhibited not only at her school but also described by the mentor and intern participants in District D and E:

> We sit down on grade level and kind of break up and talk about what's the focus this week. We have a reading series we sort of pick from but we kind of have a groove of what [it] is the we have. We know what the phonics is for the week, and we [have] resources to pick for that, teach that. So they have some say in what [they] teach and how they teach it, but not the ultimate.

Summary. The discussion on Theme 2 described how important a positive school culture related to the *intern as teacher* model is to the intern. The discussion for Theme 2 showed the importance of (a) individuals in the model understanding their roles and responsibilities, (b) allowing the chance to take instructional risks and trying new ideas, and (c) ensuring collaborative mentors. A shared understanding of what individuals needed to do in the model allowed both interns and mentors to feel supported because they each knew the expectations for interns. Administrators supported mentors and interns through their allowance for interns to take instructional risks. Interns described they were still learning, but they knew they could try new things because their administrators and mentors supported them. When administrators and mentors listened to and communicated with interns, they helped interns navigate the new experience as a teacher. Collaborative mentors allowed interns to learn alongside the mentor, thus learning how to plan, instruct, and assess P-12 learners. Each of the factors described in Theme 2 aligned with factors contributing to a positive school culture as demonstrated in Chapter 2. Administrators and mentors accepted the interns, heard their concerns, and helped them learn through the internship process.

Theme 3: Investing in Future Teachers

In Chapter 3, the national teacher shortage was the primary reason school districts began using the *intern as teacher* model. Investing in future teachers emerged across all interviews. Two districts mentioned using strategic waivers to pay interns while two other districts paid interns using long-term substitute pay. School districts needed teachers and had salaries not used to shift part of the funds toward hiring one or two interns in their district. Districts incentivized teachers to stay in the district by offering them other benefits like teacher retirement, job guarantees, and health benefits. Two districts also incentivized mentor teachers by providing them with a stipend to support their interns. Decision-makers in this study believed these benefits were essential to the model. The following section outlines how districts paid interns, the thoughts of the interns' benefits, and how this allowed them to support the *intern as teacher* model.

Strategic waivers. Two district decision-makers mentioned strategic waivers as a way to pay interns. Strategic waivers provide districts with flexibility in addressing needs as it relates to student achievement (Griffin & McGuire, 2019). A Strategic Waiver School System (SWSS) is "a local district that operates under the terms of an SWSS contract between the State Board of Education and the local Board of Education" (Georgia Department of Education, 2020b, para. 1). Dr. Bullard explained how they received funding for the positions:

> Under our strategic waiver, we were able to identify these young people, and we were able to hire them as employees under our strategic waiver. We were able to count them in our CPI and get funding from the state because we did land on them being college seniors. We did land on that, because by that time, they would have had all of the practicums and observations that they need to have. And I wouldn't worry about them missing some major coursework, even though they had some that they had to do in their senior year. They had most of it done. Based on that, they were eligible for an Associate's degree if they stopped school at that point, but because of that, we could count them on our CPI and get state funding for them.

Ms. Franklin’s conversation built on Dr. Bullard’s description by outlining specifically what they wrote in their district strategic waiver. The *intern as teacher* program addressed the needs of District B’s teacher shortage. By including the program in their strategic waiver, they could hire interns as they hire non-certified teachers. They received Certified/Classified Personnel Information (CPI) funds during the FTE count for the positions, helping them provide funding for the program. They coded interns as the teacher of record.

Long-term substitute pay. Two districts are utilizing long-term substitute pay for their interns. With this being a new process for District D, they worked out the details of the best way to pay interns. Year one, District D paid interns $75 a day. Mr. Davis acknowledged they would probably increase the pay because “some districts are already paying more and I think other districts are going to get into this, and they're going to probably pay more. We're going to need to up the ante a little bit.” District D increased their long-term substitute pay to $100 per day during the 2020-2021 school year because they found themselves with a shortage of substitutes due to COVID-19. They hired a college student as a long-term substitute because she found herself in online courses during the fall semester. They decided to hire her for an internship during the final semester of her program, but based on their current intern rate she would be making less money than she did as a substitute. Dr. Pace from University 4 stated, “because they're, well our kids being true undergraduates, they don't have a degree. They're being paid as extended subs.” Dr. Matthews, University 4’s Field and Clinical Experiences Director, left decisions about pay up to the district administrators and did not discuss the specifics with them. Ms. Green, the mentor interviewed from District E, confirmed her intern received pay, but none of the university decision-makersr working with District E discussed the pay any further.

With the knowledge learned from the experiences of District D and E, I asked Ms. Franklin why some counties may choose the route of long-term substitute pay. Responding to my question, Ms. Franklin stated,

> I suppose we could code them as long-term subs, but when you do that, those people, to my knowledge, aren't getting credit. They're not going to get funds for those positions. So that's the big thing for us. If I did that, we wouldn't be getting any money for those FTE funds for the positions.

Intern benefits. When school districts wrote the *intern as teacher* program into their strategic waivers, it allowed them the flexibility to offer candidates a stipend, health insurance, and teacher retirement benefits. The range of pay for Counties A and B, who utilized strategic waivers, was $15,000-20,000. The Intern Contingency Contract shared by Mr. Russell showed interns in District C agreed to pay similar to Counties A and B. Interns signed a commitment outlining their pay and responsibilities for the intern as teacher program. Interns were paid $13,000 for one year with District C, paid over thirteen months, while interns committed to serving one additional, consecutive year at the school where they completed their internship. Dr. Berry and Mrs. Roberts explained they worked with several districts, and those districts were paying comparable to this amount, with one of their smallest partners paying interns more than larger districts. As previously noted, interns in District D received long-term substitute pay at $75 per day. Interns worked in District D for one semester rather than a year, but the pay would approximately equate to $6,750 for one semester. Mrs. Franklin said District B provided a stipend of $15-20,000 for the year. If an intern was in the role for one semester, they received half the stipend.

District decision-makers discussed teacher retirement benefits, whether or not they provided service toward this benefit. Three districts, Counties A, B, and C, gave interns the option of paying into the Teacher Retirement System (TRS) taken out of their monthly stipend. Ms. Franklin said, “we even had our TRS person check it out with TRS because, of course, we wouldn't do this without that.” However, Mr. Davis from District D acknowledged they were not at the point in the process to begin offering this benefit to interns. Although University 4 administrators would like their district partners to provide TRS benefits to their candidates, District E partners did not provide the benefit.

Interns who worked in counties offering TRS earned up to one year of credit toward their retirement. In District B, if the intern remained in the system the following year, they were paid on the Year One level rather than zero years of experience. Ms. Franklin explained,

> That's a part of the draw to the program. TRS is deducted from their stipend. They are paying into TRS, which means we can give them a year of teaching credit, so they get a year of teaching credit. Once they actually start their first year of teaching that will be their second year according to TRS and our salary scale. We start them on the salary scale on the second year.

Unlike District B, documented in the intern commitment form, interns in District C were not guaranteed to begin on the second year of the salary scale.

One additional benefit provided by District B, not noted by other participants, was health benefits. Interns had the option of health benefits, but Ms. Franklin said, “they don't have to select benefits. Most of them are still living with their parents. They don't elect health benefits, but we have this written in our budget to give them this.”

Mentoring models. Mentoring models were described in Chapter 4, along with the stories for districts and universities. Because each district utilized slightly different models, important was to consider the unique aspects of each. For the purposes of identifying themes qualifying those models to be considered *investing in future teachers*, important is for readers to understand mentoring models were not overlooked as a theme. Districts utilized the traditional model proposed by Dr. Bullard where two interns were assigned one mentor, or the district placed one mentor per intern in the same classroom. This factor is developed further through the interpretation in Chapter 6.

Summary. The discussion of Theme 3 illustrated how districts invested in future teachers through the *intern as teacher* model. They invested in the program through strategic waivers and long-term substitute payment. Investments included stipends for mentors and interns, and intern retirement and health benefits. The investments ensured districts had teachers for vacancies in the system. In the forthcoming chapter, these investments are described and interpreted to help answer the research questions of this study.

Theme 4: Supports for Interns

Supporting interns in the model was an enormous theme, requiring consideration of the types of supports provided by the university and districts implementing the model. Participants described supportive processes in the *intern as teacher* model through a variety of instances. The most frequently occurring codes regarded support provided by the university, mentor teacher guidelines, and investment in the program.

Quality district mentorship. Participants engaged in conversations about mentors and how they were chosen at their institution. More importantly, interns found the provision of a mentor beneficial, but the quality of mentorship and type of mentorship was also important. Although each institution took a different approach to determine the criteria for mentor identification, the one thing they had in common was they had expectations for who would mentor their intern teachers. Participants described quality mentors as those who had success in the classroom, experience mentoring teachers, several years of experience, and participated in professional development. Table 10 shows the codes used to identify the subtheme of *quality mentorship* and the number of participants whose words were coded to go along with the subtheme.

Table 10

Codes Aligned with the Subtheme of Quality Mentorship

Subthemes	Interns	Mentors	P-12 Administrators	University Decision-Makers
Quality mentorship	Mentor teacher as guide and coach (2) Support from mentor to intern (1)	Mentor teacher guidelines (2) Mentor teacher as guide and coach (1) Mentor teacher training (1)	Mentor teacher guidelines (3) Mentor teacher as guide and coach (3) Mentor teacher training (1) Teacher support and coaching endorsement (2) Training in co-teaching models (1)	Mentor teacher guidelines (6) Teacher support and coaching endorsement (1)

When Dr. Bullard created the *intern as teacher* model for District A, he envisioned providing quality mentors to interns. Initially, District A did not require master teachers to have a background in teacher leadership or an endorsement. The initial requirements for master teachers considered "years of experience, multiple years of proficient or higher certifications, [and] the progress of their students on local and state assessments." However, Dr. Bullard and the district leaders found although a teacher was great in the classroom with their students, they did not always have the skill set to work effectively with adults. Dr. Bullard implemented training into the *intern as teacher* model for master teachers and explained:

> I had to do coaching on how do you become a coach. That ultimately, at the end of the year, became one of the next steps to improve our program . . . We want to put all of our master teachers through a coaching endorsement, because I did see that as a need. They didn't have those skills. So I was doing the coaching, which I loved. But they [interns] needed to have it during the day, every day. And so that eventually became one of the criteria that they had to participate or [have a] coaching endorsement in order to do it.

Dr. Berry, who partnered with District B, confirmed Dr. Bullard's statement that quality teachers did not always make the best mentor. Dr. Berry recognized mentors should have some knowledge of the mentoring process. She stated,

> I think bear in mind, though, that on the most part, these mentors, you can be a master teacher, but not necessarily know how to mentor someone. I think they had some great teachers, but maybe understanding the mentoring process and what did that look like. And I think because there was no blueprint, people had to learn as they go.

After the initial year, District A added the requirement for master teachers to enroll in a coaching endorsement program. Similarly, District B required teachers to have a coaching endorsement to be considered for a mentor position. Considerations for mentor teachers were based on the recommendations of the principal. If a principal was adamant about using a particular mentor teacher, Ms. Franklin required them to enroll in their GaPSC approved coaching endorsement or another comparable program.

A different approach taken by University 1 faculty and staff was to work with their P-12 partner, District C, to identify mentors to work in the program. The process of hiring the mentor was a joint decision between partners. According to Mr. Russell, District C was "looking for someone who had experience and already a mentor, academic coaching and those kinds of things." The partners wanted a mentor who could model lessons, take over instruction in the event an intern was absent, and guide the interns. Participants from University 1 confirmed mentors had the Teacher Support Specialist endorsement and their specialist certificate in early childhood. Mr. Russell said,

> And because they've got to, literally, in our model of what we're doing, they model lessons. To do that, you can't have somebody that is teaching full time somewhere else down the hall. Sometimes if one of our interns may be absent for a day or whatever, in most cases, always the mentor takes over one of the classes. They just teach. To do that you've got to have somebody that can spend the time to know exactly where they are, what's been done, what's been going on, and so forth. So the mentor and how that mentor approaches these individuals doing this early work is very important.

The approach of two other institutions implementing the program was very different. District D was new to the *intern as teacher* process and did not have specific qualifications for mentors. University 3 partnered with District D and provided them with the basic guidelines for mentors to qualify. Mentor teacher qualifications aligned with the GaPSC guidelines for student teachers. Going further than the GaPSC requirements, District D administrators wanted the mentors to have "at least five successful years, they have to be known as a leader, someone who we want the teacher to model after . . . We want someone that's on fire and someone that engages kids and has success." Like District D, University 4 worked with their P-12 partner, District E, to identify mentors according to the requirements for mentors defined by the GaPSC. The Director of Field and Clinical Experiences and District E administrators collaborated to identify mentor teachers. Mentors worked in the certification fields candidates were seeking and highly recommended by an administrator in the district. University 4 faculty wanted their candidates to have mentors who used best practices. They required a minimum of three years of experience and clear renewable certification for mentors. Mrs. Green, District E's mentor teacher, had a specialist's degree and attended mentoring programs. She did not have any additional certifications specific to mentoring.

Providing support from the university. Quality mentoring did not rest solely on what the district provided to the interns but also included what the universities provided to candidates. University 1 provided a college mentor. The remaining universities provided university supervisors. Although university supervisors may not always work as a mentor, the participants alluded to their perception of the university supervisors functioning similarly to a mentor in two universities. Therefore, university supervisors, in some instances, were indeed secondary mentors to interns. Table 11 below shows examples of terms used by participants to describe university supervisors. The descriptions to follow show how those descriptions fit into the larger picture of support by the university personnel.

Table 11

Descriptions of University Supervisors by Participants

Interns	Mentor Teachers	University Participants
"I text him half the time" "he has really worked with me" "he's really good about working with me to make sure that, like, it's easier for me"	"there is a liaison for this program at the college. So Mrs. Westbrook, I don't know if you know her, but she is the mentor" "she still checks up on us. Last year, she did a whole lot. This year, because she hasn't really been able to come, she Zoomed and observed" "they didn't just leave us in the dark. The college is still a part the school district"	"listen to them with a sympathetic ear" "wore the hat of the mentor" "willing to put in that extra time to provide that support that's needed to the candidate" "willing to rally around that candidate" "participates, very engaged and involved" "spent days working with them in their classrooms" "developed a really, really close relationship" "talk about different concerns" "because you're the person they're going to vent to"

University 1's college mentor's role was to support interns and served as a secondary mentor. Mrs. Westbrook was already employed by University 1 as a support for the elementary education program. Her background was in elementary education as a kindergarten teacher. She did not serve in an evaluative role but helped student teachers and interns to hone their skills. University supervisors and students could request her assistance at any time. She was heavily involved in the *intern as teacher* model. Before the second year of the program, she was on-site daily. The COVID-19 pandemic caused her to move her mentorship to a virtual experience for interns, but she still worked closely with them.

Mrs. Westbrook described her role as a college mentor. She was primarily there to support the mentor teacher and the intern as they transitioned into their roles. Although she was there to serve all candidates in the field, she wanted to be there for interns through the pilot program. She found she built very close relationships with the interns and mentors before the internship because she worked with candidates during their first year in the teacher preparation program. She worked to build confidence with teacher candidates during their block one-field experiences. She visited teacher candidates in their college classes and worked to support them in areas they needed support. She felt candidates could trust her to work with them and knew she would not go to the principal with their concerns. She wanted candidates to feel confident in their abilities and have the support they needed to be successful. Confirming Mrs. Westbrook's description, Mrs. Taylor, District C's mentor teacher, said,

> She still checks up on us. Last year, she did a whole lot. This year, because she hasn't really been able to come [due to COVID-19], she Zoomed and observed. But we do check in with her, so we constantly are communicating with University 1 and [Mr. Russell] always. I'm always checking in with him. Because that's there. I mean, it has to go well, you know, for them, and so they didn't just leave us in the dark. The college is still a part of the school district.

University 2 faculty members supported their candidates through drop-in visits, conversations with interns, and modeling. They knew they needed to be able to provide extra support to their interns. Those candidates who needed extra support had it when supervisors went into the classrooms to assist them. Dr. Berry provided an example where the faculty provided support to a candidate struggling with behavior management. She stated:

> But in one situation, I will say we had a student last year that has some concerns around classroom management. But when we spoke with the principal, what the principal said was her concerns were the same level of concerns that the first-year teacher was having. So it's not that she was you know, and it seemed whatever for us, because we want to support, we wanted to, but she was at the same spot the first year teacher was, which again, just I guess, substantiated that in the beauty is worked in, when you're a senior you can say I need these supports.

Ms. Roberts followed Dr. Berry’s story with,

> I think that was a good example of how our faculty really got involved too, because we asked one of our faculty members that we knew was just really skilled in classroom management, and she went [and] sat in the back of the class. So this is additional support for her: kind of made some notes, met with her individually, what can we do, [and] practiced things with her. So it kind of created a whole nother support person that wasn't being paid to support.

University 4 also provided interns with the support of a university supervisor with experience as a teacher, principal, and superintendent. The university supervisor was a liaison between the school and the candidate and helped them learn the types of questions they needed to ask, such as when to attend meetings and teacher requirements. Dr. Pace explained the supervisor was very similar to a cooperating teacher because she spent more time with them than the typical university supervisor. Not only did interns receive more observations than traditional student teachers, but they also received support from the supervisor via phone and Zoom calls. Because of the university supervisor's background in administration, her lens was different when observing interns. She knew they were the teacher of record; therefore, she observed them based on how she would typically evaluate a teacher. However, rather than being only in the evaluator role, she also mentored the interns to ensure they were learning how to teach and what instructional strategies they should use during instruction.

Dr. Matthews explained she wanted the interns to feel supported; therefore, she made time to speak with them, listen to them, and provide feedback. She went to the school on the first day to ensure the mentor and candidates understood the program's expectations. During her visits to the schools, Dr. Matthews spent as much time as necessary to determine the levels of support her interns received. She said, "I want to see the setting. I want to feel it, I want to smell it, I want to see what it looks like. I want to get the tone of the building, I want to get the tone of the cooperating teacher." She also found interns overwhelmed during the process and felt it was her job to help them feel supported by listening to them.

Identifying a Coordinator for the Intern as Teacher Model. A final consideration for the theme of supporting interns came through with identifying a coordinator (i.e., either at the university or the district level). Each of the P-12 personnel and university participants discussed their roles in providing a liaison to the program. In Georgia, many colleges have a person working in the role of Field and Clinical Experiences Director. I interviewed two individuals who worked in the role for this study; therefore, they were the ones who were already communicating with district partners about student teachers and, now, interns. Contrary to this was whether a district had a person working in a similar position at the district level. District-level administrators may or may not have a specific person in charge of communicating about student teaching placements. Participants from the P-12 districts communicated about the demands of having someone oversee the *intern as teacher* model in their district. For example, Ms. Franklin from District B said, “I am the coordinator of this program. I coordinate with the colleges to obtain MOUs. I meet with the prospective students, interview the candidates and work with the principals to get them placed in our schools.” It appeared this new role was required to ensure oversight of the program. The person serving in the role primarily worked within the human resources office, as evidenced by the three P-12 district participants in the study working within this department. Their role was to communicate with district decision-makers regarding the pay for mentors and interns, communicate with principals regarding the need to hire an intern, and communicate with colleges to identify an appropriate candidate. Mr. Davis stated:

> Most of the time, schools will come through me to place student teachers. Not always, but because sometimes they've built relationships with the principal. But now, specifically, and since the intern has become so you know, it's such a new thing. It's pretty all of the cases so far that we have here, have come to me. So that usually involves [the] principal telling me that they're really hurting, they really need a position, of discussing the possibility of doing an internship. And then one of us contacting the college and discussing that.

However, in two cases, the coordinator also communicated directly with the mentor and intern. This role expanded into something similar to an instructional coach. For example, Dr. Bullard stated,

> I was doing the coaching, which I loved. But they needed to have it during the day, every day. And so that eventually became one of the one of the criteria that they had to participate or coaching endorsement in order to do it.

Mrs. Franklin was the other participant working closely with interns and mentors. She stated,

> I try to meet quarterly with the intern and the principal and the mentor teacher just to talk about how things are going, if they need anything. I've also had to go, I really try to set up a trust um relationship with the interns because I need them to tell me if their mentor is not doing what he or she needs to do, if they're not feeling supported in the building, because I try to stress to the principals and the mentors that this is a heavy load for them.

Summary. Supports for interns included quality district mentorship, support from the university, and a program coordinator. Aligned with research described in Chapter 2, the use of supportive processes ensured interns had access to district and university personnel who could answer their questions, provide guidance in teaching, and listen to their concerns. In the forthcoming chapter, these supportive factors are discussed related to each research question. The discussion includes guidelines and recommendations for districts might consider implementing the program.

Theme 5: Success of the Program

Two participants, Mr. Davis from District D and Dr. Adams from University 3, acknowledged one needs measurable outcomes to determine success. Both participants referenced feedback and observations as measurable. Mr. Davis related this to the evaluation instruments in specific measurable ways such as “when those observations come through, and they're, they're mostly threes,” whereas Dr. Adams described specific questions to consider such as “how are they doing? You know, how, overall dispositionally, intern keys, how did they do? How did they perform?”

Other quantitative, measurable components coming out of the interviews related to the program’s success included metrics of whether they offered the intern the position and whether they remained in the district. All decision-makers described success when the intern was offered the job after graduation. P-12 administrators acknowledged the need for the principal to have a desire to hire the candidate and not just feel as though they must hire them because they have no other alternative. Mr. Davis said,

> I think success for us comes down to ‘is the principal of the school willing to hire that person?’ You know, if that principal feels strongly enough about that intern, that the principal says, ‘I want to hire this person’, then I mean, you know, and not just, ‘well, we might as well hire them. We gotta be here the rest of the year.’

Ms. Franklin’s from District B partially described success by saying, “Number one, the main thing is when they want to come back.” Similarly, Dr. Bullard described a conversation with an intern who said, “I want to stay right here. I don’t want to go to another school.” Dr. Bullard followed with “That was a win for me. Now that was when I said, ‘God, thank you. That was a win for me that this is all worth it.’” To make this metric measurable, one has to consider the number of interns retained by the district where they completed their internship. District and University participants discussed how many interns were offered jobs and others included how many remained in the district.

Dr. Berry said, “I think all of our other teachers have been offered whether they chose to stay. But I think that speaks volumes, too.” Dr. Berry’s comment about it speaking volumes may relate to former comments she discussed about a school where they had struggling candidates, and the school district and university rallied around the candidate to support them. Her statement of candidates choosing to stay or not may relate directly to whether they felt supported. The theme of school culture was illustrated.

Qualitative metrics would include the interns’ experiences, how the school districts perceived the interns’ performance, and whether interns felt prepared to take on the job later. Dr. Adams referenced communicating specifically with the school district to determine evaluation methods beyond what a university participant was able to observe, such as gaining feedback from the school district beyond teaching skills. She said:

> I also think, seeking feedback from the school system, you know, and so, things like, beyond just their teaching skills, and their professionalism and their content knowledge, but more of, you know, how did they fit in with the school system, just some of those cultural sorts of things, the day to day things that we don't necessarily see in any student teaching experience whether that's the intern model or just the traditional.

Sarah, from Dr. Adams' university, eluded to how she felt connected to the school. She said:

> I think that's why I'm such an advocate for the intern as a teacher program, because you get the freedom to say, I mean, it's just blank slate. And when you're in someone else's room, again, you model Oh, this is how I'm supposed to do this, or you model this. And I think it's important to in any sort of learning experience, like I know, there are some things I do because of Mrs. Cross and the things that she's taught me, there are some things I do because of the things [another teacher at the school] and my mom have taught me and other people who aren't even educators. You take pieces of that with you. But I have gone into that classroom from day one since I started praying over that classroom this summer and said like, this is my mission field. This is my purpose. While we might share lots of the same purposes on Earth, this is my specific purpose. This is my specific ministry. This is all me. And I don't mean to, like, bring religion into it, but like, you know what I mean? Like, how do I make sure that I am doing what I'm called to do? And we have communicated, thank goodness, so well on doing that together that it's just worked out well for us. But that's something that I feel like everyone needs, especially someone in that intern position is what works best for you? And how do you do what you're supposed to do? How do you make it, because at the end of the day, those are your babies and you're responsible for them.

Similarly, Mr. Davis from District D stated, "we've got the two right now that that are finishing up. And both have done fantastic jobs. And both of these have been offered full-time positions." Mr. Davis' words aligned with Dr. Adam's comments to show "they fit in with the school system."

The experiences of the interns were important for district and university decision-makers as well. In the second part of Ms. Franklin's definition of success, she said:

> When they say the next year that they're going to participate, that means that the program wasn't awful. I know that they've had a great experience. I know that they've been supported. Also, when they contact me or the college supervisors contact me and tell me what a great experience they've had.

Likewise, Dr. Matthews wanted her interns to have great experiences. She said she viewed success when the P-12 students had a good experience too. She stated, "of course, I like the K-12 kids to have a good experience." She also acknowledged the parent as part of the process in the experience. She said, "I would like parents to say great things about them as well." Sarah showed her appreciation for the program and excitement when she said:

> I will praise, I will sing this song to the day as long, because I now not everyone is cut out for it. But I would really do it, I would recommend it to anyone, it has been the best thing[s] in the world.

Although mentors did not speak specifically about their view of the interns' personal experiences, they commented the experience was indeed positive for them. Mrs. Cross said, "from day one, the kids have viewed her as the teacher. And I'm just kind of this old woman sitting over there in the corner (laughs)." Mrs. Green said, "I think it's a good, good model. I think it's a really good model."

The final consideration regarding success was whether the intern felt prepared to take on the position after the program. Four decision-makers wanted interns to feel prepared to take on their new positions after the internship. Mrs. Westbrook said success was not only whether the intern felt ready but also if the district felt similarly. Although she did not state it meant academics, Dr. Matthews described success as "getting the position and making an academic difference with the class." Mrs. Franklin continued in her description of success and elaborated on the excitement interns could have at the conclusion and how she found interns to act during their first year after the internship. She stated:

> Though the excitement of those teachers, I mean, the testimonials about how it just prepared them for their actual first year teaching. They are so much more mellow than the regular first-year teacher who hasn't gone through the program because they know about the standards, they know about TKES, they've had practice with classroom management, and they've had somebody to hold their hand the whole first year teaching.

Dr. Bullard shared an experience with an intern who had a rocky start to the school year. She struggled to engage her students and could not find relevant ways to teach them. He described how she eventually learned strategies to help teach students. At the end of the year, she felt prepared to move into the classroom on her own. He said:

> At the end of the year, I said, 'I know all year, you've been saying you weren't ready and I know you may think I'm just saying this, but you are more ready than you have ever, could you have ever expected to be. I've seen your growth.' She said, 'Dr. Bullard, thank you, means so much to hear that, but I want, I do feel

> that I'm really. I didn't feel that way at first. I do feel that now already, but this is my request . . . ' She was in a second-grade class. She said, 'well can I go down to first grade next year? Because I don't want the kids is to come out of first grade not knowing some of the things that they should have known going up to second and third.' I said, absolutely. And so she said, 'and I want to stay right here. I don't want to go to another school.'

Summary. Participants described qualitative and quantitative measures to determine the success of the *intern as teacher* model. District and university decision-makers considered different factors contributed to their perception of success for the program. District decision-makers considered observations of the intern's dispositions, observations of their teaching, and if they remained in the district at the end of the program. University decision-makers considered how districts perceived the intern's readiness to teach, the intern's perceptions of their preparation, and the intern's connection to the school. Ultimately, the program's success determined whether the district offered the intern a contract at the end of the program.

Conclusion

Merriam and Tisdell's (2016) and Saldana's (2016) research guided the data analysis from focus group interviews and individual interviews. There were two cycles of data analyses incorporating open coding, process coding, and in vivo coding. The analyses allowed me to derive five major themes from the data. Of the five major themes, three themes appeared to need further discussion in Chapter 6 to help answer the overall research question. These themes included induction support, school culture and climate, and investment in future teachers. Each of these themes is discussed in Chapter

6 and applied to previous research align with the *intern as teacher*. In the forthcoming chapter, I discuss previous research on mentoring processes, induction supports, and school culture and climate as it aligns to the findings from Chapters four and five. I highlight research to help support how each of the three research questions for this study are answered, followed by a discussion of the implications for P-12 administrators and higher education faculty. My discussion considers the factors of selection, interaction, variation, and criteria of performance as described throughout this dissertation. I consider the limitations of this study along with future recommendations for considerations by school district administrators, university staff, and future researchers. Finally, a discussion of how this research study aligns with the theoretical framework applied can help substantiate the overall purpose of this study: determine what constitutes success for interns in the *intern as teacher* model during the last semester or year of undergraduate education through a paid student teaching experience in South Georgia.

CHAPTER VI

DISCUSSION AND CONCLUSIONS

The purpose of this study is to explore what constitutes success for interns in the *intern as teacher* model during the last semester or year of undergraduate education through a paid student teaching experience in South Georgia. As found in this study, Dr. Mack Bullard proposed the *intern as teacher* model to address the teacher shortage and reduce the number of alternatively prepared teachers employed in his district. Some districts utilized alternative preparation models for hiring teachers without certification (National Education Association, 2019; Woods, 2016). In Georgia, there are 3,313 teachers employed on a provisional certificate (Percy, 2016). The decline in candidates completing teacher preparation programs across the state compounds the teacher shortage issue (Henson et al., 2015; Tio, 2018). The *intern as teacher* model directly affects universities preparing teachers because school districts are making decisions on how to fill teaching vacancies.

To explore what constitutes success for *interns as teachers*, an investigation of the four factors occurred: (1) variation, (2) selection, (3) interaction, and (4) performance measures. Each of these factors is bolded terminology in Axelrod and Cohen's (2000) definition used in Chapter I and reiterated below:

> **agents**, of a variety of **types**, us[ing] their **strategies**, in patterned **interaction**, with each other and with **artifacts**. **Performance measures** on the resulting events drive the **selection** of agents and/or strategies through processes of error-

> prone **copying** and **recombination**, thus changing the frequencies of the types within the **system.** (p. 154)

Unknown to me at the time, there were additional layers to this definition to reveal during my research. By applying the data collected, I show how this definition applies to the *intern as teacher* model along with answering the research questions.

Chapter I provides the purpose of this study and why studying the *intern as teacher* model is important. A teacher shortage in Georgia exists where educator preparation programs are not producing enough teachers to fill vacancies in Georgia. Dr. Bullard conceptualized the *intern as teacher* model as a way to recruit teachers to his districts and provide them with supports throughout their internship. I proposed the *intern as teacher* model was a complex adaptive system and introduced a framework to analyze systems produced by Axelrod and Cohen (2000). Chapter II reviews the literature related to the Georgia teacher shortage, mentoring supports and processes, induction programs, school climate and culture, and theories related to the *intern as teacher* model. Chapter III provides the methods and procedures for researching and analyzing this study through a case study approach (Merriam & Tisdell, 2016). Chapter IV introduces the participants and the model they used to hire interns as teachers. Chapter V introduces the five themes found through the coding process prescribed by Saldana (2016) and provided the findings linked to each theme.

In this chapter, I discuss the interpretations of the findings related to the study's research questions. Throughout this chapter, I share how the findings related to the literature review presented in Chapter II and the theoretical framework described throughout this dissertation. I also share how the findings differed from the literature and the implications these findings have for teacher preparation, the teacher shortage in South Georgia, and future research. A discussion of the limitations of this study follow and illustrate how one could adapt this study in the future.

Research Questions

The goal of this case study was to answer the central question, “What constitutes success for interns in the *intern as teacher* model in South Georgia?” Additional questions for the research included:

1. What decisions must be considered when implementing the *intern as teacher* model in a school district?
2. Do districts and universities have the time and resources to invest in the intern?
3. How do school districts and EPPs harness complexity within the model?

Methods and Procedures

This study employed a case study approach developed by Merriam and Tisdell (2016) to study the *intern as teacher* model. This study sought to understand the *intern as teacher* model and applied a theoretical framework known as harnessing complexity in complex adaptive systems (Axelrod and Cohen, 2000). This case study applied to interns participating in the *intern as teacher* model in South Georgia school districts. Focus group interviews and individual interviews with sixteen participants served as the primary data collection technique. There were three sets of focus group interviews consisting of one mentor teacher and one intern pair. One additional focus group interview consisted of two university personnel that requested to interview together. I conducted twelve individual interviews with both P-12 district decision-makers and university decision-makers. I collected documents for the institutions represented in this case study by either collecting the documents from publicly accessible locations on the internet or participants themselves. These documents helped substantiate the information gained during focus groups and individual interviews. Identification of mentor teachers and intern pairs occurred when their universities shared an email from me requesting intern participation in the study. Identification of P-12 district and university decision-makers occurred through a snowball technique when other participants mentioned their name or institution as relevant to the study. Saldana's (2016) methods informed my data analysis of (a) data organization, (b) analytic memos, (c) codifying and categorizing, and (d) "themeing." I conducted two cycles of data analysis along with memo writing and code-mapping.

Interpretations of Findings

In this section, I discuss the interpretations of the data presented in Chapters IV and V. I organized the interpretations by research question to help build the context of the study around prior research from Chapter II and the theoretical model presented. The theoretical framework for the *intern as teacher* model presented in Chapter I is shown in Figure 13. Adding the themes to the study showed how they aligned with the framework to show where the themes were centralized within *selection*, *interaction*, *variation*, and *criteria of success*.

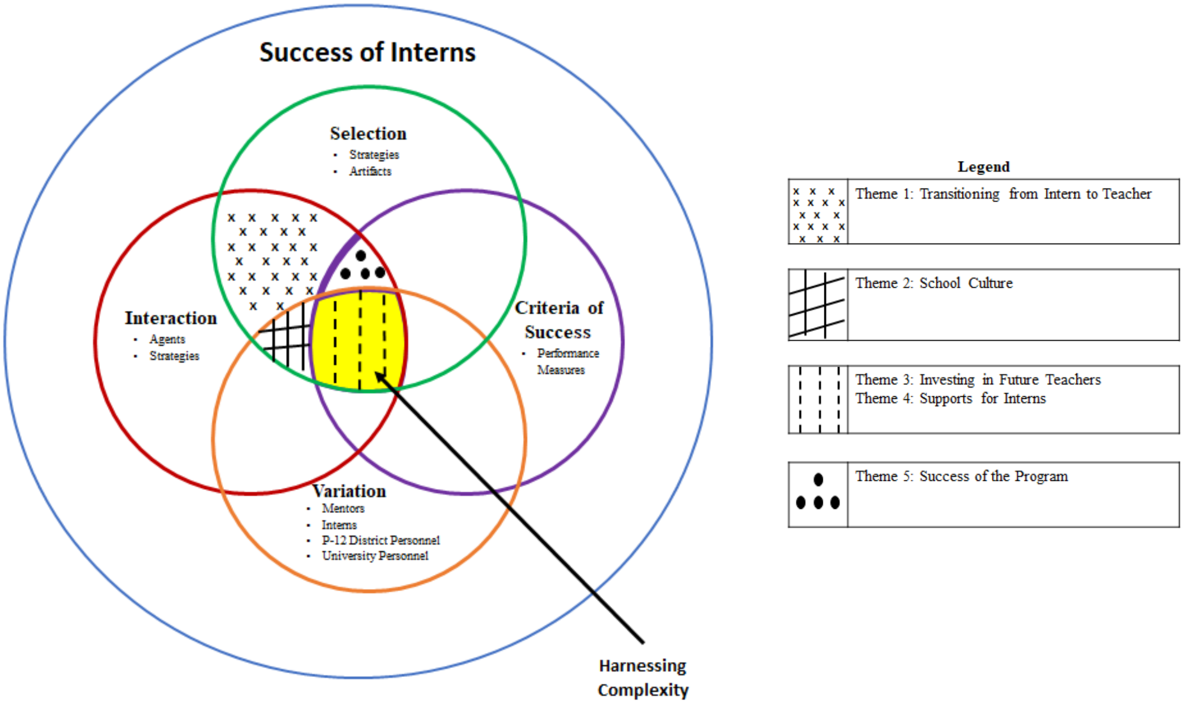

Success of Interns
Selection
Strategies
Artifacts
Interaction
Agents
Strategies
Criteria of Success
Performance Measures
Variation
Mentors
Interns
P-12 District Personnel
University Personnel
Harnessing Complexity
Legend
Theme 1: Transitioning from Intern to Teacher
Theme 2: School Culture
Theme 3: Investing in Future Teachers
Theme 4: Supports for Interns
Theme 5: Success of the Program

Figure 13. Success of interns relating to themes presented in Chapter 5.

As shown in the figure, the interaction of each of the factors allows for CAS to *harness complexity*. Answering the research questions, I considered the themes and the model of harnessing complexity. The overall Research Question, *What constitutes success for interns in the intern as teacher model in South Georgia?,* is answered in this chapter's implications and conclusion sections.

RQ 1: What Decisions Must be Considered When Implementing the *Intern as Teacher* Model in a School District?

As highlighted in Chapters four and five, district and university level decision-makers described the processes they used to implement the model. However, there was variation in how they approached implementing the *intern as teacher* model in a school district. Although district participants were excited to learn they could hire interns completing a four-year undergraduate degree program, some system decision-makers thought through the process and incorporated Dr. Bullard's model before implementing, while others implemented the program in similar ways to a traditional student teaching experience. Key decisions found to answer Research Question 1 included:

- How did identify and assign mentor teachers?
- Which mentoring model would work best for our district?
- What supports could be provided to mentors and interns?

Decisions made by district and university participants aligned with research from induction support, mentoring models, and school climate and culture. Axelrod and Cohen (2000) found by acknowledging factors affecting a complex adaptive system, they will prevent problems "have looming disasters" (p.52). The factors district administrators considered in the *intern as teacher* model is important as they consider implementing the model in the future.

In the following section, I describe the decisions made through this study and link this discussion to Research Question 1: What decisions must be considered when implementing the *intern as teacher* model in a school district?

Induction Support. Theme 1 (transitioning from intern to teacher) and Theme 5 (Success of the Program) discussed in Chapter 5 linked to examples provided by participants and aligned with induction support. As discussed in this study's literature review, induction support programs varied by school district and state mandates. Although participants in this study did not discuss induction supports directly, analysis of the interviews provided clues to the supports interns received that could be considered pre-induction support.

As defined by the Georgia Department of Education, induction phase teachers are "any teacher who has been hired into a new permanent position in any Georgia school . . . [and] considered to be 'induction phase' until they successfully complete the district induction program" (Georgia Department of Education, 2020c, p. 9). Discussions with participants illustrated examples of how they provided candidates with access to professional development, frequent communication with supportive personnel, and common planning times with other teachers of the same subject (Georgia Department of Education, 2020c; Ingersoll, 2012).

In this study, interns described support from universities to include university supervisors in two cases and a university mentor in one. Support for interns from the university aligned with findings by Reitman and Karge (2019) who found induction phase teachers received on-site visits from university faculty. However, only two university participants in this study described how they tailored their site visits to the unique needs of interns in their partner districts. An example of this was when University 1 decision-makers tailored their support through the inclusion of the university mentor. Mrs. Taylor said, "there is a liaison for this program at the college. So Mrs. Westbrook, I don't know if you know her, but she is the mentor." Before the pandemic, Mrs. Westbrook went into classrooms to support candidates in a non-evaluative manner at their requests. During the pandemic, she met virtually with them. Whether on-site or in a virtual setting, she observed interns and debriefed with them afterward to help implement new strategies into their practice. University 2 participants described a specific example where their university supervisors and faculty rallied around a struggling intern by providing support from faculty members with expertise in classroom management. Dr. Berry stated, “we had a student last year that has some concerns around classroom management.” Ms. Roberts followed up with the example by stating, “I think that was a good example of how our faculty really got involved too.” Both examples from University 1 and 2 participants aligned with research showing induction phase teachers needed professional development and supportive processes to meet their individual needs (Garcia & Weiss, 2019, Reitman & Karge, 2019). In Stricker, Langub, and Wright’s (2016) study, they described a university supervisor as one who was “charged with evaluating the teacher candidates based upon a series of observations the supervisors conducted each semester” (p. 30). University 3 and 4 participants did not describe the university supervisor’s role as a mentoring role. Their roles aligned with the more traditional role of supervisor, where they evaluated interns and supported them through interning. Sarah described her university supervisor as someone who “has really worked with me . . . really good about working with me to make sure that, like, it's easier for me.” University supervisors were aware of the interns’ needs assigned to them, spoke with them, listened to them, and provided ongoing feedback.

District and school participants provided supports aligned with induction processes through the provision of a mentor teacher. Although the GaPSC required mentors for undergraduate teacher candidates, they did not require a specific amount of time to spend with teacher candidates (Georgia Professional Standards Commission, 2020). The research described in Chapter 2 did not address the time the mentor teacher should spend with the induction phase teacher. However, Dr. Bullard described in his conceptualization of the program he wanted interns to access their mentor for 50 percent of the day. This period occurred with one intern in this study, whereas the other two interns had a mentor teacher for the entire school day. One negative example provided by University 2 participants was the description of interns who shared their mentor teacher with other traditional first-year teachers. Dr. Berry said, “she's now supporting all six of these people versus just our three.” Upon reviewing this finding, it raised the question: If interns shared their time with multiple interns and first-year teachers, how much time did the mentor teacher spend working with interns in this district? However, according to University 2 participants, the interns acknowledged the other new teachers needed access to a mentor teacher, and they were all working together to meet the needs of the students in their grade level.

The need for common planning times and time with job-alike teachers was described as supportive process for induction programs (Garcia & Weiss, 2019; Reitman & Karge, 2019; Sutcher, Darling-Hammond, & Carver-Thomas, 2016). Each of the interns in this study had common planning times with their mentor teachers, and they each described instances of working with other teachers in their grade levels. Although two interns did not describe whether they had additional duties other teachers were required to do, University 1 participants stated they asked the school district not to require additional duties for interns and mentors to allow them time to work together. University 2 participants stated, “the truth of the matter is the [intern] really was more so treated like a first-year teacher” in one district they worked and required the intern to have extra duties and responsibilities. Considering the intern was still working on coursework and working as a pre-induction teacher, this did not align with best practices for new teachers where districts were encouraged to reduce extra assignments (Garcia & Weiss, 2019; Georgia Department of Education, 2020a).

Mentoring model. The mentoring models found in this study were described in detail in Chapter 4. There were variations of the model used, with many diverging from the original model proposed by Dr. Mack Bullard. The only common finding was the presence of a mentor teacher for each intern that aligned with the research presented in Chapter 2 and presented as induction support for new teachers. Interesting about the various models was school district participants attempted to provide interns with the model best for their system. However, the original intent of Dr. Bullard's model of providing two interns with one mentor teacher was to allow him to divide the salary of the vacant position between two interns and use one mentor to support both. System decision-makers choosing to hire a mentor to work full time in the classroom with one intern were not working within the proposed model and were essentially providing pay to a student teacher. One variation occurred in District D where they did fill a vacant position with an intern but hired a part-time mentor to work with each intern. Although they still functioned as student teachers, the intent was to eventually have the part-time, retired teacher no longer working with the intern after the semester. Although this was different from Dr. Bullard's model, it did appear to work because of the difference in how they hired the intern. Whereas Dr. Bullard's model required interns to work for one full year with a part-time mentor, District D's model paid the intern for their final semester of undergraduate education with a mentor for the entire time. This model would still align with Dr. Bullard's if one considered the time spent for 50% of the year during one semester. However, one question arose from this model: What supports would the intern working for their final semester of undergraduate education with a full-time mentor receive during their first semester of full-time employment as a first-year teacher?

Interns in Dr. Bullard's model received a full year of pre-induction support, whereas interns in District D only received one semester of support. However, because this study concluded before the intern's graduation, I could not follow through and determine what additional supports the intern received after graduation.

School Climate and Culture. School climate and culture were discussed in Chapter 2 and illustrated how school climate helped build the foundation of a school culture. School climate is defined as the "perceptions of emotional and physical safety, support, inclusiveness, respect, challenge, and engagement" (Devaney and Berg, 2016, p. 1), whereas school culture is the "unwritten rules and traditions, customs, and expectations" (Deal and Peterson, 2016, p. 7). There is evidence from this study to illustrate the importance of school culture in the *intern as teacher* model. Elements of school culture were found through descriptions of communication for the mission and vision, trust, respect, and building relationships.

Dr. Bullard's vision addressed how to provide his P-12 students with highly qualified educators while addressing their teacher shortage. He communicated his vision with district principals and reminded them they had the opportunity to brand themselves positively to ensure they had a pipeline to the university systems and recruit interns. Dr. Bullard knew, as described in Chapter 4, he wanted "high quality candidates" for his students. Researchers showed school culture helped schools move their students to higher learning by being innovative in their thinking and delivery of instruction (Center on Great Teachers and Leaders, 2019; Deal & Peterson, 2016). The *intern as teacher* model also allows school districts to build capacity through the preparation of their teachers (Muhammad, 2018). Although interns in this study were still undergraduate candidates, Dr. Bullard communicated with university partners how they would still receive the support they needed while finishing their degree and helping to solve a teacher shortage problem.

The Center on School Turnaround (2017) research included components of school culture to include trust and respect. Mrs. Taylor showed in her description in Chapter 4 how she trusted the program when she described how the previous school needed to show interns “some grace” because they were still learning. She understood her interns did not have much experience and could not be expected to know the same things as experienced teachers. Mrs. Cross’s example of going to administrators and telling them, “[Sarah’s] an intern, but it's different than your traditional student teaching, like y'all are training her to be hired as soon as she graduates” reminded them of the roles and expectations of the program. This example demonstrated how mentors were willing to trust the process of preparing the candidates as the teacher of record. It demonstrated a battle some school personnel might have when they do not fully understand the *intern as teacher* program but are willing to learn. Likewise, administrators at each of the schools embraced the program and showed they valued innovative ideas and were willing to try a new process.

Throughout this study, participants described relationships they built in the schools hosting the *intern as teacher* program. Manvell (2012) described how people can feel climate through the relationships between individuals in the school. Two of the interns described how they worked together with other teachers in the grade level. They built relationships through informal lunches, planning periods, and collaboration. Sarah described how she worked with a teacher who taught a similar curriculum because they needed to ensure their students received similar instruction. Both Mrs. Taylor and Mrs.

Cross described situations where they supported their interns and collaborated about the curriculum with other grade-level teachers. This example demonstrated the mentors' willingness to step outside the relationships with the intern and help team members. Tonya and Mrs. Green collaborated with lesson planning and participated in professional learning communities together. Gruenert and Whitaker (2019) described collaborative processes in school culture. They found collaboration allowed conversations to build new ideas and provide purpose for the work supporting a better future. Professional learning communities allow teachers to work together to problem-solve (Kaplan & Owings, 2013). Learning communities also help teachers develop instructional strategies allowing them to take instructional risks (Kaplan & Owings, 2013). Although Sarah and Allison described feelings of being overwhelmed with the process of being an intern by using the terms "thrown to the wolves" and "thrown into this" as an undergraduate student, they took on the role and instructional risks. Although feelings of being overwhelmed existed, mentors provided support for the situations and demonstrated an awareness of the intern's needs. Acknowledging interns would make mistakes, but not taking away their ability to continue working toward their instructional practice allowed them to continue developing.

Administrators in this study valued what interns were saying and doing in the program. They took time to listen to their struggles and worked to provide resources to them. This behavior aligns with Kaplan and Owings (2013) who described a psychologically safe school culture where leaders worked to provide educators with time to collaborate and problem solve. Sarah described how administrators supported her in the process by working with students when they visited her classroom or showing her another way to teach a concept. Although not all interns described their relationships with principals, they described how they were welcomed into their schools. These feelings of being welcomed aligned with research by Wong (2004), who stated, "educators need to realize people crave connection" (p. 50). Likewise, Gruenert and Whitaker's (2019) definition of the attitude of an organization included how people felt daily.

Although Gruenert and Whitaker (2019) reported some schools have a negative school climate, participants in this study did not describe negative school cultures. This attitude was not surprising to me because school districts initiated the programs and needed teachers. Although there may be instances of negative school culture, it was not found in this study for the *intern as teacher* program.

RQ 2: Do Districts and Universities Have the Time and Resources to Invest in the Intern?

The discussion over Research Question 1 provided examples of the decisions made to implement the *intern as teacher* model and were supported by evidence in Chapters four and five. Supporting decisions made about the program, this study revealed evidence for the commitment of time and resources required to implement the *intern as teacher* model. This evidence included:

- Administrators who understood their roles and responsibilities within the model,
- Pre-induction support aligned with induction support provided first-year teachers, and
- Benefits aligned with recruiting teachers.

To answer Research Question 2, I will discuss the concepts of time and resources through the various roles school district and university decision-makers were required to invest in when they implemented the program. Important is to consider how the roles of the various stakeholders impact the time and resources commitment each would make in the implementation of the *intern as teacher* model. Each stakeholder's role is discussed in the following sections to help answer Research Question 2: Do districts and universities have the time and resources to invest in the intern?

School District Roles and Responsibilities. In Chapter 4, I described the process Dr. Bullard went through to create the *intern as teacher* model for his district. Dr. Bullard explained it took time to consider how to create the *intern as teacher* model and described how he spent months planning the program with university partners and school district personnel. Not only did it require time to create and implement the program, but Dr. Bullard described once he implemented the program in his district it required a lot of time for him, as the district coordinator for the program, to work with mentors, interns, district administrators and university partners.

There were risks districts took to provide teachers to P-12 students. Participants in this study showed taking the risk was more important than not having a teacher. For example, in Dr. Bullard's model, he provided candidates with a mentor teacher for part of the day. The risk associated with this included the interns being without a support system for one period of the day; however, the district took the risk and saw positive results. A high risk associated with the model was the variation in how the districts approached providing a mentor to candidates. University 2 participants described a risk taken from a district where a mentor teacher was not assigned a particular amount of time with the intern, therefore, leaving the candidate to function as a true first-year teacher without the direct support of the mentor regularly. Descriptions from University 2's participants could be classified as high risk because the district did not know the intern's capabilities within the district nor had the intern completed degree requirements.

Participants considered how they were providing monetary support to interns and mentors by considering their district budget plans. Evidence from this study illustrated districts provided a variety of incentives to interns who worked in their schools, including pay for interns and a stipend for mentors in the case of one district. Consideration for how districts pay interns is important before deciding to hire. Participants from two districts described how they utilized strategic waivers to pay their interns (Griffin & McGuire, 2019). As Ms. Franklin from District B showed, strategic waivers allowed them to receive Certified/Classified Personnel Information (CPI) funds during the FTE count for the positions. When utilizing the strategic waiver, it provided the district with money toward each student assigned to the intern and saved on the cost of paying a full-time teacher in place of the intern. The money saved allowed District A decision-makers to provide a stipend to their mentor teachers, and provided ongoing support to the intern.

University Roles and Responsibilities. As shown by university participants in this study, their roles required them to consider the best interest of teacher candidates and the support they would provide to the intern and mentor teacher. In the same way Dr. Bullard coordinated his efforts at the district level, university participants described how they coordinated their efforts.

As district staff reached out to universities, personnel at the university had to consider their interns' needs and best interests. University decision-makers needed interns to have a school-based mentor teacher per requirements from the Georgia Professional Standards Commission (2020) and in line with best practices for teacher candidates (Garza et al., 2019). Not only did university personnel request the school district to provide a mentor to each intern, but they also wanted to know what kind of supports they would.

The university described opportunities to provide more support to help school districts with the *intern as teacher* model to help their teacher candidates. University personnel are in a unique situation with the model because they already provided clinical educators (i.e., University supervisors) to their candidates as part of their requirements from the GaPSC (Georgia Professional Standards Commission, 2020). Therefore, they can help to support candidates beyond evaluating candidates in addition to supporting them with professional development and improvement of practices in the classroom. Participants in this study described the benefits of both the university mentor and supervisors. University 1 decision-makers provided a university mentor for their program who oversaw the interns and worked directly with the mentor and intern. The university mentors or coaches facilitated professional learning for both the mentor and intern. This aligned with research by Bastian and Marks (2017) who found a North Carolina induction program provided university support in the form of coaching was "positively associated with teacher value-added in mathematics and secondary grades and teacher retention" (p. 29). University 2 supervisors observed candidates and found ways to support their improvement by finding faculty who could coach interns in effective ways of handling their areas of concern. As shown by participants from universities 3 and 4, supervisors were primarily there for emotional support and evaluating interns.

Although decision-makers from all three universities provided university supervisors for their interns, the interns each had differing levels of understanding for the roles of their supervisors.

RQ 3: How Do School Districts and EPPs Harness Complexity Within the Model?

Harnessing complexity was described in Chapter 1 as "deliberately changing the structure of a system in order to increase some measure of performance, and to do so by exploiting an understanding that the system itself is complex" (Axelrod & Cohen, 2000, p. 9). Dr. Mack Bullard's *intern as teacher* model was an example of how his district deliberately changed the traditional student teaching experience structure to fill teacher vacancies in his district. Imperative was to consider the individual factors of Axelrod and Cohen's (2000) definition of a complex adaptive system to understand how districts implementing this model harnessed complexity. The factors under investigation in this study included selection, interaction, variation, and criteria of success. When school districts understood how each of these factors worked together within a complex adaptive system such as the one the *intern as teacher* model was functioning within, they will harnessed complexity and improved the system.

When this study initially began, I was looking at the variation in populations within the K-12 setting where mentors and interns worked. The study sought to explore the various strategies mentors and interns were using and determine other agents they interacted with, helping the intern succeed. I also wanted to identify how selection of strategies and artifacts was taking place within the setting. However, I found a much deeper variation within the model beyond just the mentors and interns in a K-12 setting. Participants acknowledged they were working under the direction of how their district required them to work. Building from this finding, I began investigating the model differently. Variation began to be seen as more of what the variety of models were being used in the *intern as teacher* model, how district and university personnel made decisions impacting the selection of mentors and interns, and why they implemented the model in the manner they did. As shown under the section for Research Question 1, various decisions were being made impacting the model. Decisions were made beginning at the district level with consideration from stakeholders. When stakeholders implemented the model, it ultimately determined the mentor and intern requirements within the K-12 setting. Building on the variation of individuals in the model and the decisions they made for the model required an exploration of the interactions occurring with the *intern as teacher* model.

Interactions occurring began with the various district personnel who learned about the program as described in the Research Question 1 section. However, once the model was introduced to the K-12 classroom, additional interactions began to take shape. Interns interacted primarily with their mentor teachers and other teachers in the building. University 1's mentor teacher clearly understood her role and responsibilities because she was included in creating the model from the beginning. She had the support of a university mentor who regularly communicated with her and her intern throughout the program. She was given autonomy to make suggestions on how to improve the program for her district. Her experience was different from the mentor teachers from University 3 and 4 brought into the conversation after the decision was made to implement the model. These mentors had to ask questions during their experience about what the expectation was for their role. Each took their role seriously and worked hard to help their interns be successful, but like University 4's mentor teacher said, "my principal, she told me just like a general thing and then later on she came back, she said, 'make sure you give her the responsibility now. Don't you know?' Me? I don't know what they really mean." Her comment showed her uncertainty about what her role was in the *intern as teacher* process.

Interactions included school district personnel who worked with interns. The participant from District 2 illustrated how she had a couple conversations with mentor and intern pairs throughout the year and when problems occurred within the school building influencing the interns' success. This was a different approach from Dr. Bullard's where he had conversations regularly with mentors and trained them to collaborate with interns and help them succeed in the program. Ms. Franklin acknowledged the need to have more conversations and direct contact with interns throughout the year. She ensured any mentor teacher chosen for the program received training through a coaching endorsement program. Although Dr. Bullard and Ms. Franklin's interactions were different with their participants, they each committed to making the program as successful as possible while working within the guidelines they built for the program.

Other interactions occurred when university personnel worked with interns. Research Questions 1 and 2 helped to show what would be required from universities to implement the model. It was clear how university personnel from University 1 interacted because the university built the program with the school district's help. They helped run the program from the university level; therefore, they were invested in how much support the interns received. Participants from University 2 showed how they worked with their supervisors and faculty at the college to support interns as the need arose. Upon looking at the interactions and considering the questions Axelrod and Cohen (2000) described as necessary to harness complexity, important was to consider the patterns of interactions and signals to follow to improve the complex adaptive system and harness complexity. As shown in Research Question 2, I found induction supports processes within the model, but not used to the extent recommended by Ingersoll (2012) for new teachers. Considering the interactions found in this study, it required universities and school districts to work together to support both the mentor and intern in the model. Each entity required defined roles to ensure everyone was aware of their roles and responsibilities to provide the support necessary to help interns be successful.

Embedded throughout a complex adaptive system was the selection factor and difficult to specifically isolate because, through the interactions of agents within the model and the variation of decisions made, selection was taking place with every decision made for the specific program. District personnel selected the model they believed they could provide resources to; university personnel made decisions about the university supervisors to use and how much support to give interns. Mentors made decisions for their interns based on the individual needs with the understanding they were preparing interns for their own classroom. Interns in this study primarily interacted with their mentors; therefore, they were selecting strategies they learned through their undergraduate education program along with strategies their mentor teachers suggested. Although two of the interns worked with other teachers to select appropriate strategies to use in their classroom, they primarily relied on the direction of their mentors.

The final factor considered to harness complexity was criteria of success. District-level participants acknowledged they defined success based on whether interns stayed in the system. They used retention number considerations to determine if the program worked. University personnel described success as whether interns completed the internship and fit in with the school they worked. However, Axelrod and Cohen (2000) referred to criteria of success as measurable performance levels used by agents within a CAS when they select strategies and artifacts to implement. Therefore, this study did not find specific, measurable performance levels beyond the retention of interns in the district.

To answer Research Question 3, how do districts and universities harness complexity within the *intern as teacher* model, results show they are attempting to harness complexity by implementing the model to recruit teachers to their district by providing them with the support of a mentor teacher. Although there was variation in how they implemented the model in the district, they each showed how they made deliberate decisions about the mentors they used, the classrooms where interns worked and made financial decisions on how to implement the program. However, beyond the retention of interns, unclear was how they evaluated the program to determine if the model used worked well for their district. In the forthcoming section of implications of this study, I make recommendations to help districts and universities consider how they could truly harness complexity within the *intern as teacher* model and help answer the overall research question for this study: What constitutes success for the *intern as teacher* model?

Implications of the Study

The purpose of this case study was to determine what constituted success in the *intern as teacher* model. I explored the decisions made by district and university personnel to implement the model and the supports provided to interns. Although I found positive outcomes for candidates working in the districts, there was still more work needed to gain additional knowledge about the program's impact on the retention of interns in school districts and the impact on student learning. Before I began this study, there was no research on this model for undergraduate interns. There was an abundance of research on alternative preparation models and residency programs. This study introduced the *intern as teacher* model and the decisions made to create and implement it. Addressing the gap in literature to consider mentoring models through the complex adaptive system lens (Janssen, van Vuuren, & de Jong, 2016; Jones & Corner, 2012), this concept was addressed through the exploration of the *intern as teacher* model incorporating mentoring at its foundation. It extended the literature by looking at an innovative approach to recruiting interns to school districts facing teacher shortages in South Georgia. The findings from this study produced evidence of the variation in programs across South Georgia and evidence of what constituted success in the *intern as teacher* model. Before going into the implications for stakeholders, I discuss the overall research question of this study: *What constitutes success for interns in the intern as teacher model in South Georgia?*

As described throughout this study and specifically by participants in Chapter 4, school district decision-makers began this program to fill positions where they lacked a teacher to be in the classroom with students. The ultimate intent of the hire was to determine whether the individual would be eligible for a full-time position after the program concluded. Mentors and interns described their experiences in the *intern as teacher* model in positive ways without directly being asked how they would contribute define success in the model while decision-makers were directly asked. Axelrod and Cohen (2000) acknowledged measuring success within a complex adaptive system was difficult because the individuals define performance measures in the system. Individuals could modify, maintain, implement, or disregard performance measures based on their system. They acknowledged in harnessing complexity within a complex adaptive system, “one needs to be careful about which indirect measures of success are used to guide action and learning” (Axelrod & Cohen, 2000, p. 124). I found participants defined success based on the retention of interns, connection to the school, positive experiences, and intern preparation. What was interesting about the attribution of credit for success was the varied definitions between university personnel and school district administrators. I attributed this to the needs of each individual. School district administrators defined success based on the interns’ performance and if interns accepted a position in the district beyond their internship. Where university faculty were preparing interns for future teaching positions, they hoped interns were prepared enough to handle the classroom during the school year, fit in well with the school, and get a job offer at the end of the internship. Although each stakeholder had different views on what defined success in the program, they each had the ultimate goal of having a high-performing, capable educator at the end of the internship.

With the question of “what constitutes success for interns in the *intern as teacher* model in South Georgia?” having been answered, I address the implications of this study.

The first section describes the variety of individuals learning about the program and provide the context of where they are coming from. I then discuss the implications for school districts and universities.

Teacher Preparation and Recruitment Stakeholders

The individuals who brought the programs to a school district are all members of various organizations. There are similarities and differences in these group organizations. Georgia has a group of P-20 Collaboratives meeting semi-regularly across the state. Within each Georgia P-20 Collaborative there are representatives from universities, RESAs, school districts, Department of Education, and GaPSC. Members in these groups include human resource managers from the districts, district-level administrators, deans and faculty from the universities, and state leaders in teacher preparation. With the wealth of membership in the Georgia P-20s, these individuals serve on various committees in their respective professions. For example, human resource managers serve on GASPA. Although not all human resource managers participate in a P-20 collaborative, there are bound to be several who attend and inform other managers what they learned from the collaboratives. This variation creates a domino effect where they get excited about recruiting potential teachers to their district and reach out to find someone involved in the *intern as teacher* model.

School District Implications

I found a variety of models implemented by school districts in this study. Recommendations for school district personnel are to consider how they will implement the original model proposed by Dr. Bullard and the types of supports provided. It takes time and commitment to implement the *intern as teacher* model with a university.

Before reaching out to universities, one should consider proposing the type of support necessary for interns' success to assist in future retention. As found in the literature, student teachers typically remained in the school where they student taught (Krieg, Theobald, & Goldhaber, 2016). However, beyond their first year in the classroom, new teachers need support to remain in school districts (Gray et al., 2015). Although school district personnel can have interns sign commitment forms to remain in the district beyond their internship, district administrators should be aware there is a possibility interns do not remain beyond the first year of teaching if they are not provided support (Garcia & Weiss, 2019).

Administrators should consider the school culture and climate before placing an intern in a school. Administrators should consider the best fit for interns and whether the placement is appropriate for a pre-first year teacher completing their final semester of undergraduate education. Within the school culture and climate, a commitment to induction support was found to be crucial both in the literature and through this study. Although the literature did not address interns and induction support, evidence showed it would help them learn how to navigate the school responsibilities, feel supported, and continue developing professionally.

As district administrators consider the benefits provided to interns, consideration should be given to salary and retirement contributions for an intern. As shown in this study, there was a variation in salary provided to interns. School district decision-makers should consider the benefit of paying interns and offering TRS benefits as a recruitment strategy. School district administrators should communicate with interns how much they will receive and how the TRS benefits will work in their favor in the long term. Rural school district decision-makers should be aware what other districts are offering and how they can benefit interns. Where rural district decision-makers in this study were providing long-term substitute pay, the benefit of using strategic waivers can help to bring the required funds to the district and enable them to provide similar benefits to larger districts.

University Implications. As school district administrators learn more about the *intern as teacher* model and consider its effect on filling teacher vacancies, they will receive requests to provide interns. University personnel should consider collaborating more closely with district administrators to ensure they have an agreement about the model needed to support undergraduate interns. University personnel should consider the type of model used with their partner school districts before agreeing to work with the system. As found in this study, interns need pre-induction supports, along with qualified mentors, to be successful. University personnel need to have conversations with their partners about how they will address these needs. University decision-makers should have an idea of the university faculty's role for both mentor teachers and interns. As found in this study, providing a university mentor helped support the professional development of both the intern and school district mentor. The university mentor was in addition to the university supervisor, who was primarily there to evaluate the intern. Interns who have not yet completed coursework need help to learn how to handle the various responsibilities of the classroom, but if their mentor teacher is only present part of the time, they need to be prepared to address responsibilities independently. University mentors can help interns navigate these unknown areas. If university mentors are not an option based on financial restrictions at the university, universities need to consider how university supervisors fit into the program. University supervisors should have an active role in the preparation of interns. Whereas typical student teachers need much support from faculty, interns likely need more support, as described earlier by participants from Universities 1 and 2.

Another implication for university personnel will likely be the request by districts to reschedule when courses are offered to allow teacher candidates to participate in an internship. As shown by Dr. Bullard's yearlong model, the candidates completed coursework outside the typical school day. For teacher preparation programs providing candidates with courses only during the traditional college day, this will impact the number of interns available to partnering school districts. Through conversations with their faculty and district partners, university decision-makers should consider what the impact of moving coursework would do to provide eligible candidates to fill vacancies.

Limitations of the Study

There are several limitations to the present study. The data in this study was limited to interns enrolled in elementary education and middle grades mathematics programs. McVey and Trinidad (2019) found the majority of teacher candidates were enrolled in elementary education. This gap aligned with this study where two of the three interns interviewed were completing an internship in this program. McVey and Trinidad (2019) found math, science, and special education programs had fewer enrolled candidates. Their evidence aligned with the possibility of why my study only identified one middle grades candidate in an internship. Although the Georgia Department of Education (2019) identified special education as a high-need field in Georgia, no candidates were identified as completing an internship in special education.

This case study was limited to data provided by participants in focus group interviews and individual interviews. I had to consider the honesty and reliability of the data. This issue was addressed by triangulating data with information from the focus group interviews, individual interviews, and data collection procedures. In addition, all participants were asked to review their interview transcripts to ensure I accurately transcribed the information. Several participants were given the opportunity to review my interpretation of their programs and provide their feedback. All of this information corroborated the data collected throughout the study.

Although the ability to generalize qualitative research is not expected as in quantitative studies, there is value in the description of themes throughout the study (Creswell & Creswell, 2018). This study only looked at three cases of the *intern as teacher* model in depth. Although I included information provided to me by other universities and districts participating in the program, it would be valuable to have more information to allow generalization in the future. When other cases are studied, researchers can begin to generalize findings across various studies (Creswell & Creswell, 2018).

I conducted this study during the year of the COVID-19 pandemic limiting how I collected data. Although I addressed this concern in Chapter 3, it would have been valuable to interact with participants in their formal settings where they were comfortable. These settings would include their classrooms and schools. The concept of the pandemic may have influenced participants' mindset around the *intern as teacher* model since interns and mentors were learning how to navigate this new dimension of teaching.

The final limitation is how I conducted the study focusing on interns in their final semester or year of undergraduate preparation. While the original model intended to prepare candidates during a yearlong internship, two of the interns interviewed worked in the program during their final semester. Although this was in line with the methodology, further investigation of their experiences after the academic year would be valuable. Additionally, speaking with the interns who completed the entire year of their internship would be valuable as the information drawn from a full year of the experience may have influenced how they answered the interview questions.

Recommendations

Further studies, including interns participating in special education, middle grades mathematics and science, and secondary mathematics and science undergraduate internships, are warranted. These studies can help close the literature gap addressing the teacher shortage in these areas, and answer: How are district and university decision-makers addressing this gap by using the *intern as teacher* model? Studies are warranted to determine if specific recruitment strategies are being used across the state to implement the *intern as teacher* model. Longitudinal studies to determine the intern's perspective of what constitutes success in the model are also warranted. Following up with graduates after their first year as a fully vetted teacher would help to fill the gap in understanding the specific components of the model that worked and did not work.

Before beginning additional research, consideration of how districts and universities work together to implement the model is necessary. I found the model introduced by Dr. Mack Bullard to be a unique model with opportunities to enhance teacher preparation. District decision-makers should consider partnering with university faculty and staff to determine how they can implement the components of the model proposed by Dr. Bullard using two interns and one mentor teacher to fill a vacancy. Although administrators from smaller school districts may not guarantee a full-time teaching position beyond the internship, it may allow both stakeholders to prepare teachers innovatively while incentivizing the position of interning. District administrators will have the opportunity to observe potential applicants throughout the entire school year and determine the applicant who is the best fit for their school. University personnel should work with partners to determine how interns can get their coursework completed to allow teacher candidates to participate in an internship. University personnel can use the ideas presented in Chapter 4 to consider offering online, evening, or weekend courses to candidates. When this occurs, candidates can work full time in the school district for a year-long experience with the support of a mentor teacher.

Conclusion

When this study was proposed, I went into it thinking the *intern as teacher* model would be more straightforward and would investigate the mentoring model as a complex adaptive system. My investigation into the model provided insight into the truly complex world of the *intern as teacher*. Where the originally proposed study began as an investigation into the mentoring processes occurring in the model, the participants presented data showing much more than how mentors and mentees work within the system and respond to the system to create change in the *student teaching* model through their interactions, selection of strategies, and identification of measurements of success (Jones & Corner, 2012). Changes to student teaching occurred before the assignment of mentor and mentee pairs. The change to the traditional model of student teaching was occurring at the university and district levels, influencing how the mentors and mentees worked.

Chapter 1 described how the Georgia teacher shortage affected school districts. With the need to hire highly qualified educators through avenues other than alternative certification programs, Dr. Bullard created the *intern as teacher* model. He believed candidates already enrolled in teacher preparation programs had enough knowledge and skills to be successful as interns during their final year of undergraduate preparation. In Chapter 2, I presented the literature centered upon mentoring models, induction support, and school culture and climate. The theoretical model of the complex adaptive systems framework was introduced as well. Chapter 3 provided the context for studying the *intern as teacher* model through a case study approach. How the participants were selected for the study, and the respective models implemented in their schools was shared in Chapter 4. The analysis of the data, development of the five themes, and linkage of the findings to the themes was described in Chapter 5. Finally, in Chapter 6, my interpretation of the research, based on the research questions for this study, was discussed. I further described the implications for school districts and universities, made recommendations for stakeholders and provided areas for future research. I explained in detail the limitations of this study and considered the limitations in my recommendations. The remaining portion of the chapter is devoted to the conclusions.

I contend success for interns is based on how the *intern as teacher* model is handled at the school level in collaboration with university partners. Strong partnerships are required to help interns be successful. I acknowledge this model varies greatly depending on what supports and models school districts offer. Within a complex adaptive system, individuals (i.e., agents) will adapt their protocols based on the performance measures they define. When this occurs, “the resulting events drive the **selection** of agents and/or strategies through processes of error-prone **copying** and **recombination**, thus changing the frequencies of the types within the **system**” (Axelrod and Cohen, 2000, p. 154). School district and university decision-makers are cautioned not to adapt the original intent of the *intern as teacher* model too much because this will cause the system to change considerably. When district administrators copy pieces of the original model and change other parts, this recombination could result in different results such as limiting the amount of support provided to interns. Therefore, staying close to the original intent of the model is necessary to ensure success for interns. Consideration of the specific components to use from Dr. Bullards’ original model and those added by University 1 are warranted. Interns needed the support of a mentor teacher for 50% of the day. The addition of a university mentor teacher added to the original model and helped to support the mentor and intern. Administrators should consider the type of mentor teacher to provide candidates. As school districts collaborate with universities to prepare effective teachers through the intern model, it is imperative to consider using the very best and qualified mentors who are willing to help interns grow through the process.

As a reminder of the potential consequences described by Axelrod and Cohen (2000) to harness complexity, “problems with low risk of catastrophe from exploration” (p. 51) are worthy of investigation. In other words, through the process of exploring a problem, risks were taken to hire *interns as teachers* and resulted in positive and negative consequences. Consequences from this study were shown through the variation in models used by school district administrators to provide teachers to P-12 students.

However, not yet known is how this will impact students learning in the future or the retention of interns in the district. A problem approached with appropriate measures in place should reduce the cost or risk and help to solve a problem (Axelrod & Cohen, 2000). Therefore, I challenge district and university decision-makers who want to use the model to implement the original model and define evaluation measures used at the conclusion of the program to determine whether the model is successful in their district.

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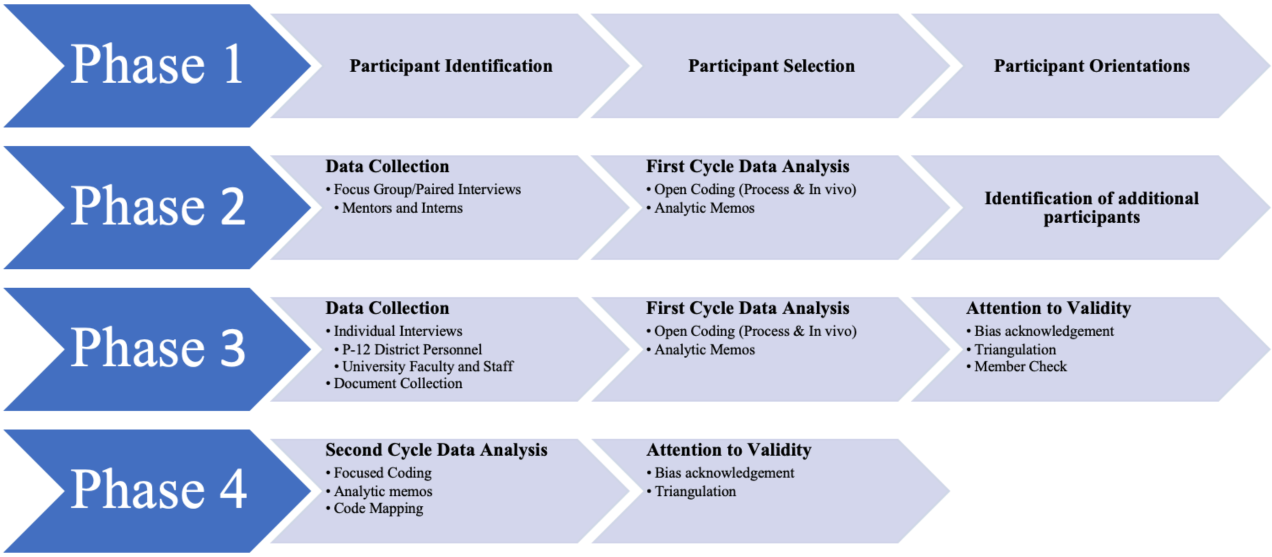
Appendix A:

Diagrammatic Overview of Method

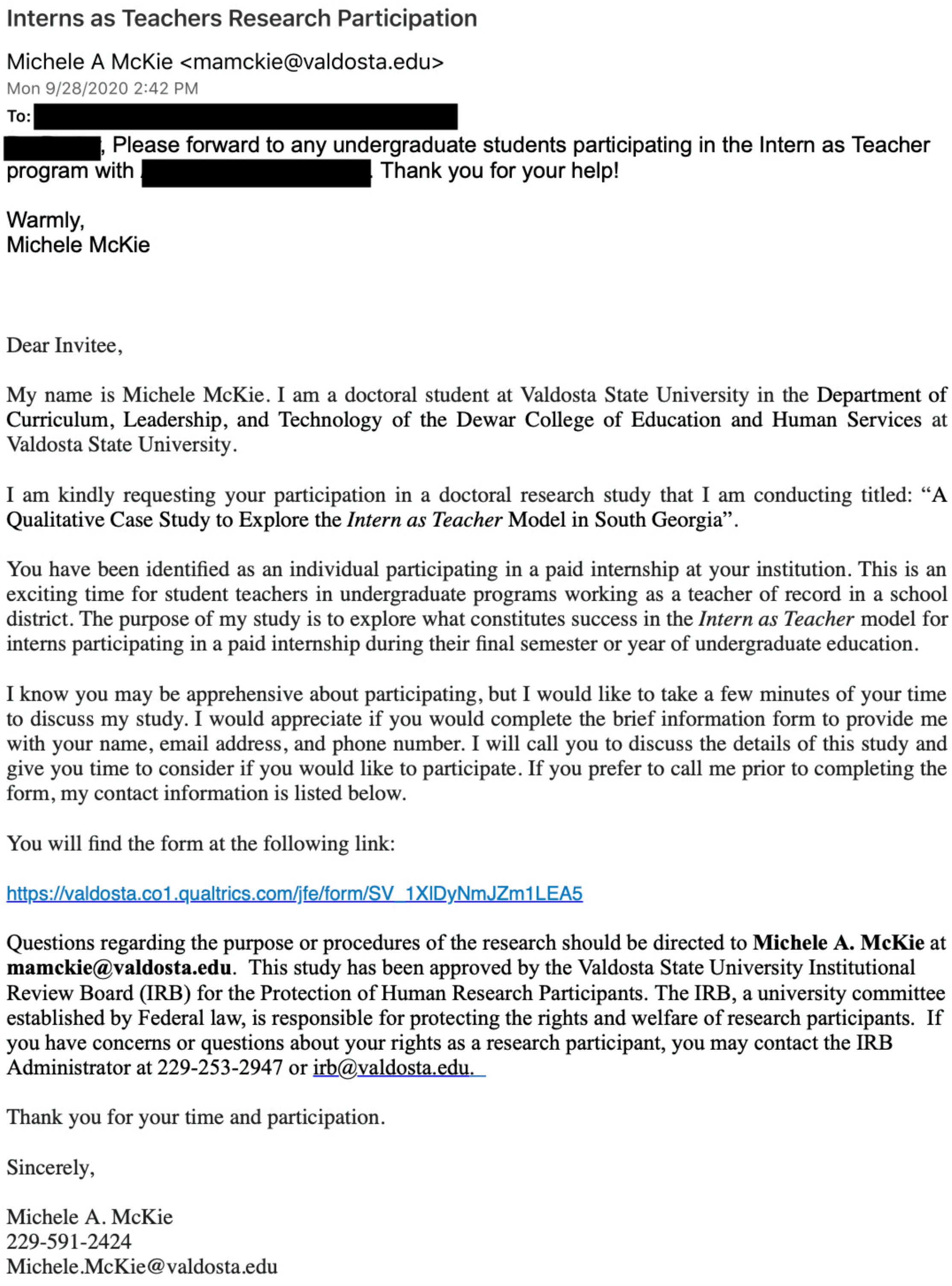
Appendix A


Phase 1
Participant Identification
Participant Selection
Participant Orientations
Phase 2
Data Collection
• Focus Group/Paired Interviews
• Mentors and Interns
First Cycle Data Analysis
• Open Coding (Process & In vivo)
• Analytic Memos
Identification of additional participants
Phase 3
Data Collection
• Individual Interviews
• P-12 District Personnel
• University Faculty and Staff
• Document Collection
First Cycle Data Analysis
• Open Coding (Process & In vivo)
• Analytic Memos
Attention to Validity
• Bias acknowledgement
• Triangulation
• Member Check
Phase 4
Second Cycle Data Analysis
• Focused Coding
• Analytic memos
• Code Mapping
Attention to Validity
• Bias acknowledgement
• Triangulation

Appendix B:

Email to Georgia Field Directors

Appendix B



Interns as Teachers Research Participation

Michele A McKie <mamckie@valdosta.edu>
Mon 9/28/2020 2:42 PM
To: [redacted]

[redacted], Please forward to any undergraduate students participating in the Intern as Teacher program with [redacted] Thank you for your help!

Warmly,
Michele McKie

Dear Invitee,

My name is Michele McKie. I am a doctoral student at Valdosta State University in the Department of Curriculum, Leadership, and Technology of the Dewar College of Education and Human Services at Valdosta State University.

I am kindly requesting your participation in a doctoral research study that I am conducting titled: "A Qualitative Case Study to Explore the *Intern as Teacher* Model in South Georgia".

You have been identified as an individual participating in a paid internship at your institution. This is an exciting time for student teachers in undergraduate programs working as a teacher of record in a school district. The purpose of my study is to explore what constitutes success in the *Intern as Teacher* model for interns participating in a paid internship during their final semester or year of undergraduate education.

I know you may be apprehensive about participating, but I would like to take a few minutes of your time to discuss my study. I would appreciate if you would complete the brief information form to provide me with your name, email address, and phone number. I will call you to discuss the details of this study and give you time to consider if you would like to participate. If you prefer to call me prior to completing the form, my contact information is listed below.

You will find the form at the following link:

https://valdosta.co1.qualtrics.com/jfe/form/SV_1XlDyNmJZm1LEA5

Questions regarding the purpose or procedures of the research should be directed to **Michele A. McKie** at **mamckie@valdosta.edu**. This study has been approved by the Valdosta State University Institutional Review Board (IRB) for the Protection of Human Research Participants. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-253-2947 or irb@valdosta.edu.

Thank you for your time and participation.

Sincerely,

Michele A. McKie
229-591-2424
Michele.McKie@valdosta.edu

Appendix C:

Qualtrics Participation Form

Appendix C

My name is Michele McKie. I am a doctoral student at Valdosta State University in the Department of Curriculum, Leadership, and Technology of the Dewar College of Education and Human Services at Valdosta State University.

I am kindly requesting your participation in a doctoral research study that I am conducting titled: “A Qualitative Case Study to Explore the *Intern as Teacher* Model in South Georgia”.

You have been identified as an individual participating in a paid internship at your institution. This is an exciting time for student teachers in undergraduate programs working as a teacher of record in a school district. The purpose of my study is to explore what constitutes success in the *Intern as Teacher* model for interns participating in a paid internship during their final semester or year of undergraduate education.

I know you may be apprehensive about participating, but I would like to take a few minutes of your time to discuss my study. I would appreciate if you would complete the brief information form to provide me with your name, email address, and phone number. I will call you to discuss the details of this study and give you time to consider if you would like to participate. If you prefer to call me prior to completing the form, my contact information is listed below.

First and Last Name:

Email Address:

Phone Number:

Appendix D:

Orientation Invitation to Mentors and Interns

Appendix D

Good afternoon!

Thank you so much for completing the form and providing your contact information as potentially being interested in participating in my research study of the *Intern as Teacher* Model. I'm very excited to begin this phase of my research. I'm also very happy you were given the opportunity to participate in a paid internship during your final year/semester in college. The paid internship is a passion I have for helping our partners in higher education find GREAT teachers to fill teacher shortages.

I wanted to provide you with some information about the study and ask if you would like me to contact you with further details.

The first phase of my study will begin with an introduction to myself and orientation/overview of my study. The orientation will take no longer than 30 minutes (if not less than that). During the orientation I will provide you with an overview of the study and the types of evidence/data I will collect. My goal for your participation is to make it as lease intrusive as possible while also generating qualitative data for my study. I know you have a lot going on as an intern teacher and I have considered that as I've created my study.

I would like to conduct the orientation within the next week for those who have already signed up. If you know other student teachers participating in a PAID internship (yearlong or semester) please encourage them to complete the form you have already completed. I still need about 3-4 interns. However, I can begin doing the orientations as I have candidates signed up. **Please complete this Google form to identify a date/time that works for you. Once I hear from you, I will send you a link to the orientation and we will meet virtually.**

Please let your assigned mentor teacher know about this opportunity. Part of my research does include your mentor and I would like them to participate too. You can forward them this email and ask them to complete the form as well. **I would even suggest you tell them which days you are marking on the orientation form so they can participate in the same orientation with you so the two of you can discuss what I present.**

Again, THANK YOU for considering participating in this opportunity! Once we complete the orientation you will let me know if you will proceed as a participant.

Warmly,
Michele McKie

Appendix E:

Survey Questions for Demographic Data

Appendix E

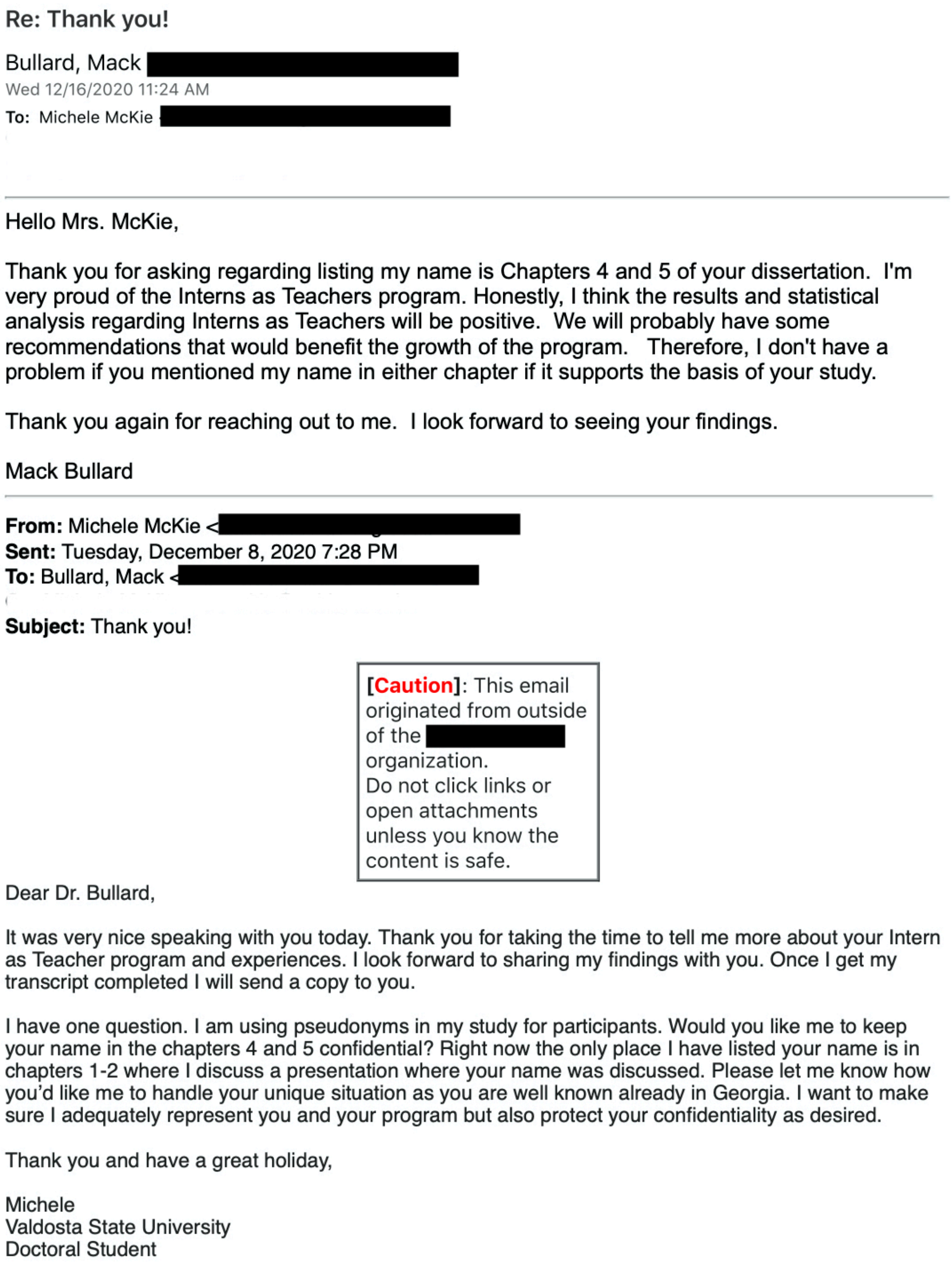
Research Question 1: What are the populations of agents in the system?

1. What is your age?
    - 23-25 years old
    - 26-30 years old
    - 31-40 years old
    - 41-51 years old
    - 52-62 years old
    - Over 62
2. How do you currently describe your gender identity?
    - Please specify: ________________________
    - Prefer not to say
3. What categories describe you? Select all that apply to you:
    - American Indian or Alaska Native—For example, Navajo Nation, Blackfeet Tribe, Mayan, Aztec, Native Village of Barrow Inupiat Traditional Government, Nome Eskimo Community
    - Asian—For example, Chinese, Filipino, Asian Indian, Vietnamese, Korean, Japanese
    - Black or African American—For example, Jamaican, Haitian, Nigerian, Ethiopian, Somalian
    - Hispanic, Latino or Spanish Origin—For example, Mexican or Mexican American, Puerto Rican, Cuban, Salvadoran, Dominican, Columbian
    - Middle Eastern or North African—For example, Lebanese, Iranian, Egyptian, Syrian, Moroccan, Algerian
    - Native Hawaiian or Other Pacific Islander—For example, Native Hawaiian, Samoan, Chamorro, Tongan, Fijian, Marshallese
    - White—For example, German, Irish, English, Italian, Polish, French
    - Some other race, ethnicity, or origin, please specify: ___________
    - I prefer not to answer.
4. What language(s) do you speak?
5. What is the highest degree or level of school you have completed?
    - Bachelor’s degree (e.g., BA, BBA, BFA, BS, BSEd)
    - Master’s degree (e.g., MEd, MA, MBA, MFA, MS, MSW)
    - Doctorate (e.g., EdD, PhD)
6. What role(s) do you have in the school environment?
7. Are you a member of any outside organizations? Name them.

Appendix F:

Participant Permission to Use Name in Study

Appendix F



Re: Thank you!

Bullard, Mack [redacted]
Wed 12/16/2020 11:24 AM
To: Michele McKie [redacted]

Hello Mrs. McKie,

Thank you for asking regarding listing my name is Chapters 4 and 5 of your dissertation. I'm very proud of the Interns as Teachers program. Honestly, I think the results and statistical analysis regarding Interns as Teachers will be positive. We will probably have some recommendations that would benefit the growth of the program. Therefore, I don't have a problem if you mentioned my name in either chapter if it supports the basis of your study.

Thank you again for reaching out to me. I look forward to seeing your findings.

Mack Bullard

From: Michele McKie <[redacted]
Sent: Tuesday, December 8, 2020 7:28 PM
To: Bullard, Mack <[redacted]
Subject: Thank you!

[Caution]: This email originated from outside of the [redacted] organization.
Do not click links or open attachments unless you know the content is safe.

Dear Dr. Bullard,

It was very nice speaking with you today. Thank you for taking the time to tell me more about your Intern as Teacher program and experiences. I look forward to sharing my findings with you. Once I get my transcript completed I will send a copy to you.

I have one question. I am using pseudonyms in my study for participants. Would you like me to keep your name in the chapters 4 and 5 confidential? Right now the only place I have listed your name is in chapters 1-2 where I discuss a presentation where your name was discussed. Please let me know how you'd like me to handle your unique situation as you are well known already in Georgia. I want to make sure I adequately represent you and your program but also protect your confidentiality as desired.

Thank you and have a great holiday,

Michele
Valdosta State University
Doctoral Student

Appendix G:

Focus Group Questions

Appendix G

	Research Factor Alignment	Questions
Introductory Questions	V, A	Tell me about yourself, your name, what do you teach, and your favorite downtime activities?
	--	Share something exciting that happened today.
Transition Questions	V, A	When you hear the words, *mentor teacher*, what comes to mind?
	V, A	When you hear the phrase, *intern as teacher*, what comes to mind?
	S	What do you think of when someone uses the word *strategies* in the school building?
	I	What about *interactions*?
Key Questions	V, A, I	On a typical day, who are you likely to interact with? What do those interactions look like?
	V, S, A, I	What role do you have in the decision-making process for determining what needs to be taught? What is your role?
	S, A	• Who makes decisions about the content you teach in your classroom?
	V, S, A, I	Who do you tend to go to for assistance with school related issues or to problem-solve? Why?
	V, A, I	Does your school district require teachers to collaborate during formal collaborative group sessions?
	V, A, I	• Who is typically present during the sessions?
	V, S, A, I	• What norms do you follow during that time?
	V, S, A, I	• Are you required to report anything to your school administrators to district about decisions made during the sessions? If so, what?
	S, A	What advice would you give to those considering implementing the *intern as teacher* model in their school?
Ending Questions	---	***All things considered question:*** Of all the things we discussed, which one is the most important to you?
	---	***Summary Question:*** Moderator summarizes the session, then asks, "How well does that capture what was said here?"
	---	***Final Questions:*** Have we missed anything? Is there anything that we should have talked about but didn't?
	---	***Final Questions:*** Do you have any advice on how I can improve future focus group sessions?

NOTE: Research factor alignment letters stand for: variation, strategies, agents, interactions

Appendix H:

Focus Group Protocol

Appendix H

Basic information about the interview.

- Time and Date of interview
- Location of interview
- Interviewer's name
- Interviewees' name
- Filename for the digital copy of the audio recording and transcription

Introduction. Good afternoon. My name is Michele McKie, and I am a doctoral student at Valdosta State University. Thank you for agreeing to meet with me. I want first to explain the purpose of my study. *Read purpose statement to interviewees.* I sent the consent for participation to you previously in an email. *Collect the signed consent forms.* This focus group will consist of (*#)* questions. It will begin by proposing a question to the group. Anyone in the group is welcome to answer or respond to or build upon another person's response. Focus groups are meant to be much like a conversation. To respect your time we will meet for no longer than 90 minutes. At the end of 90 minutes, you are free to go unless you decide you would like to continue the conversation further. Do you have any questions before we begin? NOTE: This protocol will be revised for individual interviews as the research progresses.

Opening question. I will phrase the first few questions I ask in a way to help break the ice (Creswell & Creswell, 2018). I will ask participants to state their name, where they are currently teaching, and what their favorite downtime activities include. I will also ask them if anything excited happened today.

Content questions. These questions will center around the subquestions for the research study (Creswell & Creswell, 2018). I will paraphrase questions to account for both mentor teachers and interns participating in the focus group. I will add questions to the interview protocol as the proposal process progresses (see Appendix D). A general rule of thumb for the number of content questions is between five and ten (Creswell & Creswell, 2018).

Using probes. The moderator will probe participants during the interview process. Creswell and Creswell (2018) encouraged researchers to ask probing questions that (a) ask for more information or (b) ask for an explanation of ideas (p. 191). I will add additional examples of probing questions to the final interview protocol.

Closing instructions. That is the last of my questions. Thank you for agreeing to participate in my research study. I assure you that your name will remain confidential in this study. I may be contacting some of you to ask follow-up questions in an individual interview. Please look for an email from me. Does anyone have any questions before we leave?

Appendix I:

Interview for P-12 Administrators

Appendix I

	Research Factor Alignment	Questions
Introductory Questions	V, A	Tell me about yourself, your name, and where you work.
	--	Share something exciting that happened today.
Transition Questions	V, A	What is your role in the *intern as teacher* model?
	V, A	How many interns have completed the *intern as teacher* model in your district?
	V, A, I	Do you partner with specific colleges/universities for this model? Describe those partnerships.
Key Questions	V, S	What led you to implement the *intern as teacher* model in your district? What is your ultimate goal for implementing this program in your school/district?
	V, S, A, I	What processes did you undertake prior to implementing this model in your district? (i.e., Training for mentors? Interns? Administrators? Documents? Communication with stakeholders?)
	S, A	How are mentors chosen to participate in the program? How are interns chosen?
	A, I	What interactions do you have with interns and mentors in the model? Are there others in your district who interact with interns and/or mentors in the model?
	V, A, I	Describe a typical experience for mentors and interns who are working within the model in your school district. Are those experiences the same across all schools in the district? • Are interns expected to have completed all coursework prior to beginning their internship? Who makes those decisions? How are those decisions made?
	V, A, S	What resources do you provide to the *intern as teacher* model?
	V, S, A, I	How are mentors and interns evaluated? Are there specific protocols in place to determine whether a mentor should continue in their role as mentor teacher? How do you determine whether an intern is successful during the experience? What are the procedures for handling a situation where an intern is struggling and/or not making progress? How do you decide whether to allow an intern to continue working with your school district at the conclusion of the program?

	V, S, A, I	Describe what you have learned as you implemented the *intern as teacher* model in your district. • Are there things you would change? Are there things you would keep the same? • What would you consider to be the strengths of the *intern as teacher* model? • Is the model sustainable? If so, do you have a plan for how to sustain this model in your district?
	S, V	How would you define success in the *intern as teacher* model?
Ending Questions	---	***All things considered question:*** If you could provide advice to others considering implementing the model in their district, what would you say?
	---	***Summary Question:*** Moderator summarizes the session, then asks, "How well does that capture what was said here?"
	V, S	***Final Questions:*** Do you provide any documents to interns and/or mentors? Would you be willing to share?

NOTE: Research factor alignment letters stand for: variation, strategies, agents, interactions

Appendix J:

Interview for Higher Education Staff Working within the Model

Appendix J

	Research Factor Alignment	**Questions**
Introductory Questions	V, A	Tell me about yourself, your name, and where you work.
	--	Share something exciting that happened today.
Transition Questions	V, A	What is your role in the *intern as teacher* model?
	V, A	How many interns have completed the *intern as teacher* model from your institution?
	V, A, I	Do you partner with specific school districts for this model? Describe those partnerships.
Key Questions	V, S	What led you to implement the *intern as teacher* model at your institution? What was your ultimate goal for implementing this program at your institution?
	V, S, A, I	What processes did you undertake prior to implementing this model at your institution? (i.e., Training for mentors? Interns? Administrators? Documents? Communication with stakeholders?)
	S, A	How are mentors chosen to participate in the program? How are interns chosen?
	A, I	What interactions do you have with interns and mentors in the model? Are there others at your institution who interact with interns and/or mentors in the model?
	V, A, I	Describe a typical experience for mentors and interns who are working within the model in your institution. Are those experiences the same across all schools in the district? • Are interns expected to have completed all coursework prior to beginning their internship? Who makes those decisions? How are those decisions made? • Are interns guaranteed a job after they complete the *intern as teacher* program? How are those decisions handled?
	V, A, S	What resources do you provide to the *intern as teacher* model?
	V, S, A, I	How are mentors and interns evaluated? Are there specific protocols in place to determine whether a mentor should continue in their role as mentor teacher? How do you determine whether an intern is successful during the experience? What are the procedures for handling a situation where an intern is struggling and/or not making progress?

	V, S, A, I	Describe what you have learned as you implemented the *intern as teacher* model in your district. • Are there things you would change? Are there things you would keep the same? • What would you consider to be the strengths of the *intern as teacher* model?
	S, V	How would you define success in the *intern as teacher* model?
Ending Questions	---	***All things considered question:*** If you could provide advice to others considering implementing the model in their district, what would you say?
	---	***Summary Question:*** Moderator summarizes the session, then asks, "How well does that capture what was said here?"
	V, S	***Final Questions:*** Do you provide any documents to interns and/or mentors? Would you be willing to share?

NOTE: Research factor alignment letters stand for: variation, strategies, agents, interactions

Appendix K:

Initial Code Reduction

Appendix K

Code System	**Frequency**
Code System	908
attitude about school	3
beginning the process of implementing program	5
challenges	4
Changes needed	44
co-developing the next group of high performing teachers	25
considerations for building the program at schools	5
definition of intern teacher	27
evaluating interns	16
global pandemic	38
great parent involvement	1
hired to teach	48
induction support	12
Interns and Coursework	48
Internship Culture from Schools	99
investing in future teachers (+)	96
job guarantee	24
new program	60
opportunity for teachers to move into teacher leadership	4
Paraprofessionals	12
positive attitude toward model	21
preparing classroom to be interns at graduation	18
process of hiring intern	85
Questions to consider later for researcher and/or interviews	2
recruitment technique	14
success of the program	18
Supports for Interns	166
teacher shortage	13

Appendix L:

Reorganization of Initial Codes

Appendix L

Code System	Frequency
Code System	820
challenges	0
challenge for district	2
accessing TLS platform	1
challenge working with a school partner	2
Changes needed	44
intern was not prepared to be full time teacher	10
needs more preparation before starting	1
struggle at first	2
thrown into teaching	1
unsure of internship expectations at first	5
college/district prepare intern for what signed up for	1
changes made to the program from year 1 to year 2	12
aligning with Mack's description of changes	1
learned from our mistakes in process	2
decisions for next year to make program work in same school	2
evaluating the program	7
co-developing the next group of high performing teachers	1
instructional strategies	24
approach to instruction	1
how to teach	6
instructional aspects	1
meet the needs of students	4
small group instruction	1
strategies to help struggling students	2
data focused decision making	1
teach this content	2
thoughtful planning	1

Appendix M:

Informed Consent- Interview- Recorded

Appendix M

You are being asked to participate in an interview as part of a research study entitled "A Qualitative Case Study to Explore the *Intern as Teacher* Model in South Georgia", which is being conducted by *Michele A. McKie,* a *student* at Valdosta State University. The purpose of the study is to explore what constitutes success in the *Intern as Teacher* model for interns participating in a paid internship during their final semester of undergraduate education through a complex adaptive systems theoretical framework. You will receive no direct benefits from participating in this research study. However, your responses may help us learn more about the experiences of interns in the *Intern as Teacher* Model. There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life. Participation should take approximately 60 minutes. The interviews will be audio and/or video recorded in order to accurately capture your concerns, opinions, and ideas. Once the recordings have been transcribed, the recordings will be destroyed. No one, including the researcher, will be able to associate your responses with your identity. Your participation is voluntary. You may choose not to participate, to stop responding at any time, or to skip any questions that you do not want to answer. You must be at least 18 years of age to participate in this study. Your participation in the interview will serve as your voluntary agreement to participate in this research project and your certification that you are 18 years of age or older.

Questions regarding the purpose or procedures of the research should be directed to Michele A. McKie at mamckie@valdosta.edu. This study has been exempted from Institutional Review Board (IRB) review in accordance with Federal regulations. The IRB, a university committee established by Federal law, is responsible for protecting the rights and welfare of research participants. If you have concerns or questions about your rights as a research participant, you may contact the IRB Administrator at 229-253-2947 or irb@valdosta.edu.

Appendix N:

First Cycle Codes

Appendix N

Code System	Frequency
Code System	1361
a lot of factors into making it work	3
how to grow the program around current parameters of program	1
what are mentors doing in other programs?	1
attitude about school	3
back and forth conversation with the two like coteachers	1
beginning the process of implementing program	5
overview of intern as teacher	1
heard about program at a conference	1
behaviors	6
challenges	4
challenge for district	1
accessing TLS platform	1
challenge working with a school partner	2
Changes needed	44
intern was not prepared to be full time teacher	1
needs more preparation before starting	1
struggle at first	2
thrown into teaching	1
unsure of internship expectations at first	5
college/district prepare intern for what signed up for	1
changes made to the program from year 1 to year 2	9
aligning with Mack's description of changes	1
learned from our mistakes in process	2
decisions for next year to make program work in same school	2
evaluating the program	7
co-developing the next group of high performing teachers	1
instructional strategies	6
approach to instruction	1
how to teach	6
instructional aspects	1
meet the needs of students	4
small group instruction	1
strategies to help struggling students	1
data focused decision making	1

Appendix O:

Codes and Categories

Appendix O

Code System	Frequency
Code System	813
challenges	4
Changes needed	44
co-developing the next group of high performing teachers	25
definition of intern teacher	27
evaluating interns	16
hired to teach	48
induction support	32
Internship Culture from Schools	99
providing mentors who collaborated with other teachers	15
allowing teachers to try ideas presented by new teachers	2
trust	2
understanding of roles and responsibilities	34
value innovation	5
take instructional risks	7
Interaction with administrators	26
school culture	7
investing in future teachers (+)	96
Types of mentoring models	34
intern benefits	39
mentor stipend	7
how to pay interns and district budget	11
creating new partnerships to support intern	1
job guarantee	24
new program	65
beginning the process of implementing program	5
conceiving the intern as teacher model	7
discussions among university faculty	7
discussions with partners	13
plan for the model	7
rural district model	5
sustainability of program	3
university implementing the intern as teacher model	10

Appendix P:

Second Cycle Codes

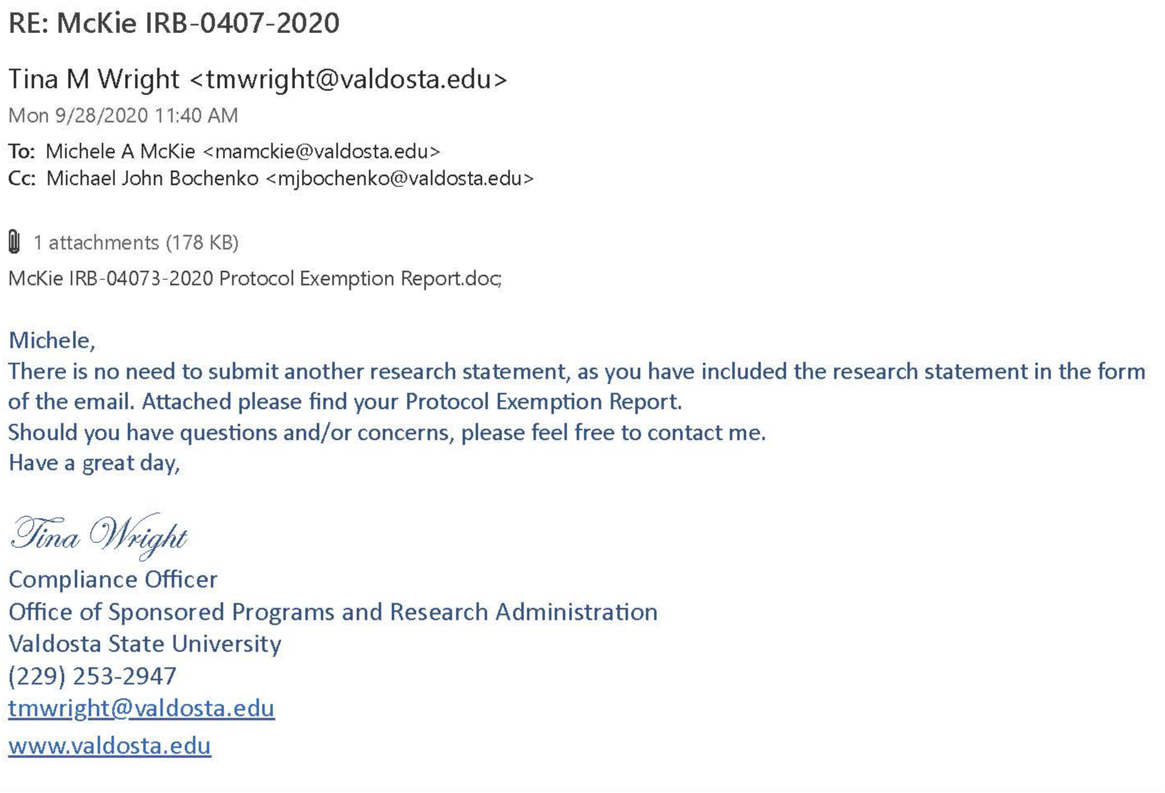
Appendix P

Code System	Frequency
Code System	818
beginning the process of implementing program	5
challenges	4
Changes needed	44
co-developing the next group of high performing teachers	25
considerations for building the program at schools	5
definition of intern teacher	27
intern guidelines	5
intern needs to prepare self	8
internship not for everyone	5
evaluating interns	16
hired to teach	48
induction support	12
overwhelming for new teachers in general	3
retaining teachers	1
Internship Culture from Schools	99
providing mentors who collaborated with other teachers	15
allowing teachers to try ideas presented by new teachers	2
trust	2
understanding of roles and responsibilities	34
value innovation	5
take instructional risks	7
Interaction with administrators	26
school culture	7
investing in future teachers (+)	96
Types of mentoring models	34
intern benefits	39
mentor stipend	7
how to pay interns and district budget	11
creating new partnerships to support intern	1
job guarantee	24
new program	60
conceiving the intern as teacher model	7
discussions among university faculty	7
discussions with partners	13
plan for the model	7
rural district model	5

Appendix Q:

IRB Approval Documentation

Appendix Q



RE: McKie IRB-0407-2020

Tina M Wright <tmwright@valdosta.edu>
Mon 9/28/2020 11:40 AM
To: Michele A McKie <mamckie@valdosta.edu>
Cc: Michael John Bochenko <mjbochenko@valdosta.edu>

1 attachments (178 KB)
McKie IRB-04073-2020 Protocol Exemption Report.doc;

Michele,
There is no need to submit another research statement, as you have included the research statement in the form of the email. Attached please find your Protocol Exemption Report.
Should you have questions and/or concerns, please feel free to contact me.
Have a great day,

Tina Wright
Compliance Officer
Office of Sponsored Programs and Research Administration
Valdosta State University
(229) 253-2947
tmwright@valdosta.edu
www.valdosta.edu

VALDOSTA
STATE
UNIVERSITY

Institutional Review Board (IRB)
For the Protection of Human Research Participants

PROTOCOL EXEMPTION REPORT

Protocol Number: 04073-2020 **Responsible Researcher:** Michele McKie

Supervising Faculty: Dr. Michael Bochenko

Project Title: *A Qualitative Case Study to Explore the Intern as Teacher Model in South Georgia.*

INSTITUTIONAL REVIEW BOARD DETERMINATION:

This research protocol is **Exempt** from Institutional Review Board (IRB) oversight under Exemption **Category 2**. Your research study may begin immediately. If the nature of the research project changes such that exemption criteria may no longer apply, please consult with the IRB Administrator (irb@valdosta.edu) before continuing your research.

ADDITIONAL COMMENTS:

- *Upon completion of this research study all data (email correspondence, questionnaire data, transcripts, participant name lists, etc.) must be securely maintained (locked file cabinet, password protected computer, etc.) and accessible only by the researcher for a minimum of 3 years.*
- *The Research Statement must be read aloud to each participant at the start of the recorded interview session.*
- *Exempt protocol guidelines permit the recording of interviews for the sole purpose of creating an accurate transcript. Once the transcript has been created, the recording **must be deleted** from all recording devises. Recordings are not to be stored and/or shared. The transcripts must be securely maintained with research data for three years.*

☒ ***If this box is checked, please submit any documents you revise to the IRB Administrator at irb@valdosta.edu to ensure an updated record of your exemption.***

Elizabeth Ann Olphie 09.16.2020
Elizabeth Ann Olphie, IRB Administrator

Thank you for submitting an IRB application.
Please direct questions to irb@valdosta.edu or 229-253-2947.

Revised: 06.02.16