Learning Partnerships in a Sustained Turnaround School: A Social Network Approach

by

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A dissertation submitted to the Graduate Faculty of
Auburn University
in partial fulfillment of the
requirements for the Degree of
Doctor of Philosophy

Auburn, Alabama December 16, 2017

Key words: learning partnerships, social network analysis, turnaround, leadership

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Abstract

Turnaround schools had gained attention since the Bush Administration and No Child Left Behind. Studies were published frequently on the blueprints of turnaround and sustainability in which leadership was a focal point. However, embedded in the research of turnaround schools was the emphasis on interpersonal relationships that evolved into being known as internal learning partnerships. Internal learning partnerships contribute to a turnaround school's success and sustainability; therefore, researchers look through the lens of the social sciences to study the connections in an organization using social network analysis and theory. The present study is a case study analysis of one elementary school that was once the lowest performing school in the state. Through the efforts of the district and state, the school was turned around into one of the highest performing schools in the state and maintained its status for over ten years. Through social network analysis, the researcher examined the interpersonal relationships of this high-performing elementary school to determine the strength of its internal partnerships.

Acknowledgements

I want to dedicate this dissertation to my two children Jessie and Cole. My hope is they will always believe in themselves as I believe in them and know they can accomplish anything in life their hearts truly desire.

I would like to express my appreciation and gratitude to my distinguished professors, Dr. Ellen Reames, Dr. Frances Kochen, Dr. Paris Strom, and Dr. Jan Teel. Without their guidance, I could not have successfully completed this project. I especially thank my Chair, Dr. Reames, whose guidance, friendship, and faith led me through this process from the beginning when she said, "Welcome to the Auburn family, Shannon" until the end, "Congratulations, Dr. McCurdy!" She has been a blessing to me through this journey.

I have been blessed in my life to have a circle of family and friends who always believed in me and whose patience and support I will forever be grateful. My mom was my biggest supporter by constantly reminding me that I could do anything no matter how tangled my responsibilities became with home, work, and school. My brother Matt has also been someone who has inspired me and one I have always respected. He has incredible strength and has taught me the importance of being true to myself. While finding humor in everything, he could make me smile and laugh when deadlines were overwhelming. My best friend Joyce Covington inspired and encouraged me every step of the way. On my long trips from Auburn, she would talk to me until she was sure I made it home safely, even at midnight. Finally, my husband Cody has been the biggest support, and without his patience and understanding, I don't know that I

would have pushed through and persevered. It was with the support from all of the people mentioned above, I have successfully accomplished a dream that for most of my life was a goal I knew one day I wanted to achieve but didn't know I could actually accomplish. Their belief in me helped me believe in myself.

Table of Contents

Abstract	ii
Acknowledgements	iii
List of Tables	ix
List of Figures	x
Chapter I: Overview of the Study	1
Conceptual Framework and Research Questions	4
Learning Partnerships	5
Collaboration	7
Communities of Practice	8
Background of J. Crawford Elementary School	10
Purpose of the Study	11
Research Questions	13
Significance of the Study	13
Assumptions	14
Delimitations	14
Definitions of Terms	14
Summary	17
Chapter II: Literature Review	18
School Turnaround	18

History	19
Principles of School Turnaround	23
Models for Turnaround	23
Principle 1: School Leadership	25
Principle 2: School Climate and Culture	28
Vision	30
Principle 3: Effective Instruction	31
Relationships	31
Principle 4: Curriculum, Assessment, and Intervention System	33
Alignment	34
Principle 5: Effective Staffing Practices	34
Building Capacity	35
Principle 6: Enabling the Effective Use of Data	35
Data-Decision Making	36
Principle 7: Effective Use of Time	37
Professional Learning Communities	37
Principle 8: Effective Family and Community Engagement	39
Parental Involvement	39
Extended Learning	40
Determining Success and Sustainability	41
Collaboration	42
Partnerships	44
Social Network Theory	48

SNA and Educational Leadership	51
SNA and Collaboration	53
Summary	56
Chapter III: Methods	58
Purpose of the Study	58
Research Design	59
Research Questions	62
Setting	63
School Demographics	64
Role of the Researcher	66
Participants	66
Limitations	67
Significance of the Study	67
Data Collection Procedures	68
Survey Development	68
Survey Analysis	68
Ethical Conditions	69
Data Collection	70
Summary	71
Chapter IV: Results	72
Purpose of the Study	72
Research Questions	72
Reliability of the Survey Instrument	73

	Descriptive Statistics	73
	The Community	73
	The School	74
	Participating Faculty	74
	Data Collection Instruments	76
	Results	77
	Research Question 1: What is the density and centrality of collaboration in high-performing turnaround school?	
	Purpose of the Study	49
	Research Question 2: To what extent do faculty perceive their internal lea partnerships to be collaborative in a sustained high-poverty high-performing school?	ng turnaround
	Research Question 3: What is the current level of collaboration compared level of collaboration in a high-poverty high-performing school?	
	Summary	91
Chap	eter V: Conclusion	92
	Research Questions	93
	Implications of Key Findings	93
	Research Question 1: What is the density and centrality of a high-perform poverty school?	
	Research Question 2: To what extent do faculty perceive their internal lea partnerships to be collaborative in a high-poverty, high-performing turnar	ound school?
	Research Question 3: What is the current level of collaboration compared level of collaboration in a high-poverty, high-performing school?	to the desired
	Guiding Framework	101
	Conceptual Framework	102
	Implications for Action	102

Implications for Future Research	104
Concluding Remarks	105
References	107
Appendix A: Institutional Review Board Documentation	117
Appendix B: Survey Instrument	117

List of Tables

Table 1. Research Questions and Data Collection Instruments	64
Table 2. ACT Aspire Results for 2014-2015 School Year	66
Table 3. Reliability Summary for Question 3	74
Table 4. Reliability Summary for Question 4	74
Table 5. Enrollment by Grade Level	75
Table 6. Ethnicity of Faculty	76
Table 7. Years of Experience at Given School	76
Table 8. Highest Level of Education	76
Table 9. Total Years of Experience	77
Table 10. Descriptive Statistics: J. Crawford Elementary, Reported Collaboration	78
Table 11. Centrality/Collaborating Actors	80
Table 12. Colors Indicating Roles/Positions	83
Table 13. Mean Scores of Survey Questions 3 & 4	86
Table 14. Current Level of Collaboration vs. Desired Level of Collaboration	87
Table 15. Descriptive Statistics: J. Crawford Elementary, Reciprocity	97
Table 16. Colors Indicating Roles/Positions	98

List of Figures

Figure 1. Relationship of School Leadership Work to Student Learning	4
Figure 2. Conceptual Model of Coordinated and Collaborative Apprenticeships	8
Figure 3. Learning Partnerships	11
Figure 4. ACT Aspire Score Comparison within County	24
Figure 5. Typology for Partnerships	48
Figure 6. ARMT Reading Scores.	65
Figure 7. ARMT Math Scores	66
Figure 8. Density of J. Crawford Elementary	81
Figure 9. Monthly Collaboration between Actors	82
Figure 10. Weekly Collaboration between Actors	82
Figure 11. Daily Collaboration between Actors	82
Figure 12. Daily Collaboration between Actors Colored Coded by Position	84
Figure 13. Central Actors.	95
Figure 14. Reciprocity of Ties	97
Figure 15. Daily Collaboration	99

Chapter I: Overview of the Study

Research supports the idea that highly collaborative k-12 schools form lasting collegial relationships focused on improving the educational environment for students. Relationships that work to create positive student outcomes and improve student achievement is known as learning partnerships. Therefore, struggling schools should receive the support necessary to strengthen relationships so that internal learning partnerships can be formed. Support for struggling schools begins with strong leadership. Strong leadership that fosters internal learning partnerships for struggling schools will increase and sustain student academic achievement.

In the past twenty years, the Professional Standards for Educational Leadership (PSEL) have evolved to provide a guide for leaders in times of educational change. The Interstate School Leaders Licensure Consortium (ISLLC) was initially created in the 1990s to design a set of national standards for educational leaders (Canole & Young, 2013). The group published the Interstate School Leaders Licensure Consortium Standards for School Leaders in 1996, and was adopted by the National Policy Board for Educational Administration (NPBEA) (Canole & Young, 2013). By 2005, the standards had been adopted by forty-six states, with a few states making slight modifications to the standards (Canole & Young, 2013). With these standards, states could monitor approved leadership preparation programs.

Changes in education means changes in educational leadership. In 2005, the NPBEA voted to revise the standards for educational leadership to meet the changing needs of education (Canole & Young, 2013). Three years later, the newly revised standards came to be called Educational Leadership Policy Standards: ISLLC 2008 (Canole & Young, 2013). The new standards reflected the current empirical research from the fields of education and educational leadership (Canole & Young, 2013). The standards were once again updated in 2015 and have

now become the Professional Standards for Educational Leaders. The standards identify the characteristics and skills required to complete a leadership preparation program; however, simply identifying standards is not enough to prepare leaders "to handle the daily challenges of leading school improvement" (International Center for Leadership in Education, Inc., 2012, p. 19).

A priority for states and districts was to set standards for principal effectiveness; however, even more importantly was selecting and training effective principals for schools that needed turnaround. Recruiting a principal for a turnaround school was not a simple task. Turnaround principals typically faced more challenges than other principals because schools in need of turnaround not only had a history of low student achievement, but they also had poor working conditions. Moreover, principals in turnaround schools have difficulty recruiting, hiring, and retaining quality teachers. The typical environment of a school in need of turnaround can be hostile. On the surface, schools needed turnaround because of one factor alone, student achievement. In the state of Alabama, a school was identified as a Priority school when it was in the bottom 5 percent of Title I schools based on overall achievement on state assessments or a graduation rate less than 60 percent (Alabama Plan 2020, 2013). The interventions determined for a Priority school were aligned with eight turnaround principles and were customized for each school (Alabama Plan 2020, 2013). After three years, a school could exit priority status when it was no longer in the bottom 5 percent of low-performing schools after two consecutive years or had a graduation rate of 70 percent or above for two consecutive years, and maintained a participation rate of 95 percent on administered assessments (Alabama Plan 2020, 2013). For these schools, districts must be selective when it comes to recruiting, hiring, and training principals for a turnaround school, and districts should follow the model for Professional

Standards of Educational Leaders (National Policy Board for Educational Administration [NPBEA], 2015.

The PSEL model (Figure 1) illustrates the relationship of school leadership work to student learning. The model reflects the idea that the standards are interrelated and support student learning. At the core of the PSEL model is student learning, which is surrounded by ten standards identified as critical areas of focus by a leader in school turnaround. Embedded in the rhetoric of the model and the standards is the focus on three main ideas: communication, collaboration, partnerships and relationships. The circles in the model are representative of the continuous flow internally and externally between the standards. The circle of communication containing the first three standards suggests the school shares a mission, vision, and core values, as does the message for standard two of ethics and professional norms. Equity and cultural responsiveness, standard three, is how the school leader, the principal, responds to stakeholders. The circle of collaboration contains the standards of rigor, which is the essence of the content in student learning. The circle of relationships contains the standards of personnel, involving the community, school personnel, faculty and staff. The confluence of the standards circulates into the core of the model, the circle of student learning. The overall model, a circle itself, represents the lifecycle of a school in which all standards must be present to maximize teacher performance and student potential. It is with the study of this circle of relationships that is included in the present study of internal partnerships. The following model was borrowed from PSEL, (NPBEA, 2015):

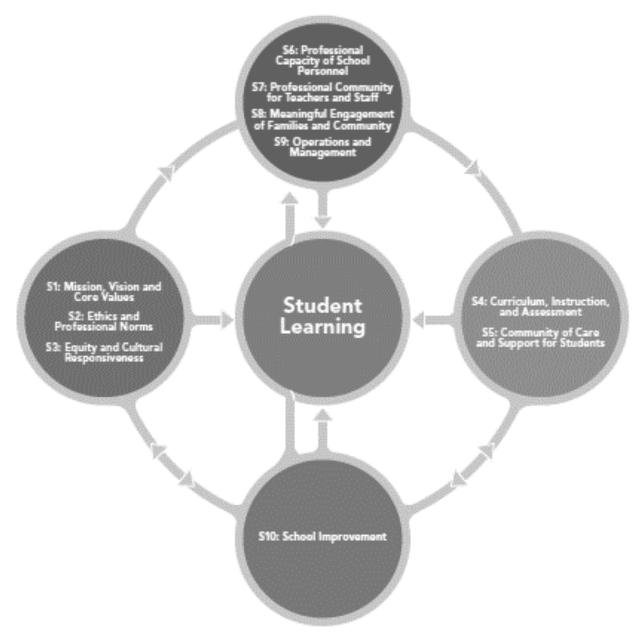


Figure 1. Relationship of School Leadership Work to Student Learning

Conceptual Framework and Research Questions

The conceptual framework for this study evolved from four lines of research: 1) The PSEL model; 2) The Relationship of school leadership work to student learning where leadership is at the core of student learning; 3) Barnett, Hall, Berg, and Camarena's, (2010), "A Typology of Innovative Partnerships"; and 4) Korach, Sidel, and Salazar's (2012) "Conceptual Model of

Coordinated and Collaborative Apprenticeships." The framework was then synthesized from Wenger, McDermott, and Snyder's (2002) model, "Communities of Practice" and the eight turnaround principles.

Learning Partnerships

Partnership is often used to describe any type of relationship that is on the spectrum of collaboration (Korach et al, 2012). Partnerships for a turnaround school is imperative for its success. Since a priority for reform is leadership, then districts should partner with universities, so they understand the district's needs and universities can train leaders to fit schools in need of turnaround. A leader in a turnaround school should have a combination of leadership competencies that were reported by Reform Support Network [RSN] (2016) to be successful in turnaround: Driving for results in which a leader is an achiever who will complete tasks required for success; influencing results, which meant the leader influences others in his or her behavior, way of thinking, and motivates others to achieve; problem-solving, which includes analyzing data and creating plans others could easily follow; showing confidence to lead, which shows the leader is always self-assured and will not break down, especially in a turnaround school where the environment could be toxic.

If a principal were trained specifically for turnaround schools, then he or she would be more equipped to know the expectations and could plan for ways to improve student achievement. Turnaround starts with leadership, but there are many more factors that play into changing a school's success. If a principal were trained to look at those components as critical areas of concentration, then the school would be more successful at being able to improve student achievement. Otherwise, without specific training in being a turnaround leader, areas in need of improvement may go unnoticed. Hence, if areas go unnoticed, then there may not be

gains in student achievement; gains may just be minimal and not substantial enough to get a school out of priority status. Equally important to the need of leadership preparation programs was the need for teacher training for teacher effectiveness.

Some may indicate that turnaround schools are in immediate need of change, and there would be no time to send teachers or a leader for turnaround training. However, training is imperative for a leader to understand the challenges of a turnaround school, and a leader should be equipped to be able to handle a school's unique challenges. If a district did not change the principal in a turnaround school, then the principal may not know what changes needed to occur because the principal may be likely to keep traditional ways of doing things, as pointed out by Herman et al. (2008). Districts invest in teachers; therefore, districts needed to invest in principals by giving them the training they need to tackle the toughest schools.

Once a principal is hired for a turnaround school, training and evaluation should be continuous. Districts should partner with universities to align their standards so that principals are well prepared and are supported in their turnaround efforts (Mendels, 2016). In fact, Mendels reported that districts indicated their efforts to work with universities and pre-service preparation programs had both positive and negative effects. Money is often the essence in determining time it takes for a principal to be trained according to standards set by districts and states, but for principals being hired for turnaround schools, their training should be more focused on being a transformational leader and having a deep understanding of turnaround principles. Korach et al. (2012) developed the model in Figure 2, which illustrates three elements that must be present in effective leadership and teacher training programs: a university preparation program, practical apprenticeships in schools, and space to allow reflective collaboration with the university and school.

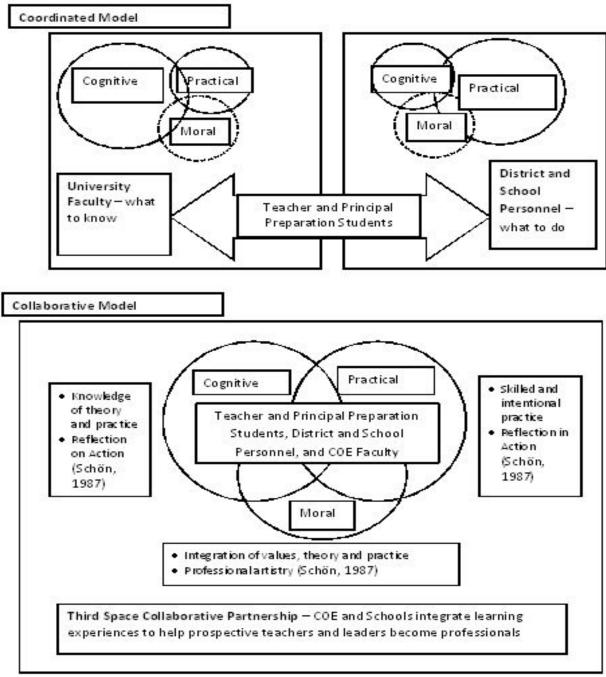


Figure 2. Conceptual Model of Coordinated and Collaborative Apprenticeships (Korach et al., 2012, p. 6)

Collaboration

Contained within the rhetoric of literature on turnaround schools was an argument for schools to nurture internal learning partnerships. The literal definition of collaboration is to

"work jointly" (DuFour & Eaker, 1998). However, an extension of the definition by research in the literature implied that working together means workers exchange expertise and knowledge and work towards a common goal, which in a turnaround school is to increase student achievement. From this extension of the term collaboration, a new term, partnership, emerges and implies a similar definition of "working together," hence "collaboration," with the common place of exchange within the boundaries of the school. Collaboration, community of practice, and partnerships, thus, are synonymous in the literature.

Communities of Practice

A school is a social network. The actors within a school shape school change through their interdependent relationships (Daly, 2016). Actors come together with common interests to share their expertise and have a mutual respect to form a community of practice (Wenger et al., 2002). A community of practice in a school setting is a group of educators who share their knowledge and interact continuously and find value in their interactions (Wenger et al., 2002). Hence, through continuous interactions, communities of practice are strengthened.

Communities of practice take many forms, yet despite their diversity, they share a common structure that includes a domain, a community, and a practice (Wenger et al., 2002). Wenger (1998) defines a domain as being a set of knowledge that brings people together, guides their learning, and defines their identity. A community is a relationship built on mutual respect and trust (Wenger, 1998). A practice is the specific body of knowledge the community develops and shares. "Participants in a community of practice contribute in a variety of interdependent ways that become material for building an identity" (Wenger, 1998, p. 271). Once domain, community and practice are synthesized, the fusion becomes known as a learning partnership.

Learning partnerships are defined by four critical areas identified by Wenger et al. (2002): purpose, members, actions, and leadership. A partnership itself must have a common purpose, which is driven by the school's mission and vision. Dependent on the learning partnership's purpose, the members of a learning partnership may be within the organization or outside the organization.

Learning partnerships are highly collaborative: Collaboration facilitates learning. Saltiel (1998) defines learning partnerships as being highly collaborative and focused on mutual goals. Research by Hord and Sommers (2008) developed the five dimensions of Professional Learning Communities (PLC): supportive and shared leadership, shared values and vision, collective learning and application of learning, supportive conditions, and shared practice. By fusing the five dimensions of PLCs in a continuous cycle, partnerships strengthen and create healthy collaborative cultures. According to Fullan (2001) if collaborative cultures are to be effective, they need to focus on the right things; for example, if collaborative cultures reinforce weak or ineffective instruction, then it becomes detrimental to student achievement. Therefore, once developed, learning partnerships need to be nurtured as a structure for continuous improvement for sustainability.

Represented below in Figure 3 is the improved learning partnerships. As conditions become healthier through continuous learning, then internal partnerships strengthen. The learning partnerships framework is the foundation of the present study. To sustain effective learning partnerships in a high-performing, high-poverty school, the principles of professional learning communities must be practiced within and through the best practices for school turnaround. Effective internal learning partnerships are, therefore, being studied as a key

component for sustaining turnaround capacity. The specific focus of the study is internal learning partnerships in a sustained turnaround school.

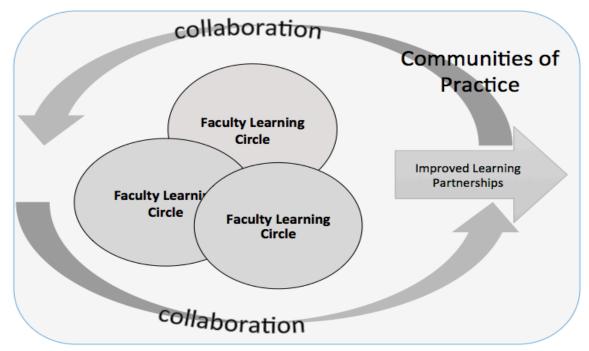


Figure 3: Learning Partnerships (Reames, in press)

Background of J. Crawford Elementary School

Located in the heart of low-income housing in the Southern region of the United States, J. Crawford Elementary was declared a failing school. For more than three consecutive years, the school was on the state's accountability watch as falling below minimum standards. Under the guidelines of the state, the school district reconstituted J. Crawford Elementary, changed the direction of student achievement, and sustained its turnaround longer than any other school in the district. The school district was committed to the Transformation model of turnaround. District leaders terminated the principal and faculty and empowered a new principal to handpick a faculty with the skills, knowledge, and personal commitment to follow through with a five-year commitment. Knowing the difficulty in attracting and retaining quality teachers and staff, the district offered a monetary sign-on bonus to principals and teachers for their students' academic

progress, which included a sign-on bonus of \$4,000 and a performance incentive at the end of each year based on the students' academic progress. Principals and assistant principals were also eligible to receive a bonus of \$12,000 and \$9,000, respectively. Additionally, professional development was provided in the summer to educate staff on understanding their students' backgrounds and throughout the school year to align and enrich curriculum and instruction while creating a positive school climate and culture. They also focused on implementing differentiated instruction and created a data warehouse so they could use data to drive instruction. To assist the principal in implementing these changes, they hired an achievement specialist and an academic coach to provide support for teachers in content, student motivation, and classroom management. Furthermore, they hired a social worker, school nurses, and counselors for students' mental and physical health. Once the principal and staff were retained, they gave the school an overhaul by improving the aesthetics of the campus.

Yet despite their strategic plans to make school improvements, the community was in an uproar about staff changes. Racial tension was at the forefront of the opposition, and the newly hired staff felt the animosity by the visual signs of desecration on the school campus when they arrived. Knives were stuck in the school grounds in front of the school, and shrimp were smeared on the outside brick walls. Dead cats were hung around the building. Clearly, the newly hired staff had to work at developing community relations before any partnerships were to be developed. The principal and staff themselves collaborated daily to form strong internal partnerships to overcome adversity in the community.

Purpose of the Study

The purpose of this study was to investigate the internal learning partnerships J. Crawford Elementary School established for turnaround success and sustainability. The school being

examined was a low-performing school for more than three consecutive years and was in dire need of turnaround. The school was identified by the Alabama State Department of Education (ALSDE) as a "priority" school, a Title I school that was among five percent of the lowest performing schools in the state. Once the school was taken over by the state, district leaders selected the transformation model as a starting point for reform. In 2004, at J. Crawford Elementary School, the superintendent terminated the staff, including the principal, and the reform efforts began. With the support of the state and district, the newly hired faculty and staff were able to turn the school around into a high-performing school and were able to sustain its status for more than a decade.

The research presented here will focus on the eight turnaround principles with an emphasis on transformational leadership and the importance of collaboration in fostering internal learning partnerships. Research indicated that there is not one recipe for turnaround that fits every school, but if schools hire a transformational leader who builds relationships by creating internal learning partnerships, then early gains in student achievement could lead to sustained success (Duke, 2006b; Fullan, 2002).

Focusing on faculty collaboration showed how internal collaboration could improve learning partnerships (Wenger et al., 2012). The faculty learning ovals indicated collaboration and professional development frequently occurred and was unending. With a cycle of continuous collaboration, internal learning partnerships developed as knowledge was communicated and exchanged, and as the cycle continued, internal learning partnerships strengthened before learning partnerships were formed. As changes developed during a school turnaround process, internal relationships responded to the demands (Wenger et al., 2002). Since the process was continuous, a turnover in faculty that would naturally occur in a turnaround

school would change the dynamics of the partnerships. However, since the cycle is fluid, as a wheel of continuous turning, internal learning partnerships would contribute to sustaining the achievement of students in high-performing schools.

Research Questions

The researcher aimed to answer three central questions in the following study:

- What is the density, centrality, and reciprocity of collaboration in a sustained highpoverty high-performing turnaround school?
- To what extent do faculty perceive their internal learning partnership to be collaborative in a sustained high-poverty high-performing turnaround school?
- What is the current level of collaboration compared to the desired level of collaboration in a sustained high-poverty high-performing turnaround school?

Significance of the Study

Research has been written about partnerships in rural turnaround schools that continue to be low-performing and rural turnaround schools that were above-average in student achievement. This study is different in that it provides a retrospective case study analysis of learning partnerships and collaboration in a turnaround school that was high-performing and had sustained high-performing status for over a decade. By examining and analyzing the network of social relations in a high-performing turnaround school, researchers can determine change strategies for school turnaround. The research on turnaround schools was significant, but little research had been considered on learning partnerships in high-performing sustained turnaround schools. Moreover, in the area of social networks in educational organizations, there is limited research. Further research needs to be done on school networks investigating the quality of

content in internal learning partnerships. This study will allow us to examine the process of change in a turnaround school from a more social and relational vantage point.

Assumptions

The researcher made the following assumptions in regard to this study:

- 1. The study participants at the school would have direct knowledge of the history of the school during its turnaround phase.
- 2. An ethical and trustworthy rapport between the researcher and the participants would result in accurate and honest responses in the interview and/or the survey.
- 3. A quantitative analysis approach was the best method to use for this research.

Delimitations

This study included only one school that was low-performing over a decade ago that turned around into high-performing status and has sustained its academic achievement. The antecedent of the current network of J. Crawford Elementary was not explored, and the network has changed over time. Faculty attrition is expected in a turnaround school. The content of collaboration was not explored in depth because the study is retrospective, and the faculty had changed over time, but the quality of collaboration was addressed in the reciprocity of ties.

Definitions of Terms

- Actors: Also called "nodes" can be persons, teams, organizations, concepts (Borgatti
 & Foster, 2003). The connections between a group of actors make up a network.
- Alters: The other actors with whom ego has direct relationships (Brass, 2012).
- Betweenness Centrality: The extent to which an actor falls between any other two actors on the shortest path between those two actors.

- Centrality: The property of a node's position or structural importance in a network (Borgatti, Everett, & Johnson, 2013).
- Centralization: The difference between centrality scores of the most central actor and those of other actors in a network.
- Closeness Centrality: The extent to which an actor is close to or can easily reach all the other actors in the network. In terms of measurement, it is the number of ties it takes to reach everyone else in the network.
- Collaboration: To work jointly (DuFour & Eaker, 1998).
- Collaborative Learning Partnership: the interaction of collaborators who work together on mutual goals (Saltiel, 1998).
- Communities of Practice: "Communities of practice are groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger et al., 2002, p. 4).
- Degree: The number of direct links with other actors.
- Density: The number of connections between actors divided by the number of total possible connections and can be thought of as how tightly knit a network is (Daly & Finnigan, 2010).
- Ego: A focal actor in a network (Brass, 2012).
- Frequency: How many times or how often the link occurs.
- In-Degree: The number of directional links to the actor from other actors (in-coming links).
- Network: A group of actors and ties representing a type of relationship (Daly, 2010).

- Nodes: The individual actors in a network that show the size of the network.
- Out-Degree: The number of directional links from the actor to other actors (out-going links).
- Partnerships: "...a shared commitment, where all the partners have a right and an obligation to participate and will be affected equally by the benefits and disadvantages arising from the partnership" (Carnwell & Carson, 2016, p. 6).
- Professional Learning Communities: Professionals who have expertise in a specialized field collaboratively investigating how they can better achieve their goals (DuFour & Eaker, 1998).
- Reciprocity: A mutual tie between actors.
- Size: The number of actors in a network.
- Social Network Theory: A frame for researchers to use in answering questions of the
 extent to which information is shared throughout an organization and the
 relationships of the actors sharing the information as well as the degree to which the
 information is shared (Daly, 2010).
- Structural Holes: Extent to which an actor is connected to alters who are not themselves connected.
- Tie: The relation that constitutes the network. Ties are sometimes called edges, lines, links, arcs, or connections and can be directional.
- Transformational Leadership: One who is able to lead with a vision, self-confidence, inner-strength, and one who focuses on a collaborative culture, teacher development, and problem-solving (Bass, 1985, Leithwood, 1992).

• Turnaround: In the literal sense, turnaround means to change from a bad situation to a good situation. In the context of schools, turnaround is used "to describe a movement to positively transform the performance of chronically failing school systems and schools" (Kutash, Nico, Gorin, Rahmutullah, & Tallant, 2010, p. 11).

Summary

The demand for school improvement efforts have become commonplace since No Child Left Behind (NCLB) and Every Student Succeeds Act (ESSA). Focus and Priority schools have gained statewide attention and districts are searching for restructure models that will fit the needs of every school. Turnaround schools have many areas for leaders to focus on for school improvement. Although much of the research suggest leaders incorporate time for collaboration, the level of collaboration is not defined. It is only through continuous cycles of collaboration that partnerships are formed and strengthened so student academic achievement improves. Once partnerships are established, they should remain constant so the student body's academic performance becomes sustained.

Chapter 1 provides an introduction to the study with a brief background of turnaround and the Professional Standards for Educational Leaders, 2015. The remainder of the study is organized into five chapters with a bibliography and appendixes. Chapter 2 presents a review of the literature with three main sections: School Turnaround, Social Network Analysis, and Partnerships. Chapter 3 delineates the research design and methodology of the study detailing the procedures followed for data collection. Chapter 4 presents the data and gives a discussion of the findings. Chapter 5 provides a summary, conclusions, and recommendations for future studies.

Chapter II: Literature Review

The purpose of this study is to explore a retrospective case study of a school that was turned around by its district by following the transformation model of turnaround, and it has sustained its turnaround for over a decade. The researcher seeks to understand the current level of collaboration and determine who central actors are in a high-poverty high-performing turnaround school by measuring the elements of density, centrality, and reciprocity using the properties of social network analysis. By understanding the elements of turnaround, collaboration, and social network analysis, the present study will contribute to the body of literature helping educators discover key factors in sustaining turnaround.

This chapter presents a review of the literature related to turnaround schools and the use of social network analysis for understanding social networks of schools. The chapter is divided into four sections. The first section provides a brief history of school turnaround, outlining the four turnaround models, the eight principles of turnaround, and a history of J. Crawford Elementary. The second section is on collaboration and the essence of collaboration in school reform. The third section describes internal learning partnerships and its relevance in school reform. The fourth section provides a description of social network theory and analysis and how social network analysis is being used in the field of educational leadership and how SNA explains collaboration within a social structure.

School Turnaround

Change necessitates the beginning of turnaround, but sustaining a successful turnaround requires tenacious improvement efforts that focus on many facets of change. "Similar to rock climbing, where 'protection' devices are placed in the rock to prevent falling below the last chunk of progress made, educators at a turned-around school must hold the current level of

achievement steady while simultaneously working to improve it" (Duke, Tucker, Salmonowicz, Levy, & Saunders, 2008, p. 119). Failing schools were in constant scrutiny of the public and were looked down upon as "failing," but when they were successfully turned around and sustained, their actions should be studied and replicated. The review of the literature revealed actions in schools that were supported through research, but all of the actions were not evident in every school that was studied. Actions for turnaround complemented the needs of the school, and there was not one recipe for a successful turnaround; however, research presented in this review emphasized the most common best practices found in schools across the country. Educational reform has evolved through a history of evaluating commonplace instructional and school improvement practices into creating stringent standards for every school to improve and every child to be successful.

History. Following the report on the necessity of school reform, *A Nation at Risk* in 1983, The NCLB Act of 2001 set the standard for schools to measure adequate yearly progress (AYP) through student academic achievement in reading and math. Although each state set its own benchmark for achievement, every school had to show yearly growth in student academic achievement. Schools that did not make AYP for at least three consecutive years, were in the bottom five-percent of the state, and showed a lack of progress were considered low-performing, were in urgent need of improvement (Alabama Plan 2020, 2013). These schools were labeled as "priority" schools and their districts received direct intervention from the Alabama State Department of Education (ALSDE). The root causes of schools to enter turnaround status may be different for every school; therefore, researchers suggested that leaders investigate how schools reached the point for turnaround, so leaders would have a starting place to develop an action plan to turn them around (Duke, 2004).

The Stanford Achievement Test was a standardized test that was used by the state of Alabama to assess students' mastery of state content standards. The state required all third and fourth-grade students to take the reading, mathematics, and language subject tests; fifth grade students, reading, mathematics, language and science; sixth grade students, reading, mathematics, language, and social science; seventh-grade students, reading, mathematics, language and science; eighth grade students, reading, mathematics, and language test (Alabama Plan 2020, 2013). On a school level, educators used the scores to track data on individual performance. However, the purpose of the assessments was for the state to use the test scores as a measurement to track changes in districts' and schools' performance. These measurements were used as indicators as to how well or how poorly a school was performing.

In 2004, the district of J. Crawford Elementary was forced to reconstitute five of its failing schools. J. Crawford Elementary was labeled by the ALSDE as a Priority School. It was a Title I school whose Stanford Achievement scores and Alabama Reading and Math Test (ARMT) scores indicated that was in the bottom five-percent of the state and showed no progress for three consecutive years. The school's district had to develop a plan for the school's turnaround. The turnaround plan began with choosing a transformation model of turnaround in which the district hired a new principal (Rasberry, Hirsch, Montgomery, Muhammad, & Raschko, 2006). The district gave the new school principal autonomy to recruit and hire a faculty who would commit to a minimum of five years of service. As an incentive, the district offered the newly hired staff sign-on bonuses of \$4,000 in addition to \$4,000 performance incentives based on student achievement and performance evaluations at the end of the year. The principal and assistant principal also received performance incentives of \$12,000 and \$9,000 respectively. Additionally, the district provided support positions in the schools for an achievement specialist,

an academic coach, social workers, counselors, and school nurses. The district also committed to providing on-going professional development to "enhance the alignment of curriculum, instruction, and assessment" (Rasberry et al., 2006, p. 2). The transformation plan was implemented at J. Crawford Elementary in the 2004-2005 school year.

During the year of implementation, the Center for Teaching Quality (CTQ) worked with the district's local education foundation to monitor and document progress of the plan in the five transformation schools (2006). Based on interview data, the CTQ (2006) determined that school-based and district-wide leadership was a key factor in the success of the schools' transformation (Rasberry et al., 2006). Teachers indicated they were comfortable in working at the school because of the strong presence of leadership whose direction and vision the principals extended with their positive learning environment. Despite the principal's usual responsibilities of budgeting, hiring, discipline, facilities, scheduling, and strategic planning, the principal focused on teaching and learning. The principal and assistant principal were visible in classrooms, and they communicated high expectations, which transferred to expectations set by teachers in their classrooms (Rasberry et al., 2006). Moreover, the principals created time for collaboration and spent time seeking out additional resources to make the transformation successful.

For J. Crawford Elementary, from initially hiring a new staff, the beginning of reconstitution began by improving the school's aesthetics. The grounds were enhanced by repaving the parking lot, landscaping around the building, and replacing a tattered sign in the front of the school with a new marquee proudly displaying the school's name. Walls were painted on the inside of the building, and a media center was opened to lend books to students for the first time (M. Mitchel, personal communication, July 6, 2017).

In May 2013, the ALSDE set the new standards for the identification of reward schools. In 2009, J. Crawford Elementary was named a Blue-Ribbon School and Torchbearer Reward School, and received Ed Trust's Dispelling the Myth Award. The determination of achievement was based on the following criteria: not a priority school, not a focus school, have at least 95% participation rate in the "all students" subgroup and all applicable Elementary and Secondary Education Act (ESEA) subgroups, have a graduation rate above the state average, be in existence at the time of the award, have at least 80% poverty rate, have above state average of students scoring Level IV on both the reading and the mathematics sections of the ARMT, have at least 95% of grade 12 students pass all required subjects of the Alabama High School Graduation Exam (AHSGE), and Alabama Alternate Assessment from 2012-13 for Level III and Level IV.

For over ten years, J. Crawford Elementary was a high-performing school when compared to other schools in the same district with the same or close to the same poverty rate. The Public Affairs Research Council of Alabama (PARCA) published the results in Figure 4 below, which illustrated a comparison of student academic achievement of ACT Aspire results in the district from the 2014-2015 school year. As seen in the illustration, J. Crawford Elementary was 99% poverty and 30% proficient in ACT Aspire. In comparison to other schools in the district, J. Crawford ranked above the national average in schools of poverty.

Percent Proficient on the ACT Aspire Grades (3-8) with School Poverty Percentage as context Subject: All **Subgroup: Poverty** 100% 80% J. Crawford Elementary Percent Proficient 99% poverty 0 0 30% proficiency 0 60% 40% B 20% 0% 90% 80% 70% 40% 30% 20% 10% 0% 100% 60% 50%

Figure 4. ACT Aspire Score Comparison within County

Principles of School Turnaround

"Just as the origins of low performance and the process of school turnaround are not the same for every school, there exists no 'recipe' for sustaining success" (Duke et al., 2008).

Percent Poverty

Models for Turnaround. The Turnaround models evolved over decades of revising school reform. The idea of school reform was initiated by the report: *A Nation at Risk: The Imperative for Educational Reform* in 1983. This report by then Secretary of Education, Terrel H. Bell, noted shortcomings of the American education system and ignited a nationwide reform effort. When the NCLB Act was passed in 2001, schools and districts were held accountable if they failed to make AYP, gradual increases in graduation rates and student achievement on state performance assessments. Even though NCLB was a turning point for accountability measures, it was not without flaws, and over the next eight years, the U.S. Department of Education would evaluate and revise NCLB to Every Student Succeeds Act under the Obama Administration (Kutash et al., 2010).

To determine if a school was in need of turnaround, the ALSDE identified schools that ranked in the bottom five percent of statewide assessments in reading/language arts and mathematics. The assessment results included "all students," which meant all students tested, including students with disabilities and students with limited English proficiency. If the school was persistently low-achieving, then it was considered a failing school. "Persistently low-achieving" meant that the school was identified as a Tier I or Tier II school and was in "the lowest-achieving five percent of Title I schools in improvement, corrective action, or restructuring in the State" (U.S. Department of Education, 2010).

A starting point for school turnaround was for districts to consider the four models of turnaround presented by the Obama Administration:

- Turnarounds. Replace the principal and rehire no more than 50 percent of the school's staff; adopt a new governance structure; provide job-embedded professional development; offer staff financial and career-advancement incentives; implement a research-based, aligned instructional program; extend learning and teacher planning time; create a community-orientation; and provide operating flexibility (Kutash et al., 2010).
- Restarts. Transfer control of, or close and reopen a school under a school operator
 that has been selected through a rigorous review process. A restart model must enroll,
 within the grades it serves, any former student who wishes to attend (Kutash et al.,
 2010).
- School Closures. Close the school and enroll students in other, higher-achieving schools (Kutash et al., 2010).

• Transformations. Replace the principal (no requirement for staff replacement); provide job-embedded professional development; implement a rigorous, transparent, and equitable teacher-evaluation system; identify and reward school leaders and teachers when student achievement increases, and remove those who do not; offer financial and career advancement incentives; implement comprehensive instructional reform; extend learning-and teacher-planning time; create a community-orientation; and provide operating flexibility and sustained support (Kutash et al., 2010). Additionally, the transformation model required instructional reform strategies that required the local education agency (LEA) to implement an instructional program that is research-based and aligned with state standards and continuously use data to assess and inform educators on student achievement

After selecting a turnaround model, the school district put into place a plan of intervention strategies aligned to the district's needs. The strategies suggested by the Alabama Plan 2020 were eight principles a school must focus on interdependently for turnaround: 1) school leadership; 2) school climate and culture; 3) effective instruction; 4) curriculum, assessment, and intervention system; 5) effective staffing practices; 6) enabling the effective use of data; 7) effective use of time; and 8) effective family and community engagement.

Principle 1: School Leadership. The proposed intervention strategy for school leadership was to "provide building administrators the authority and autonomy to hire and manage teacher placement, budget, and school schedule; review the performance of the current principal to determine if the principal has a track record of improving achievement and has the ability to lead the turnaround effort; replace current principal if indicated; and connect the principal with a mentor" (Alabama Plan 2020, 2013, p. 78).

Two of the four turnaround models, turnaround and transformation, necessitate replacing the principal. If replacing the principal was one of the actions taken by a district to turnaround a school, the district must be strategic in choosing a leader with a leadership style that can handle the challenges of turnaround schools. Choosing school leaders for turnaround schools currently rely on degrees obtained, years of service, or a history of success leading schools (Reform Support Network, 2016). Research by Leithwood (1984) suggested the best leadership style for school turnaround is a transformational leader. As defined by Korach et al. (2012), transformational leaders have the ability to influence change within their own community and organization. Furthermore, transformational leaders heightened awareness to stakeholders of organizations' needs and had vision, self-confidence, and inner strength to stand up for what they see was right or good, not what was popular at the time (Bass, 1985). Leithwood (1992) extended Bass' definition by suggesting transformational leaders focus on three key areas: a collaborative culture, teacher development, and problem-solving. Additionally, Fullan (2014) suggested leaders focus on individual and collective capacity of teachers, school climate, parent and community relations, and teaching and learning. Transformational leaders also allow teachers to be collaborative in resolving problems and being able to adjust their instruction based on students' needs (Leithwood, 1992). Moreover, transformational leadership promotes innovation and supports changes to instructional practices (Hallinger, 2003). However, Fullan (2014) indicated that a school in need of reform needs more than a transformational leader; a school in reform needs an instructional leader who also focuses on instructional abilities of teachers and student learning (Marks & Printy, 2003).

In a study of 24 restructured schools, researchers Marks and Printy (2003) discovered that when transformational leadership was integrated with instructional leadership, improvement in

student achievement was substantial. The researchers acknowledged the effects of transformational leadership as needed for school reform such that the leader possessed ideas, innovation, influence, and consideration for the individual in the process of change (Marks & Printy). However, in their study, schools in reform needed more than those qualities of a transformational leader; schools in reform needed an instructional leader who collaborated with teachers on curriculum, instruction, and assessment (Marks & Printy). The integration of these two leadership styles with shared leadership across the school supported improved student learning outcomes (Marks & Printy).

The principal is the driver of change, and a new leader is the signal for change (Herman et al., 2008). Although a principal alone cannot make a school turnaround, a principal leading a turnaround should have a core set of leadership practices and take key actions for success (Klar & Brewer, 2013; RSN, 2016). The principal should hire staff who will support high expectations for everyone, not just students, and take responsibility to handle the day-to-day operations of a school, and the principal should see these responsibilities are carried through (Chenoweth, 2010). Furthermore, the principal should hire teachers who are willing to collaborate on instructional practices such as curriculum mapping, lessons, and common assessments (Chenoweth, 2010). Based on collecting and analyzing data, the leader must make an action plan for school improvement.

Principals who are leading change must take necessary action to initiate the effort. To demonstrate principals have the ability to lead the turnaround effort they should identify and communicate to stakeholders their expectations needed in the improvement process (Alabama Plan 2020, 2013). Herman et al. (2008) identified actions principals must take such as spending more time in the classrooms, monitoring teacher and student performance, being accessible to

staff and students, and dealing directly with discipline issues. Also, principals must be involved with the learning taking place in the classroom which involves monitoring programs and initiating change to constantly align practices to fit the learning goals of students (Hord & Sommers, 2008). Moreover, principals must also be able to collaborate with teachers and staff to gain perspectives and resolve problems that continue to lead them in the direction of the school's vision (Leithwood, 1992). In addition to leadership practices, the Reform Support Network (2016) identified critical competencies for a successful turnaround leader: Achievement, initiative and persistence, monitoring and directedness, planning ahead, impact and influence, team leadership, developing others, analytical thinking, conceptual thinking, and self-confidence (p. 2). According to the Reform Support Network (2016), these core competencies should drive the turnaround process.

Although a transformational leader holds unique leadership styles and has a core set of competencies, the leader candidate must be the best candidate for the position of principal at a turnaround school. Districts train aspiring principals; therefore, they should also develop partnerships with local universities to align educational standards and train turnaround leaders (Mendels, 2016). As the needs of education change, the professional educator standards should be continuously reviewed and adjusted to fit the evolving needs of schools (NPBEA, 2015). Furthermore, as the needs of districts change, university leader and teacher preparation programs should adapt to those changes by preparing trained educational professionals to fulfill their needs. Hence, one of the goals of hiring a transformational leader is to promote a positive, professional school culture (Chenoweth & Theokas, 2013; Leithwood, 1992;).

Principle 2: School Climate and Culture. The Alabama Plan 2020's (2013) intervention strategy for improving school climate and culture was "implement a culturally

responsive support system to improve safety, discipline, attendance, and other non-academic factors such as social, emotional, and health needs of all students" (p. 78). "Effective leaders inspire a shared vision and create a culture in which each individual aspires to a positive vision for success" (International Center for Leadership in Education, 2012, p. 27). The focus of a principal to a school in turnaround in its first year should be the climate and culture of the school. "The culture of a school consists of thought, language, the use of symbols and images and such other aspects as visions, missions, logos, trophies, rituals, legends, and important celebrations and ceremonies" (Canole & Young, 2013, p. 22). The culture should be a "culture of collaborative improvement" (Fullan, 2014, p. 63), where there are high expectations and a support for learning (Finnigan & Daly, 2010; Fullan, 2014). A strong collaborative culture that has proven to be successful in turnaround schools is one where trust has been established with the principal, and the principal supports growth and development of all of its learners (Fullan, 2014). Moreover, for continuous school improvement, the principal nurtures and builds capacity of others within the school in which they all support and each other with a common focus on student learning (Hord & Sommers, 2008).

According to the National School Climate Center (2016), the climate of the school referred to the daily life of students, parents, staff and teachers, and climate reflected the practices of teaching and learning, relationships, and routines. School climate also reflected the safety and orderliness of the school in the aid of student learning (Fullan, 2014). A focus on school climate impacted student achievement as shown by research that indicated a positive school culture existed among high-performing schools (Suber, 2012). If a school did not have a positive climate, as measured by surveys, then there were steps the principal could take to improve the climate (Norton, 2015). Research by Norton suggested the principal should give

employees opportunities to learn and grow, and the principal should learn with them. The principal should also recognize and reward the school's achievement and look forward towards what the school can become (Norton, 2015). Furthermore, the principal should be positive and communicate high expectations for teachers and students (Chenoweth, 2010; Chenoweth & Theokas, 2013).

Promoting high expectations for students was not the only factor in changing school climate and culture; principals should also ensure students and staffs' safety (Parrett & Budge, 2009). A study by Duke, Tucker, Salmonowicz, and Levy (2007) revealed that students are not likely to learn when they are concerned about their safety in school. An environment of respect, support, and trust was critical to school improvement (Finnigan & Daly, 2010). According to the NPBEA (2015), the core of student learning was a safe, caring, and supportive school learning community. If the community had a negative perception of the school, then the principal should focus on developing immediate support (Herman, et al., 2008).

Vision. To initiate change for a turnaround school and to promote a positive school climate, the principal should create a shared vision and mission. A vision statement defined by the International Center for Leadership in Education, Inc. (2012) was "a statement of the envisioned future" (p. 60), and a shared mission statement "describes what the school intends to do (p. 62). The effect of creating a shared vision and celebrating early wins was to build a positive school learning environment that supported the social, emotional, and learning needs of all students (Alabama Plan 2020, 2013). The shared vision should be unique and target the culture of the school and the community (Norton, 2015). Teachers and staff need to be informed of the direction in which the leader was taking them, so by creating a shared vision and communicating high expectations, leaders can begin change (Klar & Brewer, 2013). Leaders can

begin the process of creating a shared vision by bringing staff together and asking a simple question: "What do we need to do to move forward?" (Dodman, 2014, p. 58). When the process of establishing a shared vision was completed, the vision must communicate a positive message of success, and after the process of establishing the vision, all of the school's work should be driven by the school's mission, vision, and core values (Hassel & Hassel, 2009; NPBEA, 2015).

Principle 3: Effective Instruction. After creating a shared vision, the school staff will know exactly what direction students are going in achievement. The Alabama Plan 2020's (2013) proposed intervention strategies for effective instruction was to "implement rigorous core instruction aligned with College and Career Readiness Standards (CCRS); implement differentiated instruction for all students based on individual needs; use instructional coaches to provide support for research-based instructional strategies" (p. 78). As progress is monitored through data, school leaders should celebrate early gains in students' achievement for the morale of students and staff. Once teachers and students see progress and celebrate their successes, they will gain momentum and continued in a positive direction focused on high goals (Hassel & Hassel, 2009). Early wins in student academic achievement will cast doubt to vocal naysayers, and teachers can focus on skills and standards that students need to learn while improving school climate (Chenoweth, 2015). More importantly, early, quick wins may only be sustainable if leaders build capacity with their staff (Day, 2007). Principals should build relationships to make teachers and students feel important (Duke, 2004).

Relationships. Building relationships with stakeholders creates a trusting environment that is critical for improving school culture and school turnaround. The Professional Standards for Educational Leaders (NPBEA, 2015) recognized the impact of relationships on teaching and student learning. Teachers made an impact on student learning; therefore, teachers should be

"agents" in the turnaround process of school reform, and their effectiveness was contingent upon their working conditions (Cucchiara, Rooney, & Robertson-Kraft, 2015, p. 260). Teachers' working conditions can be improved by administration being visible around the school, which will also help set expectations for students' behavior (Chenoweth & Theokas, 2013).

Furthermore, principals should support their teachers by giving them opportunities for collaboration such as by clustering classrooms by grade levels so that teachers have more collaboration time (Chenoweth & Theokas, 2013). According to Ferris (2012), teachers should build relationships among themselves and take a team approach. "Social relationships support innovative climates in which teachers feel free to experiment and collectively invent new teaching strategies that meet the needs of their students" (Moolenaar & Sleegers, 2010, p. 113).

Teachers should not only work at building relationships among themselves but also with students, so they can learn their students' needs and be able to provide differentiated instruction. Part of working on relationships is understanding where students are from and knowing what their unique needs are so they can individualize instruction to meet their diverse, yet unique needs (Parrett & Budge, 2012). In a study by Klar and Brewer (2013), one principal drove his teachers around the community so that teachers could see and understand the conditions in which their children were living. Other principals in school turnaround have executed similar programs. In a study by Parrett & Budge (2009), one principal made home visits part of their summer program and invited students to a two-week summer camp to build relationships with teachers and among peers. Home visits and summer camps gave teachers opportunities to interact with students, which gave teachers a cultural awareness that will assist them in knowing how to give students support (Ferris, 2012). Furthermore, teacher relationships can be instrumental in helping students overcome their circumstances (Shepard et al., 2012). Their

understanding of students' circumstances can then assist them to individualize instruction and focus on students' futures, which becomes more relevant for them (Shepard et al., 2012).

Ultimately, research has shown that students who have relationships with their teachers felt more connectedness with school and ultimately achieved more (Shepard et al, 2012).

Principle 4: Curriculum, Assessment, and Intervention System. The Alabama Plan 2020's (2013) intervention strategies for curriculum, assessment and intervention system was to "align curriculum, resources, and assessments with CCRS; implement research-based instructional strategies; use formative assessments to guide instruction; and provide appropriate interventions to meet the needs of all students" (p. 78). Teacher effectiveness and instructional support was critical in school turnaround. Turnover in personnel was eminent with any school, and hiring the right staff was another consideration for principals in the turnaround process. Some teachers would remain, but recruiting, selecting, and hiring the right people in positions and giving them continued support was vital to a positive school climate (Norton, 2015). Two core competencies a principal should look for in hiring a new teacher were having a strong instructional practice and a commitment to continuous learning (Fullan, 2014). Once hired, principals can support teachers in their effort to improve instruction through professional development catered to teachers' needs and the organization's needs (Ferris, 2012). Teachers need training to remain up-to-date with teaching practices and to improve instruction (Day, 2007). By collaborating with teachers, principals grow to understand the professional development needs of their teachers. Suber (2012) intimated teachers need meaningful professional development so they in turn can meet their students' needs. Principals need to manage instructional time so that instruction was at the center of learning (Chenoweth &

Theokas, 2013). Teachers must also push students to exceed mediocrity and hold students to high expectations and learning in the classroom (Chenoweth & Theokas).

Alignment. Consistent expectations of teachers, students, and parents were not the only form of alignment. Curriculum, resources, and assessments must also be aligned both vertically and horizontally. According to the Daggett System for Effective Instruction, vertical alignment suggests schools within the system and instructional leadership should be consistent, and horizontal alignment indicates teachers and resources should be aligned at the school level (International Center for Leadership in Education, Inc., 2012). For accountability, teachers needed to be able to understand skills students were going to be tested on, and principals needed to know exactly what state assessments were going to grade their school (Duke et al., 2007). Therefore, it became important to align all of the resources, such as the curriculum, textbooks, daily lessons, and assessments to the state standards (Chenoweth & Theokas, 2013). Furthermore, when teachers were given a program that is aligned with the curriculum and the standards, the program must be used to its capacity and fidelity for maximum effectiveness (Duke et al., 2007). Alignment of the curriculum was one focus on initial turnaround efforts; once alignment occurred, then a shift of the focus should be on the individual student (Duke et. al, 2008).

Principle 5: Effective Staffing Practices. Intervention strategies proposed by the Alabama Plan 2020 (2013) for effective staffing practices include "recruit and hire effective leaders and staff; evaluate the strengths and areas of need of current staff; provide effective professional development aligned with the school improvement process; establish a comprehensive system to support teachers with content, pedagogy, and implementation of CCRS; establish a comprehensive system to support teachers struggling with meeting the

instructional needs of students with disabilities, low achievement, and ELS; realign and retain staff as needed" (p. 78). "Exemplary leaders spend time building and nurturing relationships based upon mutual respect and caring" (International Center for Leadership in Education, Inc., 2012, p. 27)

Building Capacity. Cultivating leadership capacity of others is supported by the NPBEA (2015), and researchers believe distributing leadership to teachers is an effective strategy in the turnaround effort (Ferris, 2012). Such a strategy would include for example, having expert teachers share their knowledge and skills to bring positive change (Chenoweth & Theokas, 2013). According to Ferris (2012) teachers should work with principals to build capacity and be empowered. This sense of empowerment creates a team relationship between the principal and the teachers (Suber, 2012). Duke and Landahl (2011) studied a successful turnaround principal who focused on teacher effectiveness and leadership capacity. Distributing the leadership communicates that more than one person can initiate change, and it communicates confidence and trust of staff (Day, 2007). If the focus is on the individual, then over time, capacity will not grow. Teachers are not meant to be isolated by walls. In addition to building capacity with teachers, principals should build capacity with support staff that allows staff to make decisions within their role set of the school (Chenoweth, 2010).

Principle 6: Enabling the Effective Use of Data. Intervention strategies proposed by the Alabama Plan 2020 (2013) for enabling effective use of data was "utilize data to make instructional and curricular decisions; use data to identify and prioritize needs; provide professional development on analyzing and using data to inform instruction and provide collaborative time for review and use data" (p. 78).

Data Decision-Making. Data should drive decision-making, but data can only help leaders understand problems. Data should be shared to raise awareness of the teachers' strengths and students' weaknesses. Leaders and teachers should collaborate and analyze data from an inventory of multiple sources as opposed to one measurement (Herman et al., 2008). Sources should not be limited to student achievement; the inventory should include attendance, classwork and homework, discipline, class size, staffing, and use of instructional time. By designing schedules that allow content area teachers collaboration, teaching teams will be strengthened, but planned time should be organized. By monitoring data, teachers and school leaders can assess instruction and achievement and set goals for continuous improvement (Chenoweth, 2010). Moreover, teachers can make informed decisions to drive instruction to meet the needs of diverse learners (International Center for Educational Leadership, Inc., 2012). If teachers are unclear about what skills the students are mastering, then they do not know what direction their students are heading (Duke et al., 2007). Analyzing data will identify what skills students are lacking or which students are in need of assistance, so they can provide support for additional learning opportunities for students after school, before school, or on the weekends (Parrett & Budge, 2009).

Discipline, class size, staffing, and use of instructional time are types of data that will give leaders an indication of what is working and what is not working (Herman et al., 2008). Furthermore, by sorting through and interpreting data, teachers can collaborate and discover which teachers are more successful, so they can help their less successful peers (Chenoweth, 2010). Also, by disaggregating data, teachers can meet the individual needs of their students (Suber, 2012).

Principle 7: Effective Use of Time. Intervention strategies proposed by the Alabama Plan 2020 for effective use of time was "design and/or redesign time to meet individual student needs and increase time for learning; provide time for teacher collaboration focused on improving teaching and learning" (p. 79). Response to Instruction (RTI) was an intervention system that was in place at every public school across the country as mandated by the Disabilities Education Improvement Act (IDEA) 2004. RTI was constructed for students who were performing below grade level or were struggling with behavior problems and were considered at risk for dropping out of school. When implemented effectively, RTI provided an intervention plan for struggling students that supplemented general instruction by inviting parents, students, teachers, and the community to a form a partnership among them (Hierck & Weber, 2014). Hierck and Weber (2014) identified the critical components of an effective RTI: High-quality instruction for all students, identification of at-risk students, progress monitoring for at-risk students, responding to students' immediate needs, and data-driven decision making by problem-solving teams. With an effective intervention system in place, students who were atrisk will had a more likely chance of closing the gap of achievement and graduate from high school. An important component of an effective RTI system was planning time for the problemsolving teams to collaborate on best practices for student improvement.

Professional Learning Communities. An effective turnaround strategy for increasing collaboration with teachers is to schedule time for teachers and staff to create a community of learners. Based on the research by DuFour and Eaker (1998) Professional Learning Communities (PLC) is an essential component of school reform. PLCs provide educators with a forum for sharing ideas and learning from each other (Beaty & Pankake, 2003). For PLCs to be effective, educators must have mutual trust and shared leadership between teachers and

administrators (Beaty & Pankake, 2003). DuFour and Eaker (1998) identified six characteristics essential to effective PLCs:

- 1. A shared mission, vision, and values: A shared understanding and commitment to guiding principles of what the school believes and where they want to go.
- 2. Collective inquiry: Members of the organization question the status quo and seek innovative ways of answering questions.
- 3. Collaborative teams: A group who learns as a collective whole, not individual growth.
- 4. Action orientation and experimentation: Group members work towards the shared vision by taking action and taking risks.
- Continuous improvement: By reflecting on actions and asking essential questions,
 PLCs are part of a cycle of school improvement.
- 6. Results orientation: In a cycle of continuous improvement, the group focuses on the results rather than intentions.

PLC is a time set aside for collaboration among teachers within grade levels or within content areas where they can discuss knowledge, instructional strategies, and learning strategies. Time for PLCs may include daily common planning time or a scheduled day once a month where principals provide substitutes for teachers to collaborate. Research by Smith, Johnson, and Thompson (2012) revealed an effective strategy of implementing PLCs includes formulating summative assessments, reviewing student data, and developing a plan for their students' learning. PLCs is a time where teachers who have the most success discuss individual student progress, share their best instructional strategies, and learn from each other what is working (Fullan, 2014). A team approach supported by principals by allowing collaboration time provides a strong culture and has provided successful results to schools studied by researchers

Johnson, Reinhorn, and Simon (2016). Meeting in teams provides a common instructional language.

Principle 8: Effective Family and Community Engagement. Family and community engagement means to develop parents and the community as involved partners to support classroom instruction at school and home (U.S. Department of Education, 2010). The intervention strategies proposed by the Alabama Plan 2020 for effective family and community engagement was to "hold community meetings to review school performance; discuss the school interventions to be implemented; complete school improvement plans in line with the intervention model; collect perception surveys; engage parents, family, and community in the school learning process with a focus on academic achievement for all students" (p. 79). "A partner can bring specific skills and expertise to the enterprise, offer a different perspective on issues, increase available resources, serve as a source of support in difficult times, and help to achieve mutual goals" (Dufour & Eaker, 1998, p. 238).

Parental Involvement. Extending a relationship with the student to the home is another element of school turnaround. Just as businesses create partnerships with external entities, schools should create partnerships with parents to achieve mutual goals (DuFour & Eaker, 1998). Parents should be encouraged to attend school-sponsored activities, volunteer at school, and support efforts by school officials to improve school attendance (Duke et al., 2007). Parents' expertise on their own children can help teachers as they try to meet their academic needs (DuFour & Eaker, 1998). By creating partnerships with parents, not only do students benefit, but schools do as well (DuFour & Eaker, 1998). Principals having conversations with parents breaks down barriers, and building capacity with parents creates an extension of school in the home.

"When parents view the school in a positive way, they are more likely to provide the necessary financial support for quality education" (DuFour & Eaker, 1998, p. 238).

The framework for school-parent partnerships recommended by DuFour & Eaker, 1998, was developed by the Center on School, Family, and Community Partnerships and used by the National Parent Teacher Association. The framework was comprised of six components:

- 1. Communicating: Schools should have regular, meaningful communication with parents and parents with schools.
- 2. Parenting: Schools should provide resources to parents to assist them in understanding and providing their children with basic needs.
- 3. Student Learning: Schools should provide resources to parents to help them understand the academic needs of their children.
- 4. Volunteering: Schools should provide opportunities for parents to volunteer in the school to assist by enhancing curriculum with bringing in their expertise.
- 5. Making Decisions: Involve parents in the decisions to communicate a shared partnership.
- Collaborating: Connect families with resources and people in the community who
 might help contribute to student achievement.

Extended learning. Connecting families with resources was considered extended learning. Extended learning was an extension of the normal school day where students' social, emotional, and health needs were being met (U.S. Department of Education, 2010). Schools can help meet their students' needs by providing opportunities for schools to connect families with organizations to reach students who were behind in their achievement levels. Furthermore, extended learning opportunities may include school-based programs such as after-school

tutoring, before-school tutoring, Saturday school, summer school, weekend or vacation catch-up sessions, expanding the school program for full-day pre-kindergarten or kindergarten, or any time outside the normal school day hours (Parrett & Budge, 2009; U.S. Department of Education, 2010). The long-term effects of school-based or community-based programs help in building relationships with families and students to offer encouragement and incentives for students to stay in school (U.S. Department of Education, 2010).

Determining success and sustainability. Through turnaround models, turnaround principles, and external supports, the goal was to build capacity with districts and schools so they can sustain continuous improvement (Alabama Plan 2020, 2013). A successful turnaround was defined by Brinson, Kowal, and Hassel (2008) as a school that generated substantial gains in student achievement in one year that were then sustained over a period of time. Duke and Landahl (2011) insisted the easy part of turnaround was raising test scores. In their study on sustained turnaround, Duke and Landahl (2011) found that change was not the same for every school; however, common factors existed: principals focused on being instructional leaders, disciplinarians, and monitors of student progress; and common attributes increased student achievement: changes in leadership, school policy, programs, organizational processes and procedures, personnel and staffing, classroom practices, parental and community involvement, and school facilities (p. 93). However, as student achievement measurements on state assessments climb in school turnaround, other considerations should be made, such as leading indicators and school-based practices, in determining its success (Lutterloh, Cornier, & Hassel, 2016). In his study of success and sustainability, Fullan, (2005a), identified eight elements of sustainability: Public service with a moral purpose, commitment to changing context at all levels, lateral capacity building through networks, intelligent accountability and vertical

relationships (encompassing both capacity building and accountability), deep learning, dual commitment to short-term and long-term results, cyclical energizing, the long lever of leadership (p. 14). Measuring the culture of a school can be viewed by considering a decrease in suspensions and expulsions, student attendance, faculty attendance, retention of staff, lower dropout rates, and higher graduation rates (Kutash et al., 2010). Culture may also be determined by surveys of stakeholders. In the current literature, social network theorists have measured culture by using social network analysis.

Collaboration

"School leaders may serve as a catalyst for teacher collaboration" (Goddard, Goddard, Kim & Miller, 2015, p. 503). As the instructional leaders of the school, principals may be creative in allowing and planning for collaboration among their faculty, but not allowing collaboration time created challenging working conditions (Cucchiara et al., 2015). Before the start of the school year, Duke et al. (2007) emphasized the need to design master schedules to allow teachers in the same content area a common planning, or principals may implement Professional Learning Communities (PLC) to provide opportunities for teachers and support staff to collaborate. Principals could also re-organize classroom placements in the school by placing teachers in closer proximity to increase collaboration (Chenoweth, 2015). By putting processes and structures in place, teachers will be provided with productive opportunities for collaboration (Goddard et al., 2015).

Goddard et al., (2015) defined teacher collaboration focusing on three dimensions: instructional policy, frequency of collaboration, and levels of formality. Specifically, they suggested collaboration be "frequent, formal, and focused on instructional improvement" (p. 526). During collaboration, "when teachers engage in professional discourse, they can build

upon their unique content, pedagogical, and experiential knowledge to improve instruction" (Goddard, Goddard, & Tschannen-Moran, 2007, p. 880). When teachers saw improved student learning outcomes as a result of improved teaching practices, it created self-efficacy (Goddard et al., 2015). The study by Goddard et al. (2007) surveyed 452 teachers in 47 elementary schools that supported the position a positive correlation existed in teacher collaboration and student achievement outcomes. Therefore, organizing time for teachers to collaborate was important in instructional practices and student learning (Goddard et al., 2007).

However, principals chose to incorporate collaboration time, time was not enough unless collaboration was meaningful (Chenoweth, 2015). Goddard et al. (2015) suggested time could be informal, random, organic conversations in the hallways; however, their study showed formal time that was structured and substantial had benefits to student learning outcomes. To be most effective, teachers should use their collaboration time to combine knowledge and expertise and have meaningful conversations that suggested being transparent, which involved not working in isolation and opening classroom doors (Chenoweth & Theokas, 2013). Opening doors allowed for observations and then teachers can have discussions about the learning taking place inside and how they can improve their instructional practices (Goddard et al., 2007). The practice of observing each other was identified as "one of the most powerful forms of intensive teacher collaboration that principals can support"; by observing each other, they form common beliefs of good teaching practices (Goddard et al., 2015, p. 526). Furthermore, Fullan, (2005b) suggested collaboration should not simply be within a group but have external connections as well. Goddard et al., (2015) contended that principals who provided instructional guidance with teachers through frequent monitoring had improved student learning outcomes. Marks and Printy (2003) suggested the improved learning outcomes were the result of the collaborative efforts of

principals and teachers since teachers had knowledge of their students and how they learn. They further explained that when leaders cultivated teacher leaders, school performance was enhanced. Additional research suggested by Fullan (2014) recommended teachers should allow students to be partners in their own learning. The idea of external connections suggested forming partnerships with stakeholders outside the boundaries of the school who aim for a common goal to increase student achievement.

Partnerships

Sharing common goals to increase student achievement is at the heart of establishing learning partnerships. Schools in turnaround can see immediate results with improved student achievement, but achievement is reached through the collaborative efforts of administrators, faculty and staff, parents, and the community. "A good school is not a collection of good teachers working independently, but a team of skilled educators working together to implement a coherent instructional plan, to identify the learning needs of every student, and to meet those needs" (Boudett, City, & Murnane, 2015, p. 2). When people work together for a common goal, they develop a partnership. DuFour and Eaker (1998) suggested the notion of partnership by stating, "Schools collaborate with the wider community" (p.249-250). By establishing a partnership, schools and the community can help families access available resources; schools can connect educational programs with the realities of the workplace, and partnerships could create community service opportunities for students. Furthermore, partnerships respond to the needs of adult learners and make a more effective contribution to the community (Barnett et al., 2014). Struggling schools could also tap into external resources and partner with local agencies for assistance (Day, 2007). Herman et al. (2008) suggested the idea that principals should visit and

learn from other schools facing similar circumstances to assist with school turnaround and principals should partner with other principals.

A partnership is a relationship that develops when people are working together to achieve a common goal (Saltiel, 1998). The relationship in a partnership evolves over time, according to Barnett et al. (2014), who differentiated the terms partnership from collaboration in that partnerships "aim at achieving a mutually desired outcome, one that is not likely to be realized without the involvement of both parties" (p. 489). Furthermore, researchers indicated the intent of partnerships was to create an alliance where resources and expertise were shared (Barnett et al, 2014; Parrett & Budge, 2009). Partnerships have gained popularity in teacher and principal preparation programs. Universities have established partnerships with districts to better prepare principals and teachers to fit the needs of schools. In Korach et al., (2012) Hora and Miller (2010) considered three categories for partnerships that contain different relationships, goals, and structures: 1) limited partnerships where organizations direct others' actions 2) horizontal relationships with distinct structures in place, and 3) collaborative partnerships that include blended structures. Most university and district partnerships fit into the limited or collaborative partnership categories (Korach et al., 2012). However, the most progressive model is a collaborative partnership that considers university faculty and school-based personnel as equal partners and puts them in a third space collaborative partnership (Korach et al., 2012). The third space theory allows for mutual collaboration on innovative practices in principal and teacher preparation programs (Korach et al., 2012). The programs aligned with districts' needs for school improvement and integrated core values and best practices for both principals and teachers while also teaching theory (Korach et al., 2012).

In the 1990s, partnership development and sustainability became a key ingredient for school reform (Barnett et al., 2014). Schools formed partnerships with businesses, universities, and agencies for a variety of reasons: Business partners provide financial support, universities provide expertise by way of professional development to teachers, and agencies help children in need of healthcare, social welfare, or assistance with criminal justice, all to better serve children (Barnett et al., 2014). However, according to Parrett and Budge (2009), one of the most important internal partnerships principals could establish was with district office personnel to gain support for their schools' needs. Figure 5, "A Typology of Partnerships" from Barnett et al. suggested that as collaboration becomes more extensive, collaboration becomes more powerful; hence, the partnership developed from simple vendor models to symbiotic relationships could develop a new type of organization.

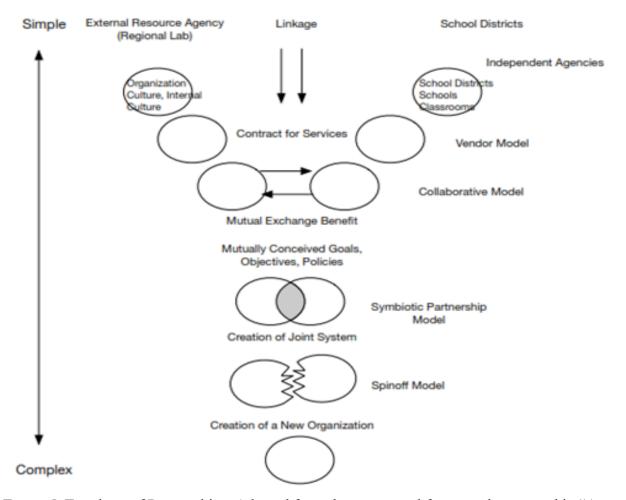


Figure 5. Typology of Partnerships. Adapted from the conceptual framework proposed in "A typology of partnerships for promoting innovation," by B. G. Barnett, G. E. Hall, J. H. Berg, & M. M. Camarena, 2010, Journal of School Leadership, 20, p. 2.

From the Barnett et al. (2014) model to the conceptual model used for the present study draws from four areas of research: professional learning communities, collaboration, learning circles, and learning partnerships. Figure 6 below, from Reames (in press), draws on the idea of creating improved learning partnerships among stakeholders through action learning circles in a community of practice. A community of practice is comprised of members who have a relationship because they share a common set of beliefs and who share resources that include knowledge, a set of ideas, and practices (Wenger, 1998). By participating in professional learning communities, internal partnerships within grade levels, across grade levels, and with

building-level administrators develop and will assist in providing rigorous instruction. The depths of action learning circles were drawn on the research of Wade and Hammick (1999). In their definition, learning circles is a problem-solving approach to provide teachers with opportunities to engage in discussions on relevant educational issues and reflect on their own practice with their colleagues. Moreover, learning circles help teachers discuss problems and provide emotional support as they struggle with demands of the profession (Wade & Hammick). The opportunities for teachers to collaborate strengthen their ties into becoming stronger learning partners. The following conceptual framework was designed to capture this idea.

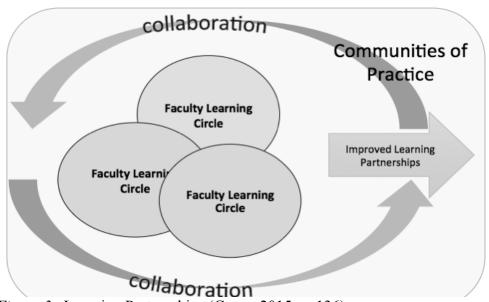


Figure 3. Learning Partnerships (Grace, 2015, p. 136)

Social Network Theory

"At the group level, the structure of a group—the pattern of who is connected to whom—is as consequential for the group as are the characteristics of its members" (Borgatti, Brass, Halgin, in press). As research has shown, the eight turnaround principles necessitate concentration and interdependence for successful school reform. Several components of the turnaround principles pointed towards understanding relationships. "Network theory refers to the mechanisms and processes that interact with network structures to yield certain outcomes for

individuals and groups" (Borgatti & Halgin, 2011, p. 1168). Because social network theory has allowed researchers to explore the nature of relationships, it is being widely explored in the field of educational leadership. Social network theory provides a perspective in examining relationships and how relationships within an organization are viewed as explanations of network outcomes (Borgatti et al., in press). Explanations are based by actors' positions in the network and the overall structure of the network (Daly, 2010b). Social network analysis described network interactions within an organization and how the network may affect change (Daly & Finnigan, 2009). For schools taking desperate measures for reform, leaders need to "develop networks of skilled support that are required for turnaround" (Resnick & Scherrer, 2012, p. 188).

Education is no different than any business in that it is a living organism comprised of people who are unique in themselves and in their relationships with others. Using social network analysis data and software, researchers can construct a qualitative understanding of a network by representing it visually (Borgatti et al., 2013). The network in a school is represented by a set of actors or nodes linked by ties; visually, on a network diagram the points are actors, and the lines are ties. The characteristics of the points and lines can be used to communicate information about the actors and their relationships. For example, researchers may use attributes to tie actors together or multivariate statistics to correlate the layout of the nodes. Visually, the researcher can assign colors or sizes to the actors to show differences or similarities. The researcher can also show the strength of relationships with line thickness or arrowheads to convey directional ties. Depending on the purpose of the study, various attributes and relationships can be shown to communicate network dynamics.

Social network analysis provides a framework for which to view a network's relationships and their influence on efforts of change (Daly, 2016). "Social network research

suggests that informal webs of relationships are often the chief determinants of how well and quickly change efforts take hold, diffuse, and sustain" (Daly, 2010a, p. 2). In a social network, pairs of relationships are embedded within small groups of three or four, who are embedded in a larger organization (Daly, 2016). In social network research, people in a network are expressed as "actors" or "nodes." Their connections to each other are "ties" or "arcs," and ties can be either outgoing or incoming. Strong ties are important in sustainability. Ties are regarded as conduits through which information flows (Moolenaar, 2012), and the ties an actor has in a network determines the amount of resources the actor can access (Daly, 2010b). Researchers view directional ties going out, known as outdegree, as the actor seeking communication from another. Indegree indicates the actor is being sought by another. The measure of density in a network is the total number of ties between actors divided by the number of possible ties and can be thought of as how "tightly knit a network is" (Daly & Finnigan, 2010, p. 120). Density measures were important in determining how quickly information flowed within a network. The less dense a network was, the slower the information flowed.

Through social network analysis, measures of centrality can illustrate how much an actor's importance or power is within the network, which may also be interpreted as how much opportunity the actor can influence or be influenced by others in the network. The actor's position in a network was important to researchers. In social network theory, central actors were considered to be more important because they were sought by others believably because they had more resources, which could be knowledge, or connections to others in the network (Daly, Lion, Tran, Cornelssen, & Park, 2014). Furthermore, the central actors had more influence over the network, and actors on the peripheral were less influential (Daly et al., 2014). In a turnaround school, where change is imminent, understanding the centrality of the actors and the

relationships of those implementing change becomes a key ingredient for success and sustainability because changes in relationships will have consequences for the organization and their access to resources (Daly, 2016). If a principal were central in a network, the principal would be considered a "broker" of the network and be considered to have social control over resources (Daly, 2012). If the principal were the broker and left the network, the principal would take the social connections or resources from the network, having an adverse effect on school improvement; however, a new principal would bring new connections or resources to a network (Daly, 2012). Therefore, for a turnaround school to be successful, change leaders had to work to not only gain the support of key influencers among staff and the community, but also work on their relationships with key influencers (Brinson et al., 2008; Daly, 2016), and social network analysis gives leaders an understanding of the social processes where change was either supported or constrained (Daly, 2010b). Building bridges among staff, with the community, and other successful schools was the goal of social networking, and social network research may provide answers to questions about how a network provides opportunities and constraints that affect outcomes of school reform.

SNA and educational leadership. "Social network analysis (SNA) is a systemic approach used to quantify and visualize the ties and overall structure of formal and informal networks" (Daly & Finnigan, 2009, p. 3). Synthesizing social network theory and educational leadership research offered an avenue to theorize, explore, and measure relationships within an educational organization and the impact of change in those relationships as in the transformation model of school turnaround. However, little research existed in a social network analysis approach to educational leadership.

If relationships within and outside the educational organization are mutual, then they could be considered learning partnerships. Naturally, central office and school leaders are considered partners in the turnaround process because the goal of successful turnaround and sustainability is mutual. Social network theory suggested information and innovation should flow both vertically from central office to school leaders and horizontally among school leaders (Finnigan & Daly, 2010). If leaders were isolated from the information that flowed through them, or if the network was fragmented, then change was not likely to occur (Daly, 2010b; Finnigan & Daly, 2010). Therefore, since a fragmented network suggested the flow of information was inhibited, relationships at all levels must be supported, and researchers would expect to find a dense network in schools in turnaround. Researchers Moolenaar and Sleegers (2010) found the denser teacher teams were, the more likely they were willing to try new ideas and improve their instructional practice.

In social network analysis, ties between actors can be directional or reciprocal. A school in turnaround should show reciprocal ties, which would indicate information flowed mutually between actors. Leaders must develop trust with one another and engage in an exchange to help modify their own practices (Finnigan & Daly, 2010). Communication should be frequent, and leaders should share information with their staff as it becomes available. The more opportunities for collaboration, the more likely information and new ideas are exchanged and put into practice (Moolenaar & Sleegers, 2010). As a turnaround leader implements time for collaboration and works on strengthening relationships, the leader must be able to identify support and resistance (Finnigan & Daly, 2010). In addition to building relationships between central office and school leaders, the organization should network with people outside the organization to receive

innovative ideas (Finnigan & Daly, 2010). By networking with people outside the organization, leaders can develop partnerships in which they work together towards a common goal.

SNA and Collaboration. A social network perspective on teacher collaboration can help researchers understand teaching, learning, and educational change by providing a theoretical lens to visualize and evaluate the interrelations of teachers in schools (Moolenaar, 2012). Social network research can offer insights into how teachers support or constrain educational reform by implementing initiatives or passively accepting but resisting change (Datnow, 2012). Social network theory assumes that resources flow through interactions if teachers are connected through social relationships in their schools (Moolenaar, 2012). By providing opportunities for collaboration, principals help cultivate strong teacher communities where teachers develop trust and exchange expertise, practices, and innovative ideas (Moolenaar & Sleegers, 2010). Moolenaar (2012) also suggested that if teachers are not connected in their school, then the disconnectedness may constrain the school's efforts for reform because teachers do not have access to resources. Cross, Borgatti, and Parker (2002) identified elements affecting collaboration: hierarchical levels, horizontal departments, classroom location, and project staffing. Research has found that teachers typically cluster together according to either structural balance, friendship-based relationships, or homophily, similarities in educational level (Moolenaar, 2012). Therefore, principals need to be creative in developing opportunities for joint staff to collaborate within and across teams (Moolenaar & Sleegers, 2010).

Social network analysis can identify staff in a school network who are central or on the peripheral. Identifying the central person in a school network can assist the principal in decision-making so the group as a whole would be more effective (Cross et al., 2002). Furthermore, if principals made teachers in the network aware of their positions within the network, then they

could work on improving their connectivity (Cross et al., 2002). Teachers in a peripheral role of the network may be a part of a dyad or triad of teachers, but they may also be a part of a structural hole. If teachers are identified as being on the peripheral, then the principal can create ways to engage them in the whole network so their expertise would be more effectively utilized (Cross et al., 2002). A principal can also create collaborative conditions in which teachers became knowledgeable of the expertise of others so that they would be encouraged to seek out those with more expertise (Coburn, Choi, & Mata, 2010). Social network research has shown that teachers seek others who had more expertise than those with less experience or were within their grade level (Coburn et al., 2010). Moreover, a teacher on the peripheral was also at a higher risk for turnover or leaving the network (Cross et al., 2002). Consequently, a teacher who was part of a structural hole may assist in creating innovative climates because he or she may bring in resources from outside the network, or may constrain a network by causing it to be fragmented (Moolenaar, 2012). Research by Coburn, Russell, Kaufman, & Stein (2012), supported the position that school networks vary in dimensions, and no single dimension supported sustainability, but they found tie strength, expertise, and depth of interactions were most important in sustaining reform efforts.

The study by Coburn et al. (2012) showed how implementation of a new math initiative created a dense network in the schools they studied because the district provided strong support. At the beginning of implementation, schools received school-based instructional coaches and professional development from the district. However, when district leadership changed and new leadership redirected their focus, the district withdrew formal coaching from schools, and the demands on rigorous teaching practices changed teachers' motivation (Coburn et al., 2012). At the beginning of the initiative, three distinctive features were present in the teachers' networks:

high-depth interactions, high-level of expertise, and high-quality of reform-related instruction, all of which were supported by the district. Once the support dissipated from the district because of directional shifts, the study found notable changes in the social networks; however, more importantly, researchers found some teachers could maintain reform-related strategies (Coburn et al., 2012). The teachers who sustained reform-related instruction were the ones who had support at the beginning of implementation to "develop a strong understanding and deep enactment of new instructional strategies," and support continued in year 2 (Coburn et al., 2012, p. 156). Their conclusion to this study indicated that in order to sustain reform, networks need a combination of expertise, strong ties, and high-quality, in-depth interactions among teachers in the first year of implementation and in year 2 (Coburn et al., 2012; Datnow, 2012). This study was important in understanding network changes and sustainability when implementing strategies for reform, and suggested that teachers played a greater role in reform at the school level (Datnow, 2012).

With understanding that teachers are critical to the success of reform initiative, principals should consider teachers' social ties to peers before implementation, according to researchers Cole and Weinbaum (2010). In their study of teachers' attitudes towards implementing a new literacy reform, Cole and Weinbaum (2010) found the qualities of a social structure influenced the way teachers felt toward a new reform thereby influencing the implementation's success. In previous research, they revealed two types of teacher networks: expressive and instrumental (Cole & Weinbaum, 2010). An expressive network is one based on friendship that has developed in the workplace; an instrumental network is one that has evolved because of their professional context. With the understanding of these two types of teacher networks, both serve to transfer attitudes about the reform, but the expressive group has more potential for influence (Cole & Weinbaum, 2010). Therefore, they contended leaders should target teachers with social

ties to peers if they want a new reform to be accepted and successfully implemented. Cole and Weinbaum (2010) implication was "leaders need not reach every teacher directly, but can work to create a cadre of teachers who will sway others in a positive direction (p. 94). Understanding the social ties that exist among teachers can influence reform efforts in schools, especially schools in turnaround.

Summary

Researchers have identified ten essential elements that are necessary to sustain change: an agreed-upon focus or mission, a set of core beliefs, distributed leadership, a focus on literacy, additional learning time and expert help for struggling students, the institutionalization of teams, ubiquitous data-sharing, continuous staff development based on student needs, continuous assessment, and intensified efforts to inform and engage parents and community members (Duke, 2006a). The key to sustaining change though is the school leader, the principal (Day, 2007). As change in personnel is eminent, relationships shown through social network analysis can change over time; therefore, a problem arises for a school leader's ability to sustain change. Research has shown, however, if leaders develop a strong professional network, they have the capacity to sustain change (Finnigan & Daly, 2010). Having discussions with parents, community members, students, staff, and faculty was one ingredient necessary for sustainability (Day, 2007). However, additional factors identified by Fullan contended school leaders must collaborate with other schools and districts to learn from each other so they can become a larger part of school reform (Fullan, 2005a), and as Barnett et al. (2014) contended, partnerships were essential to school movement.

The literature iterated, after identification of being a priority school, the implementation of a school turnaround model was the beginning to school reform. Best practices from the

literature indicated a fusion of a transformational leader and instructional leader with training in school turnaround should begin the reform process and should implement and synthesize the eight turnaround principles to increase student achievement; however, once a school improves, sustaining a school in turnaround will depend on the leader's ability to understand and adapt to changes in the organization's relational network. Social network theory and analysis gave leaders the tools to theorize, analyze, and explore ways to effectively provide teachers with the resources they needed to support school reform.

Chapter III: Methods

This study was designed to examine internal learning partnerships of one high-performing high-poverty elementary school in South Alabama. Well over a decade ago, in 2003, this elementary school was on priority status and was one of the lowest performing elementary schools on student achievement in the state. The school district used a transformation model of school turnaround to reconstitute the school. This elementary school was chosen for this study because it was reconstituted into a high-performing high-poverty school and sustained its status of high-performing for over a decade. The study examined the internal learning partnerships of this elementary school. A survey was developed to gather data on faculty perceptions of their internal learning partnerships.

Purpose of the Study

Turnaround schools have gained attention since the Bush Administration and No Child Left Behind. Studies were published frequently on the blueprints of turnaround and sustainability in which leadership was a focal point of turnaround. However, embedded in the research of leadership in turnaround schools was the emphasis on interpersonal relationships that involved communication on a higher level than mere collaboration. Where collaboration was emphasized in the research, the word *collaboration* itself was not defined to the depths of its intended purpose, which was the creation of an interrelationship or partnership. In fact, little research was actually focused on understanding the changes that emerge in interpersonal relationships from the turnaround process. Therefore, we turn to the social sciences for a descriptive definition of the term *partnerships* and how partnerships contribute to a turnaround school's success. The purpose of the study was to gain insights into internal learning

partnerships within a school structure that may have contributed to sustaining a high-poverty high-performing turnaround school.

Social network theory and analysis tell us that the pattern of social ties change between actors as old actors leave the network and new actors emerge. From utilizing the transformation model of school turnaround, J. Crawford Elementary School hired a new principal and a new staff. The focus of the change in these relationships was an explanation of the outcomes (Borgatti et al., in press), which in a successful school turnaround was increased student achievement. Despite the changes, however, the network in a social structure can support or constrain a school in student achievement (Daly, 2012). Therefore, the internal learning partnerships that were developed became critical in their school turnaround.

This study emerged from three lines of research for the conceptual framework: A Typology of Partnerships from Barnett et al. (2014); Conceptual Model of Coordinated and Collaborative Apprenticeships from Korach et al. (2012); and Learning Partnerships from Reames (in press).

Research Design

A retrospective case study design was used for this research. The population consisted of an elementary school in southern Alabama that was identified as a Priority school, but after a successful transformation, this elementary school sustained a high academic achievement status when compared to other schools of the same or close to the same poverty status. Evidence was collected for a case study analysis of J. Crawford Elementary School by gathering multiple forms of data to develop an in-depth understanding of internal learning partnerships within the school. The principal investigator surveyed the principal and faculty who are currently employed at J. Crawford Elementary. Moreover, data were collected as part of the case study, such as faculty

demographics, student demographics, student achievement data, and enrollment to have a better understanding of the network and open the possibility for a comparative analysis to complete future research. Interview data offered insights into the nature of collaboration within the network.

A retrospective case study told the principal investigator what efforts J. Crawford Elementary school did to turn their school around from a low-performing (priority) school to a high-performing school. The effort of the district, leadership, faculty, and staff was only one piece in understanding turnaround. Therefore, social network analysis (SNA) was used to investigate the school's internal learning partnerships, which indicated if the learning partnerships influenced school turnaround and contributed to sustaining turnaround. Through SNA the principal investigator looked at the relational ties between actors. Ties were the relations that constituted the network. Ties that existed within the network showed the density of the whole network. The density of a network was reported as a percentage and referred to the ratio of the actual number of ties in the network to the number of possible ties in the network. Since density only showed relationships that existed between nodes, reciprocity was considered as well to express the quality of the relationships. Reciprocity was mutual ties between nodes. Nodes, also called "actors," were the entities that made up the network. The centrality was measured to signify the extent to which an actor was central in the network and was measured by the relative number of ties to everyone else in the network (Moolenaar, Daly, & Sleegers, 2010). Three measures of centrality were executed: Degree centrality, closeness centrality, and betweenness centrality. Degree centrality was the number of direct links with other actors. Closeness centrality was how easily an actor can reach all other actors in a network. Betweenness centrality was the extent to which an actor mediated any other two actors on the

shortest path between those two actors. "Actors with high betweenness are in a position of social control and, as such, are able to determine both the type and content of resources that flow between actors" (Moolenaar et al, 2010, p. 632). The actor with the highest betweenness centrality potentially had control over the resources that flowed in-between the actors and is therefore considered a gatekeeper (Moolenaar et al., 2010).

Upon receiving approval from the Institutional Review Board, data was collected at J. Crawford Elementary School at a time convenient to the principal and faculty after school hours, so the student-learning day was not disrupted. The survey was administered in a whole group setting and did not take longer than thirty minutes (Appendix B). Participants were given their informed consent, instructed on the survey, and answered the survey questions. The survey asked participants with whom they considered their learning partners, the frequency of collaboration with their learning partners, and the primary reasons they collaborate with their learning partners. There was a potential risk for a breach in confidentiality related to asking participants in the survey to give identifying information for themselves and identifying those with whom they collaborated. However, asking people to recall specific names in an open list format gave the principal investigator the best results opposed to not having identifying information and confusing the participants. By ensuring the participants clearly can identify the people with whom they collaborated allowed the principal investigator to understand more than a partial view of an educator's social network. Furthermore, it was important to ask questions about network composition (characterizing people in terms of gender or years of experience), network structure (how many people in one's social network), and questions about function (the resources the educators go to for informational or emotional support). The specificity of the questions contributed to the overall understanding of the social networks and allowed the

principal investigator to see the density and centrality of the network ties between educators. The density of the network was the total number of ties divided by the total number of possible ties. Reciprocity was also measured to consider the quality of the relationships. Once the survey was administered and collected, the principal investigator entered the data from questions 1 and 2 into UCINET (Social Network Computer Analysis Program) and interpreted results. Questions 3 and 4 of the survey was entered into Excel, which compared the means of the two groups and their perceptions of internal learning partnerships with faculty and administrators. The complete collection of data indicated to the principal investigator if the internal learning partnerships contributed to the turnaround and continued to contribute to the sustainability of a high-poverty high-performing turnaround school.

Research Questions

The following research questions guided the study:

- 1. What is the density, centrality, and reciprocity of collaboration in a sustained highpoverty high-performing turnaround school?
- 2. To what extent do faculty perceive their internal learning partnerships to be collaborative in a sustained high-poverty high-performing turnaround school?
- 3. What is the current level of collaboration compared to the desired level of collaboration in a sustained high-poverty high-performing turnaround school?

Table 1

Research Questions and Data Collection Instruments

Research Question	Data Collection Instruments
1. What is the density and centrality of collaboration in a sustained high-poverty high performing school that has been in turnaround?	SNA
2. To what extent do faculty members perceive their internal learning partnerships to be collaborative in a high-poverty high-performing turnaround school?	DESCRIPTIVE STATISTICS
3. What is the current level of collaboration compared to the desired level of collaboration in a high-poverty high-performing school?	ANOVA

Setting

The study allowed the researcher to develop an understanding of the internal learning partnerships that take place in a sustained high-performing turnaround school. The school in this study was selected due to its history of being a turnaround school, reaching above-average in student academic achievement, and sustaining the achievement. Over a decade ago, the school was in priority status. Under supervision of the state, the district chose the transformation model of school turnaround and terminated the principal and the staff. After hiring a new principal and staff, the school increased its student academic performance each year and maintained its status as one of the highest performing elementary schools in the state for a decade.

In a suburb of a southern state, a school of fewer than five hundred students was set in the heart of low-income housing. According to the principal, students at J. Crawford Elementary lived in circumstances of generational poverty and single-mother households that in most cases, lacked a core of family values, structure, and support. State assessments showed the academic achievement levels were in the bottom five percent of the state; however, shortly after

turnaround efforts began, the school was honored by the federal government with a Blue-Ribbon Award as an Exemplary High Performing School.

School Demographics

In the 2016-2017 school year, J. Crawford Elementary School had an enrollment of three hundred eighty-seven students. Ninety-seven percent of students were African American, and 1% was American Indian, White, and Asian. Of students enrolled, 99% were eligible for free or reduced meals.

The Alabama Reading and Mathematics Test (ARMT) began in 2003-2004 school year. The state required all fourth-grade students tested in reading and math. The following year, all students in grades 3-5 were required to test. According to published results of the Alabama State Department of Education (ALSDE), Figure 7 below reports ARMT reading test scores from 2002-2012 school years for grades 3-5; Figure 8 reports ARMT math scores for 2002-2012 school years for grades 3-5.

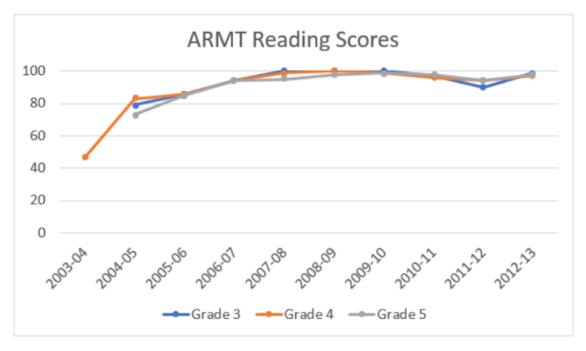


Figure 6. ARMT Reading Scores

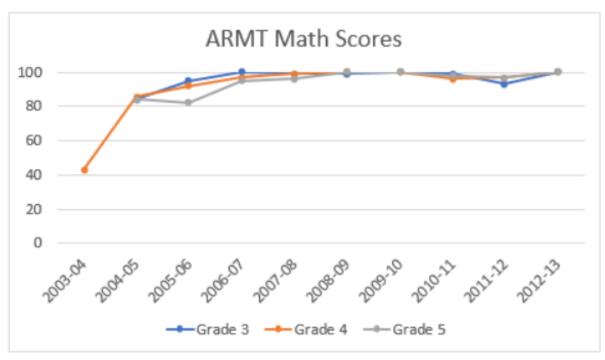


Figure 7. ARMT Math Scores

Table 2

Following the 2012-2013 school year, the ALSDE mandated a new assessment aligned with Common Core standards for schools to measure achievement. The most recent published results of the ACT Aspire for J Crawford Elementary was in 2014-2015. Results are reported below in Table 2.

ACT Aspire Results for 2014-2015 School Year

1101 Hopire Result	15 Jo. 2011 2010 2				
	ACT Aspire 2014-2015				
Grade/Subject	Level I	Level II	Level III	Level IV	
3 rd Reading	43.75	27.08	16.67	12.50	
4 th Reading	46.30	29.63	24.07	<1%	
5 th Reading	32.14	32.14	23.21	12.50	
3 th Math	20.83	25.00	43.75	10.42	
4 th Math	3.70	61.11	35.19	<1%	
5 th Math	1.79	50.00	35.71	12.50	

The achievement Level I indicates the percentage of students who did not meet academic content standards; Level II indicates the percentage of students who partially meet academic

content standards; Level III indicates the percentage of students who met academic content standards; Level IV indicates the percentage of students exceeded academic content standards. The ALSDE combines Levels III and IV to gauge a school's student achievement. In the 2014-2015 school year, student achievement was 29.7% in 3rd grade reading, 24.07% in 4th grade reading, 35.71% in 5th grade reading, 54.17% in 3rd grade math, 35.19% in 4th grade math, and 48.21% in 5th grade math.

Role of the Researcher

The role of the researcher was to examine an elementary school that had been in Priority status and had been turned around into a high-performing school and had sustained its student achievement. At the time of conducting the survey, the researcher was in the position of a principal at an intermediate school. Prior to being a principal, the researcher was a high school teacher. Having the experience of principal and classroom teacher gave the researcher a working knowledge of internal learning partnerships.

Participants

The participants in this study were 26 of 30 faculty members of J. Crawford Elementary School and the superintendent. The participating faculty members consisted of one principal, seventeen general education teachers, a counselor, media specialist, a speech pathologist, three special education teachers, an intervention specialist, and a Title I intervention specialist who were all directly involved with curriculum and instruction of students. The participants were asked to respond to a survey at the end of the 2016-2017 school year. The survey was administered in paper-pencil format in person at the end of a school day in a classroom at J. Crawford Elementary.

The survey asked the participants to recall their internal learning partners. They were provided a roster of the faculty and were asked to indicate all faculty with whom they collaborate. The survey took less than 30 minutes to complete.

Limitations

Social network theory assumes actors within a network are interdependent, and actors exchange resources to a degree that is either tangible or intangible. This study did not investigate the type of exchange by the actors to determine the content of collaboration; however, the researcher showed the reciprocity within the network to indicate the quality and mutual existence of collaboration between the actors.

The following are limitations imposed on the study:

- The study was conducted thirteen years after the initial time of reconstitution of J.
 Crawford Elementary.
- The study examined only one school that has been turned around and has sustained its achievement.
- Only a few of the participants were from the initial turnaround at J. Crawford
 Elementary

Significance of the Study

Research findings leading up to this project indicated the confluence of principles of turnaround contribute to successful improvements of student achievement (Lutterloh et al., 2016). One thread of this framework that has not been investigated in its entirety is the influence of learning partnerships. Schools have internal learning partnerships, collaboration within the organization. Internal learning partnerships work together with school leaders towards the school's mission and vision, which as a social network can support or constrain student

achievement (Daly, 2012). After careful study of low-performing and average-performing schools, research has made it evident there are fewer internal learning partnerships in these schools. This study examined the internal learning partnerships of an elementary school that was once low-performing but turned around into a high-performing school and sustained its achievement for over a decade. A descriptive case study analysis, surveys, and social network theory and analysis provided with the researcher with the background, support and framework for which to ascertain if the theory that a sustained, high-poverty high-performing school has strong internal learning partnerships.

Data Collection Procedures

Survey Development. The research questions guided the development of the survey questions; however, research indicated "surveys and questionnaires soliciting self-reports" were the predominate research method used in social network analysis (Marsden, 1990, p. 440). In order to understand the density of the network, the survey asked respondents to indicate those individuals from a listing with whom they have direct ties of a specific kind without a fixed number of links per respondent. For questions of centrality and reciprocity, the survey asked respondents from a listing with whom they have direct ties of a specific kind on a scale of frequency. In understanding the sustainability of a turnaround school, the researcher hypothesized that the school would have a dense network among the faculty.

Survey Analysis. Research question one was answered based on survey questions one and two given to participants. Survey question one asked participants to identify their internal learning partners with whom they collaborate on curriculum and instruction. Question two asked participants to select the frequency of interaction of the participants with their internal learning partnerships on curriculum and instruction. The two survey questions were analyzed using

UCINET. Once the data was collected and entered into UCINET, a graph was produced to illustrate the density and centrality of the network. To further illustrate the collaboration, the frequency of collaboration was dichotomized into monthly, weekly, and daily sets and the graphs were drawn using UCINET.

Research question two drove survey questions three and four. Questions three and four asked participants to respond on a ten-point Likert scale of strongly disagreeing with the question, 0, to strongly agreeing, 10. The data was analyzed using Microsoft Excel statistical tools. Question three asked participants about their perception of collaboration among their colleagues. Question four asked participants about collaborating with their building administrators. The final questions of the survey asked the participants the number of years of experience they had in the school, overall experience, gender, and ethnicity.

Ethical Conditions

The researcher was mindful to all ethical conditions in conducting this study. Prior to conducting this study, the researcher successfully completed the required Collaborative Institutional Training Initiative programs and assessments, and the study was approved by the Institutional Review Board (IRB). Once permission was granted by the IRB, letters of consent detailing the purpose and scope of the study were distributed to all participants. Participants were notified their participation in the study was voluntary, and they may withdraw from the study at any time. Participants were notified of the potential risks involved in the study, which included breach of confidentiality. The researcher explained their names appeared on the survey to give the participants the best method for recalling names of actors they collaborate with and would give the researcher the best results. The names on the survey would be replaced with pseudonyms once the data is collected and before the data is put into an electronic program,

UCINET (the software program used for Social Network Analysis). Participants were also informed that original surveys, interviews, and questionnaires would be stored in a locked filing cabinet in the researcher's advisor's office at Auburn University. Once consent letters were collected, then data collection began.

Data Collection

In order to assess the social networks in J. Crawford Elementary School, the researcher developed a survey that comprised of twenty-four distinct networks and demographic questions. The researcher also developed interview questions for the principal and other faculty who have been at J. Crawford Elementary School through the turnaround efforts. Moreover, descriptive data was collected as part of the case study, such as faculty demographics, student demographics, student achievement data, and enrollment so the researcher had a better understanding of the school and open the possibility for a comparative analysis to be completed in future research. A case study will tell the researcher what actions the principal and faculty did at J. Crawford Elementary School to turn their school around from a low-performing (priority) school into a high-performing school. The actions of leadership, faculty, and staff was only one piece in understanding turnaround. Therefore, social network theory and analysis was used to investigate the school's internal learning partnerships to expound on the idea of partnerships' influence on school turnaround and its sustainability. Survey data was collected at J. Crawford Elementary School at a time convenient to the principal and faculty after school hours so the participation did not disrupt the student learning day. The survey was administered in a whole-group setting and did take no longer than thirty minutes. Participants were given their informed consent, instructed on the survey, and responded to the survey by paper and pencil. Once the survey was administered and collected, the researcher entered the data from questions 1 and 2 into UCINET

(Social Network Computer Analysis Program) and interpreted the results. ANOVA was used to compute the results of questions 3 and 4 of the survey, which compared the means of the two groups and their perceptions of internal partnerships with faculty and administrators. The complete collection of data indicated to the principal investigator if the internal learning partnerships contributed to the sustainability of a high-performing turnaround school.

Summary

This case study analysis explored the current level collaboration of J. Crawford Elementary, a high-poverty high-performing turnaround school. The researcher considered the interview with the principal and the participants' responses to survey questions regarding their practice of collaborating with their internal learning partners. Responses were recorded and processed through UCINET, SPSS, and in narrative to support or negate the hypothesis that high-poverty high-performing schools were highly collaborative. The results of these responses are presented below.

Chapter IV: Results

A case study analysis was conducted at one suburban elementary school in the southeastern part of the United States. J. Crawford Elementary was identified by the ALSDE as a Priority school because of its consistent low student achievement. Once identified as a Priority school, the school district used a transformation model, one of four turnaround models presented by the state, to reconstitute the school. J. Crawford Elementary gained immediate improvements, and since the turnaround initiative, the school was able to maintain its high-performing status for over a decade. The present research project expected to offer a rationale for the school's sustainability.

Purpose of the Study

The purpose of this study was to explore sustained turnaround of one turnaround school. In an earlier SNA internal learning partnership study, results indicated that an elementary school in turnaround had low collaboration ties (Grace, 2015). The present study explored these same collaboration ties in an environment that had maintained turnaround and high-performing status for more than a decade. While collaboration has been studied in relationship to educational leadership, there are very few examples using the SNA viewpoint. J. Crawford Elementary was the focus of the present study.

Research Ouestions

The following research questions guided the study:

- 1. What is the density, centrality, and reciprocity of collaboration in a sustained high-poverty high-performing turnaround school?
- 2. To what extent do faculty perceive their internal learning partnerships to be collaborative in a sustained high-poverty high-performing turnaround school?

3. What is the current level of collaboration compared to the desired level of collaboration in a sustained high-poverty high-performing school?

Reliability of the Survey Instrument

Reliability of the survey instrument was performed for both survey questions to examine internal consistency. The reliability analysis revealed that collaboration with teacher's items (question 3) formed a reliable scale: Cronbach's alpha = .92, and the alpha would not improve with the removal of any of the items. The collaboration with administration items (question 4) also formed a reliable scale: Cronbach's alpha = .89, and the alpha would not improve with the removal of any of the items.

Reliability Summary for Question 3

Table 3

Table 4

Std. Deviation	Cronbach's Alpha	N of Items	Mean	Variance
21.268	.9196	9	76.96	452.329

Reliability Summary for Question 4

Std. Deviation	Cronbach's Alpha	N of Items	Mean	Variance
21.109	.8896	6	49.15	445.564

Descriptive Statistics

The Community. J. Crawford Elementary School resided in a crime-ridden neighborhood by community of low-income housing. In the state alone, according to the most recent U.S. Census Bureau, 2016, an estimated 414,836 people live in this southern county. Of those reported, 59.6% were White, 35.8% were Black or African American, 1% American Indian and Alaska Native, 2% Asian, .1% Native Hawaiian and Other Pacific Islander, 2.8% Hispanic

or Latino, and 1.6% Two or More Races. The mean household income from 2011-2015 was \$43,809, and 18.4% of the total population lives in poverty.

The School. J. Crawford Elementary is a small brick school. Enrollment for the 2016-2017 school year was a total of 387 students in pre-kindergarten through fifth grade. Table 5 shows the enrollment data broken down by grade level and gender. Of 387 students, 99% qualified for free or reduced lunch. All students who attended J. Crawford Elementary lived within walking distance of the school, so teachers escorted them home at the end of the school day. According to the principal, most students lived in single-mother homes where "family structure of support wasn't around, and the struggle to do better or the desire to do better wasn't as prevalent as it was."

Table 5

Enrollment by Grade Level

Grade	Males	Females	Total
Pre-K	15	19	34
Kindergarten	28	27	55
First	31	26	57
Second	30	33	63
Third	35	24	59
Fourth	38	31	69
Fifth	26	24	50
Total	203	184	387

Participating Faculty. The participating faculty at J. Crawford Elementary consisted of 26 of 30 certified teachers. All faculty were female and included the principal, three special education teachers, a counselor, a media specialist, a speech pathologist, a Title I intervention specialist, an intervention specialist, and 17 general education teachers. The ethnicity of those who completed the survey were 57.6% (n=4) African American, 39.4% (n=22) White (Table 6). Other demographic data collected included years of experience at J. Crawford Elementary (Table 7), highest level of education (Table 8), and the number of total years of experience (Table 9).

The total years of experience of the faculty ranged from one to 28, and the number of years the participants worked at J. Crawford Elementary ranged from 1-20.

Table 6

Ethnicity of Faculty

	Frequency	Percentage
African-American	4	57.6%
Asian	0	0%
Latino	0	0%
White/Caucasian	22	39.4%
Other	0	3.0%
Total	26	100%

Table 7

Years of Experience at Given School

	Frequency	Percentage
1-5 Years	16	61.5%
6-10 Years	3	11.5%
11-15 Years	6	23%
16-20 Years	1	0.04%
21-25 Years	0	0%
Total	26	100%

Table 8

Highest Level of Education

	Frequency Percentage		
Bachelor's Degree	8	30.8%	
Master's Degree	14	53.8%	
EdS	3	11.5%	
PhD	1	0.04%	
Total	26	100%	

Total Years of Experience

Table 9

	Frequency	Percentage
1-5 Years	13	50%
6-10 Years	2	.08%
11-15 Years	1	.04%
16-20 Years	5	19%
21-25 Years	4	15%
25+	1	.04%
Total	26	100%

Data Collection Instruments

A retrospective case study analysis was used to better understand the level of collaboration in internal learning partnerships in a sustained high-performing turnaround school. A survey was developed with the roster technique recommended by Lima (2010), and it was used to gather information from the faculty. Question one asked participants with whom they collaborate on curriculum and instruction. The survey listed the faculty and superintendent and gave additional space to list additional internal partners. Question two of the survey asked participants the frequency of interaction with whom they have an internal partnership, i.e., collaborate with on curriculum and instruction. The third question of the survey asked participants to respond on a Likert scale about their internal learning partnerships with their colleagues. The fourth question asked participants to respond on a Likert scale about their internal learning partnerships with their building administrators. The remaining questions on the survey asked participants about their external learning partnerships, the number of years they have been in education, their position in the school, ethnicity, and their highest level of education. The program UCINET was used to process the data output for survey questions one and two, and the program SSPS was used to process the data for questions three and four.

Results

Research Question 1: What is the density and centrality of collaboration in a sustained high-performing turnaround school? Survey question one asked participants to choose with whom they collaborate on curriculum and instruction. Density was calculated using the social network analysis program UCINET, and results were reported in Table 10 below. In the network of 31 actors, there were 930 possible ties or relationships (calculated: k*k-1). The density, or total number of ties divided by the number of pairs in the network, of J. Crawford Elementary School was 316, or represented proportionately, .337 or 34%. Because the density was less than 50%, we considered the cohesion of the network to be very low. Table 10 showed the density output of calculations from UCINET.

Table 10

Descriptive Statistics: J. Crawford Elementary, Reported Collaboration

		 2
Density	0.337	
No. of Ties	316	
Std Dev	0.480	
Avg Degree	10.194	
N of Obs.	930	

Centrality is a property of a node's position or the contribution the node makes to the structure of the network. The degree centrality is the number of ties a node has, which can translate into the popularity of an actor (Borgatti et al., 2013). Closeness centrality indicates how close an actor is to the others in a network and can be interpreted as a measure of "reachability." The higher an actor's closeness centrality, the quicker the information being dispensed will reach others in the network. Actor 1, 19, and 10 had the greatest influence in the network since they reported collaborating with the highest percentage of others, as reported in Table 9, "OutDeg." These actors also had the highest in-degree, or "InDeg," which was the number of directional ties to the actor from other actors (in-coming links). Actors who received information from many

sources may be considered more powerful. Actors 1, 10, and 19 had the highest "InDeg" at receiving information as reported in the survey in Table 11.

Betweenness centrality is a measure of how often a given node falls along the shortest path between two other nodes (Borgatti, et al., 2013). Betweenness is typically interpreted in terms of the potential for controlling information that flows through the network and was determined by the number of times an actor was positioned in between two other actors in a network who themselves were disconnected. Actors with high betweenness are regarded as having a position of control. Table 11 shows the actors with the highest betweenness were the principal, intervention specialist, a special education teacher, and the counselor.

Visualization of the reported overall social structure of J. Crawford Elementary was shown in Figure 9 that was produced using a feature "Net Draw" within UCINET. The illustration represented the support and constraint of the access, variety, and use of resources within the network. Lines in the illustration were referred to "ties" or "arcs." The squares represent "actors" or "nodes." Figure 10 was based on the input of data originated from the survey, question 2 that asked participants to select the frequency of interaction with whom they had an internal learning partnership. The participants responded by selecting "never," "yearly," "monthly," "weekly," or "daily." The position of the actors in this illustration was arbitrary; however, their positions were relative to one another based on algorithms, and their geodesic distances were representative of their relation to each other. The actors in the center of the network, called the "central actors," were the actors who had a greater influence over the whole network because they received a higher proportion of interactions than those who were on the peripheral. The peripheral actors, the actors on the outer edges, had fewer social ties and had less influence over the larger network.

Table 11

Centrality/Collaborating Actors

#1 Principal	Actor	Betweenness	OutDeg	InDeg
#10 Special Education Teacher	#1 Principal	119.81	30.00	19.00
#10 Special Education Teacher	#19 Intervention Specialist	112.67	27.00	20.00
#23 Counselor #16 3rd Grade Teacher #24 Special Education Teacher #25 Media Specialist #27 Special Education Teacher #28 Special Education Teacher #29 Media Specialist #28 Special Education Teacher #30 379 19.00 15.00 #31 Speech Pathologist #32 Special Education Teacher #33 Special Education Teacher #34 Special Education Teacher #35 Special Education Teacher #36 Grade Teacher #37 1st Grade Teacher #39 Grade Teacher #40 Gra	-		26.00	18.00
#24 Special Education Teacher #20 Media Specialist #21 Media Specialist #22 Media Specialist #23 Media Specialist #23 Speech Pathologist #25 Media Specialist #26 Media Specialist #27 Media Specialist #27 Media Specialist #28 Media Specialist #28 Media Specialist #28 Media Specialist #28 Media Specialist #29 Media Specialist #20 Media Specialist #21 Media Teacher #22 Media Teacher #23 Media Teacher #24 Media		43.407	25.00	16.00
#20 Media Specialist	#16 3 rd Grade Teacher	32.124	13.00	11.00
#31 Speech Pathologist 15.053 15.00 9.00 #13 Special Education Teacher 7.718 10.00 14.00 #7 1st Grade Teacher 5.716 9.00 11.00 #4 4th Grade Teacher 4.954 15.00 9.00 #2 PE Teacher 4.358 6.00 12.00 #3 4th Grade Teacher 3.623 14.00 8.00 #12 1st Grade Teacher 2.616 8.00 9.00 #29 3rd Grade Teacher 2.616 8.00 9.00 #29 3rd Grade Teacher 2.337 12.00 8.00 #9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #27 2nd Grade Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #22 5th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher 9.41 6.00 9.00 #12 12nd Grade Teacher 8.93 7.00 9.00 #13 5th Grade Teacher 3.350 5.00 6.00 #25 Kindergarten Teacher 3.33 3.00 8.00 #25 Kindergarten Teacher 0.00 0.00 12.00 #17 4th Grade Teacher 0.00 0.00 9.00 #15 Music Teacher 0.00 0.00 8.00 #15 Music Teacher 0.00 0.00 2.00	#24 Special Education Teacher	30.379	19.00	15.00
#31 Speech Pathologist 15.053 15.00 9.00 #13 Special Education Teacher 7.718 10.00 14.00 #7 1st Grade Teacher 5.716 9.00 11.00 #4 4th Grade Teacher 4.954 15.00 9.00 #2 PE Teacher 4.358 6.00 12.00 #3 4th Grade Teacher 3.623 14.00 8.00 #12 1st Grade Teacher 2.616 8.00 9.00 #29 3rd Grade Teacher 2.616 8.00 9.00 #29 3rd Grade Teacher 2.337 12.00 8.00 #9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #27 2nd Grade Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #22 5th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher 9.41 6.00 9.00 #12 12nd Grade Teacher 8.93 7.00 9.00 #13 5th Grade Teacher 3.350 5.00 6.00 #25 Kindergarten Teacher 3.33 3.00 8.00 #25 Kindergarten Teacher 0.00 0.00 12.00 #17 4th Grade Teacher 0.00 0.00 9.00 #15 Music Teacher 0.00 0.00 8.00 #15 Music Teacher 0.00 0.00 2.00	#20 Media Specialist	28.447	22.00	11.00
#7 1st Grade Teacher 5.716 9.00 11.00 #4 4th Grade Teacher 4.954 15.00 9.00 #2 PE Teacher 4.358 6.00 12.00 #3 4th Grade Teacher 3.623 14.00 8.00 #12 1st Grade Teacher 2.616 8.00 9.00 #29 3rd Grade Teacher 2.337 12.00 8.00 #9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #5 Kindergarten Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #12 5th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher 9.41 6.00 9.00 #21 2nd Grade Teacher .893 7.00 9.00 #18 5th Grade Teacher .350 5.00 6.00 #18 5th Grade Teacher		15.053	15.00	9.00
#4 4th Grade Teacher 4.954 15.00 9.00 #2 PE Teacher 4.358 6.00 12.00 #3 4th Grade Teacher 3.623 14.00 8.00 #12 1st Grade Teacher 2.616 8.00 9.00 #29 3rd Grade Teacher 2.337 12.00 8.00 #9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #5 Kindergarten Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #22 5th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher 941 6.00 9.00 #21 2nd Grade Teacher .893 7.00 9.00 #18 5th Grade Teacher .350 5.00 6.00 #25 Kindergarten Teacher .333 3.00 8.00 #25 Kindergarten Teacher 0.00 0.00 12.00 #17 4th Grade Teacher 0.00 0.00 9.00 #17 4th Grade Teacher	#13 Special Education Teacher	7.718	10.00	14.00
#2 PE Teacher 4.358 6.00 12.00 #3 4 th Grade Teacher 3.623 14.00 8.00 #12 1 st Grade Teacher 2.616 8.00 9.00 #29 3 rd Grade Teacher 2.337 12.00 8.00 #9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #27 2 nd Grade Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #22 5 th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2 nd Grade Teacher .941 6.00 9.00 #21 2 nd Grade Teacher .893 7.00 9.00 #18 5 th Grade Teacher .350 5.00 6.00 #25 Kindergarten Teacher 3.33 3.00 8.00 #26 3 rd Grade Teacher 0.00 0.00 12.00 #17 4 th Grade Teacher 0.00 0.00 9.00 #6 Kindergarten Teacher 0.00 0.00 8.00 #15 Music Teach	#7 1 st Grade Teacher	5.716	9.00	11.00
#3 4 th Grade Teacher #12 1 st Grade Teacher 2.616 8.00 9.00 #29 3 rd Grade Teacher 2.337 12.00 8.00 #9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #11 Technology Specialist 1.700 2.00 13.00 #12 5 th Grade Teacher 1.941 4.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2 nd Grade Teacher 1.054 7.00 9.00 #18 5 th Grade Teacher 893 7.00 9.00 #18 5 th Grade Teacher 3.350 5.00 6.00 #25 Kindergarten Teacher 3.350 5.00 6.00 #26 3 rd Grade Teacher 9.00 9.00 #17 4 th Grade Teacher 9.00 9.00 #17 4 th Grade Teacher 9.00 9.00 #15 Music Teacher 9.00 9.00 9.00 #15 Music Teacher	#4 4 th Grade Teacher	4.954	15.00	9.00
#12 1st Grade Teacher 2.616 8.00 9.00 #29 3rd Grade Teacher 2.337 12.00 8.00 #9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #27 2nd Grade Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #12 5th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher 941 6.00 9.00 #21 2nd Grade Teacher .893 7.00 9.00 #18 5th Grade Teacher .350 5.00 6.00 #25 Kindergarten Teacher .333 3.00 8.00 #26 3rd Grade Teacher 0.00 0.00 12.00 #17 4th Grade Teacher 0.00 0.00 9.00 #16 Kindergarten Teacher 0.00 0.00 8.00 #15 Music Teacher 0.00 0.00 2.00	#2 PE Teacher	4.358	6.00	12.00
#29 3rd Grade Teacher 2.337 12.00 8.00 #9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #27 2nd Grade Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #22 5th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher .941 6.00 9.00 #21 2nd Grade Teacher .893 7.00 9.00 #18 5th Grade Teacher .350 5.00 6.00 #25 Kindergarten Teacher .333 3.00 8.00 #26 3rd Grade Teacher 0.00 0.00 12.00 #17 4th Grade Teacher 0.00 0.00 9.00 #6 Kindergarten Teacher 0.00 0.00 8.00 #15 Music Teacher 0.00 0.00 2.00		3.623	14.00	8.00
#9 Pre-k Teacher 2.330 7.00 7.00 #5 Kindergarten Teacher 2.078 5.00 7.00 #27 2nd Grade Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #22 5th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher .941 6.00 9.00 #21 2nd Grade Teacher .893 7.00 9.00 #18 5th Grade Teacher .350 5.00 6.00 #25 Kindergarten Teacher .333 3.00 8.00 #26 3rd Grade Teacher 0.00 0.00 12.00 #17 4th Grade Teacher 0.00 0.00 9.00 #6 Kindergarten Teacher 0.00 0.00 8.00 #15 Music Teacher 0.00 0.00 2.00	#12 1 st Grade Teacher	2.616	8.00	9.00
#5 Kindergarten Teacher 2.078 5.00 7.00 #27 2nd Grade Teacher 1.901 7.00 11.00 #11 Technology Specialist 1.700 2.00 13.00 #22 5th Grade Teacher 1.419 6.00 8.00 #14 Pre-k Teacher 1.054 7.00 5.00 #8 2nd Grade Teacher .941 6.00 9.00 #21 2nd Grade Teacher .893 7.00 9.00 #18 5th Grade Teacher .350 5.00 6.00 #25 Kindergarten Teacher .333 3.00 8.00 #26 3rd Grade Teacher 0.00 0.00 12.00 #17 4th Grade Teacher 0.00 0.00 9.00 #6 Kindergarten Teacher 0.00 0.00 8.00 #15 Music Teacher 0.00 0.00 2.00	#29 3 rd Grade Teacher	2.337	12.00	8.00
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#6 Kindergarten Teacher 0.00 0.00 8.00 #15 Music Teacher 0.00 0.00 2.00	#26 3 rd Grade Teacher	0.00	0.00	12.00
#15 Music Teacher 0.00 0.00 2.00	#17 4 th Grade Teacher	0.00	0.00	9.00
		0.00	0.00	8.00
#30 Superintendent 0.00 0.00 1.00	#15 Music Teacher	0.00	0.00	2.00
	#30 Superintendent	0.00	0.00	1.00

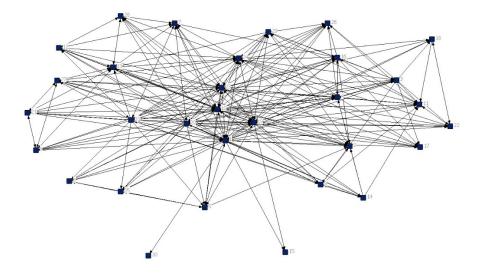


Figure 8. Density of J. Crawford Elementary

Survey question two asked the participants to report the frequency of collaboration with the faculty they identified as collaborative learning partners on curriculum and instruction.

Figure 9 above illustrated the overall collaboration of participants with their internal learning partners. The researcher dichotomized the frequency of collaboration into three groups:

Participants who reported monthly collaboration was represented in Figure 10. Participants who reported weekly collaboration was represented in Figure 11. Participants who reported daily collaboration was represented in Figure 12. In each of the three diagrams, the nodes remained fixed so it was easier to see the changes in the frequency of collaboration. Arrows in the diagram conveyed directional ties.

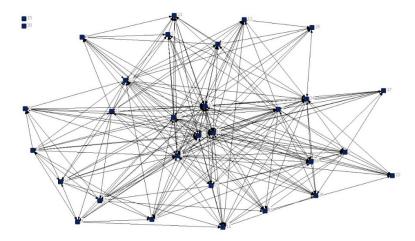


Figure 9. Monthly collaboration between actors

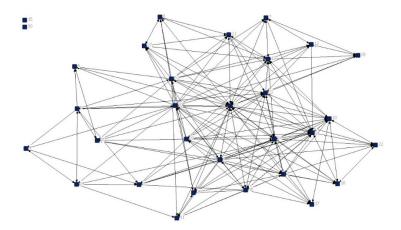


Figure 10. Weekly collaboration between actors

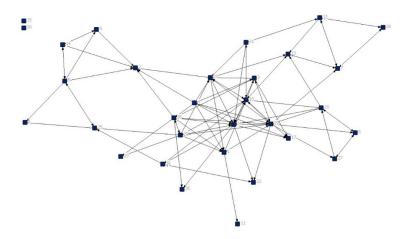


Figure 11. Daily collaboration between actors

The colors of the nodes was a nominal property in Figure 13 below, and a legend was provided in Table 12. The visualization of the network in Figure 13 showed the centrality of the actors in the network and showed the cohesive subgroups. Subgroups were seen grouped together in the corners of the graph, i.e., blue, red, bright green, and yellow.

Table 12

Colors Indicating Roles/Positions

Roles	Colors
Pre-Kindergarten	Blue
Kindergarten	Red
First	Bright Green
Second	Yellow
Third	Black
Fourth	Light Grey
Fifth	White
Special Education	Teal
Principal	Violet
Superintendent	Purple
PE	Dark Grey
Counselor	Dark Blue
Technology & Media Specialist	Olive Green
Intervention	Pink
Music	Light Blue

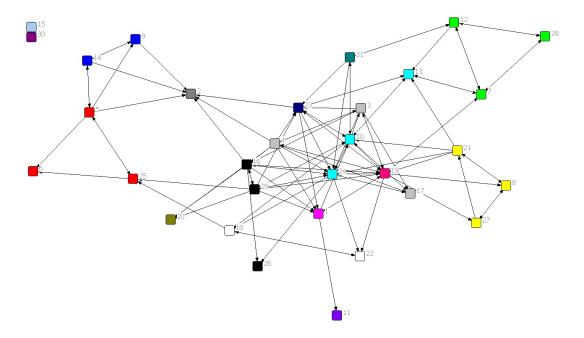


Figure 12. Daily Collaboration between Actors Colored Coded by Position

Research Question 2. To what extent do faculty perceive their internal learning partnerships to be collaborative in a sustained high-poverty high-performing turnaround school? When administering the survey, the null hypothesis was the faculty would report a level of high collaboration. The extent of collaboration reported by the participants in J. Crawford Elementary was analyzed using a statistical program. When responding to survey question three about the level of collaboration with their teaching colleagues, the faculty responded on a Likert scale of 0, strongly disagree, to 10, strongly agree. Based on the participants' responses, the mean score and standard deviation for the population for each question is presented in Table 11. However, it is important to note that four participants were considered "outliers," which in statistical terms meant they have significant differences in their responses to this question of the survey. The results are reported below in Table 11, including the outliers' responses. Additionally, one question of the survey was also an outlier in that the variance of the total responses is significantly different than the others. When participants were asked if the teachers

in their building "have opportunities to collaborate and observe one another," participants reported a mean score of 6.96. The variance of this mean is 7.24, which is not homogenous with the remainder of the responses to the questions. The results reported in Table 13 below include the outliers. The computed F value, the average amount of difference between group means relative to the average amount of variance within each group, was larger than the F critical value; therefore, the researcher rejected the null that a difference exists. In other words, there is a perception that high collaboration exists among teachers.

Question four of the survey asked participants about the internal learning partnerships with their building administrators. Respondents reported on a Likert scale of 0, strongly disagree, to 10, strongly agree. The results of the means and standard deviation of question two indicated the faculty and principal perceived themselves to have high collaboration among them, which suggested a healthy school culture.

Mean Scores of Survey Questions 3 & 4

Table 13

Collaboration	Mean	SD
3a. Collaborate on lessons that lead to	8.8	1.3
meaningful learning		
3b. Have opportunities to collaborate and	7.0	2.6
observe one another		
3c. Collaborate to provide feedback around	8.7	1.6
instructional strategies		
3d. Collaboratively review student work to	8.6	1.8
improve teaching practices		
3e. Collaborate together to meet the needs of	9.3	1.2
diverse learners		
3f. Collaborate with others to implement new	8.3	2.2
curriculum presented by the District Office		
3g. Collaborate to help me refine and strengthen	8.6	1.7
my teaching practices		
3h. Collaborate to motivate students who show	9.0	1.3
low interest in school work		
3i. Collaborate to develop a variety of	8.7	1.9
assessment strategies for your students		
Grand Mean Q3	8.6	1.9
4a. Are continuously collaborating with	7.9	2.5
teachers to learn new ideas		
4b. Are willing to collaborate with teachers to	7.9	2.4
take risks to make their district better		
4c. Disseminate information from the District	8.6	1.7
Office that encourage collaboration		
4d. Collaborate with teachers to shape policies	8.2	2.0
and procedures specific to their school		
4e. Are encouraged by the District Office to	8.2	1.7
collaborate		
4f. Are continuously collaborating to develop	8.3	2.2
new instructional approaches to support student		
achievement		
Grand Mean Q4	8.2	1.7

Research Question 3. What is the current level of collaboration compared to the desired level of collaboration in a high-poverty high-performing school? Survey question six asked participants to rate their school on the learning partnership continuum. The response was on a five-point scale, 0-4, labeled "not collaborative" to "very high collaboration." The

respondents reported their perceived *current* level of collaboration as a mean of 2.92, which on the continuum is highly collaborative, and the *desired* level was a mean of 3.64, which is very highly collaborative. Results indicated the P value fell below .05, so the null was rejected. A statistical difference existed between the current level of collaboration and the desired level of collaboration. Therefore, their desired level of collaboration is greater than their perceived level of collaboration; the principal and faculty appeared to have a healthy, collaborative culture, and they desire to have even more collaboration. See Table 14 below.

Table 14

Current level of Collaboration vs. Desired Level of Collaboration

	Mean	Standard Deviation	N
Question 6a	2.92	.730	26
Question 6b	3.64	.471	26

After surveying the faculty, the researcher interviewed the principal at J. Crawford Elementary to gain further insight into their existence of internal learning partnerships.

Originally, the principal was hired as a writing coach in 2004, as part of the turnaround effort.

Prior to 2004, she was a third-grade teacher and a writing coach at another school in the same county just miles from her current school. This year is her fourth year as principal. Interviewing the principal at J. Crawford Elementary revealed the type of collaboration between the faculty that occurred currently and at the time of reconstitution.

So just having to really understand the difference of what generational poverty looks like and the mindset changes was something that we all had to really have a lot of training and have a lot of dialog between us so that our preconceived notions didn't get in the way of the challenges that our kids were facing.

To address research question one, the researcher asked the principal when she first started working at J. Crawford Elementary, what turnaround efforts were implemented to assist with collaboration among the faculty?

There were five schools initially that were in this turnaround model, and they provided two weeks of staff development for your schools. We did things like curriculum. We did Ruby Payne. Then we had time as a faculty to come back together and plan things. We wrote a mission and a motto together. Try to get forty-something new people who are all new to one another to agree on words, but it was a very long day, but at the end, we decided what our mission and motto was and then the support staff was amazing at that time. We had a principal and an assistant principal, an achievement specialist, a full-time counselor, two reading coaches, two writing coaches, a math coach and were heavily staffed on paraprofessionals.

Moreover, the district and the principal planned meaningful collaboration time.

We did a lot of in-service training where we did a lot of planning with mixed grade levels and really looking at the standards and horizontal and vertical planning to get started. Then throughout the year, our schedule was based on these fifty-minute PD blocks, and we still keep that schedule where planning would take place one day a week and then a PD, so it might be a math the first Thursday and a reading the next and a writing the next and a data, and we still try to keep that schedule, but there's only one person who does all of it instead of all those people.

Furthermore, the principal indicated at the initial time of turnaround, she was the writing coach and once a month she would go to conferences and bring back an idea or an initiative and everyone would implement it. At the time of reconstitution, the support they had was abundant, and there were eleven people who provided support to the teachers and staff. She indicated that every year since that time, the school has lost one member each year, so the remaining people had to absorb the loss. Currently, there is one person who provides support to her teachers and principal, and because she has absorbed so much of the responsibility, she tells that person that "every time you absorb someone, you water down the thing that you were probably the best at of why you were given that position in the first place." As part of sustaining turnaround, she tries to hold onto the elements that were important and that she can control.

When asked if there was more collaboration than there is now, she replied, "The time to collaborate is still in place. The amount of people, the options my teachers have of people to collaborate with, you can't compare." She indicated there is one person she mostly collaborates. Her concern has reached the point that she and her one support person are stretched to their limit, and they collaborate frequently about getting everything accomplished that she knows is critical to the school's continued success.

I want to be mindful of the fact that it happened with a whole lot of things in place and even though so many changes have taken place with staffing and with the state test and with the curriculum and all of these things and with my population changing, I still want to do all those things. I'm struggling right now with the idea of wanting to hang onto that so badly but having none of that really in place like it used to and knowing that everyone needs the support, and how do I offer it? So I'm having to empower them to support one another because there's no one

else, and there are people who've been there a long time that have that attitude of, "We will figure this out, and we will together do it," and I need to keep them as long as I can because they're the glue that knows what could happen and can rally us.

The last question that guided the interview in explaining research question one was, "How has the collaboration influenced your perceptions of the system and the school operations?" She responded that "Collaboration in the last three years to me has been disconnected because the only one thing that we had was this pacing guide that held us the same." Recently, she further explained that the county adopted a reading series and implemented it the second semester of the school year with a half-day training for every teacher. She further went on to explain the county is making pacing guides and is going to provide training over the summer, "so I think that our collaboration is going to come back together in a more universal sense of, there could be a training that you get from the district that helps what you're doing here." She was using the reading adoption as an example of the county collaborating with the principals and teachers. She further explained her perception of collaboration:

I don't think it's going to be everything that we need to show the growth that our kids need, but it's a good start coming back together, and they will have resources that they can go to from different people on the district site and they could meet with teachers from other schools who were on the same grade level, and so I do think collaboration is coming back together in a more unified sense, but I don't think it's been there in the last few years.

The questions that guided research question three asked about the learning partnerships.

The principal indicated there were supports from the district and they would work with the other

schools within the district that were being reconstituted. Throughout the year, the district would bring in experts in the field of reading and math to provide support and work with the school.

After they found an expert she indicated as "good," she said she would use her title budget to contract with him or her as a mentor to teachers.

When asked about partnerships, the principal indicated the presence of support throughout the year. The district contracted with individuals who would offer support for reading or math. She also indicated if they found someone good, the school would use Title I funds to contract with that individual to provide professional development or be a mentor. The principal was able to extend their partnerships when the district began pulling out their support by consolidating funds with other schools and other principals in the district and by combining professional development opportunities.

The district has been supportive though acting as a learning partner but not in the capacity as expected of a partner. The principal said, "there are supervisors in place to provide a framework," but it's been a transition over the last few years because of staff changes.

In addition to forming partnerships with other principals, the principal of J. Crawford Elementary said they were members of outside organizations.

We were in Alabama Best Practices Center program for a lot of years. This past year I stopped going just because getting out of the building and being by myself was so difficult, but there's the Powerful Conversations team and Instructional Partners program and Key Leaders, and we did all of those for about ten years and to hear from other people of how they're doing things and bring those strategies back. That was a good source of collaboration, and then we would do instructional rounds and go to various schools and that gave us a lot of ideas.

She also indicated the impact of their learning partnerships has been positive. She said, "collaboration with other schools has been a great source of support and growth for us."

Summary

Results of the study indicated the overall internal learning partnerships of J. Crawford Elementary, a high-poverty high-performing sustained turnaround school, are weak according to density measures. However, betweenness measures showed the strongest ties were with the principal, intervention specialist, special education teacher, and the counselor. After interviewing the principal, the study confirmed that at the time of reconstitution, internal partnerships were alive and strong, but now, the principal said, "I feel like we're almost to the point where we're on an island again alone trying to do all these things without having a lot of outside people come in." Having been at the school at the time of reconstitution and being consistent with implementing time for collaboration the principal concurred these measures were critical to maintaining student achievement.

Chapter V: Conclusion

Chapter Five of this quantitative-methods descriptive case study provides an analysis of the data collected by a survey and an interview to determine the level of collaboration with internal learning partners in a high poverty high-performing sustained turnaround school. The most recent survey of the faculty and an interview with the principal were collected to tell the success story of how J. Crawford Elementary sustained their turnaround for over a decade.

J. Crawford Elementary was chosen because it was a successful turnaround school. Although most schools in turnaround are initially successful in increasing student academic achievement, few schools sustain their success (Duke & Landahl, 2011). In 2004, the district of J. Crawford Elementary followed the transformation turnaround model and hired a new principal and new staff. They provided professional development to the newly hired staff and time to collaborate to build internal learning partnerships. The district provided ongoing support for six years; however, after that time, support began dissipating, yet J. Crawford Elementary continued to maintain their student academic achievement. Data from ARMT scores indicated high student achievement for over ten years.

In this case study, the researcher applied social network theory and analysis to determine the interrelatedness of J. Crawford Elementary. Network analysis began by calculating density and centrality. Density tells the researcher how much collaboration occurred in the whole network whereas centrality breaks down the network to analyze positions of the individuals relative to others by degree, closeness, and betweenness. Additionally, the researcher analyzed the mean scores of participants' responses in a survey to determine the faculty's perception of collaboration as compared to their desired level of collaboration of their internal learning partnerships among their faculty and with their principal. Additionally, the researcher gained

valuable insight into the learning partnerships by interviewing the principal, who confirmed their emphasis on learning partnerships during the time of reconstitution.

The findings from this study extended insights gained from previous studies on collaboration and internal partnerships in turnaround schools. Furthermore, this study contributed to the research in education using social network analysis, a technique commonly used in social sciences but not as common in education.

Research Questions

Three questions guided this study:

- 1. What is the density, centrality, and reciprocity of collaboration in a high-poverty high-performing turnaround school?
- 2. To what extent do faculty perceive their internal learning partnerships to be collaborative in a high-poverty high-performing turnaround school?
- 3. What is the current level of collaboration compared to the desired level of collaboration in a high-poverty high-performing turnaround school?

Implications of Key Findings

Research Question 1. What is the density, centrality, and reciprocity of a high-performing high-poverty school? The researcher used the reported results from the survey to create a data file into the program UCINET to calculate and illustrate the density of collaboration at J. Crawford Elementary School. Non-respondents were not eliminated from the survey because respondents may have listed the non-respondents as internal partners. The density of the network reported how many individuals in the network collaborated with one another on curriculum and instruction and the frequency of collaboration. The density was 34%, which is

considered low; therefore, some collaboration existed within the network, but the density is not as high as one would expect in a high-poverty high-performing school.

The results of centrality added more information into the interrelatedness of the actors and the network. Simply stated, the degree centrality indicated the number of people who "seek out" others, which was reported as "InDeg." The actors with the highest in-degree were the principal, intervention specialist, and special education teacher. This data was consistent with the data seen in the betweenness centrality of the actors, the distribution of information within the network was unequal, and only a few actors had the most control. In J. Crawford Elementary, the principal, intervention specialist, and special education teacher had the highest degree of betweenness, indicating they had the most control in the network. Figure 14 below gave a visualization of the central actors in the network by their degree of centrality and was represented by the nodes' size increase.

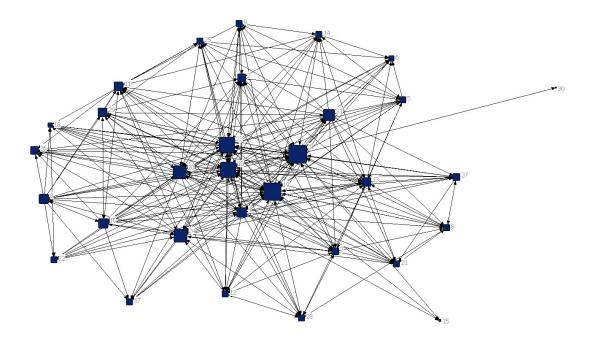


Figure 13. Central Actors

The researcher discovered during the interview with the principal that she relied on the intervention specialist to resolve problems the teachers had or to carryout duties that she did not have time to complete. They worked together in a relationship that was similar to a principal and an assistant principal since the school did not have an assistant principal on staff. Furthermore, she stated achievement scores began to decline as support from the district dissipated following the initial six years of reconstitution. Initially, the district provided the school with eleven additional support staff, which would have impacted the amount of internal collaboration. The support staff collaborated with teachers and focused on students who were working below grade level standards. Moreover, having the additional support staff allowed opportunity for their writing coach to connect with learning partners. She attended workshops and meetings and brought back innovative ideas and new information to teachers, so they were all learning together. As Hord & Sommers (2008) stated, "When the principal and staff members focus on their own learning, together they begin to develop ways to make learning happen" (p. 29). Learning together developed a culture that was focused on learning: "When the principal sustains focus on staff learning, student learning increases" (Hord & Sommors, 2008, p. 29). As the support staff dissipated in J. Crawford Elementary, the principal did not have the opportunities she once did at the initial time of reconstitution to network with outside sources and bring back innovative ideas to foster the learning environment that once existed.

To illustrate the quality of collaboration within the network, group reciprocity was calculated using UCINET. Table 15 reported the number of reciprocal arcs, or ties from the participants' responses of the survey on question two. The percentage of reciprocal ties was 64%, which indicated more than half of the participants reported collaborating with each other. A

visualization of group reciprocity was shown in Figure 16 below. In this figure, red ties indicated a reciprocal tie.

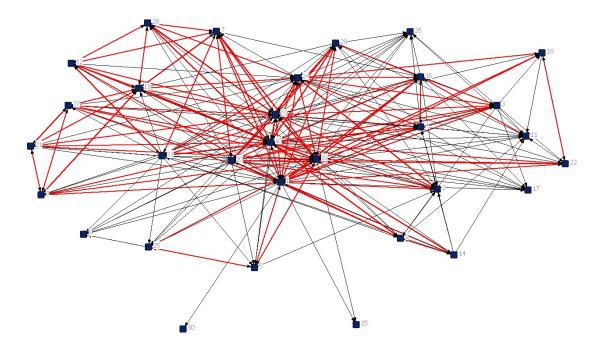


Figure 14. Reciprocity of ties

Table 15

Descriptive Statistics: J. Crawford Elementary, Reciprocity

Reciprocal arcs	224	
Unreciprocated arcs	126	
All arcs	350	
Arc Reciprocity	.640	

This finding is supported in the literature by Finnigan & Daly (2010) that stated: "As leaders interact by reciprocally engaging one another, they likely modify their own practices. Reciprocated relationships in this sense are important to organizational learning; however, these relationships are firmly grounded in the broader culture of the organization. They require trusting relationships, since leaders must share both what they know and what they do not know

with their colleagues" (p. 193). Having 64% reciprocity indicated a quality of exchange of trusting relationships with their colleagues and a healthy school climate.

An additional finding that became evident in the study was the collaboration of participants within their grade levels. Figure 17 below was a representation of the daily collaboration among the faculty at J. Crawford Elementary. Because the nodes were colored according to their position in the school, Table 16, groupings of the nodes indicated a high collaboration among the grade levels. According to Borgatti, et al. (2013), the program UCINET produced the illustration of the network by positioning nodes near each other that are strongly connected, and the nodes that are far apart are weakly connected. Pre-kindergarten (blue nodes) were connected to each other and to kindergarten (red nodes). Both grade levels, pre-kindergarten and kindergarten are positioned far away from first grade (bright green) and second grade (yellow). Other groupings indicated the special education teachers (teal) were more central and collaborated with higher grade levels than with pre-kindergarten and kindergarten.

Table 16

Colors Indicating Roles/Positions

Roles	Colors
Pre-Kindergarten	Blue
Kindergarten	Red
First	Bright Green
Second	Yellow
Third	Black
Fourth	Light Grey
Fifth	White
Special Education	Teal
Principal	Violet
Superintendent	Purple
PE	Dark Grey
Counselor	Dark Blue
Technology & Media Specialist	Olive Green
Intervention	Pink
Music	Light Blue

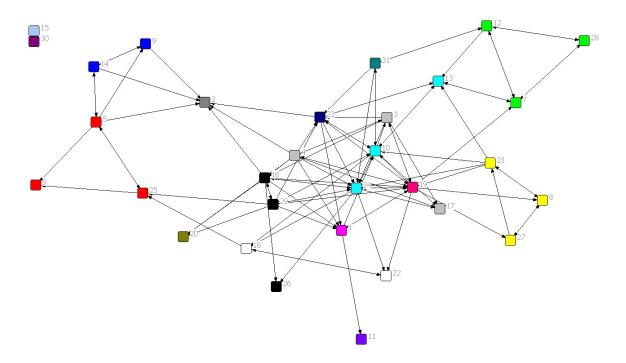


Figure 15. Daily Collaboration

partnerships to be collaborative in a high-poverty high-performing turnaround school? The researcher used the reported results of questions 3 and 4 of the survey to determine the current level of collaboration with their internal learning partners. The results of the survey indicated a high level of collaboration within the network. The calculated grand mean of survey question 3 was 8.6, which indicated the faculty believe their current level of collaboration was high. Likewise, the calculated grand mean of survey question 4 was 8.2, also suggesting their perceived current level of collaboration with administrators was high. Furthermore, the interview with the principal indicated a high level of collaboration existed with internal learning partnerships that formed in the initial phase of turnaround because of support provided by the district. The additional support allowed for more opportunities for collaboration with internal partners. Research indicated that principals must have school-based practices that built relationships and allowed time for collaboration for turnaround to be successful and sustainable.

Research Question 2: To what extent do faculty perceive their internal learning

The research of Hord and Sommers (2008) suggested that for a learning community to be successful, then structures and time must be given for staff to meet for conversations and learning to take place. Hord and Sommers (2008) further indicated that principals should take time to develop and build relationships that promoted trust and mutual respect. At the beginning of turnaround for J. Crawford Elementary, the principal said that they "did a lot of in-service training where we did a lot of planning with mixed grade levels." Furthermore, she indicated the district provided two weeks of staff development to work on curriculum or studies like Ruby Payne; they had time as a faculty "to come back together and plan things." She said the support provided by the district to fund the eleven support staff positions at the very beginning made the biggest difference in the amount of collaboration, and over the years, while the support was pulled away from the school by the district, student achievement had been difficult to sustain. The principal further stated the present practice of the district was to disseminate information to the schools via a lead teacher who would then give the information to everyone in the school.

After consideration was given to the grand mean, the researcher considered the means in survey responses to individual questions in 3 and 4. Participants responded with the highest means to question 3h, "Collaborate to motivate students who show low interest in school work," and question 3e, "Collaborate together to meet the needs of diverse learners." The inference of both questions address school culture; therefore, the faculty reported a high level of collaboration on culture. A concentration on culture was one of the turnaround principles, and according to the principal, the beginning of turnaround at J. Crawford Elementary was focused on the culture of the school. She stressed the culture as being "unique," and in the initial turnaround process, they were provided a consistent amount of time for professional development and collaboration on culture.

Research Question 3: What is the current level of collaboration compared to the desired level of collaboration in a high-poverty high-performing school? J. Crawford Elementary School does not have a highly dense network presently; however, research suggested the success of their turnaround was influenced by internal learning partnerships that were initiated by the district at the beginning of turnaround and was supported by the principal's interview.

I've seen what can happen. I want to be mindful of the fact that it happened with a whole lot of things in place and even though so many changes have taken place with staffing and with the state test and with the curriculum and all of these things and with my population changing, I still want to do all those things. I'm struggling right now with the idea of wanting to hang onto that so badly but having none of that really in place like it used to and knowing that everyone needs the support, and how do I offer it" So I'm having to empower them to support one another because there's no one else, and there are people who've been there a long time that have that attitude of, "We will just figure this out, and we will together do it," and I need to keep them as long as I can because they're the glue that knows what could happen and can rally us.

The principal of J. Crawford Elementary revealed in the interview that as the school became stable in student achievement, after six years, they began to lose their support staff from the district because of funding. Understanding support staff was necessary for sustaining student achievement, the principal attempted to use a discretionary Title I fund to continue external support staff by contracting with individuals.

However, once support from the district completely dissipated, the principal struggled to maintain the learning community that was initially put into place. She and the one person she

had remaining, an intervention specialist, were trying to do the work of eleven people. She said, "The district has been different in different times, but I'm hopeful that the structure that's being put in place now will help my teachers too if this is the new thing that's mandated that they'll be fully supported and that they will give me enough of an understanding that I can support them to do what it is that's expected out of us, and I'm open to new ones."

Lack of support would certainly impact the perceived level of collaboration, and if the faculty knew they were more successful when they had more collaboration with their learning partners, then the desire to want higher collaboration was supported. Additionally, the research of Daly (2012) suggested that new leaders bring in new resources, and leaders who have been in a network for a sustained amount of time would be constraining to a network unless the leader went outside the network to learn innovative practices. Hord and Sommers (2008) stated, "The role of the principal is paramount in any endeavor to change pedagogical practices (p. 6). For J. Crawford Elementary, the principal, who was a key actor in the network, had a deep understanding of the initial turnaround endeavor and knew the internal learning partners who held the network together. "I'm trying to think back to those things that we did. If we buy into the idea that all kids can learn, then we're not going to say that this area is an excuse. "I'm trying to get back to that idea now."

Guiding Framework

The guiding framework for this study was by the work of Reames (in press), "Communities of Practice." As faculty learning circles evolve through continuous collaboration among internal partners, improved learning partnerships emerge. These improved learning partnerships employ Hord's (1997, 2004) principles of Professional Learning Communities fused with the best practices of school turnaround. This new model represents the best practice for

developing, maintaining, and improving internal learning partnerships and sustaining school turnaround.

Conceptual Framework

This study emerged from three lines of research for the conceptual framework: A Typology of Partnerships from Barnett, et al. (2014); Conceptual Model of Coordinated and Collaborative Apprenticeships from Korach, et al. (2012); and Learning Partnerships from Grace (2015), Figure 18. The Learning Partnerships model is a foundation for the present study that recognized the emergence of partnership development from faculty learning circles. By investigating deeper into faculty learning circles, collaboration was continuous and intensive, thus evolving into a learning partnership that was substantial for school turnaround success and sustainability.

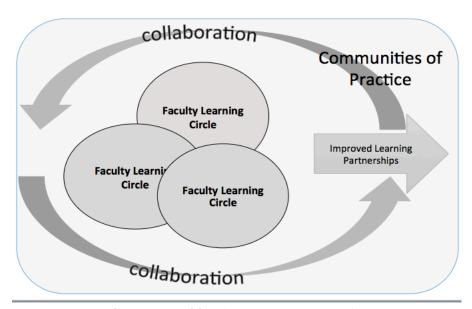


Figure 3. Learning Partnerships (Grace, 2015, p. 136)

Implications for Action

Since the principal was the constant variable in J. Crawford Elementary School's network, the researcher considered the interview to be a valuable piece to the puzzle of

turnaround sustainability. The principal said the district provided strong support to begin the turnaround effort, and time was allocated for professional development and collaboration.

"We did a lot of in-service training where we did a lot of planning with mixed grade levels and really looking at standards, and horizontal and vertical planning to get started. Then throughout the year our schedule was based on these 50-minute PD blocks, and we still keep that schedule where planning would take place one day a week and then a PD, so it might be a math the first Thursday and a reading the next and a writing the next and a data, and we still try to keep that schedule, but there's only one person who does all of it instead of all those people."

Considering J. Crawford Elementary began their turnaround journey with a new faculty and staff, the time they spent together at the onset of reform helped them strengthen ties with each other. SNA research told us that teachers were more likely to collaborate with others they felt were experts in their fields (Coburn et al, 2012). As time passed and student achievement improved and was being maintained, the district started pulling away the support staff until all but one position of support remained. The principal recognized the impact, "every time you absorb someone you water down the thing that you were probably the best at of why you were given that position in the first place." The result of pulling support from the school impacted the principal and her staff in their ability to maintain their responsibilities and the collaboration they had established with their internal partners. The state and district need to use data systematically to gauge the frequency of collaboration. High-poverty schools that are failing need support staff to provide resources such as expertise, professional development, and collaboration to close achievement gaps. Once support is in place and achievement is improved, then support should remain for sustainability; otherwise, the consequences may be regression. In J. Crawford

Elementary, the principal was the one factor that was constant, and because she was able to experience the turnaround from the beginning, she strived for consistency in programs by providing collaboration time that was originally put into place. As a result, internal partnerships will be strengthened and maintained both among and between grade levels. SNA showed how grade level teachers were collaborating daily on curriculum and instruction, but more time should be spent collaborating in content areas and vertically collaborating in grade levels (Duke, et al., 2008). The stability of the principal who kept collaboration in place from the beginning of turnaround and throughout the course of 14 years maintained the student achievement of J. Crawford Elementary.

Implications for Future Research

This study provided the researcher with an opportunity to investigate the internal learning partnerships in a sustained high-performing turnaround school. Although the study was found to be reliable and valid, the findings from the present study indicated that future research is needed in the areas of internal learning partnerships.

1. In this study the researcher only considered the density of the entire network, and the network was small. Finnigan and Daly (2015) suggested that centralized networks with a small number of key players can be unstable when one of the key players leaves the network. For J. Crawford Elementary, key players have left the network during the span of thirteen years since the initial turnaround. Future studies using SNA should involve studying internal learning partnerships at the onset of turnaround by measuring the density of the network at the beginning of each year and at the end of each year watching changes that evolve as actors leave the network and new actors arrive to the network.

- 2. The survey questions listed the participants in lieu of asking participants to recall openly with whom they collaborate. In reviewing research on survey development, Lima (2010) suggested providing participants with a list, called the *roster technique*. Future studies of school network analysis should compare the results of surveys given the list of faculty and without giving a list of faculty.
- 3. Future studies need to examine the quality of the collaboration between specific groups taking place in a sustained high-performing turnaround school.

Concluding Remarks

The researcher in this study was interested in discovering the level of collaboration with internal learning partnerships in a high-poverty high-performing turnaround school that had sustained its student achievement. The density and centrality in J. Crawford Elementary was weak as a whole network, but collaboration that was present indicated strong ties by reciprocity measures. The principal was one of the central actors in this network, which showed the social influence of the principal's position as a gatekeeper for the flow of information in a high-poverty high-performing sustained turnaround school. Furthermore, patterns in the social structure showed homophily where teachers of the same grade level collaborated, but teachers across grade levels showed structural holes. Time for collaboration must be put into place for change efforts to materialize.

The researcher believes a principal leads change and controls information that travels throughout the school, and student achievement should be the principal's highest priority.

Therefore, a principal who is leading a turnaround school should understand the pre-existing state of working relations in the school in order to know how to affect change. The research

using SNA supports the idea that frequent collaboration develops quality partnerships who can improve student learning outcomes and help sustain it.

References

- Alabama Plan 2010 (2013). ESEA Flexibility Request. Retrieved from https://docs.alsde.edu/documents/908/Alabama%20Flex%20Request.pdf.
- Barnett, B.G., Hall, G.E., Berg, J.H., Camarena, M.M. (2014). A typology of partnerships for promoting innovation. *Journal of School Leadership*, *9*, 484.509.
- Bass, B.M. (1985). *Leadership and Performance beyond Expectations*. New York, NY: The Free Press.
- Beaty, D. & Pankake, A.M. (2003). Case Study #2: Nurturing the human side: A crucial component for PLCs. In J.H. Huffman & K.K. Hipp. *Reculturing schools as professional learning communities* (pp. 97-107). Lanham, MD: Scarecrow Education.
- Borgatti, S.P., Brass, D.J., & Halgin, D.S. (in press). Social network research: Confusions, criticisms, and controversies. In D.J. Brass, G., Labianca, A. Mehra, D.S. Halgin, & S.P. Borgatti (Eds). *Research in the Sociology of Organizations, Vol. 40*. Bradford, UK: Emerald Publishing.
- Borgatti, S.P. Everett, M.G., & Johnson, J.C. (2013). *Analyzing Social Networks*. Thousand Oaks, CA: SAGE.
- Borgatti, S.P. & Foster, P.C. (2003). The network paradigm in organizational research: A review and typology. *Journal of Management*, 29(6), 991-1013.
- Borgatti, S.P. & Halgin, D.S. (2011). On network theory. *Organization Science*, 22(5), 1168-1181.

- Boudett, K.P., City, E.A., & Murname, R.J. (Eds.) (2015). *Date Wise: A Step-by-Step Guide to Using Assessment Results to Improve Teaching and Learning*. Cambridge, MA: Harvard University Press.
- Brass, D.J. (2012). A social network perspective on organizational psychology. In S. W. J. Kozlowski (Ed.), *Oxford Handbook of Organizational Psychology*, 667-695. New York, NY: Oxford University Press.
- Brinson, D., Kowal, J., & Hassell, B.C. (2008). *School turnarounds: Actions and results*. Public Impact for the Center on Innovation and Improvement.
- Canole, M. & Young, M. (2013). Standards for educational leaders. An analysis. ISLLC Report.
- Carnwell, R. & Carson, A. (2016) Understanding partnerships and collaboration. Working in partnerships: From Theory to Practice. Retrieved from http://www.mheducation.co.uk/openup/chapters/0335214371.pdf.
- Center for Teaching Quality. (2006). Transforming Teaching and Learning in Mobile: Understanding Reform in MCPSS Five Transformation Schools.
- Chenoweth, K. (2010). Leaving nothing to change. *Educational Leadership*, 68(3), 16-21.
- Chenoweth, K. (2015). How do we get there from here? *Educational Leadership*, 72(5), 16-20.
- Chenoweth, K. & Theokas, C. (2013). How high-poverty schools are getting it done. Educational Leadership, 70(7), 56-59.
- Coburn, C. E., Choi, L., & Mata, W. (2010). "I would go to her because her mind is math":

 Network formation in the context of a district-based mathematics reform. In A. Daly

 (Ed.), Social Network Theory and Educational Change, (p. 33-50). Cambridge, MA:

 Harvard University Press.

- Coburn, C. E., Russell, J. L., Kaufman, J. H., Stein, K. M. (2012). Supporting sustainability: Teachers' advice networks and ambitious instructional reform. *American Journal of Education*, 119(1), 137-182.
- Cole, R.P. & Weinbaum, E.H. (2010). Changes in attitude: Peer influence in high school reform.

 In A. Daly (Ed.), *Social Network Theory and Educational Change*, (p. 77-95).

 Cambridge, MA: Harvard University Press.
- Cross, R., Borgatti, S. P., & Parker, A. (2002). Making the invisible work visible: Using social network analysis to support strategic collaboration. *California Management Review* 44(2), 25-46.
- Cucchiara, M.B., Rooney, E., & Robertson-Kraft, C. (2015). "I've never seen people work so hard!" Teachers' working conditions in the early stages of school turnaround. *Urban Education*, 50(3), 259-287.
- Daly, A. (2010a). Mapping the terrain: Social network theory and educational change. In A. Daly (Ed.), *Social Network Theory*, (p. 1-16) Cambridge, MA: Harvard University Press.
- Daly, A. (2010b). Surveying the terrain ahead: Social network theory and educational change. InA. Daly (Ed.), *Social Network Theory and Educational Change*, (pp. 259-274).Cambridge, MA: Harvard University Press.
- Daly, A. (2012). Data, dyads, and dynamics: Exploring data use and social networks in educational improvement. *Teachers College Record*, 114(11), 1-38.
- Daly, A. (2016). Networked Systems: Learning, Leading, and Leveraging Social Networks for Educational Change. San Diego, CA: Harvard University Press.

- Daly, A. & Finnigan, K.S. (2009). A bridge between worlds: Understanding network structure to understand change strategy. *Journal of Educational Change*, *11*(2), 111-138. DOI: 10.1007/s10833-009-9102-5.
- Daly, A., Liou, Y., Tran, N., Cornelissen, F., Park, V. (2014). The rise of neurotics: Social networks, leadership, and efficacy in district reform. *Educational Administration Quarterly*, *50*(2), 233-278. DOI: 10.1177/0013161X1342795.
- Datnow, A. (2012). Teacher agency in educational reform: Lessons from social networks research. *American Journal of Education*, 119(1), 193-201.
- Day, C. (2007). Sustaining the turnaround: What capacity means in practice. *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM)*, 35(3), 39-48.
- Dodman, S. (2014). A vivid illustration of leadership: Principal's actions propel struggling school's turnaround. *Journal of Staff Development*, *35*(1), 56-58.
- Dufour, R. & Eaker, R. (1998). Professional Learning Communities at Work: Best Practices for Enhancing Student Achievement. Bloomington, MA: Solution Tree.
- Duke, D.L. (2004). The turnaround principal: High-stakes leadership. *Principal*, 84(1), 12-23.
- Duke, D.L. (2006a). Keys to sustaining successful school turnarounds. *ERS Spectrum*, 24(4), 21-35.
- Duke, D.L. (2006b). What we know and don't know about improving low-performing schools. *Phi Delta Kappan, 87*(10), 729-734.
- Duke, D.L. & Landahl, M. (2011). Raising test scores was the easy part: A case study of the third year of school turnaround. *International Studies in Educational Administration*

- (Commonwealth Council for Educational Administration & Management (CCEAM)), 39(3), 91-114.
- Duke, D.L., Tucker, P.D., Salmonowicz, M.J., & Levy, M.K. (2007). How comparable are the perceived challenges facing principals of low-performing schools? *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM))*, 35(1), 3-21.
- Duke, D.L., Tucker, P.D., Salmonowicz, M.J., Levy, M., & Saunders, S. (2008). *Teachers' Guide to School Turnarounds*. Lanham, MD: Rowman & Littlefield Education.
- Ferris, K. (2012). Human capital in turnaround schools. School Administrator, 69(7), 36-39.
- Finnigan, K.S. & Daly, A.J. (2010). Learning at a system level: Ties between principals of low-performing schools and central office leaders. In A.J. Daly (Ed.). *Social Network Theory and Educational Change*, (pp. 179-195). Cambridge, MA: Harvard University Press.
- Fullan, M. (2001). *Leading in a culture of change: Being effective in complex times*. New York, NY: Jossey-Bass.
- Fullan, M. (2002). The change leader. Educational Leadership, 59(8), 16-20.
- Fullan, M. (2005a). *Leadership & Sustainability: Systems Thinkers in Action*. Thousand Oaks, CA: Corwin Press.
- Fullan, M. (2005b). Turnaround leadership: Essays. The Educational Forum, 69(2), 174-181.
- Fullan, M. (2014). *The principal: Three keys to maximize impact*. San Francisco, CA: Jossey-Bass.
- Goddard, Y.L., & Goddard, R.D., Kim, E.S., & Miller, R. (2015). A theoretical and empirical analysis of the roles of instructional leadership, teacher collaboration, and collective

- efficacy beliefs in support of student learning. *American Journal of Education*, 121(4), 501-530.
- Goddard, Y.L. Goddard, R.D. & Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers College Record*, 109(4), 877-896.
- Grace, E. (2015). Rural school leadership partnerships: A comparative case study using social network analysis (unpublished doctoral dissertation). Auburn University, Auburn, AL.
- Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, *33*(3), 329-351. DOI: 10.1081/0305764032000122005.
- Hassel, E.A. & Hassel, B.C. (2009). The big U-turn: How to bring schools from the brink of doom to stellar success. *Education Next*, 21-27.
- Herman, R., Dawson, P., Dee, T., Greene, J., Maynard, R., Redding, S., & Darwin, M. (2008).

 Turning around chronically low-performing schools: A practice guide (NCEE #2008-4020). Washington, DC: National Center for Education Evaluation and Regional

 Assistance, Institute of Educational Sciences, US Department of Education. Retrieved from http://ies.ed.gov/ncee/wwc/publications/practiceguides.
- Hierch, T. & Weber, C. (2014). *RTI roadmap for school leaders: Plan and go*. Greenwood Village, CO: The Leadership and Learning Center.
- Hord, S.M. & Sommers, W.A. (2008). *Leading Professional Learning Communities: Voices* from Research and Practice. Thousand Oaks, CA: Corwin Press.
- International Center for Leadership in Education, Inc. (2012). *A system-wide approach to leadership*. New York, NY: International Center for Leadership in Education, Inc.

- Johnson, S.M., Reinhorn, S.K., & Simon, N.S. (2016). Team work: Time well spent. *Educational Leadership*, 73(8), 24-29.
- Klar, H.W. & Brewer, C.A. (2013). Successful leadership in high needs schools: An examination of core leadership practices enacted in challenging contexts. *Educational Administration Quarterly*, 49(5), 768-808.
- Korach, S., Seidel, K., and Salazar, M. (2012). Toward signature pedagogy for professional education: Collaborative partnerships in principal preparation. *International Journal of Educational Leadership Preparation*, 7(1).
- Kutash, J., Nico, E., Gorin, E., Rahmutullah, S., Tallant, K. (2010). The turnaround field guide. *FSG Social Impact Advisors*. Boston: MA. Retrieved from http://www.fsg-impact.org/ideas/item/school_turnaround_field_guide.html.
- Leithwood, K.A. (1992). The move toward transformational leadership. *Educational Leadership*. Retrieved from http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_199202_leithwood.pdf
- Lima, J.A. (2010). Studies of networks in education: Methods for collecting and managing high-quality data. In A. J. Daly (Ed.) *Social network theory and educational change*. 243-258. Cambridge, MA: Harvard University Press.
- Lutterloh, C., Cornier, J.P., & Hassel, B. C. (2016). *Measuring School Turnaround Success*.

 San Francisco, CA: WestEd.
- Marks, H.M. & Printy, S.M. (2003). Principal leadership and school performance: An integration of transformational and instructional leadership. *Educational Administration Quarterly*, 39(3), 370-397.

- Marsden, P.V. (1990). Network Data and Measurement. *Annual Review of Sociology, (16)*435-463.
- Mendels, P. (2016). *Building principal pipelines: A job that urban districts can do.* New York, NY: The Wallace Foundation.
- Moolenaar, N.M. (2012). A social network perspective on teacher collaboration in schools: Theory, methodology, and applications. *American Journal of Education 119*(1), 7-39.
- Moolenaar, N.M., Daly, A.J., Sleegers, P. J. (2010). Occupying the principal position:
 Examining relationships between transformational leadership, social network position,
 and schools' innovative climate. *Educational Administration*. DOI:
 10.1177/0013161X10378689
- Moolenaar, N. M. & Sleegers, P. J. C., (2010). Social networks, trust, and innovation: The role of relationships in supporting an innovative climate in Dutch schools. In A. J. Daly (Ed.) *Social Network Theory and Educational Change*, (pp. 97-113). Cambridge, MA: Harvard University Press.
- National Policy Board for Educational Administration (2015). *Professional Standards for Educational Leaders 2015*. Reston, VA: Author.
- National School Climate Center. (2016). Retrieved from http://www.schoolclimate.org/climate/index.php
- Norton, M.S. (2015). The principal as human resources leader: A guide for exemplary practices for personnel administration. New York, NY: Routledge.
- Parrett, W. & Budge, K. (2009). Tough questions for tough times. *Educational Leadership*, 67(2), 22-27.

- Rasberry, M., Hirsch, E., Montgomery, D., Muhammad, H., Raschko, M. (2006). Transforming teaching and learning in Mobile: Understanding reform in MCPSS five transformation schools. Retrieved from https://www.teachingquality.org/sites/default/files/al_mobile_transformation.pdf.
- Reform Support Network. (2016). Turnaround leadership: How to identify successful school leaders. Retrieved from http://www.p12.nysed.gov/turnaround/documents/
 TurnaroundLeadership.pdf
- Resnick, L. B., & Scherrer, J. (2012). Social networks in "Nested learning organizations"—a commentary. *American Journal of Education*, 119(1), 183-192.
- Saltiel, I. M. (1998). Defining collaborative partnerships. *New Directions for Adult and Continuing Education*, 1998(79), 5-11.
- Shepard, J., Salina, C., Girtz, S., Cox, J., Davenport, N., & Hillard, T. L. (2012). Student success: Stories that inform high school change. *Reclaiming Children and Youth*, *21*(2), 48-53.
- Smith, R., Johnson, M., & Thompson, K. D. (2012). Data, our GPS. *Educational Leadership*, 69(5), 56-59.
- Suber, C. (2012). Characteristics of effective principals in high-poverty South Carolina elementary schools. *International Journal of Educational Leadership Preparation*, 7(1).
- U. S. Department of Education. (2010). *Guidance on school improvement grants: Under section*1003(g) of the elementary and secondary education act of 1965. Retrieved from http://www.alsde.edu/ofc/osl/SIG/SEA%20Guidance%20for%20SIG.pdf.
- Wade, S. & Hammick, M. (1999). Action learning circles: Action learning in theory and practice. *Teaching in Higher Education*, 4(2), 163.

- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. New York, NY: Cambridge UP.
- Wenger, E., McDermott, R., & Snyder, W.M. (2002). *Cultivating Communities of Practice*.

 Boston, MA: Harvard Business School Press.

Appendix A

Institutional Review Board Documentation

AUBURN UNIVERSITY INSTITUTIONAL REVIEW BOARD for RESEARCH INVOLVING HUMAN SUBJECTS RESEARCH PROTOCOL REVIEW FORM

FULL BOARD or EXPEDITED

Phone: 334-844-5966 e-mail: IRBAdmin@auburn.edu Web Ad		
Revised 2.1.2014 Submit completed form to IRBsubmit@auburn.ed	y or 115 Ramsay Hall, Aub	urn University 36849.
Form must be populated using Adobe Acrobat / Pro 9 or greater standalone prog	ram (do not fill out in browser). H	Hand written forms will not be accepted.
1. PROPOSED START DATE of STUDY: 03/01/2017		
PROPOSED REVIEW CATEGORY (Check one):	☐ EXPEDITED	
SUBMISSION STATUS (Check one):	REVISIONS (to address IRB	Review Comments)
2. PROJECT TITLE: Learning Partnerships in a Sustained Turnaround Sch		
3. Shannon McCurdy PhD Candidate	EFLT College of Ed	spm0017@tigermail.auburn.edu
PRINCIPAL INVESTIGATOR TITLE	DEPT	AU E-MAIL
5217 Hickory Lane , Orange Beach, AL 36561	251-978-0131	smccurdy@bcbe.org
MAILING ADDRESS	PHONE	ALTERNATE E-MAIL
4. FUNDING SUPPORT: N/A Internal External Agency:		Pending Received
For federal funding, list agency and grant number (if available).		
5a. List any contractors, sub-contractors, other entities associated with this p		
b. List any other IRBs associated with this project (including Reviewed, Defe	and Determination state	
series and associated with this project (microsing reviewed, Dete	red, Determination, etc.):	
PROTOCOL PACKE	T CHECKLIST	
All protocols must include the following items:		
Research Protocol Review Form (All signatures included as	od all excline gemelated)	
(Examples of appended documents are found on the OHSR v	ebsite: http://www.auburn.edu/	research/vpr/ohs/sample.htm)
CITI Training Certificates for all Key Personnel.		
Consent Form or Information Letter and any Releases (au	dio, video or photo) that the par	ticipant will sign.
✓ Appendix A, "Reference List"		
☐ Appendix B if e-mails, flyers, advertisements, generalized ar	nouncements or scripts, etc., a	re used to recruit participants.
Appendix C if data collection sheets, surveys, tests, other re		
collection. Be sure to attach them in the order in which they	are listed in # 13c.	
 Appendix D if you will be using a debriefing form or include e (A referral list may be attached to the consent document). 	mergency plans/procedures an	d medical referral lists
Appendix E if research is being conducted at sites other than	Auburn University or in cooper	ration with other entities. A
permission letter from the sile / program director must be in NOTE: If the proposed research is a multi-site project, involv	cluded indicating their coopera-	tion or involvement in the project.
hospitals or private research organizations, a letter of IRB at	proval from each entity is requ	ired prior to initiating the project.
Appendix F - Written evidence of acceptance by the host cou	intry if research is conducted ou	utside the United States.
FOR ORC OFFICE	UAE AND V	
	The Auburn U	niversity Institutional
DATE RECEIVED IN ORC: by PROTO DATE OF IRB REVIEW: by APPRO	Review Boar	d has approved this
DATE OF IRB APPROVAL: by	Docume	nt for use from
COMMENTS:	0510/2017 Protocol #	to05/09/2018 17-119 EP 1705
		1/-11U ED 1/15

Appendix B Survey Instrument

Name		
1 101110		

The term "learning partnership" is defined as the level of collaboration between yourself and others both in and outside of your school or district. An internal partnership involves those you collaborate with in your school. An external partnership involves those you collaborate with outside your school.

1. Who do you go to within your internal learning partnership to collaborate with on curriculum and instruction? (Mark all that apply)

Never	Yearly	Monthly	Weekly	Daily

2. Select the frequency of interaction with whom you have an internal learning partnership, i.e., collaborate with on curriculum and instruction.

3. We would like to know about your internal learning partnerships with your teaching colleagues. Teachers in my building....

Strongly									Strongly
Disagree									Agree
1	2	3	4	5	6	7	8	9	10

4. We would like to know about your internal learning partnerships with your building administrators. Administrators at this site....

Strongly									Strongly
Disagree									Agree
1	2	3	4	5	6	7	8	9	10

5. External learning partnerships involve whom you collaborate with outside your school and district. Please select the frequency of interaction with which you have an external learning partnership. Please add any agencies not listed that you feel you have a collaborative relationship with outside your school or district.							
	Never	Yearly	Monthly	Weekly	Daily		
AMSTI							
Southeast Alabama							
Regional In-Service Center							
(SARIC)							
University Curriculum and							
Teaching Departments							
University of School							
Leadership Preparation							
Programs							
University Special							
Education Departments							
Colleagues in other school							
districts							
Relatives							
Colleagues in state							
organizations (ALSDE,							
CLAS, NEA, AEA, SSA)							
Community Colleagues							
Additional External							
Partners							
	ı	,	•	ı	1		

122

6. Where do you rate your school on the learning partnership continuum?

	Not	Low	Moderately	Highly	Very High
	Collaborative	Collaboration	Collaborative	Collaborative	Collaboration
Current Level					
Desired Level					

7. Indicate the number of years you have been an educator								
8. Select your position in the	e school							
Teacher	Instructional Coach	Teacher Aide/Assistant	Special Education	Counselor	Other			
0	0	0	0	0	0			
9. Gender								
O Female								
O Male								
10. Ethnicity								
O African-American								
O Asian								
O Latino								
O White								
O Other								

11. Indicate the number of years you have worked at the school.
O 1-5
O 6-10
O 11-15
○ 16-20
O 21-25

12. What is your highest level of education?	
O Bachelor's Degree	
O Master's Degree	
O Educational Specialist Degree	
O Doctor of Philosophy	